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Ministry of Health

HMIS PROCEDURE MANUAL
(Primary Health Care)

Version 1.4
December 2008

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Republic of Zambia
Ministry of Health

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(Primary Health Care)

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Dec 2008	1.4	Final updates at end of project	N/a

List of abbreviations

AIDS	-	Acquired Immune Deficiency Syndrome
ART	-	Anti-Retroviral Treatment
BCI	-	Behavioural Change Intervention
BSS	-	Behavioural Surveillance Survey
CBO	-	Community Based Organisation
CBOH	-	Central Board of Health
CH	-	Child Health
CHAZ	-	Churches Health Association of Zambia
CSO	-	Central Statistical Office
DART	-	Decentralized, Action oriented, Responsive and Transparent
DHB	-	District Health Boards
DHIO	-	District Health Information Officer
DHS	-	Demographic and Health Survey
DHIS	-	District Health Information System
DHMT	-	District Health Management Teams
DMS	-	Data management Specialist
EDS	-	Essential Data Set
FAMS	-	Finance and Administration System
GFATM	-	Global fund for AIDS, Tuberculosis, and Malaria
GIS	-	Geographic Information System
GRZ	-	Government of the Republic of Zambia
HAHC	-	Hospital Affiliated Health Centre
HC	-	Health Centre
HIA	-	Health Information Aggregation
HIC	-	Health Centre In Charge
HIV	-	Human Immunodeficiency Virus
HMB	-	Hospital Management Boards
HMIS	-	Health Management Information System
HOD	-	Head of Department
HP	-	Health Post
HR	-	Human Resource
IDS	-	Integrated Disease Surveillance

LUHC	-	Large Urban Health Centre
MDG	-	Millennium Development Goals
M&E	-	Monitoring and Evaluation
MOH	-	Ministry of Health
MRHC	-	Medium Rural Health Centre
MUHC	-	Medium Urban Health Centre
NDP	-	National Development Plan
NGO	-	Non-Governmental Organizations
NHSP	-	National Health Strategic Plan
NIDS	-	National Indicator Data Set
OPD	-	Outpatient Department
PAF	-	Performance Assessment Framework
PHC	-	Primary Health Care
PLWHA	-	Persons Living With HIV/AIDS
PMTCT	-	Prevention of Mother-to-Child Transmission
RHP	-	Rural Health Post
SAG	-	Sector Advisory Group
SHIO	-	Senior Health Information Officer (formerly DMS)
SMH	-	Safe Motherhood
SRHC	-	Small Rural Health Centre
SUHC	-	Small Urban Health Centre
SWAp	-	Sector Wide Approach
STI	-	Sexually Transmitted Infection
VCT	-	Voluntary Testing and Counselling
WHO	-	World Health Organisation
ZDHS	-	Zambia Demographic and Health Survey
ZNBTS	-	Zambia National Blood Transmission Service
ZSBS	-	Zambia Sexual Behaviour Survey

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FOREWORD

The Government of the Republic of Zambia, within the National Statistical System (NSS) has continued to develop a strong health information system. Development of strengthened health information systems is deemed pivotal to monitoring performance of health sector investment plans.

Along side successive implementation of National Health Strategic Plans, the Ministry of Health together with Cooperating Partners has continued to jointly develop support systems for improved health service delivery, such as the Health Management Information System (HMIS).

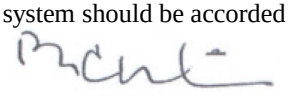
The HMIS is a routine facility-based health information system operating in all the 72 districts of Zambia. It operates in public, mission and private health facilities.

Since 1996 when the HMIS was first rolled-out in the health facilities, it has demonstrated important contribution towards improved monitoring and evaluation of health sector performance in general, and disease epidemiological trend in particular. The HMIS has been pivotal in supporting evidence-based planning, resource allocation and policy implementation at all levels of health care. Indeed the HMIS has been the main source of data for monitoring Millennium Development Goals (MDGs) and the Fifth National Development Plan.

In order to make the HMIS responsive to the current sector needs for information and effective reporting on poverty reduction programmes, the Ministry of Health with support from the European Union (EU) has since July 2005 embarked on a rigorous process of revising the system. The Government of the Republic of Zambia is most grateful to the European Union for this timely support.

The Plan of Action to strengthen the HMIS also included, amongst others, the objective to review and re-design the entire system, and that has been implemented successfully. This HMIS Procedure Manual provides reference and guiding materials for the effective use of the new HMIS.

Let me take this opportunity to emphasize the commitment of Government towards improved health sector performance accountability in all poverty reduction programmes. The HMIS is very important at all levels and training meant to ensure effective implementation of the system should be accorded the necessary priority.



Brig. Gen. Dr. Brian Chituwo, MP
MINISTER OF HEALTH

ACKNOWLEDGEMENT

The successful production of this HMIS Trainers Guide would not have been possible without the concerted effort of a number of key institutions and individuals. The Ministry of Health is most grateful to the European Union for providing timely funding, through the Poverty Reduction Budget Support, to drive this entire rigorous process of reviewing and strengthening the HMIS for poverty reduction monitoring and evaluation.

Staff in the Directorate of Planning and Development: Director of Planning, Mr. Davis Chimfwembe; the Deputy Director and HMIS Project Coordinator Dr. Christopher Simoonga, HMIS Specialist Mr. Chipalo Kaliki, ICT Coordinator, Mr. Chrispine M. Mwiiya; the Data Processing Officers, Mr. Chipo Mpamba and Mr. Masauso Phiri, all played an important role in spearheading this process.

I also wish to recognize the contributions made by key institutions such as the HSSP, Health Information Systems Programme (http://www.hisp.org), ECORYS Research and Consulting, CESO–CI and Health Partners International who provided the necessary technical expertise and support to make this production possible. The national consultants: Simon Muyambo and Bisenti Mkangaza, were very pivotal in the development of this entire manual.

It is not possible to list by name all the important institutions and individuals that one way or another made immense contribution to this process. Please accept my gratitude to you all; for production of this manual would not have been possible without your relentless support.

I thank you all.

Dr. S.K. Miti
Permanent Secretary
MINISTRY OF HEALTH

1 Section 1 - Background

1.1 Purpose of the Procedure Manual

Since 1995, Zambia has steadily been developing its Health Management Information System. The main aim of the Zambian Health Management Information System (HMIS) is to develop a culture of information use amongst health care workers so that they are able to improve health service delivery to their clients. In order to do this, the Zambian Ministry of Health must develop knowledge and skills in data handling and interpretation amongst its staff, so that they are able to create locally relevant information for use in the management of health and service programmes at all levels.

This Health Management Information System (HMIS) Procedures Manual aims to provide guidance and reference materials to primary health providers at all levels including health facilities, the district office, province office and the national HMIS unit in the gathering, recording, collation, transmission, presentation, analysis and interpretation of health information. It describes the health information system, explain the purpose thereof, describe the data collection tools, explain the data flow and timelines, outline and direct responsibilities as well as provide an explanation on the reporting and feedback functions of the system.

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The focus of this procedure manual is on staff providing Primary Health Care (PHC). PHC services are provided at Health Centres (HC), Health Posts, Hospital Affiliated Health Centres (HAHC) and 1st Level Hospitals and managed by the District Health Offices. These may be public, private or non-governmental organization institutions.

1.2 Background to the Development of the Procedure Manual:

During July/August 2005, an assessment of the Zambian HMIS found that many of the basic components of an HMIS were in place (a minimum data set, regular reporting from facilities using well defined data collection tools and procedures), yet the system was fragmented (many different data collection tools and forms, and many different channels for reporting information) and there was little confidence in the data in the system. The database was unable to adapt to the changing demands of the health services, and this had contributed to the fragmentation and poor use of information. Recognising these problems, the Zambian Ministry of Health, with support from the European Union, agreed to undertake a revision of the HMIS in order to address the shortcomings of the existing system. Five key strategic issues were identified to strengthen the HMIS (see text box below)

The procedure manual makes a significant contribution to this strategic approach in that it documents the procedures and processes that should be followed by health workers so that they can contribute to an efficient HMIS.

The Strategic Approach to the HMIS Revision:

- Capacity development of all cadres of staff, including intensive skills development through in-service and pre-service training programs, upgrading of manuals and study of best practice sites.
- Return to the 1996 HMIS principles of Decentralisation, Action oriented, Responsive and Transparent health information system, and introduction of the information pyramid.
- Information and communication technology strengthening through making the database more flexible and strengthening of decentralised information centres that are linked by internet to a central data warehouse.
- Effective use of information through integration of vertical systems, with improved central coordination between stakeholders and sectors so that the information from HMIS can be used to assess output-oriented performance. Improved action research capacity is needed to improve feedback and dissemination and reduce overlap and duplication.
- HMIS staff retention, particularly District Information Officers, is needed by improving skill and status and ensuring sustainability of systems, procedures and staff

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1.3 Overview of the Health Management Information System (HMIS)

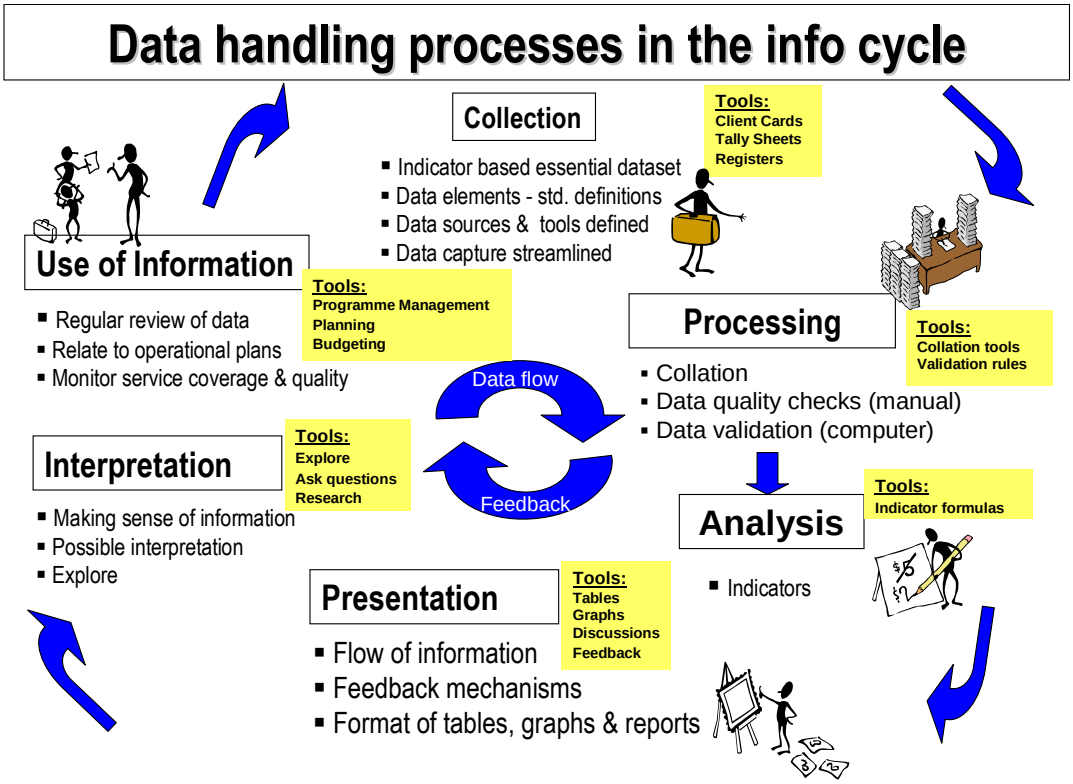
An information system strives to provide managers (at all levels – facility, district, provincial, and national levels) with relevant, timely information that can be used in the decision making process. In order to be able to achieve this aim, all the components of an information system need to be working effectively. If one or more of the components do not work properly, managers will have difficulty in accessing information to inform their decision making.

In this section we will look at the key components of the HMIS in Zambia, and explore how these components work together.

There are five main components to explore. The first four components lay the foundations on which the information system is built. The fifth component is in fact the information process to generate meaningful information out of raw data. The efficient functioning of this process is premised on the other five components being functional.

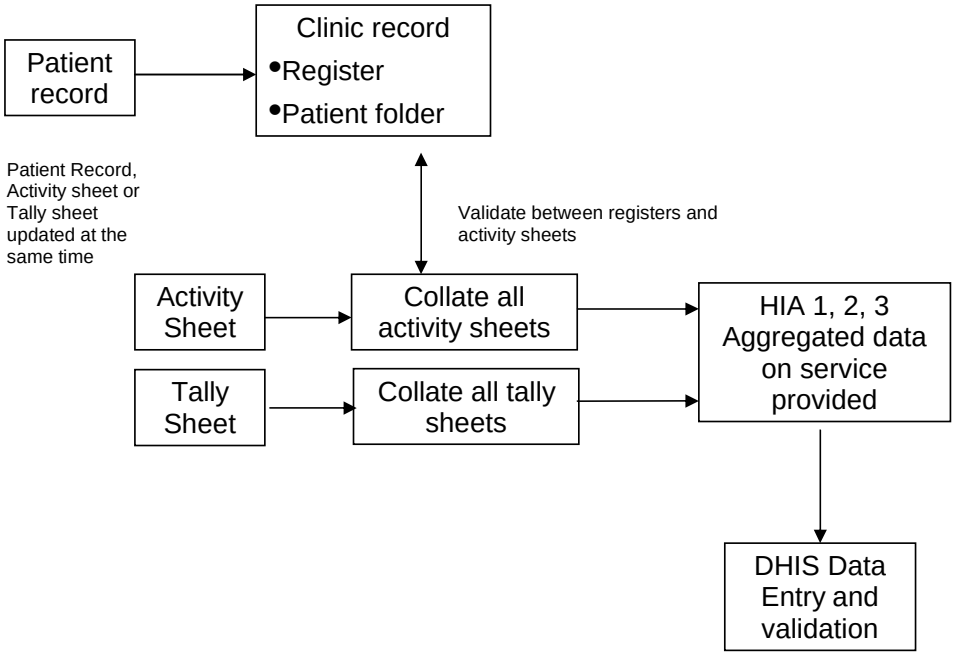
1.3.1 The information cycle

This is the process by which data is collected, collated and analysed to provide meaning full information. This information is used for planning and assessment. The successful completion of this cycle is dependent on a number of tools:



1.3.1.1 Data collection:

a. the patient level cards and record systems used to record reference data for continuous service provision (discussed in greater detail in Section 4 and Annexure 4);
b. registers and activity/tally sheets which are used to collect data from the interaction with patients (discussed in greater detail in Section 4 and Annexure 4);
c. summary sheets which are used to collate the data from registers into a single report, which is then used as the basis for calculating indicators (discussed in greater detail in Section 4 and Annexure 4);



1.3.1.2 Data collation tools

Provide a means to summarise and combine data from different sources (discussed in section 4);

1.3.1.3 Data analysis tools

Provide facilities to detect patterns, trends and/or inconsistencies in the data (discussed in section 4); and

1.3.1.4 Data presentation tools

These are not discussed in detail here because they are adequately addressed in classic guides (refer to Using Information for Action manual), and the Curriculum 1, module 3 training manual

However, the information cycle hinges round two central components:

a) The national indicator dataset (NIDS) which defines the “what” it is that we collect. The NIDS is composed of a set of indicators that are used to monitor service provision. The Zambian NIDS is detailed in Annexure 3. But indicators require data for the numerator and denominators of the indicators. A set of data elements is therefore generated which ensure that the NIDS indicators can be calculated. Usually these are a mix of service delivery data, survey data, and population data.
b) The data flow policy, which stipulates clearly the requirements for data submission, including the timeframes (specific dates) at each level within the hierarchy (from peripheral health facilities through to the central MoH). This applies to both the submission of all types of data, from monthly to quarterly

and annual data. Adherence to these timeframes is important to ensure that managers have relevant data on which to base their decisions.

The data flow policy also defines the channels of communication – supervisors of health facilities need to receive the monthly information, check its accuracy, and submit it thereafter to the HMIS unit. In this way they become involved in the process of data collection and can take some responsibility for its accuracy.

The last two components of the information system are the

c) Human resource aspects of the information system; and
d) Hardware and software for support of the HMIS;

The HMIS is therefore a complex mixture of people and processes, and tools that are used in an intricate manner to provide information in a timely manner to managers and health workers.

Another way of viewing the HMIS is to see it as a framework for gathering information for monitoring and evaluating the health service delivery. The vision for the HMIS is that it will be a “one-stop-shop” of health related information for all stakeholders including health workers, administrators, program managers, policy makers and researchers. The figure below illustrates how the core software of the HMIS (called the District Information Management Software (DHIS)) interfaces with both computerised and manual systems. The software can be viewed as a data warehouse which combines a variety of information collected through numerous (sometimes specialised) systems. The data is integrated, and made available through a uniform set of data elements and indicators, the NIDS.

The HMIS is a complex combination of integrated computerised and manual systems.

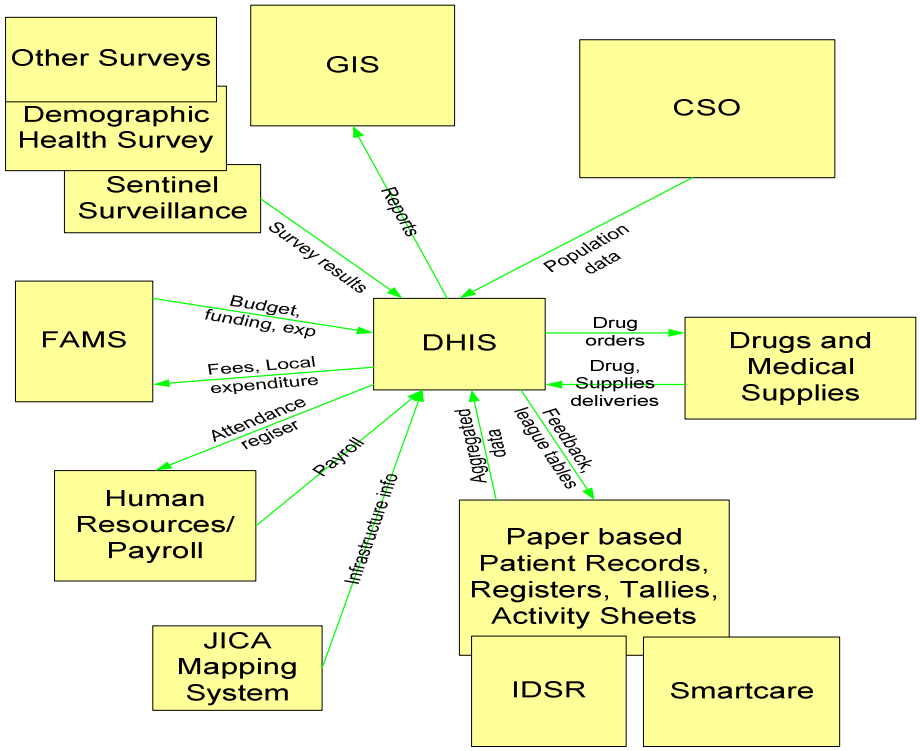


Figure 1: HMIS System

1.4 How is the Health Management Information System (HMIS) used?

The Ministry of Health (MOH) sets goals to improve health service delivery in order to enhance the health status of the country. These goals include the Millennium Development Goals, Health Strategic Plans, National Development Plan and Performance Assessment Framework. At the local level these are distilled into annual work plans. It is necessary to measure whether the goals are being met or not, and to be able to explain what we did to achieve the goals, or why they have not been met. As part of this process, the MOH carries out regular monitoring and evaluation activities. Some of these activities are undertaken at the National level (e.g. Health Sector Reviews, assessment of progress towards Millennium Development Goals MDG), some at the provincial level and some at the district level. Even facilities are required to conduct "self assessments" of their services, and to use this to design interventions to improve service delivery. Central to the HMIS, is the empowerment of health workers to use information to improve the care that they provide – this is the main aim of the HMIS.

1.5 Organisation of the Procedure Manual:

In this section we have provided the background to the development of the HMIS procedures manual, and a brief overview of the HMIS.

The next section, **Section Two**, details some of the principles which are central to the further development of the HMIS in Zambia.
In **Section Three**, we provide an overview of the NIDS and the data elements that contribute to the NIDS. This is the "what information" we collect.
Section Four describes "how we collect" the information by detailing the different data collection tools.
Section Five describes the data flow policy, and has a section which is dedicated to the roles and responsibilities of different people in the HMIS.
Section Six is dedicated to the hardware and software aspects of the HMIS.
The last section, **Section Seven**, focuses on the use of information – the process of "Self Assessment" which is so central to improving health service delivery.

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This manual can be used in a variety of ways – it should serve as a reference system and be available in all health facilities, as a resource to be used in clarifying steps in the information processing cycle. It should be used as a guide to ensure that all the steps to provide timely information are followed appropriately. It can also be used in short courses, where aspects or sections of the manual can be used as the basis for discussions and presentations to build capacity and develop skills.

The manual is bound in a file format, so that as sections are developed, or renewed, they can be replaced. In this way, the procedure manual can be kept relevant and accurate, even as aspects of the HMIS change. Sections will be linked to the Zambian HMIS website, and latest versions will be available there for download.

2 Section 2 – Principles on which the HMIS is based

2.1 Introduction:

In order to meet the needs of facilities, district, province offices, the national levels, program managers, cooperating partners and the international community a number of principles were adopted in the revision and development of the HMIS. In this section the key principles on which the HMIS is founded are discussed briefly. We begin the section by discussing the "information pyramid", a concept which highlights the importance of the local use of information. We then describe the basic principles, the DART principles, which were introduced as part of the 1996 HMIS plan[1]. Thereafter we explore the process behind creating a culture of information use, providing feedback, and development of sustainable information systems, a central concept of which is adopting a developmental approach to the development of the HMIS through gradually building staff skills and capacity.

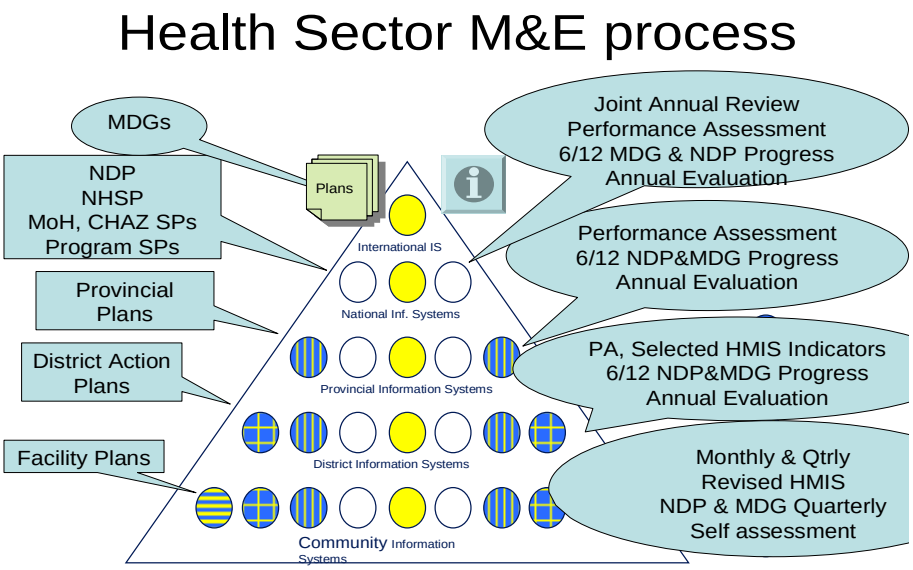
2.2 The Information Pyramid:

In section 3 we discuss the National Indicator Data set (the NIDS) and the data elements related to this. At this stage, the main point to make is that all decision-making levels do not require all indicators. While detailed information may be required at the local level, increasingly summarised or aggregated data is required the higher you go on the organisational hierarchy (for example – a facility level manager might need to know which geographic areas are accessing their services. This is locally relevant information, but is of no relevance at the National level). The amount of information needed at successive levels of the health system decreases from peripheral to central levels. An information pyramid is thus created (see **Figure 2**), with the national indicator dataset being the minimum data necessary to flow through all levels to the central level.

Each level can add to the EDS the indicators they believe to be important at that level. The provincial level can expand the national EDS and develop a regional data set (RDS) specific to regional needs. Facilities can in turn add further data elements to develop a facility data set to suit their particular management needs. These additional elements may not be relevant at a higher level and are therefore not submitted to higher levels. A coordinated approach to such additions is encouraged.

[1] *Health Management Information System: Design and Implementation Plan for a DART-HMIS by HMIS Unit 1996*

Figure 2: Information pyramid



The important aspect of this principle is that the information system must allow local users to accommodate additional data collection mechanisms so that they (the local users at the facility level) can collect the information that they consider important for them, as well as that required at the national level. This leads us to discuss the DART principles.

2.3 DART Principles

The DART principles are summarised in the table below.

Decentralisation	In support of decentralised management of services, health information must be available locally. HIS must also be able to be adapted to address local information needs (for example, quantification of the influx of refugees who use the health services)
Action oriented	Information should be used to improve service delivery, not just to address reporting needs to higher levels. The information system should be designed to support the needs of its users – this motivates them to provide quality data.
Responsive	This characteristic refers to the ability of the information system (the database and the processes related to the data collection, collation and analysis) to be adapted to respond to changing needs, and to the timeliness of the data. The latter is often a function of the processes related to the information system, rather than to the data base itself.
Transparent	Data should be made available to all partners, and should be able to be aggregated and disaggregated to obtain different degrees of granularity. Analysis should highlight inequities so that these can be rectified.

2.3.1 Decentralisation

A key to good district management is the presence of a functional and robust DHIS that enables local monitoring and analysis of coverage and quality. Data analysis and self-assessment should be carried out at the level where data is collected and information should be used for decision making and action at that level. Data should be collected for local management and not merely for upward reporting for "higher" levels and to ensure that donors pay out money. This will need revision and simplification of reporting and analysis tools to suit the needs of workers

Local managers and program coordinators have the right to demand high quality data from the routine HMIS and that adequate resources are allocated for this purpose.

2.3.2 Action oriented

Data should be collected for local action, self assessment and decision-making, not for filing. The HMIS should collect information for action according to the **information pyramid** and there should be a clear differentiation between the scope of decisions taken by each level.

1. Health Management Boards require operational information for day-to-day management and supervision;
2. Different health information needs also exist for the community, health post, health centre, hospitals as well as the Regional Boards of Health.

3. Specialised programs have some information needs which fall outside the boundaries of the routine HMIS. These should be collected (and paid for) through integrated use of sentinel surveillance, surveys and other techniques, rather than burdening the routine system.
4. Central Board of Health requires information for longer term strategic management and support, and for setting national policy.

Well performing units should be rewarded and poorly performing units given technical and managerial support to improve skills and infrastructure.

2.3.3 Responsive

Data collection should react to **changing needs**, with data reported in an appropriate **timeframe** according to its use, and be flexible in terms of adaptation to changing local needs.

This responsiveness should be ensured by a high level internal "steering committee", e.g. the Monitoring & Evaluation Subcommittee, and **regular reviews** of the HMIS involving all role players that ensure that each level collects standardised data in a flexible, locally empowering way.

2.3.4 Transparent

A see-through system was envisaged where obtaining information would be easy and dissemination facilitated by the newly created Provincial and National Resource Centres.

All stakeholders should be able to easily access anonymous analysed information on key basic programs and the public should be honestly informed of progress and achievements of the health sector through regular press releases and annual publication of comprehensive reports that critically analyse information and give a realistic picture of successes and constraints.

In addition, correlation of data collected by the various subsystems will be greatly facilitated by an integrated, centralized and web-based data warehouse to which health workers, managers and the public should have selective access. The HMIS will require that all health information gathering be coordinated through the Monitoring and Evaluation Unit in the Ministry of Health to avoid repetition of effort and unnecessary burden of data collection at the health facilities.

2.4 Creating a Culture of Information Use

The HMIS aims to develop a **culture of information use** in the facilities and communities, using the built in reporting functions in the DHIS. Facility managers are encouraged to develop their own monthly reports, to graph a subset of indicators (see the HMIS National Indicator Set in Annexure 3.1, in which the "priority indicators" for facility managers are listed), and to use their analysis of this data to improve services. At a district, provincial and National levels, at least monthly reports will be generated for programme managers.

Performance appraisals will be made more functional, linking service delivery, financial management and human resource data to provide a realistic assessment of performance and real accountability for use of funds to MoH and CPs.

Quarterly information reviews of clusters of hospitals of similar sizes will provide further analysis of PA data and provide opportunities for institutions to present their data and discuss how it can be used to improve service delivery.

Managers will have access to DHIS data on the intranet. They will be able to interrogate the information for quality and will use the information to make good management decisions. The HMIS also aims to support **clinicians** in the use of information for patient management. Nurses and doctors will get training to ensure a good understanding of the system.

How this will be implemented in reality discussed further in section 7, but suffice it to say that this is a central thread of the development of the current HMIS. The intention is to empower health facility staff and managers at all levels of the health system to use information to improve services. This achieved through integration of vertical (parallel) systems, improving coordination of stakeholders and improving action research capacity.

2.5 Feedback Mechanisms

The best way to improve the quality of information is to ensure that the individuals submitting the data get feedback from those using the information on indicators. Feedback reports will be provided at an early stage on.

- quality of the data; and
- performance of the unit.

This encourages use of information at the lowest possible level and inculcates a drive to improve the quality of submitted data so that the outcomes can be monitored.

2.6 Sustainability

The processes described above should be developed with sustainability in mind, as a key focus from the start of the Integrated HMIS. This will be achieved through active involvement of relevant counterparts as well as health staff early in the process.

An essential aspect of sustainability is the investment by management in availability of adequate **human resources** in numbers and skills at all levels. All users and producers of information must be trained and retained for the sustainability of the HMIS. Therefore pre-service and in-service training curriculum have been developed and implemented. In addition interventions for staff retention are being implemented.

2.7 A developmental approach to improving systems

A key aspect of a sustainable HMIS is that a developmental and participatory approach is adopted as the means to build on existing skills of staff working in the health facilities and in partner organisations. The approach will engage users in the

assessment of systems and in planning their improvements, ensuring that they address their particular needs, and through this build their interest in the system.

An important aspect is that a “best practice” approach is used. Through participatory methods, reporting needs will be merged with the users’ immediate perceived needs (e.g. patient management, patient monitoring, facility management, including financial management). The intention is to identify the strengths and weaknesses of existing systems and **with the staff** to initiate steps to improve the systems. This approach should include the introduction of new technology or systems where relevant, but essentially it aims to **support staff** in initiating new measures that will improve the quality of their work.

In particular, a phased approach to the improvement of data quality in the management information sub-systems will be used. Through a phased approach, external support persons will learn and become familiar with the Zambia context by continuous exposure. Local staff will gradually gain experience and develop skills which increase their understanding of the systems that places them in a central position to continue supporting the systems that are developed and thus secure sustainability.

3 Section 3 – Overview of the NIDS

Provide an overview of the indicators, and describe some of the rationale behind them. Do it section by section. The full list of indicators can be in an appendix, as can the full list of data elements and their definitions.

3.1 Introduction:

In this section we discuss the National Indicator Dataset, which is attached as Annexure 3.1. We also discuss the principles on which the NIDS is based. One of the central principles is that it is seen as something which will evolve over time, and change as needs and skills change. We also discuss the essential dataset which constitutes the data elements that are required in order to be able to calculate the indicators.

3.2 The National Indicator Dataset:

The National Indicators Dataset (NIDS) is composed of approximately 220 indicators. They are grouped under the following headings:

Group/Sub-group	Explanation
Child Health	
Attendance	To calculate child health indicators related to attendance and mortality under one and under 5 years
Growth monitoring and nutrition	Used for indicators assessing weighing and nutritional indicators, including malnutrition, and vitamin A supplementation
Immunisation	The usual immunization indicators
Reproductive Health - Safe Motherhood	
ANC Utilisation	To calculate antenatal care indicators related to attendance
ANC Screening	The usual antenatal care indicators, indicators including those related to malaria in pregnancy, and screening at first visit
ANC Prophylaxis	
Postnatal Care	To measure postnatal care provision
Reproductive Health - Family Planning	
FP Utilisation	Used for indicators related to family planning utilisation
FP Methods	Family planning indicators
Reproductive Health - Obstetric care	
Deliveries	This includes the basic safe motherhood indicators, including delivery indicators and monitoring of complications
Delivery Supervision	
Delivery Complications	
Reproductive Health - Neonatal care	
HIV-AIDS - Counselling and Testing	
CT Attendance	Indicators related to Counselling and Testing services
CT Testing	
CT Positive Results	
HIV-AIDS - PMTCT	
PMTCT Counselling and Testing	Indicators related to the Prevention of Mother to Child Transmission
PMTCT Post test	

services	
PMTCT Prophylaxis	
PMTCT Follow-up	
HIV-AIDS ART	
Registration at pre-ART	Indicators related to provision of Anti-Retroviral Therapy
ART Treatment	
ART Outcomes	
TB	
TB Diagnosis	TB Indicators
TB Outcomes	
HIV/TB Screening	
Out Patient Department	
Utilisation - OPD	Utilisation of OPD services
Inpatient Care	
In-patient Discharges	Enables the calculation of basic indicators related to in-patient care
In-patient Transfers	
In-patient Deaths	
Other In-patient Data Elements	
Drugs and Supplies Management: (1 if drug was never out of stock; 0 if drug was ever out of stock during month)	
Human Resources	
Establishment - Appointments	These data elements enable the calculation of indicators related to staffing, productivity, and workloads
Establishment - Recruitments	
Establishment - Losses	
Workloads - Expected workdays	
Workloads - Actual workdays	
Environmental Health Services	
Inspections	Calculation of basic environmental health indicators
Sampling	
Rodent and Vector Control	
Financial data	
Supervision	
Utilisation Totals	
Notifiable Diseases	
Selected Diseases	
Malaria	The data elements amongst this group are either of public health significance, and needed for management of notifiable diseases, or for the calculation of specific diagnostic indicators related to malaria, sexually transmitted infections, and HIV/AIDS.
ENT	
Chronic Diseases	
AIDS Associated Diseases	
Other diseases (new cases)	
Sexually transmitted	

diseases	

Of these indicators, a subset has been identified as being critical at facility, National or international level. These are called the “Priority Indicator List” (see Annexure 3.1). They have been prioritised because of their value in monitoring health service provision in the key areas of maternal and child health.

3.3 Principles underlying the NIDS:

In order to simplify the task at the facility level, we have discerned a list of priority indicators for use at the facility level. These are highlighted in Annexure 3.1. The key aspect here is that this approach does not suggest that other indicators are less important. Rather, they may be more important for use at levels other than facility level, or once the “priority indicators” at facility level have been mastered, then the facility may decide to add additional indicators to their priority list. This approach is an attempt to focus facility managers on a subset of indicators that are considered important at the facility level.

The process of confirming an NIDS is one which has emerged from the existing dataset, and through a process of consultation over the last seven months with various programme managers, and facility staff. The aim of this process has been to ensure that:

- All programmes and programme managers, including NGO’s, buy into the creation of an essential dataset. The aim is to develop an integrated EDS that addresses the needs of all managers and programmes;
- The data set identifies indicators used by programme managers to measure the implementation of their objectives and action plans. This will ensure that information collected is relevant to the needs of programme managers;
- The dataset is limited to about 200 indicators;
- The dataset is reviewed from time to time, enabling the dataset to develop over time in response to the changing needs of managers;
- The indicators to be reported on are applicable to all facilities within the health service;
- Managers at each level in the hierarchy can add indicators that are considered important for their particular management purposes.

The development of an NIDS does not preclude having other information systems with specialised functions. Epidemiological surveillance systems may still be required – these generally require data with which the patient can be identified (name, address, age, contacts, etc.) and an anonymised routine reporting system cannot support this need. In addition, other systems are needed which provide detailed, or specialist information, to specific groups (for example, a human resource payment or accounting system). In these cases, it is often advisable to support the development of such systems, but to develop interfaces so that subsets of data can be transferred from the specialist system to the routine reporting system, e.g. financial data from financial management systems.

The functioning of the various components of the integrated HIS should be coordinated by the HMIS Unit, whose role it is to ensure that duplicate systems are not developed and that all systems meet the criteria set by the MoH.

Survey methods can be utilized to compliment routine information systems. Our intention is to introduce sentinel sites as mechanisms to complement routine data. These tools allow the NIDS to be kept small, yet allow programme managers to obtain detailed information to address their programmatic needs.

3.4 The Essential Dataset:

In order to be able to collect the NIDS, a set of data elements used as numerator or denominator for indicators must be defined (a set of data elements have been identified, and defined. They are listed in Annexure 3.2, and they generally belong to the same categories as those used for the NIDS). This is called the Essential Dataset, or EDS. Data collection sources must be identified (refer Annexure 3.2) and tools must be aligned to the essential dataset. Uniform data capturing tools help to ensure that the data captured at different sites has similar meanings. These aspects are discussed in more detail in Section 4. Both manual and computerised data capturing processes require mechanisms (checks) that support good data quality. For example, manual systems can have simple double check procedures to ensure that arithmetic is correct and comparisons with previous data help to highlight unlikely entries (for a set of validation rules, see Annexure 3.3). In computerised systems, a validation rule included in the software can be programmed to flash a warning when an unlikely figure is entered.

4 Section 4 – The Data Collection Tools

4.1 Information Collection

Information is collected as part of the routine provision of health services. The information is recorded on patient cards/records and registers and aggregated using tally sheets and/or activity sheets. Other routine information is tapped from administrative systems such as Human Resources, Financial management, drug and medical supply logistics. Additional or special detailed information such as semi-permanent data may be collected through regular surveys such as the Population census, Demographic Health Surveys and Sentinel surveillance sites.

This procedure manual scope is limited to the collection and processing of routine data. The routine data processing or aggregation limits the level of detail transmitted to reduce the burden of work on primary health service providers while fulfilling the information requirements at district, programme, province, national and international levels. Therefore the collected/aggregated HMIS data can only be disaggregated by limited age groups and gender.

The information required beyond the health facility is pre-defined in the National Indicator Data Set (NIDS). This consists of indicators selected to measure the health status at the different levels and the resulting data elements used to calculate the indicators. The data elements constitute the information that must be collected and transmitted from the health facility to the district office.

4.2 Overview of HMIS paper based tools

The HMIS uses a number of paper based tools to record and aggregate health data during service provision. This section describes the tools for each type of health service provided.

The health facilities provide a range of services grouped under

- curative health services - to diagnose and treat diseases;
- preventive health services – to reduce or eliminate the cause of morbidity e.g. through immunisation, antenatal care and environmental health services;
- health promotion services such as health education or counselling; and
- rehabilitative health services e.g. through physiotherapy and nutrition.

These may be provided at different service points/areas depending on the groupings of clients targeted. Clients may access services by going directly to the service point/area or may be referred from one service area to another or one health institution to another.

Health facilities are required to use the specified tools to record and aggregate health service delivery data. The standard paper based tools are classified as:

a) **Record of health services** Patient/Client Record and Service Registers;

b) **Aggregation tools** Activity Sheets/Collation sheets and/or Tally sheets;
c) **Data transmission/Reporting tools** Health Information Aggregation
d) **Information use tools** Service and health status assessment reports

Each tool is customized for the type of service being provided, the client/patient flow expected and the nature of combination of health workers providing services. The service areas are categorized as:
a) Out-Patient Department (OPD);
b) In-Patient Department (IPD);
c) Child Health (CH);
d) Safe Motherhood (SMH);
e) Prevention of Mother To Child Transmission (PMTCT);
f) Voluntary Counselling and Testing (VCT);
g) Anti-Retroviral Treatment (ART);
h) TB/LEPROSY;
i) Laboratory;
j) Drugs and Medical Supplies;
k) Environmental health services; and
l) Administration covering Human Resource, Finance and Asset management;

Refer to **Annexure 4** for detailed description of the HMIS tools. The tools are summarized below:

4.2.1 Patient/Client Record

This is a book or card that keeps patient/client information including the identity, history, diagnoses and/or service provided. Depending on the service, the patient/client record may be kept at the facility or by the patient/client. Common practice is that curative patient records except for chronic illnesses are kept at the health facility while preventive client records are kept by the client. The list of patient/client records includes OPD Booklet, IPD sheet, Under 5 Card, Antenatal Care (ANC) Card OR Obstetric Care book, Family Planning card, TB card, PMTCT card, ART card and Tetanus Toxoid (TT) Immunisation Card,

4.2.2 Registers

The health facility maintains a copy of the patent/client record and services provided in service/patient registers. Registers are books in which the patient/client details and services being provided are recorded. Each line in the register represents a client contact and/or service provided. The registers are used for continuity of care, follow ups and validation of data submitted to the District Office. In providing continuity of care the register has space for predetermined number of visits or services. If a client does not report within the expected period, the record is used to compile all patients/clients that must be followed up. If the patient losses their card/book the register is used to reconstruct the health information when a replacement card/book is issued. Where patient/client records are retained by patients/clients the register must be updated during provision of services otherwise the registers can be updated after service provision.

4.2.3 Tally sheets

Tally sheets consisting of groupings of “0” (zeroes) are used to count elements defined on the sheet such as attendance by crossing a zero for every occurrence. At the end of a given period may be a day, month or quarter, the crossed zeros are counted and thus provide a tally of what was being counted. Tally sheets can be used by individuals or may be shared by a group of health workers. Ideally the tally sheet should be updated at the time of providing services. The disadvantage of the tally sheet is that it is difficult to audit in case of mistakes like forgetting to tally, tallying more than once for the same incident or tallying the wrong item.

4.2.4 Activity sheets

The activity sheet combines the functions of the register and of the tally sheet in one while providing accounting for each health worker’s effort. The services and items to be tracked are pre-defined on the activity sheet. The health worker simply provides the patient/client reference and tick the service provided. The ticks provide a record of the service provided and a count of the items to be tallied at the end of the period. In addition it provides the name of the health worker. The activity sheet is easier to audit than a tally sheet because it references the patient/client and the health worker. The activity sheet also provides automatic validation in that it is easy to spot wrong combinations of ticks. Instead of updating registers from patient/client records the activity sheet is easier to use.

4.2.5 Collation Sheet

The Collation sheet provides a means to summarize the inputs from tally sheets or activity sheets. The use of the collation sheet is optional as it is possible to add up entries from tally sheets and/or activity sheets directly into the HIA.

4.2.6 HIA forms

The Health Information Aggregation (HIA) form or report provides a pre-determined set of data elements whose values are derived from the tally sheets, activity sheets and/or collation sheets. Currently the HMIS provides for three main HIA reports, namely Service, Disease and Hospital HIAs. The HIA is used to transmit facility aggregated data for posting into the District Health Information System (DHIS) at the district office or at the facility where DHIS is installed.

4.2.7 Self Assessment tool

The self assessment tool is used to monitor and evaluate health status in the facility catchment’s area. It provides basis for local decisions and planning of interventions at each facility and district.

4.2.8 Cohort Tracking tool

The cohort tracking tool is used to record the number and health status of ART and TB patients. Without it health workers will need to flip back into the registers to work out the health status of groups of patients, tedious undertaking.

5 Section 5 – The Data Flow Policy

This is where we detail the data flow policy. The actual policy could also be attached as an appendix. The Data Flow Policy

5.1 Description

The HMIS Essential Data Set (EDS) is a set of data collected monthly from all Health facilities in the Zambia providing primary health care services. It records elements of service provision, management functions and resources used to enable both accountability for health care services and to identify problems. The system is both paper-based and computerized, with the data collection and reporting at facility level mainly on paper based tools. It is expected that an increasing number of facilities will be using computers. Data capturing, analysis and reporting at the District, Provincial and National levels are done on a computer. The data is collected at facility level using the monthly Health Information Aggregation (HIA) forms.

The data on these HIA forms are compiled from different service points at the facility level including Tally Tools, Activity sheets, Service registers and Client/Patient records in line with the modified HMIS. The main sources of data include the following registers: Out-Patient Department (OPD), In-Patient Department (IPD), Child Health, Safe Motherhood, Delivery, Prevention of Mother To Child Transmission (PMTCT), Voluntary Counselling and Testing (VCT), Family Planning, Anti-Retroviral Treatment (ART), TB/LEPROSY, Laboratory and Stock Sheets. Other information is extracted from HR attendance and Finance imprest book/Cash book.

The data is captured, analyzed and reported on by using a computer system known as the DHIS (District Health Information Systems), which is an MS Access based software package. Where data is already computerised at the facility, it is directly extracted into the DHIS.

The data elements reported in this system are used to calculate a set of essential indicators identified by the relevant program managers and other stakeholders. The strength of the system lies in the fact that it is based on an Essential Set of Indicators, which is carefully selected to ensure that it is usable by managers at all levels (Facility, District, Province and Programme) whilst adhering to both national and International data requirements. The system furthermore allows for additional data requirements to be added at each level of the hierarchy. This makes it possible to adjust the data elements to accommodate some specific needs of different programmes as the need arises.

5.2 Purpose

The purpose of the HMIS EDS is to enable management at all levels to be better informed on a range of relevant issues, in order to make better decisions based on objective information. Thus, indicators of service delivery and quality, of administrative and managerial concerns, and of community relevant health status have been identified to provide to staff at each level of the system. This will enable staff and managers to

measure their own performance (through performance assessment), and that of the programs for which they are responsible, and to take corrective action in a timely manner to assure rapid responsiveness. The system is designed to provide the essential information to each level of the PHC system in a timely way and in a format that can be easily used by providers and managers at each level. Thus the data is carefully selected to provide sensitive indicators and specifically attempts to avoid gathering all possible data, much of which is not necessary or even may divert managers' attention from the key information needs.

5.3 Selection of indicators

The criteria for selecting indicators are:

a) The indicators accurately measure results for which the health sector can be directly held responsible;
b) Quality data is readily available that reliably represents the entire country;
c) The data sources for the indicator can be clearly identified;
d) The data is locally useful and is collected regularly
e) The indicator conforms to internationally agreed performance criteria and can be compared at national and international levels;
f) The data is relevant to users in terms of timeliness, adequacy and accessibility;
g) Data is easy to collect and does not place an undue cost (human, financial or time) on the front-line data gatherers
h) Data can be disaggregated to an appropriate level;
i) Output indicators can predict longer-term outcomes with reasonable reliability

The input, output, process and outcome/impact indicators generally cover specific areas of interest that includes

a) Utilization of facilities/services,
b) Child Health Preventative services,
c) Reproductive Health Preventative services,
d) Environmental Health Preventative services,
e) Effectiveness of Administrative Systems (Finance, Drug and Medical supplies, Human Resource management and Supervision of work); and
f) Managing the Disease burden through specific preventive and curative services with particular emphasis on Malaria, HIV/AIDS, TB/Leprosy, STI and Notifiable diseases.

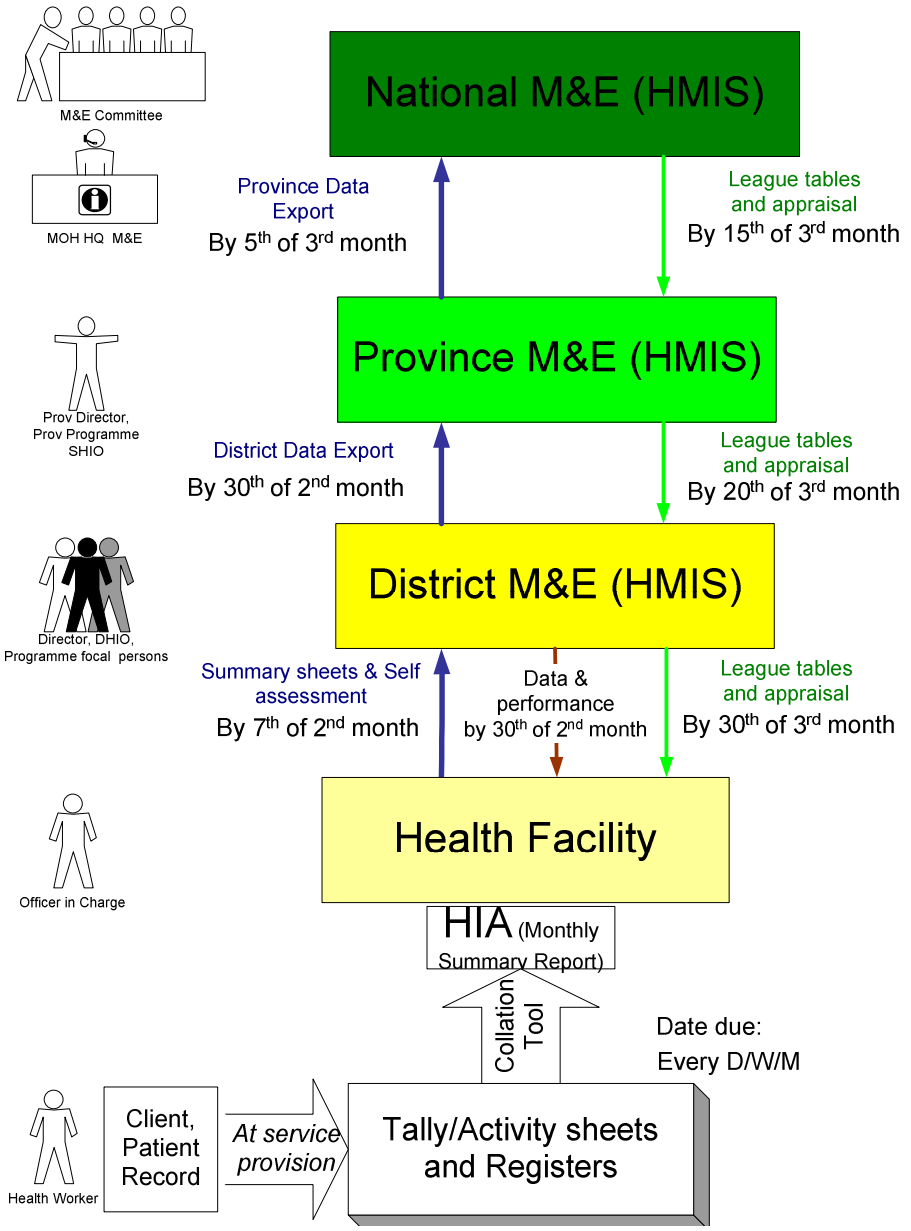
5.4 Data Flow, Time Lines and Responsibilities

The figure below illustrates the data flow, time lines and responsibilities within the HMIS.

Health workers	All health workers are legally required to keep accurate data on health services provided to clients or patients. They record this information for the reference of both the patient/client and the health facility.
Officer In Charge	The officer in charge (OIC) or Health Centre In Charge at the health facility needs information to determine how well the facility is

	providing services and to gauge the health status of the community the facility serves. The information provides evidence for decision making, action plans and interventions.
DHMT	The District Health Management Team (DHMT) is responsible for the delivery of quality health care in the district. It is impossible to provide quality health care without information. The District Health Information Officer (DHIO) plays a central role in coordinating information processing throughout the district. Such information must be duly presented to the DHMT for decision making, action plans and interventions.

Information must therefore be provided in a timely fashion and must be accurate. Inaccurate data leads to erroneous decisions.



The steps are described below:

a) Health workers collect data during service provision at the facility;
b) At the end of the day, week, and/or month data is validated, collated and added to the relevant HIA report and Self Assessment Tool;
c) The Health Centre In Charge sends the HIA reports to the District Health Office by the 7th of the following month for data capture and processing by the District Health Information Officer (DHIO).
d) The DHIO validates the data and captures into the DHIS. The DHIO must provide feedback on the data submitted to the health facility by the end of the

second month. The feedback must include any suspicious data identified and pre-determined performance league tables across the district.

e) The DHIO shall send the district data to the Provincial Health Office by the end of the second month for further processing and assessment by Senior Health Information Officer (SHIO).

f) Information received from the districts is passed to the HMIS national office for consolidation by the 5th of the third month.

g) As shown in the diagram above the national office should provide feedback and technical support to the province, district and eventually the facility.

h) The HMIS information is made available to program focal persons and managers at all levels.

i) Parallel vertical systems are discouraged. Additional data can be collected through setting up of sentinel surveillance sites or special surveys.

5.5 Roles and Responsibilities

At each level in the MOH, specific roles have been defined in the HMIS.

User Role	Actor/User Name	Tasks
Collect routine health data	All health workers	Record health data as health services are being provided
Validate and Collate data	Health Facility In Charge	Validate and collate all data collected. Prepare HIA report and Self Assessment tool
Take action to improve health service delivery	Health Facility In Charge	Identify possible problems Design interventions Manage health centre activities
Capture, validate and consolidate submitted data. Provide technical/logistical support	DHIO	Receive HIA reports from health facilities in the district. Capture data into DHIS. Check for completeness and likely errors. Follow up missing and/or invalid data with health facility; Generate assessment reports for health facilities, District office, Program Focal persons and the Provincial health office.
Analyze, interpret, present health info	DHIO	Provide health status reports to the DHMT for action and decision. Pass information Provincial Health Office
Consolidate district data and reports; Technical support	SHIO	Provide health status reports to the PHO for action and decision. Provide feedback to district Office. Pass information to national M&E Office
Monitor/Evaluate Health, Provide technical support	M&E	Monitor and evaluate Country health status and advise relevant MOH depts, Programmes, Cooperating Partners. Review and revise HMIS

5.6 Organisation Structure

Primary health care services are provided by health facilities and first level hospitals. The health centres are classified as rural or urban depending on their location and the catchment's area they serve. The choice and use of tools for data collection may

be determined by the establishment of each facility. The table below summarises the prototype size of each type of facility according to the new MOH establishment.

Location	**Institution Type**	**Prototype Establishment**
Rural Area	Rural Health Post (RHP)	5
	Small Rural Health Centre (SRHC)	7
	Medium Rural Health Centre (MRHC)	11
	Rural Zonal Centre	27
Urban Area	Small Urban Health Centre (SUHC)	51
	Medium Urban Health Centre (MUHC)	114
	Large Urban Health Centre (LUHC)	172
All	1st Level Hospital	193

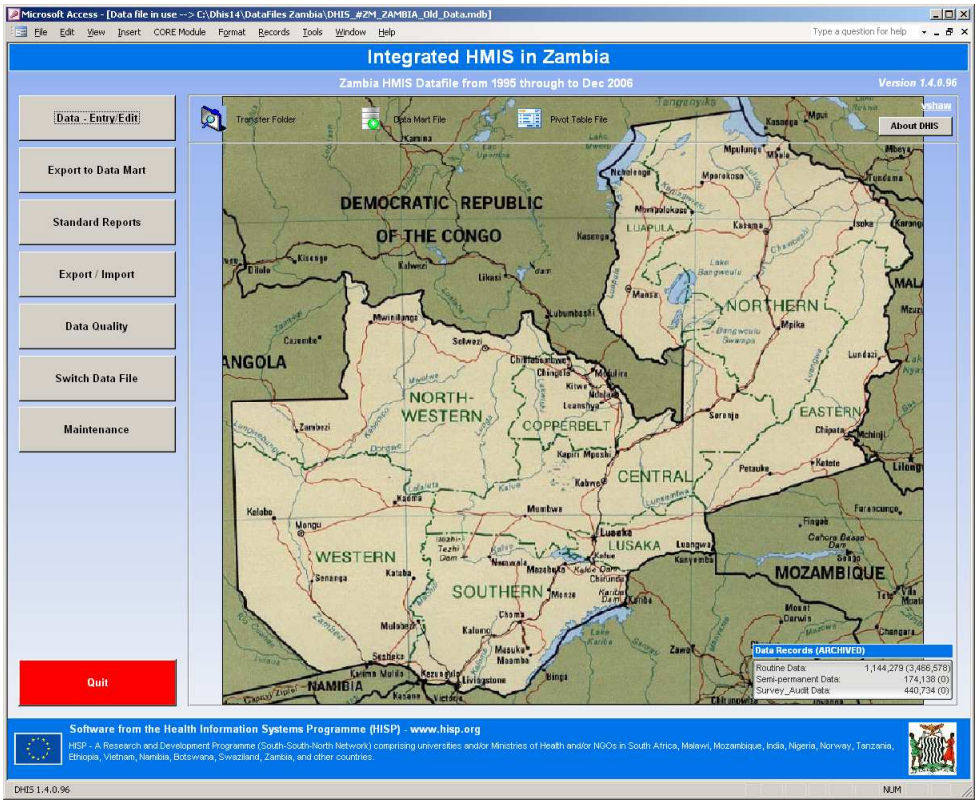
6 Section 6: The HMIS Software:

6.1 The Zambian Approach to Information Systems Development

Our approach is focused on creating sustainable, but flexible information systems which can be progressively scaled up, founded on simple paper-based data collection systems. At some stage in the flow of information (monthly reports for example) from facilities to districts, provinces and up to the national level, the paper based forms are captured in the HMIS software. The level at which this happens (in other words, whether it is at the district, or even provincial level) and the frequency of data capture (e.g. monthly, quarterly, etc) depends on local factors like access to electricity, skills level of health workers, and access to technology – computers and hardware.

6.2 The HMIS software:

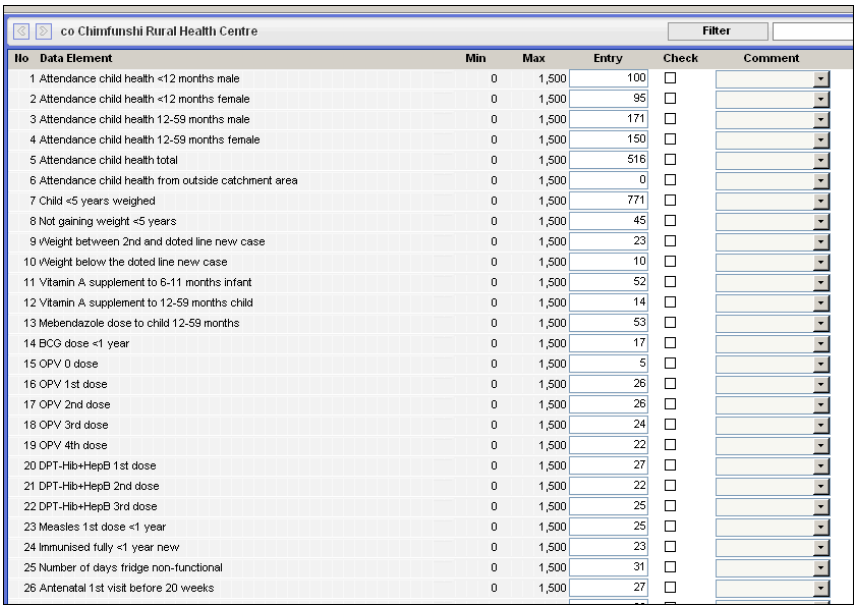
The software is an open source software program written mainly in Visual Basic, but with an increasing number of Java modules as we prepare for a gradual move to independence from Microsoft based systems. At present the DHISv14 requires a Windows environment, and Microsoft Office application suite to operate. The software has been multi-language enabled and translated into Portuguese, French, Telugu and Mandarin. The database is designed to accommodate flexibility (adaptation), thus:



- Organizational hierarchies can be adjusted and adapted to the local context. Any number of levels can be accommodated (thus even community based data can be captured, as well as clinics, health centers, small hospitals, referral hospitals and national level data);
- Data elements and resulting indicators can be adjusted and changed, and in our experience do evolve over time as health worker information needs change. This happens without losing the underlying data integrity (in the Zambia data file we have incorporated data dating back to 1995);
- Data quality is automatically monitored and improved through range checks, validity algorithms and automatic feedback of data and calculated indicators to reporting facilities;
- Different types of data can be accommodated to enable triangulation of data and different views of phenomena (thus survey data, routine service data, client satisfaction interviews, and what we have called semi-permanent data (typically GPS co-ordinates, address of facilities, equipment, etc) can be compared to provide different insights. Census data (or where lacking, population estimates) are incorporated to enable the calculation of population based indicators, and thereby program coverage and progress;
- Different frequencies of data can be collected (daily, monthly, quarterly, annually, etc) yet analyzed holistically.

The database has been designed to reflect the Zambian context. The database provides a number of useful functionalities:

Data entry: a simple screen is used to capture data - it reflects the data elements that are reported on in the HIA1, and 2 forms. From the illustration below, you can see that there is space for a comment to be captured – this means that if your values deviate from the normal range, facility manager should indicate in the monthly report the reason for the deviation. Note too that there is a box that can be used as a "check" box – if the data capturer finds a value to be unusual, they can check this box, and at the end of the data capture process produce a list of data elements, from the facilities that submitted the data to follow-up on.



co Chimfunshi Rural Health Centre — Filter

No	Data Element	Min	Max	Entry	Check	Comment
1	Attendance child health <12 months male	0	1,500	100	☐	
2	Attendance child health <12 months female	0	1,500	95	☐	
3	Attendance child health 12-59 months male	0	1,500	171	☐	
4	Attendance child health 12-59 months female	0	1,500	150	☐	
5	Attendance child health total	0	1,500	516	☐	
6	Attendance child health from outside catchment area	0	1,500	0	☐	
7	Child <5 years weighed	0	1,500	771	☐	
8	Not gaining weight <5 years	0	1,500	45	☐	
9	Weight between 2nd and doted line new case	0	1,500	23	☐	
10	Weight below the doted line new case	0	1,500	10	☐	
11	Vitamin A supplement to 6-11 months infant	0	1,500	52	☐	
12	Vitamin A supplement to 12-59 months child	0	1,500	14	☐	
13	Mebendazole dose to child 12-59 months	0	1,500	53	☐	
14	BCG dose <1 year	0	1,500	17	☐	
15	OPV 0 dose	0	1,500	5	☐	
16	OPV 1st dose	0	1,500	26	☐	
17	OPV 2nd dose	0	1,500	26	☐	
18	OPV 3rd dose	0	1,500	24	☐	
19	OPV 4th dose	0	1,500	22	☐	
20	DPT-Hib+HepB 1st dose	0	1,500	27	☐	
21	DPT-Hib+HepB 2nd dose	0	1,500	22	☐	
22	DPT-Hib+HepB 3rd dose	0	1,500	25	☐	
23	Measles 1st dose <1 year	0	1,500	25	☐	
24	Immunised fully <1 year new	0	1,500	23	☐	
25	Number of days fridge non-functional	0	1,500	31	☐	
26	Antenatal 1st visit before 20 weeks	0	1,500	27	☐	

Once data is captured, it can be:

a) analysed for use (see Section 7 of the procedure manual);
b) exported to higher levels for collation with data coming from other sites.

Facilities should expect to receive feedback reports from district offices. These reports should be used to:

a) confirm that the data capturer did in fact capture the data correctly (in other words, do the values in the feedback report correspond with those that were submitted by the district?);
b) compare their performance with other districts. It may be that in other to be efficient in terms of the use of resources, these types of comparison with other facilities may only be provided quarterly.

Data validation checks: Once the data is captured, the data capturer should run the validation rule check to make sure that the data is correct.

- A typical absolute validation rule is: The total number of births in the facility should be equal to the sum of live births and still births.

- We can also create “relative” validation rules, for instance: the number of caesarian sections should not be less than 20% of all deliveries.

The HMIS software also has a number of special modules. These are tabulated below:

Module	Description
Patient module	For capturing patient specific data. This is not meant to be a record of repeated visits by the same patient, but rather a name based register of patients attending certain services, usually on a once off basis e.g. a theatre.
Notifiable diseases module	This module is developed from the patient module, and allows notifiable disease reports to be captured, and transmitted electronically. Data related to the notifiable condition is stored in the HMIS database, and thus reflected in the monthly routine reports
GIS module	This links the database to a geographic reporting system.
Report generator module	This module allows the user to set up and save user defined reports which can include indicators and data elements.

Calculate indicators:
The HMIS system will calculate indicators automatically. When feedback reports are provided by the district, they should include reports on at least the priority indicators.

In conclusion:
The software allows clinics and hospitals to enter data relating to their services if they have access to a computer. However, because not all facilities have a computer on site, the data is usually entered into a computer system in Health District or Sub-district offices and then transmitted electronically to Provincial and National Departments. Some of the principles used in the development of the software are:

1. That users at a local level should be able to adapt the system for their needs. Hence, in addition to data entry, the system allows users to:
   - Add new facilities (organisational units);
   - Define new data elements and indicators, define new validation rules, set maximum and minimum limits for data entry;

   When data is exported the system allows the user to determine which data elements and indicators need to be exported. Thus, the principle of the information pyramid (whereby not all information is needed or relevant to all levels) can be applied by the software. On the other hand, if facilities are added, these are included in the exports so that data integrity at higher levels of aggregation is maintained. Exported data can also be automatically translated into another language.

2. That users at all levels should be given feedback on the data that is entered into the system. To this end the system uses a transient database (data mart) from which users can generate reports. Reports can be tailored to include certain data elements or indicators, from various sources (monthly data or routine survey data). Information can also be interfaced with software that allows data to be plotted using Geographic Information Systems. The generation of pivot tables is another tool that allows data to be presented in various ways.

3. That the system should be able to accommodate not only routine monthly data, but where surveys are conducted, these should be linked to the monthly dataset to augment this data. This stems from the premise that not all information needs to be collected on a monthly basis – some can be collected annually or six-monthly. In addition, surveys or research are often conducted in certain areas, and then the data is lost because it is not linked to existing data collection tools. Hence, the existing system contains a set of data elements that can be completed on an ad-hoc basis – e.g. details about the facility (manager's name, telephone and fax numbers, postal and email addresses, range of services provided, number of staff on the establishment, etc). The system can also import data from surveys. Thus for instance, census data has been added to the dataset to allow population data to be sued as the denominator for determining population based indicators (e.g. utilisation rates, immunisation coverage).

7 Section 7 – Using Information for Action – the Self Assessment Process

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~~1.5~~7.1 Use of Information

At the end of each period, the self assessment tool is populated with data collected and provides information of the status of health provision against set targets. It also provides information on patterns and trends.

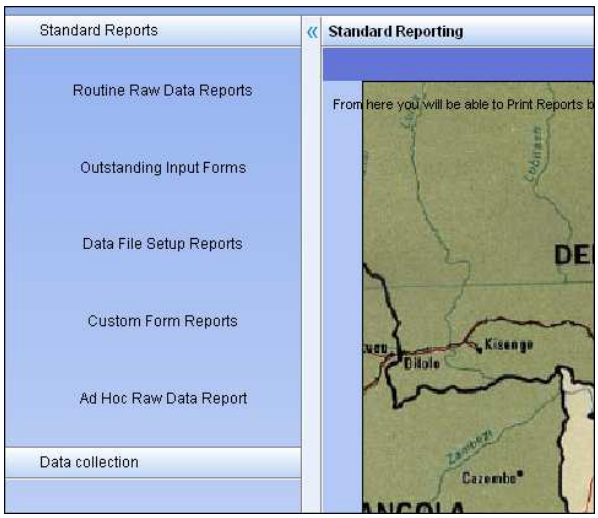
Information should not be gathered unless it is used to make decisions and take action to improve the delivery of health services. The information should be useful at all levels. Analysing and interpreting collected data assists health workers to identify problems, understand service needs and be able to prioritise facility activities, monitor the use of resources and evaluate the effect of health interventions.

7.2 Development of prototype reports:

The HMIS software provides a number of options for standardised reports. For now, while the pilot and roll-out were proceeding, it was decided not to focus too much energy on reporting, but rather to wait till the data base became populated with data from the revised data collection tools. In the mean time, efforts have been directed at ensuring that reporting will provide at least the same as what had been accessed previously. The following few pages provide examples of reports that can be accessed from the system.

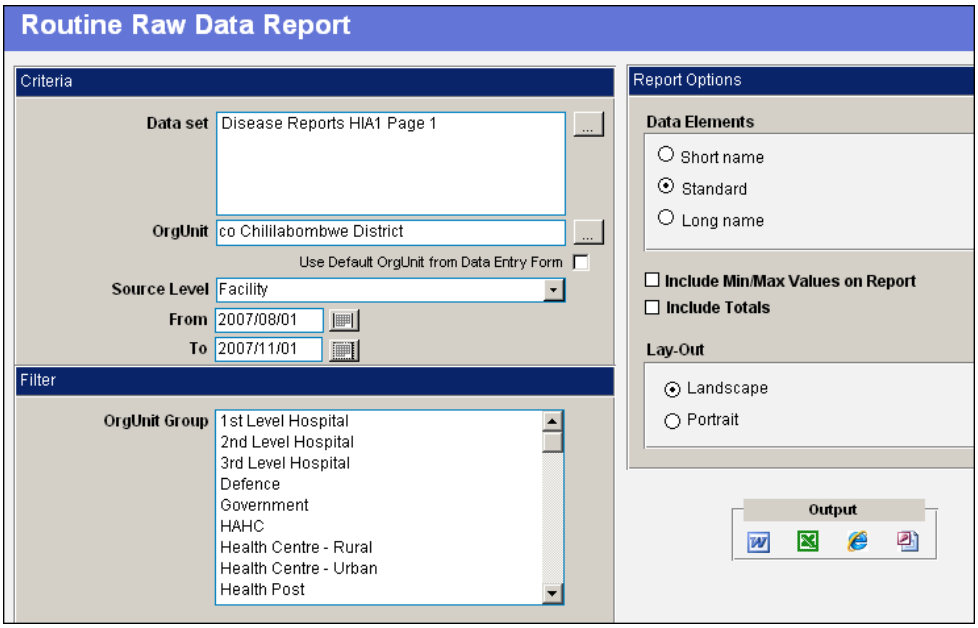
7.3 Accessing reports in the revised HMIS

There are two points of entry for accessing reports in the revised HMIS software. The first, and least complicated is through the "Standard reports" button on the control centre, which provides access to a number of standard reports (see figure below). The second is through the pivot tables which are generated by the software. We will first describe and provide examples of the reports that can be generated through the standard reports module.



7.4 Routine Raw Data Reports

The selection screen for this function is depicted below.



This allows one to choose:

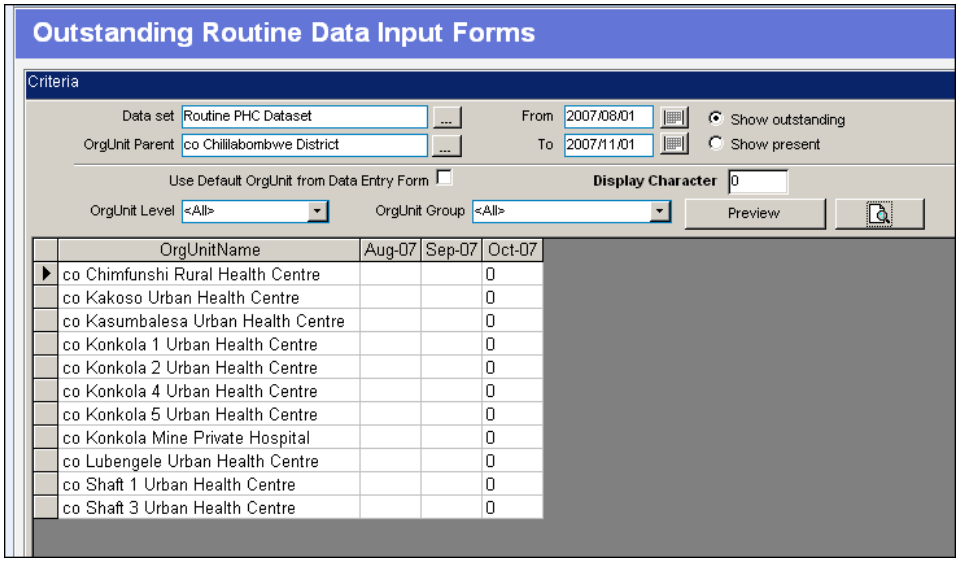
- a "dataset" as the basis for the report (see section 3.3.1 for the description of these),
- the organisational unit around which the report will be structured – for district reports, a district is selected (will be composed of facility data aggregated at the district level),
- the data period,
- and if required, a subset of facility types
- the output format (word, excel, html, or database)

An example of the output is depicted as **Annexure 3**.

7.5 Outstanding Input Forms:

This function depicts the reports that have been captured from facilities. We use the Chililabombwe district as an example. In this report we see that reporting is complete for all facilities for the months of August and September, but no data has been captured for October yet. In this report, we have selected the system to show "outstanding reports", but we could also have selected "Show present".

7.6 Customforms reports:

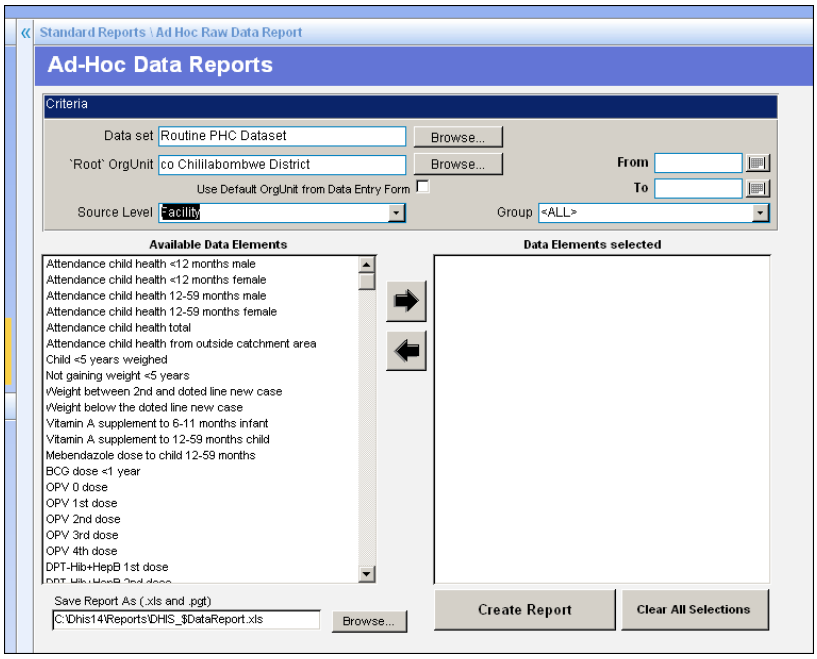


This function is extremely useful for example for the HIA1 reports – it provides a printout of the data that has been captured in the HIA1 form, and can be set to provide the report for a single facility, or to aggregate the data at district level, provincial level, or national level.

An example is provided in Annexure 4. Note as no data has been captured as yet for this report, blank cells are reported in the screenshot!

7.7 Ad hoc raw data reports:

This function allows a report to be generated for all or a group of data elements. The choices to be made are depicted below, and are similar to that listed under routine raw data reports. Note that the output file in this case is a simple pivot table which can be saved, for use at a later stage. In this case, we



have selected a group of data elements related to the immunisation programme:

Province	co Copperbelt Province
District	co Chililabombwe District
Facility	co Chimfunshi Rural Health Centre

Sum of EntryNumber		DataPeriod		
SortOrder	DataElement	Aug-07	Sep-07	Grand Total
14	BCG dose <1 year	42	17	59
15	OPV 0 dose	3	5	8
16	OPV 1st dose	31	26	57
17	OPV 2nd dose	24	26	50
18	OPV 3rd dose	23	24	47
19	OPV 4th dose	12	22	34
20	DPT-Hib+HepB 1st dose	32	27	59
21	DPT-Hib+HepB 2nd dose	24	22	46
22	DPT-Hib+HepB 3rd dose	22	25	47
23	Measles 1st dose <1 year	13	25	38
24	Immunised fully <1 year new	13	23	36
Grand Total		239	242	481

7.8 Indicator reports using pivot table functionality:

The second, slightly more sophisticated reporting function of the software is through the pivot table reporting. The pivot tables are populated from a temporary access database called the “data mart”. The data mart needs to be populated with data from the HMIS database. The routine that DHIO’s will follow then is to:

a) capture data
b) export the captured data to the data mart
c) refresh the pivot tables with the new data in the datamart.

Reasons for using a “DataMart” in the HMIS software:

The HMIS software uses this functionality for the following reasons:
(a) Performance: Processing all calculated data elements and indicators in one place makes Report Writing and refreshing pivot tables much faster.
(b) Separation: The Data Mart Files are a form of `Data Warehouse`, where data can be freely re-formatted or processed without affecting the primary data storage in the Data Files.
(c) Integration: Data/indicators from several different DHIS data files, data periods, and data types can be exported into one Data Mart.

In the pivot tables, we have set-up standard reports that enable district to provide reports on:

- Certain categories of data elements, or indicators (for example child health, safe motherhood, etc)

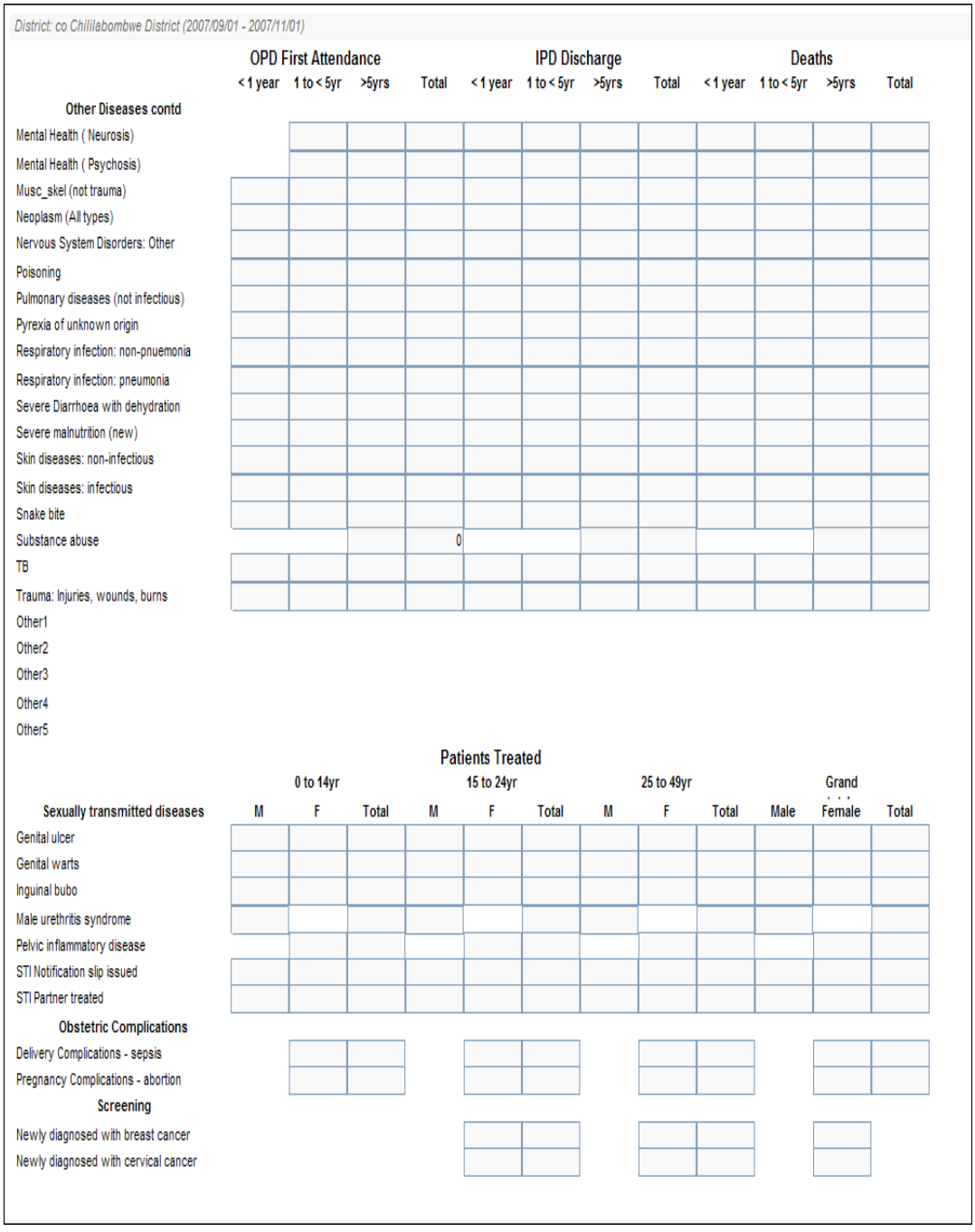
- Certain types of reports (for example the self assessment report on a selected number of indicators (which may span a number of indicator categories);

Annexure 5 depicts a report for Chililabombwe district on Growth Monitoring and Nutrition indicators, depicting the numerator and denominator values for a 2 month period.

7.9 Further development of standard reports:

Numerous consultancies will be involved in supporting increased information use. These will draw on the work that has been done to date to develop the HMIS database, and to populate it with data. They are also likely to influence the nature, and types of reports that will be required by districts, province, and national. As these ideas are concretised and institutionalised, the HMIS data base will be developed accordingly, and the reporting formats adjusted. What has been depicted here is seen as a start to enable districts and provinces to address the existing reporting requirements.

7.10 Custom Form Report – example of the HIA1 Form (Page 2)



District: co Chililabombwe District (2007/09/01 - 2007/11/01)

	OPD First Attendance				IPD Discharge				Deaths			
	< 1 year	1 to < 5yr	>5yrs	Total	< 1 year	1 to < 5yr	>5yrs	Total	< 1 year	1 to < 5yr	>5yrs	Total
Other Diseases contd												
Mental Health (Neurosis)												
Mental Health (Psychosis)												
Musc_skel (not trauma)												
Neoplasm (All types)												
Nervous System Disorders: Other												
Poisoning												
Pulmonary diseases (not infectious)												
Pyrexia of unknown origin												
Respiratory infection: non-pnuemonia												
Respiratory infection: pneumonia												
Severe Diarrhoea with dehydration												
Severe malnutrition (new)												
Skin diseases: non-infectious												
Skin diseases: infectious												
Snake bite												
Substance abuse				0								
TB												
Trauma: Injuries, wounds, burns												
Other1												
Other2												
Other3												
Other4												
Other5												

	Patients Treated											
	0 to 14yr			15 to 24yr			25 to 49yr				Grand	
Sexually transmitted diseases	M	F	Total	M	F	Total	M	F	Total	Male	Female	Total
Genital ulcer												
Genital warts												
Inguinal bubo												
Male urethritis syndrome												
Pelvic inflammatory disease												
STI Notification slip issued												
STI Partner treated												
Obstetric Complications												
Delivery Complications - sepsis												
Pregnancy Complications - abortion												
Screening												
Newly diagnosed with breast cancer												
Newly diagnosed with cervical cancer												

7.11 Example of a Indicator Report on Childhood Growth Monitoring and Nutrition for Chililabombwe District

Province	co Copperbelt Provi
District	co Chililabombwe D ict
IndType	(All)
Ownership	(All)
OUType	(All)
OURurUrb	(All)
IndGroup	Child health - Growt Monitoring and Nutrition

				Data		
SortOrd	IndicatorShort	dPeriod	Facility	Numerator	Denominator	Indicator
8	Not gaining weight <5	Aug-07	co Chimfunshi Rural Health Centre	43	500	0.086
			co Kakoso Urban Health Centre	4	841	0.005
			co Kasumbalesa Urban Health Centre	0	52	0.000
			co Konkola 1 Urban Health Centre	3	494	0.006
			co Konkola 2 Urban Health Centre	1	180	0.006
			co Konkola 4 Urban Health Centre	4	509	0.008
			co Konkola 5 Urban Health Centre	11	142	0.077
			co Lubengele Urban Health Centre	0	220	0.000
		Aug-07 Total		66	2938	0.022
		Sep-07	co Chimfunshi Rural Health Centre	45	771	0.058
			co Kakoso Urban Health Centre	18	1006	0.018
			co Kasumbalesa Urban Health Centre	2	82	0.024
			co Konkola 1 Urban Health Centre	1	443	0.002
			co Konkola 2 Urban Health Centre	2	155	0.013
			co Konkola 4 Urban Health Centre	0	351	0.000
			co Konkola 5 Urban Health Centre	0	174	0.000
			co Lubengele Urban Health Centre	142	2057	0.069
		Sep-07 Total		210	5039	0.042
9	Weight 2nd-dotted line	Aug-07	co Chimfunshi Rural Health Centre	22	500	0.044
			co Kakoso Urban Health Centre	185	841	0.220
			co Kasumbalesa Urban Health Centre	23	52	0.442
			co Konkola 1 Urban Health Centre	3	494	0.006
			co Konkola 2 Urban Health Centre		180	0.000
			co Konkola 4 Urban Health Centre	4	509	0.008
			co Konkola 5 Urban Health Centre	0	142	0.000
			co Lubengele Urban Health Centre	11	220	0.050
		Aug-07 Total		248	2938	0.084
		Sep-07	co Chimfunshi Rural Health Centre	23	771	0.030
			co Kakoso Urban Health Centre	3	1006	0.003
			co Kasumbalesa Urban Health Centre	12	82	0.146
			co Konkola 1 Urban Health Centre	0	443	0.000
			co Konkola 2 Urban Health Centre	0	155	0.000
			co Konkola 4 Urban Health Centre	10	351	0.028
			co Konkola 5 Urban Health Centre	0	174	0.000
			co Lubengele Urban Health Centre	142	2057	0.069
		Sep-07 Total		190	5039	0.038
10	Weight <dotted line	Aug-07	co Chimfunshi Rural Health Centre	5	500	0.010
			co Kakoso Urban Health Centre	13	841	0.015
			co Kasumbalesa Urban Health Centre	2	52	0.038
			co Konkola 1 Urban Health Centre		494	0.000
			co Konkola 2 Urban Health Centre		180	0.000
			co Konkola 4 Urban Health Centre	0	509	0.000
			co Konkola 5 Urban Health Centre		142	0.000
			co Lubengele Urban Health Centre	0	220	0.000
		Aug-07 Total		20	2938	0.007
		Sep-07	co Chimfunshi Rural Health Centre	10	771	0.013
			co Kakoso Urban Health Centre	1	1006	0.001
			co Kasumbalesa Urban Health Centre	0	82	0.000
			co Konkola 1 Urban Health Centre	0	443	0.000
			co Konkola 2 Urban Health Centre	0	155	0.000
			co Konkola 4 Urban Health Centre	4	351	0.011
			co Konkola 5 Urban Health Centre	0	174	0.000
			co Lubengele Urban Health Centre	13	2057	0.006
		Sep-07 Total		28	5039	0.006

ANNEXURE 1

Annexure numbers are designed to match section numbers in the main document. This annexure is left blank intentionally.

ANNEXURE 2

Annexure numbers are designed to match section numbers in the main document. This annexure is left blank intentionally.

ANNEXURE 3: NATIONAL INDICATOR SET AND DEFINITIONS

Annexure 3.1 National Indicator Dataset for Zambia

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
	Child Health							
	Utilisation							
CH	5	Utilisation rate for child health services <1 year total	Utilisation child health services <12 months total (Sum of Attendance Child Health <12 months male + Attendance Child Health <12 months female)	Population <1 year	Y			
CH	10	Utilisation rate for child health services <1 year male	PHC utilisation <12 months male (Attendance Child Health <12 months male)	Population <1 year male				
CH	15	Utilisation rate for child health services <1 year female	PHC utilisation <12 months female (Attendance Child Health <12 months female)	Population <1 year female				
CH	20	Utilisation rate for child health services 12-59 months male	PHC utilisation 12-59 months male	Population over 1-5 years male				
CH	25	Utilisation rate for child health services 12-59 months female	PHC utilisation 1-5 years female	Population over 1-5 years female				
CH	30	Child <1 year case load	Utilisation preventive and curative services <1 year total (Sum of Attendance Child Health <12 months male + Attendance Child Health <12 months female + Attendance OPD <12 months male + Attendance OPD <12 months female)	PHC total utilisation	Y			
	Growth Monitoring and Nutrition							
CH	35	Weighing rate under 5 years	Children <5 years weighed	PHC headcount <5 years (Attendance child health total)	Y			
CH	40	Not gaining weight rate under 5 years	Not gaining weight <5 years	Children <5 years weighed	Y			
CH	45	Children with weight between 2nd and doted line (MDG_Goal1 Indicator)	Children with weight between 2nd and doted line - new case	Children <5 years weighed	Y			Y
CH	50	Children with weight below the doted line (MDG_Goal1 Indicator)	Children with weight below the doted line case	Children <5 years weighed	Y			Y
CH	55	Children with severe malnutrition	Severe malnutrition (new case) (Sum of Severe malnutrition (new case) <12 months + Severe malnutrition (new case) 12-59 months)	Population <5 years				
CH	60	Diarrhoea (non-bloody) incidence under 5 years	Diarrhoea (non-bloody) <5 years (Sum of Diarrhoea (non-bloody) (new case) <12 months + Diarrhoea (non-bloody) (new case) 12-59 months)	Population <5 years				
CH	65	Severe Diarrhoea with dehydration	Severe Diarrhoea with dehydration <5 years (Sum of Severe	Population <5 years				

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
		incidence under 5 years	Diarrhoea with dehydration (new case) <12 months + Severe Diarrhoea with dehydration (new case) 12-59 months)					
CH	70	Pneumonia incidence under 5 years	Pneumonia <5 years (Sum of Respiratory Infection: pneumonia (new case) <12 months + Respiratory Infection: pneumonia (new case) 12-59 months)	Population <5 years				
CH	75	Vitamin A coverage under 1 year	Vitamin A supplement to 6-11 months infant	Target population <1 year	Y			
CH	80	Vitamin A coverage 1-4 years	Vitamin A supplement to 12-59 months child	Target population 12-59 months (x 8 to provide for 8 doses)	Y			
CH	85	Vitamin A coverage - new mothers	Vitamin A supplement to women within 8 weeks after delivery	Expected deliveries in population	Y			
CH	90	Mebendazole coverage to children 1-5 years	Mebendazole dose to child 12-59 months	Target population 1-5 years (x 8 to provide for 8 doses)				
		Immunisation						
CH	95	Immunisation coverage under 1 year (PAF Indicator) (NDP Output Indicator)	Immunised fully <1 year – new	Target population <1 year	Y	Y	Y	
CH	100	BCG coverage	BCG dose <1 year	Target population <1 year	Y			
CH	105	OPV 0 coverage	OPV 0 dose	Target population <1 year	Y			
CH	110	OPV 1st dose coverage	OPV 1st dose	Target population <1 year	Y			
CH	115	OPV 2nd dose coverage	OPV 2nd dose	Target population <1 year	Y			
CH	120	OPV 3rd dose coverage	OPV 3rd dose	Target population <1 year	Y			
CH	125	DPT-Hib+Hep 1st dose coverage	DPT-Hib+Hep 1st dose	Target population <1 year	Y			
CH	130	DPT-Hib+Hep 2nd dose coverage	DPT-Hib+Hep 2nd dose	Target population <1 year	Y			
CH	135	DPT-Hib+Hep 3rd dose coverage	DPT-Hib+Hep 3rd dose	Target population <1 year	Y			
CH	140	DPT-Hib+Hep 1-3 doses drop-out rate	DPT-Hib+Hep 1st dose – DPT-Hib+Hep 3rd dose	DPT-Hib+Hep 1st dose	Y			
CH	145	DPT-Hib+Hep 3 – Measles 1 doses drop-out rate	DPT-Hib+Hep 3rd dose – Measles 1st dose <1 year	DPT-Hib+Hep 3rd dose				
CH	150	OPV3 - OPV1 doses drop-out rate	OPV3 - OPV1 dose <1 year	OPV3 dose				
CH	155	Measles coverage under 1 year (MDG_Goal4 Indicator)	Measles 1st dose <1 year	Target population <1 year	Y			Y
CH	160	Cold chain fridge downtime (percentage) (NDP Input Indicator)	Number of days cold chain fridge was not functioning in reporting period	Days in month (30)	Y			
		Reproductive Health - Safe Motherhood						
		ANC Utilisation						
RH	5	Antenatal visits under 18 years	Antenatal 1st visit by woman <age of 18	Antenatal 1st visits total	Y			
RH	10	Antenatal visits before 20 weeks rate	Antenatal 1st visit before 20 weeks	Antenatal 1st visits total	Y			
RH	15	Antenatal coverage (NDP Output Indicator)	Antenatal 1st visits total	Estimated antenatal clients in population (use Expected deliveries in population as proxy)	Y			
RH	20	Antenatal visits per antenatal client	Antenatal total visits	Antenatal 1st visits total	Y			

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
		rate						
		ANC Screening						
RH	25	Anaemia screening coverage of antenatal clients	Pregnant woman screened for anaemia at first ANC visit	Antenatal 1st visits total	Y			
RH	30	Syphilis screening coverage of antenatal clients	Antenatal client tested for syphilis	Antenatal 1st visits total				
RH	35	Syphilis prevalence among antenatal clients tested	Antenatal client tested positive for syphilis - new	Antenatal client tested for syphilis				
		ANC Prophylaxis						
RH	40	IPT1 coverage of antenatal clients (NDP Output Indicator)	IPT 1st dose to pregnant woman	Antenatal 1st visits total			Y	
RH	45	IPT2 coverage of antenatal clients	IPT 2nd dose to pregnant woman	Antenatal 1st visits total				
RH	50	IPT3 coverage of antenatal clients	IPT 3rd dose to pregnant woman	Antenatal 1st visits total	Y			
RH	55	ITN coverage of antenatal clients	ITN provided to pregnant woman at ANC visit	Antenatal 1st visits total	Y			
RH	60	Mebendazole coverage of antenatal clients	Mebendazole dose to pregnant woman	Total antenatal visits				
RH	65	Ferro sulphate coverage of antenatal clients	Ferrous sulphate dose to pregnant woman	Total antenatal visits				
RH	70	Folic acid coverage of antenatal clients	Folic acid dose to pregnant woman	Total antenatal visits				
RH	75	Pregnancies protected against tetanus	Tetanus toxoid 2nd or booster dose to pregnant woman	Antenatal 1st visits total	Y			
		Post Natal Care						
RH	80	Postnatal care within 6 days coverage rate	Postnatal care within 6 days	Institutional deliveries total				
RH	85	Postnatal care at 6 days - 6 weeks coverage rate	Postnatal care between 6 days - 6 weeks	Institutional deliveries total				
		Reproductive Health - Family Planning						
RH	90	Women year protection rate (MDG_Goal6 Indicator)	Contraceptive years dispensed (excluding sterilisations) (Sum of (Oral pill cycle/13) + (Medroxyprogesterone injection/4) + (Norethisterone enanthate injection/6) + (Implantx5) + (IUCDx10)	Female target population 15-49 years	Y			
RH	95	Couple year protection rate (NDP Outcome Indicator)	Contraceptive years dispensed (including sterilisations) (Sum of (Oral pill cycle/13) + (Medroxyprogesterone injection/4) + (Norethisterone enanthate injection/6) + (Implantx5) + (IUCDx10) + (Sterilisation - malex10) + (Sterilisation - femalex10))	Female target population 15-49 years			Y	
RH	100	Male sterilisation rate	Male sterilisation performed (Sterilisation male)	Male target population 15-49 years (Proxy is ((female pop 15-49)/100) x sex ratio (males per 100 females))				
RH	105	Female sterilisation rate	Female sterilisation performed (Sterilisation female)	Female target population 15-49 years				

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
RH	110	Woman newly diagnosed with cervical cancer	Woman newly diagnosed with cervical cancer (Cervical cancer)	Cervical smear performed				
RH	115	Woman newly diagnosed with breast cancer	Woman newly diagnosed with breast cancer (Breast cancer)	Screened for breast cancer				
		Maternal Health - Obstetric Care						
		Deliveries						
RH	120	Caesarean section coverage (NDP Outcome Indicator)	Caesarean section	Expected deliveries in population			Y	
RH	125	Caesarean section rate	Caesarean section	Institutional deliveries total				
RH	130	Assisted delivery in facility rate	Assisted delivery in facility	Institutional deliveries total				
RH	135	Normal delivery in facility rate	Normal delivery in facility	Institutional deliveries total				
		Delivery Supervision						
RH	140	Percentage of institutional deliveries	Institutional deliveries total	Expected deliveries	Y			
RH	145	Percentage of deliveries by skilled personnel (PAF Indicator) (NDP Output Indicator) (MDG_Goal5 Indicator)	Deliveries by skilled personnel (Deliveries conducted by registered midwives and doctors in facility)	Expected deliveries	Y	Y	Y	Y
RH	150	Percentage of deliveries by trained personnel	Deliveries by trained personnel (trained TBA's and other health workers)	Expected deliveries				
RH	155	Percentage of deliveries by trained TBA	Deliveries by trained TBA's	Expected deliveries				
RH	160	Percentage of deliveries by TBA	Deliveries by TBA's	Expected deliveries				
		Delivery complications						
RH	165	Delivery complications - sepsis	Delivery complications - sepsis	Institutional deliveries total	Y			
RH	170	Delivery complications - obstructed labour	Delivery complications - obstructed labour	Institutional deliveries total	Y			
RH	175	Delivery/Pregnancy complications - hypertensive disorders	Delivery/Pregnancy complications - hypertensive disorders	Institutional deliveries total	Y			
RH	180	Delivery/Pregnancy complications - haemorrhage	Delivery/Pregnancy complications - haemorrhage	Institutional deliveries total	Y			
RH	185	Delivery/Pregnancy complications - abortion	Delivery/Pregnancy complications - abortion	Institutional deliveries total	Y			
RH	190	Delivery complications - ruptured uterus	Delivery complications - ruptured uterus	Institutional deliveries total	Y			
RH	195	Delivery complications - retained placenta	Delivery complications - retained placenta	Institutional deliveries total	Y			
RH	200	Percentage delivery complications total	Delivery Complications Total	Institutional deliveries total	Y			
RH	205	Emergency obstetric care met need	Women receiving Emergency Obstetric Care (Sum of Delivery complications total + Assisted deliveries in facility + Caesarean	Women expected to receive EOC (Proxy is 15% of expected				

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
			section))	deliveries in the population)				
RH	210	Facility maternal mortality rate (MDG_Goal5 Indicator) (NDP Impact Indicator)	Maternal deaths in facility	Institutional deliveries total	Y		Y	Y
RH	215	Obstetric fistula in facility rate	Women with obstetric fistula - new	Institutional deliveries total				
		Reproductive Health - Neonatal care						
RH	220	Low birth weight rate in facility	Live birth in facility under 2500g	Live birth in facility				
RH	225	Still birth rate in facility	Still birth in facility total	Institutional deliveries total				
RH	230	Perinatal mortality rate in facility	Still birth in facility + Inpatient death early neonatal	Institutional deliveries total				
RH	235	Neonatal mortality rate in facility	Neonatal deaths total	Institutional deliveries total				
		HIV - Counselling and testing						
HIV	5	HIV testing rate (excluding antenatal) (VCT Indicator 8.2.3)	HIV test total (excl ANC)	Pre-test counselled for HIV (excl ANC)	Y			
HIV	10	HIV prevalence among clients tested (excluding antenatal) (VCT Indicator 8.2.4)	HIV test positive total (excl ANC)	HIV test total (excl ANC)	Y			
HIV	15	Percentage patients collecting results (NDP Output Indicator) (VCT Indicator 8.2.6)	Client collecting results (excl ANC)	HIV test total (excl ANC)	Y			
		HIV - PMTCT						
		PMTCT Counselling and Testing						
HIV	20	HIV prevalence among antenatal clients tested (MDG_Goal6 Indicator) (PMTCT Indicator 8.1.3)	Antenatal client tested HIV positive new case	Antenatal client tested for HIV	Y			Y
		Prophylaxis						
HIV	25	Proportion of HIV positive women who received a full course of ARVs at onset of labour (NDP Output Indicator) (PMTCT Indicator 8.1.8)	ARV prophylaxis dispensed to woman	Antenatal client tested HIV positive new case	Y			
HIV	30	Proportion of HIV positive women who took a full course of ARVs at onset of labour (NDP Output Indicator) (PMTCT Indicator 8.1.9)	ARV prophylaxis taken by woman at labour	Antenatal client tested HIV positive new case	Y			
HIV	35	Proportion of babies given ARV prophylaxis after birth (PMTCT Indicator 8.1.11)	ARV prophylaxis to babies within 72 hrs	Live birth HIV exposed	Y			
HIV		Proportion of antenatal client's male partner tested for HIV	HIV testing of an antenatal/labour patient's partner.	Antenatal client tested for HIV				
		PMTCT Follow-up						

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
HIV	40	Proportion of PMTCT babies tested for HIV at 6 weeks (PMTCT Indicator 8.1.12)	HIV test to HIV-exposed baby at 6 weeks	Live birth HIV exposed 1 month ago				
HIV	45	Proportion of PMTCT babies tested for HIV at 12 months (PMTCT Indicator 8.1.12)	HIV test to HIV-exposed baby at 12 months	Live birth HIV exposed 12 months ago				
HIV	50	Proportion of PMTCT babies tested for HIV at 18 months (PMTCT Indicator 8.1.12)	HIV test to HIV-exposed baby at 18 months	Live birth HIV exposed 18 months ago				
HIV	55	HIV transmission rate amongst HIV-exposed babies at 6 weeks (Modified from PMTCT Indicator 8.1.13)	HIV test of HIV-exposed baby at 6 weeks positive (new)	Live birth HIV exposed 1 month ago				
HIV	60	HIV transmission rate amongst HIV-exposed babies at 12 months (Modified from PMTCT Indicator 8.1.13)	HIV test of HIV-exposed baby at 12 months positive (new)	Live birth HIV exposed 12 months ago				
HIV	65	HIV transmission rate amongst HIV-exposed babies at 18 months (Modified from PMTCT Indicator 8.1.13)	HIV test of HIV-exposed baby at 18 months positive (new)	Live birth HIV exposed 18 months ago				
		HIV - ART						
HIV	70	Proportion of expected patients from CT registering for pre-ART (ART Indicator 7.2)	Pre ART registration from Counselling and Testing	Referred for pre ART from CT				
HIV	75	Proportion of expected patients enrolled on ART (ART Indicator 7.1.6)	ART initiated total new cases	Expected entrants for ART - annual				
HIV	80	Percentage of enrolled patients eligible for ART (ART Indicator 7.3)	Patients eligible for ART new	Pre ART registration total new case				
HIV	85	Percentage of patients alive on ART after 12 months (ART Indicator 7.10.2)	Alive and on ART at 12 months	ART initiated 12 months ago				
HIV	90	Proportion of patients still on 1st line ART 12 months after initiating ART (ART Indicator 7.11)	Original 1st Line ART at 12 months	ART initiated 12 months ago				
		TB						
TB	5	TB case finding index	Suspected TB case with sputum sent	PHC headcount 5 years and older (Sum of total preventive attendances - attendance child health total) + (Sum of curative attendances - (attendance OPD				

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
				<12 months male + attendance OPD <12 months female + attendance OPD 12-59 months male + attendance OPD 12-59 months female)				
TB	10	Proportion of TB suspects smear positive	New smear positive TB patient	Suspected TB case with sputum sent				
TB	15	Proportion of new TB patients screened for HIV	New TB patient screened for HIV	New TB patient total				
		Inpatient Care						
		Inpatient Utilisation						
IPD	5	Usable bed utilisation rate - total	Inpatient days total + 1/2 Day patients total	Usable bed days total				
IPD	10	Usable bed turnover rate	Separations (Sum of Inpatient discharges total + Inpatient transfers out total + Inpatient deaths total)	Usable beds				
IPD	15	Average length of stay - total	Inpatient days total + 1/2 Day patients total	Separations				
IPD	20	Patient day equivalent - total	Inpatient days total + 1/2 Day patients total + 1/3 Attendance outpatient total	Constant of 1				
IPD	25	Patient days - total	Inpatient days total + 1/2 Day patients total	Constant of 1				
IPD	30	Utilisation rate - Hospital OPD	Attendance outpatient total	Total population				
		Inpatient Mortality						
IPD	35	Facility mortality under 1 year rate (MDG_Goal4 Indicator)	Inpatient death <12 months	Inpatient separations <12 months (Sum of Inpatient discharges <12 months total + Inpatient transfers out <12 months total + Inpatient deaths <12 months total)	Y			Y
IPD	40	Facility mortality under 5 years rate (MDG_Goal4 Indicator)	Inpatient death 12-59 months	Inpatient separations 12-59 months (Sum of Inpatient discharges 12-59 months total + Inpatient transfers out 12-59 months total + Inpatient deaths 12-59 months total)	Y			Y
		Drug Supplies and Management						
DRG	5	Tracer items stock out rate	Tracer item stock outs any time in reporting period	Total number of tracer items				
DRG	10	Erythromycin 500mg capsule/tablet stock out rate	Erythromycin 500mg capsule/tablet stock out	All facilities reporting				
DRG	15	Doxycycline 100mg tablet stock out rate	Doxycycline 100mg tablet stock out	All facilities reporting				
DRG	20	Any 1st line anti-malarial stock out rate	Any 1st line anti-malarial stock out	All facilities reporting				
DRG	25	Amoxicillin 125mg/5ml suspension	Amoxicillin 125mg/5ml suspension (75ml) stock out	All facilities reporting				

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
		(75ml) stock out rate						
DRG	30	Amoxicillin capsules stock out rate	Amoxicillin capsules stock out	All facilities reporting				
DRG	35	Any 1st line ARV drug stock out rate	Any 1st line ARV drug stock out	All facilities reporting				
DRG	40	Folic acid stock out rate	Folic acid stock out	All facilities reporting				
DRG	45	4 FDC (TB) drug stock out rate	4 FDC (TB) drug stock out	All facilities reporting				
DRG	50	Crystapen stock out rate	Crystapen stock out	All facilities reporting				
DRG	55	Cotrimoxazole 480mg stock out rate	Cotrimoxazole 480mg stock out	All facilities reporting				
DRG	60	Cotrimoxazole syrup stock out rate	Cotrimoxazole syrup stock out	All facilities reporting				
DRG	65	DPT-HepB+Hib vaccine stock out rate	DPT-HepB+Hib vaccine stock out	All facilities reporting				
DRG	70	ORS stock out rate	ORS stock out	All facilities reporting				
DRG	75	Paracetamol 500mg stock out rate	Paracetamol 500mg stock out	All facilities reporting				
DRG	80	Rapid HIV test stock out rate	Rapid HIV test stock out	All facilities reporting				
DRG	85	Proportion of vaccine fridges missing or not working	Vaccine fridge missing or not working	All facilities reporting				
		Human Resources						
		Establishment - appointments						
HR	5	Percentage posts filled for doctors	Doctors appointed	Establishment posts doctors				
HR	10	Percentage posts filled for clinical officers	Clinical officer appointed	Establishment posts clinical officers				
HR	15	Percentage posts filled for registered nurses	Registered nurses appointed	Establishment posts registered nurses				
HR	20	Percentage posts filled for enrolled nurses	Enrolled nurse appointed	Establishment posts enrolled nurses				
HR	25	Percentage posts filled for nurse midwives	Nurse midwife appointed	Establishment posts nurse midwifes				
HR	30	Percentage posts filled for pharmacists	Pharmacists appointed	Establishment posts pharmacists				
HR	35	Percentage posts filled for paramedical staff	Paramedical staff appointed	Establishment posts paramedical staff				
HR	40	Percentage posts filled for support staff	Support staff appointed	Establishment posts support staff				
HR	45	Percentage posts filled for administrative staff	Administrative staff new appointed	Establishment posts administrative staff				
HR	50	Staff turnover rate for doctors	Doctors staff losses + recruitments	Establishment posts doctors				
HR	55	Staff turnover rate for clinical officers	Clinical officer staff losses + recruitments	Establishment posts clinical officers				
HR	60	Staff turnover rate for registered nurses	Registered nurses staff losses + recruitments	Establishment posts registered nurses				
HR	65	Staff turnover rate for enrolled nurses	Enrolled nurse staff losses + recruitments	Establishment posts enrolled				

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
				nurses				
HR	70	Staff turnover rate for nurse midwives	Nurse midwife staff losses + recruitments	Establishment posts nurse midwifes				
HR	75	Staff turnover rate for pharmacists	Pharmacists staff losses + recruitments	Establishment posts pharmacists				
HR	80	Staff turnover rate for paramedical staff	Paramedical staff staff losses + recruitments	Establishment posts paramedical staff				
HR	85	Staff turnover rate for support staff	Support staff staff losses + recruitments	Establishment posts support staff				
HR	90	Staff turnover rate for administrative staff	Administrative staff new staff losses + recruitments	Establishment posts administrative staff				
		Establishment - Recruitment						
HR	95	Recruitment rate for doctors	Doctors recruited	Establishment posts doctors				
HR	100	Recruitment rate for clinical officers	Clinical officer recruited	Establishment posts clinical officers				
HR	105	Recruitment rate for registered nurses	Registered nurses recruited	Establishment posts registered nurses				
HR	110	Recruitment rate for enrolled nurses	Enrolled nurse recruited	Establishment posts enrolled nurses				
HR	115	Recruitment rate for nurse midwives	Nurse midwife recruited	Establishment posts nurse midwifes				
HR	120	Recruitment rate for pharmacists	Pharmacists recruited	Establishment posts pharmacists				
HR	125	Recruitment rate for paramedical staff	Paramedical staff recruited	Establishment posts paramedical staff				
HR	130	Recruitment rate for support staff	Support staff recruited	Establishment posts support staff				
HR	135	Recruitment rate for administrative staff	Administrative staff new recruited	Establishment posts administrative staff				
		Establishment - Losses						
HR	140	Staff loss rate for doctors	Doctors staff losses	Establishment posts doctors				
HR	145	Staff loss rate for clinical officers	Clinical officer staff losses	Establishment posts clinical officers				
HR	150	Staff loss rate for registered nurses	Registered nurses staff losses	Establishment posts registered nurses				
HR	155	Staff loss rate for enrolled nurses	Enrolled nurse staff losses	Establishment posts enrolled nurses				
HR	160	Staff loss rate for nurse midwives	Nurse midwife staff losses	Establishment posts nurse midwifes				
HR	165	Staff loss rate for pharmacists	Pharmacists staff losses	Establishment posts pharmacists				
HR	170	Staff loss rate for paramedical staff	Paramedical staff staff losses	Establishment posts paramedical staff				
HR	175	Staff loss rate for support staff	Support staff staff losses	Establishment posts support staff				
HR	180	Staff loss rate for administrative staff	Administrative staff new staff losses	Establishment posts				

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
				administrative staff				
	Workload and productivity							
HR	185	Productivity index doctors	Doctor clinical/preventive workdays on duty	Expected doctor clinical/preventive workdays				
HR	190	Productivity index clinical officers	clinical/preventive officer clinical/preventive workdays on duty	Expected clinical/preventive officer clinical/preventive workdays				
HR	195	Productivity index registered nurses	Registered nurse clinical/preventive workdays on duty	Expected registered nurse clinical/preventive workdays				
HR	200	Productivity index enrolled nurses	Enrolled nurse clinical/preventive workdays on duty	Expected enrolled nurses clinical/preventive workdays				
HR	205	Productivity index nurse midwives	Nurse midwife clinical/preventive workdays on duty	Expected nurse midwife clinical/preventive workdays				
HR	210	Productivity index pharmacists	Pharmacist clinical/preventive workdays on duty	Expected pharmacist clinical/preventive workdays				
HR	215	Productivity index paramedical staff	Paramedical staff clinical/preventive workdays on duty	Expected paramedical staff workdays				
HR	220	Productivity index support staff	Support staff clinical/preventive workdays on duty	Expected support staff workdays				
HR	225	Productivity index administrative staff	Administrative staff clinical/preventive workdays on duty	Expected administrative staff workdays				
HR	230	Health worker clinical work load - PHC (NDP Output Indicator)	PHC utilisation - total (Sum of "Total preventive attendances" + "Total curative services")	Health worker clinical/preventive work days on duty (Doctor clinical/preventive workdays on duty + Clinical officer clinical/preventive workdays on duty + Registered nurses clinical/preventive workdays on duty + Enrolled nurse clinical/preventive workdays on duty)	Y		Y	
HR	235	Clinical officer clinical work load - PHC (NDP Output Indicator)	PHC utilisation - total (Sum of "Total preventive attendances" + "Total curative services")	Clinical officer clinical/preventive workdays on duty	Y		Y	
HR	240	Medical doctor clinical work load - PHC (NDP Output Indicator)	PHC utilisation - total (Sum of "Total preventive attendances" + "Total curative services")	Doctor clinical/preventive workdays on duty	Y		Y	
	Environmental Health							
ENV	5	Percentage of targeted premises inspected	Number of premises inspected	Target number of premises to be inspected				
ENV	10	Percentage of inspected premises in compliance	Number of inspected premises in compliance	Number of premises inspected				
ENV	15	Percentage of targeted food inspections performed	Number of food inspections performed	Target number of food inspections to be performed				

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
ENV	20	Percentage of food inspections resulting in seizure and disposal of foodstuffs	Number of food inspections resulting in seizure and disposal of food stuffs	Number of food inspections performed				
ENV	25	Percentage of targeted water samples taken	Water samples taken	Target number of water samples to be taken				
ENV	30	Percentage of target salt samples tested for iodine	Number of times salt tested for iodine	Target number of salt samples to be taken				
ENV	35	Percentage of vector complaints attended to	Complaints received	Complaints attended to				
		Financial						
FIN	5	Percentage MOH Releases to district level (PAF Indicator) (NDP Input Indicator)	MoH releases (domestic, non-donor) to district	Total budget allocation to MoH				
FIN	10	Percentage of medical supplies budget spent	Total budget for medical supplies	Expenditures on 20/80 drugs + expenditures on laboratory supplies				
FIN	15	Percentage of 20/80 drugs budget spent	Expenditures on 20/80 drugs	Budget for 20/80 drugs				
FIN	20	Percentage of laboratory supplies budget spent	Expenditures on laboratory supplies	Budget for laboratory supplies				
FIN	25	Percentage district budget expenditure	Total district expenditure (Sum of Expenditures on District Office + Expenditures on Hospital + Expenditures on Health Centres and Community + Expenditures on allowances + Expenditures on emergency drugs + Expenditures on fuel + Expenditures on capital investment)	Total district budget				
FIN	30	Percentage of district expenditure on hospitals	Expenditures on Hospital	Total district expenditure				
FIN	35	Percentage of district expenditure on Health Centres and Community	Expenditures on Health Centres and Community	Total district expenditure				
FIN	40	Percentage of district expenditure on allowances	Expenditures on allowances	Total district expenditure				
FIN	45	Percentage of district expenditure on fuel	Expenditures on fuel	Total district expenditure				
FIN	50	Percentage of district expenditure on emergency drugs	Expenditures on emergency drugs	Total district expenditure				
		Utilisation and Management/Supervision						
SUP	5	Utilisation rate - PHC Total (PAF Indicator)	PHC utilisation - total (Sum of "Total preventive attendances" + "Total curative services")	Total population	Y	Y		
SUP	10	Proportion patient attendances from outside catchment area	Patient attendance from outside catchment area (Sum of Attendance child health from outside catchment area + Attendance antenatal from	PHC total utilisation	Y			

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
			outside catchment area)					
SUP	15	Supervision visit rate	Supportive supervision visits this month	All PHC facilities	Y			
SUP	20	In-patient referral rate	In-patients referred to a higher level of healthcare	Inpatient discharges total				
		Selected Diseases						
		Malaria						
MAL	5	Malaria <5 suspect incidence rate	Clinical case of malaria <5 years (Sum of clinical malaria <12 months + clinical malaria 12-59 months)	Under 5 population (per 10,000)	Y			
MAL	10	Malaria >5 suspect incidence rate	Clinical case of malaria >5 years (Sum of clinical malaria >5 years)	Population 5 years and older (per 10,000)	Y			
MAL	15	Malaria <5 confirmed incidence rate	Confirmed case of malaria <5 years (Sum of confirmed malaria <12 months + confirmed malaria 12-59 months)	Under 5 population (per 10,000)	Y			
MAL	20	Malaria >5 confirmed incidence rate	Confirmed case of malaria >5 years (Sum of confirmed malaria >5 years)	Population 5 years and older (per 10,000)	Y			
MAL	25	Malaria confirmed case in pregnancy	Confirmed malaria in pregnancy	Antenatal 1st visits total	Y			
MAL	30	Death due to confirmed malaria in pregnancy	Death due to confirmed malaria in pregnancy	Antenatal 1st visits total				
MAL	35	Percentage confirmed malaria cases	Confirmed malaria cases total	Clinical case of malaria total				
MAL	40	Malaria treatment rate	Malaria case provided with anti-malarial treatment	Clinical case of malaria total				
MAL	45	Malaria <5 suspect case fatality rate	Death attributed to malaria on clinical basis under 5 years (Sum of death clinical malaria <12 months + death clinical malaria 12-59 months)	Under 5 population (per 10,000)				
MAL	50	Malaria >5 suspect case fatality rate	Death attributed to malaria on clinical basis >5 years (Death clinical malaria >5 years)	Population >5 years (per 10,000)				
MAL	55	Malaria <5 confirmed case fatality rate (PAF Indicator) (MDG_Goal6 Indicator) (NDP Outcome Indicator)	Death attributed to malaria on confirmed basis under 5 years (Sum of death confirmed malaria <12 months + death confirmed malaria 12-59 months)	Per 1,000 admissions with confirmed diagnosis of malaria using either microscopy or RDT ((Sum of IPD Discharge confirmed malaria <12 months + IPD Discharge confirmed malaria 12-59 months)/1000)	Y	Y	Y	Y
MAL	60	Malaria >5 confirmed case fatality rate (MDG_Goal6 Indicator)	Death attributed to malaria on confirmed basis >5 years (Death confirmed malaria >5 years)	Per 1,000 admissions with confirmed diagnosis of malaria using either microscopy or RDT ((Sum of IPD Discharge confirmed malaria >5 years)/1000)	Y			Y
		Sexually Transmitted Infections						
STI	5	STI treated new episode incidence	STI treated new episode	Population 15 years and older	Y			
STI	10	Male urethritis syndrome treated	Male Urethritis Syndrome treated - new episode	Male population 15 years and	Y			

Code		Indicator	Numerator	Denominator	Priority	PA	NDP	MDG
					Indicator			
		(new episode incidence)		older				
STI	15	Genital ulcer treated (new episode incidence)	Genital ulcer - new episode	Population 15 years and older				
STI	20	Genital warts treated (new episode incidence)	Genital warts - new episode	Population 15 years and older				
STI	25	Inguinal bubo treated (new episode incidence)	Inguinal bubo - new episode	Population 15 years and older				
STI	30	Male Urethritis Syndrome rate (NDP Output Indicator)	Male Urethritis Syndrome - new episode	STI treated - new episode				
STI	35	STI partner notification rate	STI partner notification slips issued	STI treated - new episode	Y			
STI	40	STI partner tracing rate	STI partner treated - new	STI partner notification slips issued	Y			
STI	45	STI partner treatment rate	STI partner treated - new	STI treated - new episode	Y			
		Data/Information Flow						
INF	5	Data input coverage - PHC	Catchment population of facilities with PHC data submitted	Total catchment population for all facilities providing PHC services				
INF	10	Data input coverage - Hospitals	Catchment population of facilities with Hospital data submitted	Total catchment population for all facilities providing Hospital services				
INF	15	Reporting unit data submission rate	Reporting units with data submitted to next level	All reporting units expected to submit data				
INF	20	Reporting unit data timeliness rate	Reporting units with data submitted to next level within time limit (as specified in data flow policy)	All reporting units expected to submit data				
INF	25	Feedback report rate	Reporting units receiving feedback from next level within time limit (as specified in data flow policy)	All reporting units at respective levels				

Annexure 3.2 National Essential Data Element Definition

Code		Data Element	Definition	Source of data	HIA
Child Health					
Attendance					
CH	5	Attendance child health <12 months male	All individual male children that have not yet reached 12 months of age attending the child health services during the period (usually month) for any service rendered at the facility.	Child Health Tally or Activity sheet	HIA2
CH	10	Attendance child health <12 months female	All individual female children that have not yet reached 12 months of age attending the child health services during the period (usually month) for any service rendered at the facility.	Child Health Tally or Activity sheet	HIA2
CH	15	Attendance child health 12–59 months male	All individual male children aged 12 months and older that not yet reached 60 months (5 years) of age attending the child health services during the period (usually month) for any service rendered at the facility.	Child Health Tally or Activity sheet	HIA2
CH	20	Attendance child health 12–59 months female	All individual female children aged 12 months and older but that have not reached 60 months (5 years) of age yet attending the child health services during the period (usually month) for any service rendered at the facility.	Child Health Tally or Activity sheet	HIA2
CH	25	Attendance child health total	Sum of all Child Health attendances - sum of data elements CH05 to CH20. GUIDE FOR USE: This data is used to gain an impression of the overall utilisation of the health facility by the community for PHC preventive services.	Calculated	HIA2
CH	30	Attendance child health from outside catchment area	All children visiting the child health services with residential addresses outside the catchment area for the facility regardless the reason for the visit.	Child Health Tally or Activity sheet	HIA2
Growth monitoring and nutrition					
CH	35	Child <5 years weighed	A child who has not yet reached the age of 60 months (5 years) weighed and the weight plotted onto the growth monitoring chart, the patient folder and other relevant recording systems. GUIDE FOR USE: All children under five years should be weighed whenever visiting a facility, but record only fist visit in a month. Subsequent visits (for example follow-up) in the same month should not be recorded for weight on the daily register.	Child Health Tally or Activity sheet	HIA2
CH	40	Not gaining weight <5 years	A child who has not yet reached the age of 60 months (5 years) that has not gained weight compared to the weight recorded at least one month earlier on the growth monitoring chart. GUIDE FOR USE: All children under five years should be weighed when visiting a clinic, but the child should be recorded only ONCE PER MONTH even if they come more frequently (e.g. for a follow-up visit). If the same child continues to show no gain in the third and fourth month, he/she should be counted again even if it is the same episode. This data element is thus NOT an incidence element, but a prevalence element with a once-per-month limitation. (Incidence refers to new cases in a certain period of time while prevalence refers to all the cases at any point in time).	Child Health Tally or Activity sheet	HIA2
CH	45	Weight between 2nd and doted line new case	A child identified as being BELOW the 2nd but EQUAL TO or OVER doted line of Estimated Weight for Age (EWA) on the growth monitoring chart. Include any such child irrespective of the reason for the underweight - malnourishment, premature birth, genetic disorders etc. GUIDE FOR USE: Only count each episode ONCE, do NOT count repeat visits for the same episode (incidence!). A child previously identified as underweight for age that recovered, but who is later found to be underweight again should be counted again (new episode).	Child Health Tally or Activity sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
CH	50	Weight below the doted line new case	A child identified as being BELOW the doted line of Estimated Weight for Age (EWA), EXCLUDING new-born babies. GUIDE FOR USE: Only count each case when encountered for the FIRST time during that episode - the child must NOT be counted again during repeat visits. Since such cases might be referred to a hospital, the referral hospital should NOT count cases referred from e.g. clinics. If a child has recovered , but later reappear with a similar problem, it should be regarded as a separate episode and thus counted. Note that new-born babies should NOT be counted here - low birth weight babies are counted under 'Live birth under 2500g' and so forth	Child Health Tally or Activity sheet	HIA2
CH	55	Vitamin A supplement to 6-11 months infant	Dose of Vitamin A, 100,000 units, given once to infants aged at least 6 months and not yet 12 months of age.	Child Health Tally or Activity sheet	HIA2
CH	60	Vitamin A supplement to 12-59 months child	Vitamin A dose of 200,000 units given to each child every six months from 12 to 60 months of age.	Child Health Tally or Activity sheet	HIA2
CH	65	Mebendazole dose to child 12-59 months	Mebendazole dose given to each child less than 5 years.	Child Health Tally or Activity sheet	HIA2
Immunisation					
CH	70	BCG dose <1 year	BCG (tuberculosis) vaccine given to new-born babies. GUIDE FOR USE: All babies receiving BCG should be counted, including babies coming to clinics after home deliveries and babies that got their BCG later than usual due to e.g. temporary shortages of vaccine, up to 1 year.	Child Health Tally or Activity sheet	HIA2
CH	75	OPV 0 dose	OPV (Poliomyelitis) vaccine dose given to a newborn child (usually together with BCG). GUIDE FOR USE: All babies receiving OPV0 should be counted, including babies coming to clinics after home deliveries and babies that got their OPV0 later than usual due to e.g. temporary shortages of vaccine, up to 1 year.	Child Health Tally or Activity sheet	HIA2
CH	80	OPV 1st dose	OPV (Poliomyelitis) vaccine 1st dose given to a child under one year, preferably around 6 weeks after birth. GUIDE FOR USE: All babies receiving OPV1 should be counted, including babies coming to clinics after home deliveries and babies that got their OPV1 later than usual due to e.g. temporary shortages of vaccine, up to 1 year.	Child Health Tally or Activity sheet	HIA2
CH	85	OPV 2nd dose	OPV (Poliomyelitis) vaccine 2nd dose given to a child under one year, preferably around 10 weeks after birth. GUIDE FOR USE: All babies receiving OPV2 should be counted, including babies coming to clinics after home deliveries and babies that got their OPV2 later than usual due to e.g. temporary shortages of vaccine, up to 1 year.	Child Health Tally or Activity sheet	HIA2
CH	90	OPV 3rd dose	OPV (Poliomyelitis) vaccine 3rd dose given to a child under one year, preferably around 14 weeks after birth. GUIDE FOR USE: All babies receiving OPV3 should be counted, including babies coming to clinics after home deliveries and babies that got their OPV3 later than usual due to e.g. temporary shortages of vaccine, up to 1 year.	Child Health Tally or Activity sheet	HIA2
CH	95	OPV 4th dose	OPV (Poliomyelitis) vaccine 4th dose given to a child under one year, preferably around 18 weeks after birth. GUIDE FOR USE: All babies receiving OPV4 should be counted, including babies coming to clinics after home deliveries and babies that got their OPV4 later than usual due to e.g. temporary shortages of vaccine, up to 1 year.	Child Health Tally or Activity sheet	HIA2
CH	100	DPT-Hib+HepB 1st dose	DTP-Hib+ Hep (Diphtheria/Tetanus/Pertussis-Haemophilus influenza B + Hepatitis B) vaccine 1st dose given to a child under one year - preferably at around 6 weeks after birth. GUIDE FOR USE: All babies receiving DTP-Hib+ Hep 1st dose should be counted, including babies coming to clinics after home deliveries and babies that got their DTP-Hib+ Hep 1st dose later than usual due to e.g. temporary shortages of vaccine, up to 1 year.	Child Health Tally or Activity sheet	HIA2
CH	105	DPT-Hib+HepB 2nd dose	DTP-Hib+ Hep (Diphtheria/Tetanus/Pertussis-Haemophilus influenza B + Hepatitis B) vaccine 2nd dose given to a child under one year - preferably at around 10 weeks after birth. GUIDE FOR USE: All babies receiving DTP-Hib+ Hep 2nd dose should be counted, including babies coming to clinics after home deliveries and babies that got their DTP-Hib+ Hep 2nd dose later than usual due to e.g. temporary shortages of vaccine, up to 1 year.	Child Health Tally or Activity sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
CH	110	DPT-Hib+HepB 3rd dose	DTP-Hib+ Hep (Diphtheria/Tetanus/Pertussis-Haemophilus influenza B + Hepatitis B) vaccine 3rd dose given to a child under one year - preferably at around 14 weeks after birth. GUIDE FOR USE: All babies receiving DTP-Hib+ Hep 3rd dose should be counted, including babies coming to clinics after home deliveries and babies that got their DTP-Hib+ Hep 3rd dose later than usual due to e.g. temporary shortages of vaccine, up to 1 year.	Child Health Tally or Activity sheet	HIA2
CH	115	Measles 1st dose <1 year	Measles vaccine 1st dose given to a child under one year of age (preferably at 9 months after birth). GUIDE FOR USE: All babies receiving Measles1st dose should be counted, including babies coming to clinics after home deliveries and babies that got their Measles 1st dose later than usual due to e.g. temporary shortages of vaccine, up to 1 year. Note that in certain cases, babies may be given two doses of measles, one at 6 months and another after 9 months. In such cases, only the first does is counted.	Child Health Tally or Activity sheet	HIA2
CH	120	Immunised fully <1 year new	A child who have completed his/her primary course of immunisation before the age of one year. A Primary Course includes BCG, OPV 0,1,2 & 3,4, DTP-Hib+Hep and 1st measles dose before 1 year of age. GUIDE FOR USE: The child should only be counted ONCE as fully immunised when receiving the last vaccine in the course - usually the 1st measles immunisation - AND there is documentary proof of all required vaccines (e.g. on the growth monitoring chart).	Child Health Tally or Activity sheet	HIA2
CH	125	Number of days fridge non-functional	Record the number of days the fridge was non-functional in the reporting period (usually a month). GUIDE FOR USE: Improving the immunisation coverage requires a functional fridge 100% of the time. A daily temperature chart is used to record the temperature manually. This should therefore note when the fridge is no longer functional for whatever reason.	Fridge Temperature Chart	HIA2
Reproductive Health - Safe Motherhood					
ANC Utilisation					
RH	5	Antenatal 1st visit before 20 weeks	A first visit by a pregnant woman to a health facility for the primary purpose of receiving antenatal care, often referred to as a `booking visit`, that occur before 20 weeks after conception. The actual protocol followed during the visit might vary, but it should include relevant screening procedures, laboratory tests (e.g. for syphilis), and counselling / health promotion (the latter often done in groups). GUIDE FOR USE: A visit purely to take a pregnancy test should NOT be counted as a first antenatal visit.	SMH-Antenatal Care Tally or Activity	HIA2
RH	10	Antenatal 1st visit 20 weeks or later	A first visit by a pregnant woman to a health facility for the primary purpose of receiving antenatal care, often referred to as a `booking visit`, that occur at 20 weeks after conception or later. The actual protocol followed during the visit might vary, but it should include relevant screening procedures, laboratory tests (e.g. for syphilis), and counselling / health promotion (the latter often done in groups). GUIDE FOR USE: A visit purely to take a pregnancy test should NOT be counted as a first antenatal visit.	SMH-Antenatal Care Tally or Activity	HIA2
RH	15	Antenatal 1st visits total	Sum of fist antenatal visits (sum RH5+RH10).	Calculated	HIA2
RH	20	Antenatal 1st visit by woman <18 years	A first visit by a pregnant woman less that 18 years old to a health facility for the primary purpose of receiving antenatal care, often referred to as a 'booking visit', The actual protocol followed during the visit might vary, but it should include relevant screening procedures, laboratory tests (e.g. for syphilis), and counselling / health promotion (the latter often done in groups).	SMH-Antenatal Care Tally or Activity	HIA2
RH	25	Antenatal follow up visit	Any antenatal visit other than a first antenatal visit. GUIDE FOR USE: Count any follow-up antenatal visit, whether the woman is receiving other services (e.g. curative) or not.	SMH-Antenatal Care Tally or Activity	HIA2
RH	30	Antenatal total visits	Sum of antenatal first visits total (RH15) and antenatal follow-up visits (RH25).	Calculated	HIA2

Code		Data Element	Definition	Source of data	HIA
RH	35	Attendance antenatal from outside catchment area	All antenatal clients visiting the facility with residential addresses outside the catchment area for the facility regardless the reason for the visit.	SMH-Antenatal Care Tally or Activity	HIA2
ANC Screening					
RH	40	Screened for anaemia at first ANC visit	A pregnant woman screened for anaemia at first ANC visit. Ideally this should be done using a Hb meter, but in the absence of Hb meters, clinical screening should be performed. Anaemia is defined as pallor of the palms or conjunctiva, and with haemoglobin < 6 mmol/liter (11 g/dl)	SMH-Antenatal Care Tally or Activity	HIA2
RH	45	Antenatal client tested for syphilis	A pregnant woman who has been tested for syphilis.	SMH-Antenatal Care Tally or Activity	HIA2
RH	50	Antenatal client tested positive for syphilis new case	Any antenatal client diagnosed as having syphilis, normally as a result of a positive blood test. GUIDE FOR USE: Only count the patient once. If the same patient is treated and later re-infected, it should be counted again (new episode).	SMH-Antenatal Care Tally or Activity	HIA2
RH	55	Cervical smear performed	A cervical smear done for screening purposes. Diagnostic smears or repeat smears are NOT included, and the smear must be of sufficient quality to enable screening (e.g. include endo-cervical cells).	SMH-Antenatal Care Tally or Activity	HIA2
RH	60	Screened for breast cancer	Number of woman screened for breast cancer.	SMH-Antenatal Care Tally or Activity	HIA2
ANC Prophylaxis					
RH	65	IPT 1st dose to pregnant woman	Intermittent presumptive treatment for malaria 1st dose provided to a pregnant woman	SMH-Antenatal Care Tally or Activity	HIA2
RH	70	IPT 2nd dose to pregnant woman	Intermittent presumptive treatment for malaria 2nd dose provided to a pregnant woman	SMH-Antenatal Care Tally or Activity	HIA2
RH	75	IPT 3rd dose to pregnant woman	Intermittent presumptive treatment for malaria 3rd dose provided to a pregnant woman	SMH-Antenatal Care Tally or Activity	HIA2
RH	80	ITN provided to pregnant woman at ANC visit	Insecticide treated bed net provided to a pregnant woman	SMH-Antenatal Care Tally or Activity	HIA2
RH	85	Mebendazole dose to pregnant woman	Number of Mebendazole doses given to pregnant women in the reporting period.	SMH-Antenatal Care Tally or Activity	HIA2
RH	90	Ferrous sulphate dose to pregnant woman	Number of Ferrous Sulphate doses given to pregnant women in the reporting period.	SMH-Antenatal Care Tally or Activity	HIA2
RH	95	Folic acid dose to pregnant woman	Number of Folic Acid doses given to pregnant women in the reporting period.	SMH-Antenatal Care Tally or Activity	HIA2

Code		Data Element	Definition	Source of data	HIA
RH	100	Tetanus toxoid 2nd or booster dose to pregnant woman	The second Tet Tox dose given to a pregnant women. Women who have proof of being fully immunised during a previous pregnancy are considered fully immunised after receiving one booster dose of tetanus toxoid during this pregnancy. All others are regarded as fully immunised against Tetanus Toxoid after 2 doses. GUIDE FOR USE: Count the woman only once when she receives either the 2nd dose or the booster dose.	SMH-Antenatal Care Tally or Activity	HIA2
Postnatal Care					
RH	105	Postnatal care within 6 days	The number of female clients that visit a facility for postnatal care within 6 days after delivery.	SMH-Antenatal Care Tally or Activity	HIA2
RH	110	Postnatal care between 6 days to 6 weeks	The number of female clients that visit a facility for postnatal care 6 days to 6 weeks after delivery.	SMH-Antenatal Care Tally or Activity	HIA2
RH	115	Postnatal visits total	Sum of Postnatal visit within 6 days and postnatal visits between 6 days and 6 weeks (RH105 + RH110)	Calculated	HIA2
RH	120	Vitamin A supplement to woman within 8 weeks after delivery	The number of Vitamin A doses, 200,000 units, given to women within 8 weeks after delivery. GUIDE FOR USE: Each newly delivered mother should receive a single dose of 200,000 units of Vitamin A, preferably immediately after delivery and not later than 8 weeks after delivery.	SMH-Antenatal Care Tally or Activity	HIA2
RH	125	Attendance safe motherhood total	All individual patients attending safe motherhood services in the facility in the reporting person (usually one month). This includes all antenatal visits and post natal visits. Sum of data elements RH30 + RH115. GUIDE FOR USE: This data is used to gain an impression of the overall utilisation of the health facility by the community for PHC preventive services.	Calculated	HIA2
Reproductive Health - Family Planning					
FP Utilisation					
RH	130	Attendance family planning	Number of clients attending the family planning service at the facility in the reporting period (usually a month). GUIDE FOR USE: This would include patients attending to receive a family planning method, or any other attendance related to family planning (e.g. a problem related to the family planning method). This data is used to gain an impression of the overall utilisation of the health facility by the community for PHC preventive services.	RH-Family Planning Tally or Activity	HIA2
FP Methods					
RH	135	Condoms	The number of condoms distributed to a patient who is sexually active. GUIDE FOR USE: Count each condom issued. CONTEXT: This data element forms part of the input into the Women Year Protection Rate (WYPR - excludes sterilisations and vasectomies) and Couple Year Protection Rate (CYPR - includes sterilisations and vasectomies) indicators. While it is always difficult to gain acceptance on an estimate of the number of condoms that would provide complete protection for a year, for they purposes of calculating the WYPR and the CYPR indicators we use 200 condoms as an estimate of the number required to provide protection for a year.	RH-Family Planning Tally or Activity	HIA2
RH	140	Oral pill cycle	A packet (cycle) of oral contraceptives issued to a woman between 15 and 45 years, each containing pills for one cycle (28 days). GUIDE FOR USE: Count each packet issued. This would normally range from around 3 given to e.g. new/young users that need closer monitoring for side effects and up to 6 given to older women that have used pills for many years without known side-effects. CONTEXT: This data element forms part of the input into the Women Year Protection Rate (WYPR - excludes sterilisations and vasectomies) and Couple Year Protection Rate (CYPR - includes sterilisations and vasectomies) indicators. A woman needs 13 oral pill packets to be fully protected for one year.	RH-Family Planning Tally or Activity	HIA2

Code		Data Element	Definition	Source of data	HIA
RH	145	Medroxyprogesterone injection	Medroxyprogesterone acetate (Depo Provera / Petogen) injection given to a woman between 15 and 45 years. This injection provides contraceptive protection for 3 months. CONTEXT: This data element forms part of the input into the Women Year Protection Rate (WYPR - excludes sterilisations and vasectomies) and Couple Year Protection Rate (CYPR - includes sterilisations and vasectomies) indicators. Lasting three months, a woman needs 4 Medroxyprogesterone injections to be fully protected against pregnancy for one year.	RH-Family Planning Tally or Activity	HIA2
RH	150	Norethisterone enanthate injection	Any Norethisterone enanthate (Nuristerate) injection given to a woman. This injection provides contraceptive protection for 2 months. CONTEXT: This data element forms part of the input into the Women Year Protection Rate (WYPR - excludes sterilisations and vasectomies) and Couple Year Protection Rate (CYPR - includes sterilisations and vasectomies) indicators. Lasting two months, a woman needs 6 Norethisterone enanthate injections to be fully protected against pregnancy for one year.	RH-Family Planning Tally or Activity	HIA2
RH	155	Implant	Any hormonal implant given to a woman. This injection provides contraceptive protection for 5 years. CONTEXT: This data element forms part of the input into the Women Year Protection Rate (WYPR - excludes sterilisations and vasectomies) and Couple Year Protection Rate (CYPR - includes sterilisations and vasectomies) indicators. Lasting 5 years, 1 implant enables a woman to be fully protected against pregnancy for five years.	RH-Family Planning Tally or Activity	HIA2
RH	160	IUCD inserted	Intra Uterine Contraceptive Device (IUCD) inserted into a woman, providing protection for 10 years. CONTEXT: This parameter forms part of the input into the Woman/Couple Year Protection Rate (WYPR/CYPR) indicators. An IUCD will provide protection for a woman for around 10 years (the difference between the two indicators is that CYPR includes sterilisations).	RH-Family Planning Tally or Activity	HIA2
RH	165	Sterilisation - female	Any planned operative procedure that results in a woman being sterilised. GUIDE FOR USE: Count each case only in the facility where the operation is actually performed. CONTEXT: This parameter forms part of the input into the Couple Year Protection Rate (CYPR) indicator. Each sterilisation is on average equivalent to 10 years of being fully protected against pregnancy.	RH-Family Planning Tally or Activity	HIA2
RH	170	Sterilisation - male	Any planned operative procedure that results in a man being sterilised (also called vasectomy). GUIDE FOR USE: Count each case only in the facility where the operation is actually performed. CONTEXT: This parameter forms part of the input into the Couple Year Protection Rate (CYPR) indicator. Each sterilisation is on average equivalent to 10 years of being fully protected against pregnancy.	RH-Family Planning Tally or Activity	HIA2
Reproductive Health - Obstetric care					
Deliveries					
RH	175	Normal deliveries in facility	A normal delivery in facility is a vaginal delivery, taking place in a health facility under the supervision of skilled, trained medical/nursing staff or trained TBA's. GUIDE FOR USE: Do NOT include deliveries taking place before arrival at the facility (BBAs) or home deliveries.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	180	Assisted deliveries in facility	An assisted delivery in facility is a vaginal delivery e.g. breech, face, brow using an instrument, including forceps, rotations, and vacuum extractions, taking place in a health facility under the supervision of skilled, or trained medical/nursing staff. GUIDE FOR USE: Multiple delivery where at least one delivery was assisted should be counted as an assisted delivery.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	185	Caesarean section	A Caesarean Section delivery in facility is the removal of the foetus, placenta and membranes by means of an incision through the abdominal and uterine walls - obviously only done in health facilities by doctors.	SMH-Obstetric Tally or Activity sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
RH	190	Institutional deliveries total	Sum of normal, assisted and caesarean section deliveries (Sum RH175 to 185)	Calculated	HIA2
Delivery Supervision					
RH	195	Deliveries by skilled personnel	Deliveries conducted by registered midwives and doctors in facility.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	200	Deliveries by trained personnel	Deliveries conducted in a health facility by nurses and clinical officers.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	205	Deliveries in facility by trained TBA's	Deliveries done by trained TBA's.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	210	Home delivery by any TBA's	Number of deliveries done by TBA's outside of health facilities.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	215	Supervised deliveries total	The sum of all supervised deliveries - the sum of data elements RH195 to RH210.	Calculated	HIA2
Delivery Complications					
RH	220	Delivery complications - obstructed labour	Number of deliveries with complications as a result of obstructed labour and depicted in the partogram through prolonged labour, or requiring intervention through the use of ventouse or caesarean section.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	225	Delivery complications - hypertensive disorders	Number of deliveries with complications as a result of hypertensive disorders (hypertension, eclampsia, or pre-eclampsia).	SMH-Obstetric Tally or Activity sheet	HIA2
RH	230	Delivery complications - haemorrhage	Number of deliveries with complications as a result of blood loss in excess of 500ml.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	235	Delivery complications - ruptured uterus	Number of deliveries with complications as a result of ruptured uterus.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	240	Delivery complications - retained placenta	Number of deliveries with complications as a result of retained placenta.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	245	Pregnancy complications - abortion	Number of pregnancies and deliveries before 24 weeks ending in abortion.	OPD tally sheet	HIA2
RH	250	Delivery complications - sepsis	Number of deliveries with complications as a result of sepsis either during labour, or the post partum period (up to 6 weeks post delivery).	OPD tally sheet	HIA2
RH	255	Women with obstetric fistula new	Number of woman with obstetric fistulas	OPD tally sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
RH	260	Delivery Complications Total	Sum of all delivery complications (sum of data elements RH220 to RH255).	Calculated	HIA2
RH	265	Maternal deaths in facility	Death occurring during delivery, or within 6 weeks (42 days) after delivery of complications related to the pregnancy or the delivery.	SMH-Obstetric Tally or Activity sheet	HIA2
Reproductive Health - Neonatal care					
RH	270	Live birth in facility under 2500g	Live birth in facility where the baby weighs less than 2500g immediately after delivery. Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of involuntary muscles, whether or not the umbilical cord has been cut or the placenta is attached.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	275	Live birth in facility over 2500g	Live birth in facility where the baby weighs 2500g or more immediately after delivery. Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of involuntary muscles, whether or not the umbilical cord has been cut or the placenta is attached.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	280	Live births total	Sum of live births under 2500 gram and those over 2500 grams (Sum of data elements RH270 + RH275).	Calculated	HIA2
RH	285	Macerated still birth in facility	Still birth resulting from a delivery in a facility under supervision, where the still-born foetus have been dead for a while (macerated) when extracted from its mother. Still birth is death prior to the complete expulsion or extraction from its mother of a product of conception; the death is indicated by the fact that after such separation the foetus does not breathe or show any evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of the involuntary muscles. Still births should only be counted when the foetus is of 26 or more weeks gestational age and/or weighs 500g or more.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	290	Fresh still birth in facility	Still birth resulting from a delivery in a facility under supervision, where the still-born foetus died just before or during expulsion or extraction (fresh) from its mother. Still birth is death prior to the complete expulsion or extraction from its mother of a product of conception; the death is indicated by the fact that after such separation the foetus does not breathe or show any evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of the involuntary muscles. Still births should only be counted when the foetus is of 26 or more weeks gestational age and/or weighs 500g or more.	SMH-Obstetric Tally or Activity sheet	HIA2
RH	295	Still birth in facility total	Sum of macerated and fresh still births in facility (Sum of data elements RH285 + RH290).	Calculated	HIA2
RH	300	Inpatient death early neonatal	An early neonatal death is a death to a live born baby within 7 completed days after birth. GUIDE FOR USE: Only count babies whose mother was admitted, or the babies themselves having been admitted. Do NOT count babies that died outside of the facility.	Neonatal ward register	HIA2
RH	305	Inpatient death late neonatal	A late neonatal death is a death to a live born baby between 8 and 28 completed days after birth. GUIDE FOR USE: Only count babies whose mother was admitted, or the babies themselves having been admitted. Do NOT count babies that died outside of the facility.	Neonatal ward register	HIA2
RH	310	Neonatal deaths total	Sum of early and late neonatal deaths (Sum of data elements RH300 + RH305).	Calculated	HIA2
HIV-AIDS - Counselling and Testing					
CT Attendance				SmartCare data also provides HIV data	HIA2

Code		Data Element	Definition	Source of data	HIA
HIV	5	Pre-test counselled for HIV (excl ANC)	Any HIV pre-test counselling of a patient/client (any age) excluding antenatal/labour patients/clients . In a hospital setting, this can be an in-patient or out-patient. A couple counselling is counted as 2 since two clients were counselled. Otherwise, group sessions are not counted (regarded as educational rather than counselling). Includes clients referred from other units within the facility. VCT_PMTCT programme data element number 12.1.1	HIV-CT Tally or Activity sheet	HIA2
HIV	10	Follow up psycho-social counselling	A client was tested for HIV after counselling, received results but requires additional counselling	HIV-CT Tally or Activity sheet	HIA2
HIV	15	Attendance CT total	The number of clients attending the VCT service in the facility in the reporting period (usually a month) for any of the VCT services. Note that this is not just the sum of data element HIV5 and HIV10, but would also include attendances for follow-up for testing and results. GUIDE FOR USE: This data is used to gain an impression of the overall utilisation of the health facility by the community for PHC preventive services, and to provide an indication of the workload related to VCT services	HIV-CT Tally or Activity sheet	HIA2
CT Testing					
HIV	20	HIV test 0-14 years male	A male client aged 0-14 years that was tested for HIV. Test does not refer to every test conducted (for example each rapid test used) but the whole test algorithm conducted is counted as 1client tested. GUIDE FOR USE: Counted only on the day on which the initial test was done. Any follow-up or confirmation test should not be included. VCT_PMTCT programme data element number 12.2.1.1	HIV-CT Tally or Activity sheet	HIA2
HIV	25	HIV test 0-14 years female (excl ANC)	A female client aged 0-14 years that was tested for HIV, excluding clients that were counted under ANC. Test does not refer to every test conducted (for example each rapid test used) but the whole test algorithm conducted is counted as 1client tested. GUIDE FOR USE: Counted only on the day on which the initial test was done. Any follow-up or confirmation test should not be included. VCT_PMTCT programme data element number 12.2.1.3	HIV-CT Tally or Activity sheet	HIA2
HIV	30	HIV test >14 years male	A male client aged over 14 years that was tested for HIV. Test does not refer to every test conducted (for example each rapid test used) but the whole test algorithm conducted is counted as 1client tested. GUIDE FOR USE: Counted only on the day on which the initial test was done. Any follow-up or confirmation test should not be included. VCT_PMTCT programme data element number 12.2.1.2	HIV-CT Tally or Activity sheet	HIA2
HIV	35	HIV test >14 years female (excl ANC)	A female client aged over 14 years that was tested for HIV, excluding clients that were counted under ANC. Test does not refer to every test conducted (for example each rapid test used) but the whole test algorithm conducted is counted as 1client tested. GUIDE FOR USE: Counted only on the day on which the initial test was done. Any follow-up or confirmation test should not be included. VCT_PMTCT programme data element number 12.2.1.4	HIV-CT Tally or Activity sheet	HIA2
HIV	40	HIV test total (excl ANC)	The sum of all clients tested for HIV. This is the sum of data elements HIV20 to HIV35. The total does not refer to every test conducted (for example each rapid test used) but the whole test algorithm conducted is counted as 1client tested. GUIDE FOR USE: Counted only on the day on which the initial test was done. Any follow-up or confirmation test should not be included. VCT_PMTCT programme data element number 12.2.1.5	Calculated	HIA2
CT Positive Results					
HIV	45	HIV test positive <12 months male	A male client aged <12 months that was tested for HIV and received a HIV positive result for the first time. GUIDE FOR USE: Counted only on the day on which a positive HIV result was obtained. Any follow-up visits should not be added here.	HIV-CT Tally or Activity sheet	HIA2
HIV	46	HIV test positive <12 months female	A female client aged <12 months that was tested for HIV and received a HIV positive result for the first time, excluding clients that were counted under ANC. GUIDE FOR USE: Counted only on the day on which a positive HIV result was obtained. Any follow-up visits should not be added here.	HIV-CT Tally or Activity sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
HIV	50	HIV test positive 12 - 59 months male	A male client aged 12 -59 months male that was tested for HIV and received a HIV positive result for the first time, excluding clients that were counted under ANC. GUIDE FOR USE: Counted only on the day on which a positive HIV result was obtained. Any follow-up visits should not be added here.	HIV-CT Tally or Activity sheet	HIA2
HIV	51	HIV test positive 12 - 59 months female	A female client 12 -59 months male that was tested for HIV and received a HIV positive result for the first time, excluding clients that were counted under ANC. GUIDE FOR USE: Counted only on the day on which a positive HIV result was obtained. Any follow-up visits should not be added here.	HIV-CT Tally or Activity sheet	HIA2
HIV	55	HIV test positive >14 years male	A male client aged over 14 years that was tested for HIV and received a HIV positive result for the first time. GUIDE FOR USE: Counted only on the day on which a positive HIV result was obtained. Any follow-up visits should not be added here. VCT_PMTCT programme data element number 12.4.2	HIV-CT Tally or Activity sheet	HIA2
HIV	60	HIV test positive >14 years female (excl ANC)	A female client aged over 14 years that was tested for HIV and received a HIV positive result for the first time, excluding clients that were counted under ANC. GUIDE FOR USE: Counted only on the day on which a positive HIV result was obtained. Any follow-up visits should not be added here. VCT_PMTCT programme data element number 12.4.4	HIV-CT Tally or Activity sheet	HIA2
HIV	65	HIV test positive total (excl ANC)	The sum of all clients tested for HIV and receiving a HIV positive result for the first time, excluding clients that were counted under ANC. This is the sum of data elements HIV45 to HIV60. GUIDE FOR USE: Counted only on the day on which a positive HIV result was obtained. Any follow-up visits should not be added here. VCT_PMTCT programme data element number 12.4.7	Calculated	HIA2
HIV	70	Client collecting results 0-14 years	A client aged 0-14 years that was tested for HIV and received a HIV positive result for the first time, excluding clients that were counted under ANC. GUIDE FOR USE: Counted only on the day on which a positive HIV result was obtained. Any follow-up visits should not be added here. VCT_PMTCT programme data element number 12.3.2	HIV-CT Tally or Activity sheet	HIA2
HIV	72	Client collecting results > 14 years	A client aged > 14 years that was tested for HIV and received a HIV positive result for the first time, excluding clients that were counted under ANC. GUIDE FOR USE: Counted only on the day on which a positive HIV result was obtained. Any follow-up visits should not be added here. VCT_PMTCT programme data element number 12.3.2	HIV-CT Tally or Activity sheet	HIA2
HIV	75	Referred for pre ART from CT	A client that was tested for HIV and received a HIV positive result, and was referred to ART for assessment and initiation of therapy.	HIV-CT Tally or Activity sheet	HIA2
HIV-AIDS - PMTCT					
PMTCT Counselling and Testing					
HIV	80	Pre-test counselling at 1st antenatal visit	Number of women presenting for 1st antenatal visits that receive pre test counselling. GUIDE FOR USE: All women presenting for antenatal care should receive pre test counselling. VCT_PMTCT programme data element number 1.5.1.1.	HIV-CT Tally or Activity sheet	HIA2
HIV	85	Pre-test counselling at follow-up antenatal visit	Number of women presenting for follow-up antenatal visits that receive pre test counselling. GUIDE FOR USE: All women presenting for antenatal care should receive pre test counselling.	HIV-CT Tally or Activity sheet	HIA2
HIV	90	Antenatal client with known HIV status	Antenatal Clients who already know their HIV status and may or may not be on ART	HIV-CT Tally or Activity sheet	HIA2
HIV	95	Antenatal client tested HIV positive new case	Number of confirmed HIV positive test result of an antenatal patient/client. GUIDE FOR USE: Counted only on the day the test result was positive. Any follow-up visits should not be included. VCT_PMTCT programme data element number 1.5.1.2.3	HIV-CT Tally or Activity sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
HIV	97	Antenatal client collecting HIV test results	Number of tested antenatal clients collecting results. GUIDE FOR USE: Counted only when the client collects results	HIV-CT Tally or Activity sheet	HIA2
HIV	100	Antenatal client's male partner counselled	Number of women presenting for 1st antenatal visits whose male partners receive pre test counselling.	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	105	Antenatal client's male partner tested for HIV	HIV testing of an antenatal/labour patient's partner.	HIV-PMTCT Tally or Activity sheet	HIA2
PMTCT Post test services					
HIV	110	Referred for preART from PMTCT	Any HIV positive patient referred to an ART service point for ART assessment (medical eligibility and/or treatment readiness) for the first time from PMTCT. The patient has not yet started ART; transfers-in from other ART service points or from non-public sector of patients who are already on ART are therefore not counted.	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	115	Opting for 6 months exclusive breast feeding at 1st visit	This data element measures the proportion of women in the PMTCT program who opt for EBF for 6 months as a primary food source for the baby. GUIDE FOR USE: All women in the PMTCT program have two (2) Options when it comes to infant feeding; a woman either opts for replacement feeding or exclusive breast feeding for 6 months. This is a subset of the number for HIV positive mothers who swallowed NVP at the onset of labour. VCT_PMTCT programme data element number 1.5.2.5	HIV-PMTCT Tally or Activity sheet	HIA2
PMTCT Prophylaxis					
HIV	120	Live birth HIV exposed	The number of Live births to women who are HIV positive, including BBAs. GUIDE FOR USE: Count all live births including BBAs to women with known HIV positive status, whether the mother and/or baby received ARV prophylaxis (PMTCT) or not. VCT_PMTCT programme data element number 1.5.3.3	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	125	ARV prophylaxis mono therapy to woman	Prophylactic ARV mono therapy that was dispensed to a pregnant woman at antenatal to prevent HIV transmission from mother to newborn.	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	130	ARV prophylaxis dual therapy to woman	Prophylactic ARV dual therapy that was dispensed to a pregnant woman at antenatal to prevent HIV transmission from mother to newborn.	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	132	ARV prophylaxis triple therapy to woman	Prophylactic ARV triple therapy that was dispensed to a pregnant woman at antenatal to prevent HIV transmission from mother to newborn.	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	135	ARV prophylaxis mono therapy to baby	The number of new born babies - born from HIV positive women - who received mono prophylactic ARV treatment after birth to prevent HIV transmission from mother to newborn. GUIDE FOR USE: All new born babies of known HIV positive women should receive prophylactic ARV treatment within 72 hours after birth. Babies not delivered in a health facility (BBAs and home deliveries), but brought to the health facility should be given prophylactic ARV treatment within 72 hours after delivery. Such cases should also be counted. VCT_PMTCT programme data element number 1.5.4.3	HIV-PMTCT Tally or Activity sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
HIV	136	ARV prophylaxis dual therapy to baby	The number of new born babies - born from HIV positive women - who received dual prophylactic ARV treatment after birth to prevent HIV transmission from mother to newborn. GUIDE FOR USE: All new born babies of known HIV positive women should receive prophylactic ARV treatment within 72 hours after birth. Babies not delivered in a health facility (BBAs and home deliveries), but brought to the health facility should be given prophylactic ARV treatment within 72 hours after delivery. Such cases should also be counted. VCT_PMTCT programme data element number 1.5.4.3	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	140	Cotrimoxazole treatment to baby within two months	Cotrimoxazole treatment initiated to an HIV positive baby within two months of birth, in order to prevent opportunistic infections.	HIV-PMTCT Tally or Activity sheet	HIA2
PMTCT Follow-up					
HIV	145	Live birth HIV exposed 1 month ago	The number of live births to women with HIV that was reported 1 month ago. The source of this data element should be the number reported for the data element "Live birth to woman with HIV total" on the HIA form 1 month ago. GUIDE FOR USE: This is used together with the data element HIV test to HIC exposed baby at 6 weeks to determine the percentage of HIV exposed babies that are tested for HIV.	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	150	Live birth HIV exposed 12 months ago	The number of live births to women with HIV that was reported 12 months ago. The source of this data element should be the number reported for the data element "Live birth to woman with HIV total" on the HIA form 12 months ago. GUIDE FOR USE: This is used together with the data element HIV test to HIC exposed baby at 12 months to determine the percentage of HIV exposed babies that are tested for HIV.	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	155	Live birth HIV exposed 18 months ago	The number of live births to women with HIV that was reported 18 months ago. The source of this data element should be the number reported for the data element "Live birth to woman with HIV total" on the HIA form 18 months ago. GUIDE FOR USE: This is used together with the data element HIV test to HIC exposed baby at 18 months to determine the percentage of HIV exposed babies that are tested for HIV.	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	160	HIV test to HIV exposed baby at 6 weeks	The number of babies born to HIV positive women who were tested for HIV the first time at 6 weeks. GUIDE FOR USE: Note that this data element is not the same as that in the VCT_PMTCT programme 1.5.5.2 (the latter includes babies tested at 6 weeks, 12 months and 18 months, while this data element is for those tested at 6 weeks only).	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	165	HIV test to HIV exposed baby at 12 months	The number of babies born to HIV positive women who were tested for HIV at 12 months. GUIDE FOR USE: Note that this data element is not the same as that in the VCT_PMTCT programme 1.5.5.2 (the latter includes babies tested at 6 weeks, 12 months and 18 months, while this data element is for those tested at 6 weeks only).	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	170	HIV test to HIV exposed baby at 18 months	The number of babies born to HIV positive women who were tested for HIV at 18 months. GUIDE FOR USE: Note that this data element is not the same as that in the VCT_PMTCT programme 1.5.5.2 (the latter includes babies tested at 6 weeks, 12 months and 18 months, while this data element is for those tested at 6 weeks only).	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	175	HIV test of HIV exposed baby at 6 weeks positive new	The number of babies tested for HIV at 6 weeks and found to be HIV positive for the first time. GUIDE FOR USE: Note that this data element is not the same as that in the VCT_PMTCT programme 1.5.5.3 (the latter includes babies testing positive at 6 weeks, 12 months and 18 months, while this data element is for those testing positive at 6 weeks only).	HIV-PMTCT Tally or Activity sheet	HIA2
HIV	180	HIV test of HIV exposed baby at 12 months positive new	The number of babies tested for HIV at 12 months and found to be HIV positive for the first time (test at 6 weeks was negative). GUIDE FOR USE: Note that this data element is not the same as that in the VCT_PMTCT programme 1.5.5.3 (the latter includes babies testing positive at 6 weeks, 12 months and 18 months, while this data element is for those testing positive at 12 months only).	HIV-PMTCT Tally or Activity sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
HIV	185	HIV test of HIV exposed baby at 18 months positive new	The number of babies tested for HIV at 18 months and found to be HIV positive for the first time (test at 12 months was negative). GUIDE FOR USE: Note that this data element is not the same as that in the VCT_PMTCT programme 1.5.5.3 (the latter includes babies testing positive at 6 weeks, 12 months and 18 months, while this data element is for those testing positive at 6 weeks only).	HIV-PMTCT Tally or Activity sheet	HIA2
HIV-AIDS ART					
Registration at preART					
HIV	190	Pre ART registration from Counselling and Testing	Number of ART patients registering for ART for the first time who have been referred from CT services. GUIDE FOR USE: This data element is to be used in conjunction with the data element "Referred for pre ART from CT" to assess the percentage of referred patients that actually register for preART. This is the same as ART programme data element 11.1.1.6	HIV-ART Tally or Activity sheet	HIA2
HIV	195	Pre ART registration from PMTCT	Number of ART patients registering for ART for the first time having been referred from PMTCT services. GUIDE FOR USE: This data element is to be used in conjunction with the data element "Referred for pre ART from PMTCT" to assess the percentage of referred patients that actually register for preART. This is the same as ART programme data element 11.1.2.6	HIV-ART Tally or Activity sheet	HIA2
HIV	200	Pre ART registration from TB	Number of ART patients registering for ART for the first time having been referred from TB. GUIDE FOR USE: This data element is to be used in conjunction with the data element "Referred for pre ART from TB" to assess the percentage of referred patients that actually register for preART. This is the same as ART programme data element 11.1.4.6	HIV-ART Tally or Activity sheet	HIA2
HIV	205	Pre ART registration from other sources	Number of ART patients registering for ART for the first time having been referred from any other sources such as STI and Under 5 Clinic, hospitals, and OPD services, etc. This is not the same as the ART programme data element 11.1.8.6 as that excludes OPD patients and in-patients.	HIV-ART Tally or Activity sheet	HIA2
HIV	210	Pre ART registration total new case	The total number of patients registering for preART from all sources for the first time. This is the sum of data elements HIV190 to HIV205. GUIDE FOR USE: Patients registering for preART services will be referred from VCT, PMTCT, TB, and other sources than the ones listed. The number registered should be similar to the number referred (or at least more than the total referred), otherwise patients are going missing between their referral, and their registration. This is the same as ART programme data element 11.1.9.6 (which refers to patients enrolled for preART services).	Calculated	HIA2
HIV	215	Patients eligible for ART new case	Any HIV positive patients registered at an ART service point who starts ART. GUIDE FOR USE: This is the ART programme data element 11.2.1.6	HIV-ART Tally or Activity sheet	HIA2
ART Treatment					
HIV	220	ART initiated <12 months male	The number of patients who initiate ART treatment in the month and who are under one year old and male.	HIV-ART Tally or Activity sheet	HIA2
HIV	225	ART initiated <12 months female	The number of patients who initiate ART treatment in the month and who are under one year old and female.	HIV-ART Tally or Activity sheet	HIA2
HIV	230	ART initiated 12–59 months male	The number of patients who initiate ART treatment in the month and who are between one and five years old and male.	HIV-ART Tally or Activity sheet	HIA2
HIV	235	ART initiated 12–59 months female	The number of patients who initiate ART treatment in the month and who are between one and five years old and female.	HIV-ART Tally or Activity sheet	HIA2
HIV	240	ART initiated 5-14 years male	The number of patients who initiate ART treatment in the month and who are between five and fourteen years old and male.	HIV-ART Tally or Activity sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
HIV	245	ART initiated 5-14 years female	The number of patients who initiate ART treatment in the month and who are between five and fourteen years old and female.	HIV-ART Tally or Activity sheet	HIA2
HIV	250	ART initiated >14 years male	The number of patients who initiate ART treatment in the month and who are over fourteen years old and male. This is the same as the ART programme data element 11.2.4.3	HIV-ART Tally or Activity sheet	HIA2
HIV	255	ART initiated >14 years female	The number of patients who initiate ART treatment in the month and who are over fourteen years old and female. This is the sum of the ART programme data element 11.2.4.4 and 11.2.4.5.	HIV-ART Tally or Activity sheet	HIA2
HIV	260	ART initiated total new cases	The sum of data elements HIV 220 to HIV255 (the total patients in whom ART was initiated this month for the first time). This is the same as the ART programme data element 11.2.4.6	Calculated	HIA2
HIV	265	Cumulative ART initiated in this clinic 0–14 years	The total number of patients , 14 years old who were started on ART in the facility ever since inception of the ART programme regardless of the current status (dead, still on, transfer out, lost to follow up, stopped). It should not include transferred in. GUIDE FOR USE: It is used to calculate the percentage coverage against set targets. Targets are set as the number of patients that must access ART within the geographic area. The first month of data capture will require the opening balance (count to date) into the DHIS and in subsequent months to this will be added “ART initiated total new cases” every period.	Calculated	HIA2
HIV	267	Cumulative ART initiated in this clinic >14 years	The total number of patients over 14 yearswho were started on ART in the facility ever since inception of the ART programme regardless of the current status (dead, still on, transfer out, lost to follow up, stopped). It should not include transferred in. GUIDE FOR USE: It is used to calculate the percentage coverage against set targets. Targets are set as the number of patients that must access ART within the geographic area. The first month of data capture will require the opening balance (count to date) into the DHIS and in subsequent months to this will be added “ART initiated total new cases” every period.	Calculated	HIA2
HIV	270	ART initiated in pregnant women	The number of patients who initiate ART treatment in the month and who are pregnant. GUIDE FOR USE: Note that these patients will also be counted in data elements HIV235 and HIV245. This is the same as the ART programme data element 11.2.4.5	HIV-ART Tally or Activity sheet	HIA2
HIV	275	ART initiated in TB HIV positive patient	This is the number of TB patients who are HIV positive, and who are started on ART. GUIDE FOR USE: The number should be similar to the data element TB HIV positive patient referred for ART.	HIV-ART Tally or Activity sheet	HIA2
HIV	280	ART follow-up	Any HIV positive patient attending an ART service point for repeat of his/her ART medication. This is the count of patients who attend the clinic on a regular basis (usually at least monthly) to collect ART medication. If they return more frequently than monthly to collect medication or for other reasons they should only be counted on the first visit in that month when they receive medication. GUIDE FOR USE: This is used to gain an assessment of the attendance by HIV positive patients for ART medication. It should be a value similar to the sum of last months value, plus new patients initiating treatment last month (ART treatment initiated total), minus those who have died or been admitted.	HIV-ART Tally or Activity sheet	HIA2
HIV	285	ART currently on therapy 0-14 years	Any HIV positive patient 0-14 years old attending an ART service point for initiation of ART or repeat of his/her ART medication. This is the count of patients who attend the facility to collect ART medication (or who were given medication previously for this month). If they return more frequently than monthly to collect medication or for other reasons they should only be counted on the first visit in that month when they receive medication. GUIDE FOR USE: This is used to gain an assessment of the HIV positive patients who are taking ART medication. It should be a value similar to the sum of last months value, plus new patients initiating treatment last month (ART treatment initiated total) plus new transfers in, minus those who have died or been admitted or transferred out.	ART Cohort Tracking Tool	HIA2

Code		Data Element	Definition	Source of data	HIA
HIV	287	ART currently on therapy >14 years	Any HIV positive patient >14 years old attending an ART service point for initiation of ART or repeat of his/her ART medication. This is the count of patients who attend the facility to collect ART medication (or who were given medication previously for this month). If they return more frequently than monthly to collect medication or for other reasons they should only be counted on the first visit in that month when they receive medication. GUIDE FOR USE: This is used to gain an assessment of the HIV positive patients who are taking ART medication. It should be a value similar to the sum of last months value, plus new patients initiating treatment last month (ART treatment initiated total) plus new transfers in, minus those who have died or been admitted or transferred out.	ART Cohort Tracking Tool	HIA2
HIV	290	Attendance ART total	Number of clients attending the ART service in the facility in the reporting period (usually a month). This is the sum of "Pre ART registration total new cases" plus "ART treatment total" (Sum of data elements ART210 + ART285). GUIDE FOR USE: This data is used to gain an impression of the overall utilisation of the health facility by the community for curative services.	Calculated	HIA2
ART Outcomes					
HIV	295	ART initiated 12 months ago	Total number of patients reported to start ART treatment 12 months ago. GUIDE FOR USE: The source of the data element should be number that was reported on the HIA 12 months ago for the data element "Patients on ART (new case)". This is the same as the ART programme data element 11.7.9.2	HIV-ART Tally or Activity sheet	HIA2
HIV	300	Original 1st Line ART at 12 months	Number of ART patients visiting the ART site this month who have been on the original 1st line ART therapy for 12 months. GUIDE FOR USE: This is the first year anniversary of 1st line therapy. This is the same as the ART programme data element 11.7.1.2	ART Cohort Tracking Tool	HIA2
HIV	302	On 1st line ART after 12 months	Number of ART patients visiting the ART site who have been on therapy for 12 months and are still on 1st line ART therapy. GUIDE FOR USE: Note that this is not the same data element as data element HIV300, which refers to the "original 1st line therapy".	ART Cohort Tracking Tool	HIA2
HIV	303	Switched to 2nd line ART at 12 months	Number of ART patients visiting the ART site who have been on therapy for 12 months and who during the period were switched to 2nd line ART therapy. GUIDE FOR USE: Measured at the firts year anniversary of ARTH therapy.	ART Cohort Tracking Tool	HIA2
HIV	305	Alive and on ART at 12 months	Patients that are alive after 12 months on ARV treatment. GUIDE FOR USE: This is a data element used in a cohort analysis. It is the same as the ART programme data element 11.7.8.2	ART Cohort Tracking Tool	HIA2
HIV	310	ART patient consistently picked drugs for 12 months	Patients that have over the last 12 months consistently picked their medication. GUIDE FOR USE: This is measured on the 12th anniversary of ART having been initiated, and should be similar to the value of the data element "ART treatment initiated total new cases" reported 12 months ago.	ART Cohort Tracking Tool	HIA2
HIV	315	Post HIV exposure prophylaxis to workers	Health worker receiving post exposure prophylaxis in accordance with the departmental PEP protocol. GUIDE FOR USE: Used to get a sense of the extent of the problem.	Post exposure prophylaxis record book	HIA2
HIV	320	Post HIV exposure prophylaxis for sexual assault	Patient receiving post exposure prophylaxis following sexual assault in accordance with the departmental PEP protocol. GUIDE FOR USE: Used to get a sense of the extent of the problem.	Post exposure prophylaxis record book	HIA2
HIV	325	Post HIV exposure prophylaxis for other reasons	Patient receiving post exposure prophylaxis for reasons other than occupational exposure or sexual assault in accordance with the departmental PEP protocol. GUIDE FOR USE: Used to get a sense of the extent of the problem	Post exposure prophylaxis record book	HIA2
TB					
TB Diagnosis					

Code		Data Element	Definition	Source of data	HIA
TB	5	Attendance TB	Number of clients attending TB services in the facility in the reporting period (usually a month). GUIDE FOR USE: This data is used to gain an impression of the overall utilisation of the health facility by the community for PHC preventive services.	TB Tally or Activity sheet	HIA2
TB	10	Suspected TB case with sputum sent	Any case where one or more sputum specimens were sent to the laboratory with the possible diagnosis of tuberculosis. Tuberculosis should be suspected when a patient presents with fever, weight loss, night sweats, with cough for more than three weeks and no other apparent cause or an ill person who has had contact with a known TB case or a child who does not return to normal after measles or whooping cough, while sputum tests have not been done. GUIDE FOR USE: Each patient must be counted only ONCE, regardless of the number of sputum samples sent.	TB Tally or Activity sheet	HIA2
TB	15	New smear positive TB patient	Any case where a patient confirmed as a smear positive Pulmonary TB is starting treatment. It can be a new or a retreatment case. A patient is classified as sputum positive when a patient presents with the same clinical symptoms as sputum negative pulmonary tuberculosis but with at least two sputum specimens positive for AFB; or one AFB positive sputum specimen and X-ray consistent with active PTB; or one AFB positive sputum specimen and positive culture. GUIDE FOR USE: Each patient must be counted only ONCE, regardless of the number of sputum samples sent. Do NOT include cases	TB Tally or Activity sheet	HIA2
TB	20	New smear negative TB patient	Number of TB patients with negative TB sputum results starting treatment. It can be a new or a retreatment case. A patient is classified as smear negative when fever, weight loss, night sweats, with cough and no other source or an ill person who has had contact with a known TB case or a child who does not return to normal after measles or whooping cough. The AFB sputum smear or culture is negative (three times), and/or abnormal chest x-ray. GUIDE FOR USE: Each patient must be counted only ONCE, regardless of the number of sputum samples sent.	TB Tally or Activity sheet	HIA2
TB	25	Relapse TB patient	A patient who previously received TB therapy, and who presents again with confirmed TB for treatment	TB Tally or Activity sheet	HIA2
TB	30	New TB patient total	Sum of new TB patients (data elements TB15, TB20, and TB25)	Calculated	HIA2
TB Outcomes					
TB	35	TB patient cured	The number of TB patients with bacteriological proof of being cured at the end of their treatment period	TB Tally or Activity sheet	HIA2
TB	40	TB patient completed treatment	The number of TB patients who completed their TB treatment in the reporting period	TB Tally or Activity sheet	HIA2
TB	45	TB patient defaulted treatment	The number of TB patients that defaulted during the reporting period	TB Tally or Activity sheet	HIA2
TB	50	TB patient died	The number of TB patients that died in the reporting period	TB Tally or Activity sheet	HIA2
TB	55	TB patient transferred out	The number of TB patients that were transferred out in the reporting period	TB Tally or Activity sheet	HIA2
HIV/TB Screening					
TB	60	New TB patient screened for HIV	Newly diagnosed TB patients that were tested for HIV.	TB Tally or Activity sheet	HIA2
TB	65	TB patient who is HIV positive	All TB patients who have been tested HIV positive during the reporting period.	TB Tally or Activity sheet	HIA2
TB	70	HIV positive new patient with confirmed TB	Number of newly diagnosed HIV positive patients that was screened for TB and the TB results are positive. GUIDE FOR USE: Note that this data element suggests that newly diagnosed HIV patients should all be screened for TB.	TB Tally or Activity sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
TB	75	Referred for preART from TB	Any HIV positive patient referred to an ART service point for ART assessment (medical eligibility and/or treatment readiness) for the first time from TB clinics. The patient has not yet started ART; transfers-in from other ART service points or from non-public sector of patients who are already on ART are therefore not counted.	TB Tally or Activity sheet	HIA2
Out Patient Department					
Utilisation - OPD					
OPD	5	Attendance OPD <12 months male	All individual male patients that have not yet reached 12 months of age attending the OPD department during the period (usually month) for any service rendered at the facility.	OPD Attendance tally sheet	HIA2
OPD	10	Attendance OPD <12 months female	All individual female patients that have not yet reached 12 months of age attending the OPD department during the period (usually month) for any service rendered at the facility.	OPD Attendance tally sheet	HIA2
OPD	15	Attendance OPD 12-59 months male	All individual male patients aged 12 months and older that not yet reached 60 months (5 years) of age attending the OPD department during the period (usually month) for any service rendered at the facility.	OPD Attendance tally sheet	HIA2
OPD	20	Attendance OPD 12-59 months female	All individual female patients aged 12 months and older but that have not reached 60 months (5 years) of age yet attending the OPD department during the period (usually month) for any service rendered at the facility.	OPD Attendance tally sheet	HIA2
OPD	25	Attendance OPD >5 years male	All individual male patients 5 years and older attending the OPD department during the period (usually month) for any service rendered at the facility.	OPD Attendance tally sheet	HIA2
OPD	30	Attendance OPD >5 years female	All individual female patients 5 years and older attending the OPD department during the period (usually month) for any service rendered at the facility.	OPD Attendance tally sheet	HIA2
OPD	35	Attendance outpatient total	Sum of all outpatient attendances - sum of data elements OPD05 to OPD30. GUIDE FOR USE: This data is used to gain an impression of the overall utilisation of the health facility by the community for PHC curative services.	Calculated	HIA2
Inpatient Care					
In-patient Discharges					
IPD	5	Inpatient discharge <12 months	An Inpatient discharge for children who have not yet reached the age of 12 months (1 year) is any admitted patient under 1 year who complete a hospital stay that includes at least one night and are discharged to their usual residence including home, family, hostel etc. It excludes deaths and transfers to other hospitals and step-down facilities.	OPD Service and Disease tally sheets	HIA2
IPD	10	Inpatient discharge 12-59 months	An Inpatient discharge occurring in the reporting period for children who are 12 months (1 year) and older, but who not yet reached the age of 60 months (5 years) is any admitted patient who completes a hospital stay that includes at least one night and are discharged to their usual residence including home, family, hostel etc. It excludes deaths and transfers to other hospitals and step-down facilities.	OPD Service and Disease tally sheets	HIA2
IPD	15	Inpatient discharge >5 years	An Inpatient discharge occurring in the reporting period for children who are 60 months (5 years) and older. This is any admitted patient who completes a hospital stay that includes at least one night and are discharged to their usual residence including home, family, hostel etc. It excludes deaths and transfers to other hospitals and step-down facilities.	OPD Service and Disease tally sheets	HIA2

Code		Data Element	Definition	Source of data	HIA
IPD	20	Inpatient discharges total	The Inpatient discharge total data element is the sum of inpatient discharges for all age categories (sum of data elements IPD5 to IPD15). An inpatient discharge is any admitted patient who complete a hospital stay and are discharged to their usual residence including home, family, prison, hostel etc. It will include self discharges (patient absconding), but exclude deaths and transfers to other hospitals and step-down facilities. GUIDE FOR USE: Note that while there might seem to be a fine line between step-down facilities, frail care centres, and old age homes, the difference lies in the term `discharged to their usual residence`. If the patient is sent to another health facility other than his/her usual residence - presumably for a limited time before the patient will continue to his/her usual residence - it is regarded as a transfer out.	Calculated	HIA2
In-patient Transfers					
IPD	25	Inpatient transfer out <12 months	The total number of inpatients for children who have not yet reached the age of 12 months (1 year) who are transferred to another hospital during the reporting period. GUIDE FOR USE: If the patient is sent to another health facility, like step-down facilities, frail care centres, and old age homes, that is other than his/her usual residence - presumably for a limited time before the patient will continue to his/her usual residence - it is regarded as a transfer out.	OPD Service and Disease tally sheets	HIA2
IPD	30	Inpatient transfer out 12-59 months	The number of inpatients being transferred to another hospital during the reporting period, and who are 12 months (1 year) and older, but who not yet reached the age of 60 months (5 years). GUIDE FOR USE: If the patient is sent to another health facility, like step-down facilities, frail care centres, and old age homes, that is other than his/her usual residence - presumably for a limited time before the patient will continue to his/her usual residence - it is regarded as a transfer out.	OPD Service and Disease tally sheets	HIA2
IPD	35	Inpatient transfer out >5 years	The number of inpatients being transferred to another hospital during the reporting period, and who are 60 months (5 years). GUIDE FOR USE: If the patient is sent to another health facility, like step-down facilities, frail care centres, and old age homes, that is other than his/her usual residence - presumably for a limited time before the patient will continue to his/her usual residence - it is regarded as a transfer out.	OPD Service and Disease tally sheets	HIA2
IPD	40	Inpatient transfers out total	The total number of inpatients transferred to another hospital during the reporting period (the sum of data elements IPD25 - IPD35). GUIDE FOR USE: If the patient is sent to another health facility, like step-down facilities, frail care centres, and old age homes, that is other than his/her usual residence - presumably for a limited time before the patient will continue to his/her usual residence - it is regarded as a transfer out.	Calculated	HIA2
In-patient Deaths					
IPD	45	Inpatient death <12 months	An inpatient death under 1 year is a death recorded against any admitted patient under 1 year during the reporting period. This include the death of newborn babies, even if they are not admitted separate from their mothers. GUIDE FOR USE: Count all inpatient deaths for children under 1 year in all wards, even if the direct cause of death are not related to the diagnosis and/or reason for admission. For instance, a death due to an accident or an act of violence must be counted. CONTEXT: Facility mortality rates are crucial indicators of quality of care.	OPD Service and Disease tally sheets	HIA2

Code		Data Element	Definition	Source of data	HIA
IPD	50	Inpatient death 12-59 months	An inpatient death occurring in the reporting period for children who are 12 months (1 year) and older, but who not yet reached the age of 60 months (5 years). GUIDE FOR USE: Count all inpatient deaths for children between 1 and under 5 years in all wards, even if the direct cause of death are not related to the diagnosis and/or reason for admission. For instance, a death due to an accident or an act of violence must be counted. CONTEXT: Facility mortality rates are crucial indicators of quality of care.	OPD Service and Disease tally sheets	HIA2
IPD	55	Inpatient death >5 years	An inpatient death occurring in the reporting period for children who are 60 months (5 years) and older. GUIDE FOR USE: Count all inpatient deaths for children between 1 and under 5 years in all wards, even if the direct cause of death are not related to the diagnosis and/or reason for admission. For instance, a death due to an accident or an act of violence must be counted. CONTEXT: Facility mortality rates are crucial indicators of quality of care.	OPD Service and Disease tally sheets	HIA2
IPD	60	Inpatient deaths total	An inpatient death - Total is a death recorded against any admitted patient during the reporting period (the sum of data elements IPD45 to IPD55). GUIDE FOR USE: Count all inpatient deaths, even if the direct cause of death are not related to the diagnosis and/or reason for admission. For instance, a death due to an accident or an act of violence must be counted. CONTEXT: Facility mortality rates are crucial indicators of quality of care.	Calculated	HIA2
Other In-patient Data Elements					
IPD	65	Day patients total	A day patient is an admitted patient who receives hospital treatment and is admitted and separated from the hospital on the same date (he/she does not occupy a bed at midnight). The definition of a Day Patient excludes patients who were intended to stay overnight but left of their own accord, patients who died, or patients who were transferred to another hospital on the first day of their stay. GUIDE FOR USE: The data must be collected at the point of separation, since one cannot know that an admitted patient end up being discharged the same day (a Day Patient). This data element might also be calculated based on collection of various sub-elements. CONTEXT: Hospital efficiency and throughput. On average, it is assumed that a day patient requires approximately 50% of the resources/care required by an average inpatient.	OPD Service and Disease tally sheets	HIA2
IPD	70	Inpatient days total	Inpatient days - Total is the number of days spent in the institution for all inpatients during the reporting period. Inpatient days exclude lodgers. A day is measured at midnight. Thus: A patient admitted and separated on the same date has zero patient days, and is counted as a DAY patient. A patient separated on the date following the date of admission, has one patient day, and so on. A patient on leave at midnight is not counted as a patient day. A patient admitted and then dying or being transferred out on the same day has zero patient days, but the patient is regarded as an inpatient and is NOT counted as a day patient. GUIDE FOR USE: Inpatient days should exclusively be based on the midnight census, not on admissions or other administrative procedures. CONTEXT: Inpatient days are crucial for a range of indicators used to monitor hospital efficiency and throughput.	OPD Service and Disease tally sheets	HIA2

Code		Data Element	Definition	Source of data	HIA
IPD	75	Usable beds total	Usable beds are beds actually available for use within the facility (regardless of whether they are occupied by a patient). Include acute care beds, chronic care beds, maternity beds for antenatal and postnatal care, surgical days beds, and temporary beds. Exclude delivery beds, surgical tables, recovery trolleys, cots for normal neonates (well baby cots), stretchers, chairs and recliners (e.g. as used for renal dialysis patients etc.).GUIDE FOR USE: Patients sleeping on the floor are not considered to be occupying a `usable bed`, and this will be reflected in bed occupancy rates of greater than 100%. Beds in wards which are closed for any reason (other than beds/wards closed routinely at weekends) are also excluded, since they are not usable during the reporting period. The number of usable beds must not be confused with the number of Approved Beds (i.e. the number of beds the facility was built to accommodate) and the number of Actual Beds.	Asset Register	HIA2
IPD	80	In-patients referred to a higher level of healthcare	A patient admitted to a institution and who is referred to a higher level of healthcare for diagnostic or treatment purposes.	OPD Service and Disease tally sheets	HIA2
Drugs and Supplies Management: (1 if drug was never out of stock; 0 if drug was ever out of stock during month)					
DRG	5	Erythromycin 500mg capsule/tablet stock out	Whether Erythromycin 500mg capsule/tablets have been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	10	Doxycycline 100mg tablet stock out	Whether Doxycycline 100mg tablets have been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	15	Any 1st line anti-malarial stock out	Whether 1st line anti-malarial drugs have been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	20	Amoxicillin 125mg/5ml suspension (75ml) stock out	Whether Amoxicillin 125mg/5ml suspension (75ml) has been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	25	Amoxicillin capsules stock out	Whether Amoxicillin capsules have been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	30	Any 1st line ARV drug stock out	Whether 1st line ARV drugs have been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	35	Folic acid stock out	Whether Folic acid have been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	40	4 FDC (TB) drug stock out	Whether 4 FDC (TB) drugs have been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2

Code		Data Element	Definition	Source of data	HIA
DRG	45	Crystapen stock out	Whether Crystapen has been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	50	Cotrimoxazole 480mg stock out	Whether Co-Trimoxazole 480mg tablets have been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	55	Cotrimoxazole syrup stock out	Whether Co-Trimoxazole syrup has been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	60	DPT-HepB+Hib vaccine stock out	Whether DPT-HepB+Hib vaccine has been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	65	ORS stock out	Whether ORS has been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	70	Paracetamol 500mg stock out	Whether Paracetamol 500mg has been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
DRG	75	Rapid HIV test stock out	Whether Rapid HIV tests have been out of stock at ANY time during the reporting period. GUIDE FOR USE: Use the number 1 to denote out of stock and the number 0 if it was always in stock during the whole reporting period. If the facility never uses/stocks this/these drugs, enter the number 0.	Daily Stock-out Control Sheet tool	HIA2
Human Resources					
Establishment - Appointments					
HR	5	Doctors appointed on establishment	The number of doctors appointed on the facility establishment (whether confirmed or unconfirmed) as at the end of the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff in the particular category who are available to work in the facility. This therefore includes the staff who have been newly appointed during the reporting period, and it also includes those who may be on leave during the reporting period.	PMEC system/Facility establishment control sheet	HIA2
HR	10	Clinical officers appointed on establishment	The number of clinical officers appointed on the facility establishment (whether confirmed or unconfirmed) as at the end of the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff in the particular category who are available to work in the facility. This therefore includes the staff who have been newly appointed during the reporting period, and it also includes those who may be on leave during the reporting period.	PMEC system/Facility establishment control sheet	HIA2
HR	15	Registered nurses appointed on establishment	The number of registered nurses appointed on the facility establishment (whether confirmed or unconfirmed) as at the end of the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff in the particular category who are available to work in the facility. This therefore includes the staff who have been newly appointed during the reporting period, and it also includes those who may be on leave during the reporting period.	PMEC system/Facility establishment control sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
HR	20	Enrolled nurses appointed on establishment	The number of enrolled nurses appointed on the facility establishment (whether confirmed or unconfirmed) as at the end of the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff in the particular category who are available to work in the facility. This therefore includes the staff who have been newly appointed during the reporting period, and it also includes those who may be on leave during the reporting period.	PMEC system/Facility establishment control sheet	HIA2
HR	25	Nurse midwifes appointed on establishment	The number of nurse midwives appointed on the facility establishment (whether confirmed or unconfirmed) as at the end of the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff in the particular category who are available to work in the facility. This therefore includes the staff who have been newly appointed during the reporting period, and it also includes those who may be on leave during the reporting period.	PMEC system/Facility establishment control sheet	HIA2
HR	30	Pharmacists on establishment	The number of pharmacists appointed on the facility establishment (whether confirmed or unconfirmed) as at the end of the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff in the particular category who are available to work in the facility. This therefore includes the staff who have been newly appointed during the reporting period, and it also includes those who may be on leave during the reporting period. This data element refers only to qualified pharmacists. Qualified pharmacy assistants should be counted under paramedical staff.	PMEC system/Facility establishment control sheet	HIA2
HR	35	Paramedical staff appointed on establishment	The number of paramedical staff appointed on the facility establishment (whether confirmed or unconfirmed) as at the end of the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff in the particular category who are available to work in the facility. This therefore includes the staff who have been newly appointed during the reporting period, and it also includes those who may be on leave during the reporting period. Paramedical staff include radiologists, occupational therapists, physiotherapists, qualified radiology, occupational therapy, physiotherapy assistants, and similar categories of staff.	PMEC system/Facility establishment control sheet	HIA2
HR	40	Support staff appointed on establishment	The number of cleaning staff appointed on the facility establishment (whether confirmed or unconfirmed) as at the end of the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff in the particular category who are available to work in the facility. This therefore includes the staff who have been newly appointed during the reporting period, and it also includes those who may be on leave during the reporting period. Support staff include cleaners, kitchen and catering staff, and gardeners.	PMEC system/Facility establishment control sheet	HIA2
HR	45	Administrative staff appointed on establishment	The number of administrative staff newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category. Administrative staff include clerical staff and staff who work as matrons and superintendents but who do not do clinical work.	PMEC system/Facility establishment control sheet	HIA2
Establishment - Recruitments					
HR	50	Doctors newly recruited	The number of doctors newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category.	Accounts form 85, arrival advice	HIA2
HR	55	Clinical officers newly recruited	The number of clinical officers newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category.	Accounts form 85, arrival advice	HIA2
HR	60	Registered nurse newly recruited	The number of registered nurses newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category.	Accounts form 85, arrival advice	HIA2

Code		Data Element	Definition	Source of data	HIA
HR	65	Enrolled nurse newly recruited	The number of enrolled nurses newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category.	Accounts form 85, arrival advice	HIA2
HR	70	Nurse midwife newly recruited	The number of nurse midwives newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category.	Accounts form 85, arrival advice	HIA2
HR	75	Pharmacists newly recruited	The number of pharmacists newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category.	Accounts form 85, arrival advice	HIA2
HR	80	Paramedical staff newly recruited	The number of paramedical staff newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category.	Accounts form 85, arrival advice	HIA2
HR	85	Support staff newly recruited	The number of cleaning staff newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category. Support staff include cleaners, kitchen and catering staff, and gardeners.	Accounts form 85, arrival advice	HIA2
HR	90	Administrative staff newly recruited	The number of administrative staff newly appointed during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of new staff who enter the service during the reporting period in the particular category. Administrative staff include clerical staff and staff who work as matrons and superintendents but who do not do clinical work.	Accounts form 85, arrival advice	HIA2
Establishment - Losses					
HR	95	Doctor staff losses	The number of doctors lost during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff who either resign, die or retire during the reporting period. It is used to calculate staff turnover rates.	Letter resign, transfer, deaths, abscond/ Facility establishment control sheet	HIA2
HR	100	Clinical officer staff losses	The number of clinical officers lost during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff who either resign, die or retire during the reporting period. It is used to calculate staff turnover rates.	Letter resign, transfer, deaths, abscond/ Facility establishment control sheet	HIA2
HR	105	Registered nurse staff losses	The number of registered nurses lost during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff who either resign, die or retire during the reporting period. It is used to calculate staff turnover rates.	Letter resign, transfer, deaths, abscond/ Facility establishment control sheet	HIA2
HR	110	Enrolled nurse staff losses	The number of enrolled nurses lost during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff who either resign, die or retire during the reporting period. It is used to calculate staff turnover rates.	Letter resign, transfer, deaths, abscond/ Facility establishment control sheet	HIA2

Code		Data Element	Definition	Source of data	HIA
HR	115	Nurse midwife staff losses	The number of nurse midwives lost during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff who either resign, die or retire during the reporting period. It is used to calculate staff turnover rates.	Letter resign, transfer, deaths, abscond/ Facility establishment control sheet	HIA2
HR	120	Pharmacist staff losses	The number of pharmacists lost during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff who either resign, die or retire during the reporting period. It is used to calculate staff turnover rates.	Letter resign, transfer, deaths, abscond/ Facility establishment control sheet	HIA2
HR	125	Paramedical staff losses	The number of paramedical staff lost during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff who either resign, die or retire during the reporting period. It is used to calculate staff turnover rates.	Letter resign, transfer, deaths, abscond/ Facility establishment control sheet	HIA2
HR	130	Support staff losses	The number of cleaning staff lost during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff who either resign, die or retire during the reporting period. It is used to calculate staff turnover rates.	Letter resign, transfer, deaths, abscond/ Facility establishment control sheet	HIA2
HR	135	Administrative staff losses	The number of administrative staff lost during the reporting period. GUIDE FOR USE: This data serves to provide an understanding of the number of staff who either resign, die or retire during the reporting period. It is used to calculate staff turnover rates.	Letter resign, transfer, deaths, abscond/ Facility establishment control sheet	HIA2
Workloads - Expected workdays					
HR	140	Doctor expected workdays	One actual work day is normally equivalent to an 8-hour shift. Expected workdays for doctors are the total number of workdays in the month (usually 20-23 days for 40 hours/day facilities) x number of doctors appointed in the facility irrespective if the doctors are at work or not. For 24 hour facilities the expected workdays will usually be 30-31days x 3 (3x 8 hour shifts in 24 hours) x number of doctors appointed in the facility.	Calculated from shifts & establishment	HIA2
HR	145	Clinical officer expected workdays	One actual work day is normally equivalent to an 8-hour shift. Expected workdays for clinical officers are the total number of workdays in the month (usually 20-23 days for 40 hours/day facilities) x number of clinical officers appointed in the facility irrespective if the clinical officers are at work or not. For 24 hour facilities the expected workdays will usually be 30-31days x 3 (3 x 8 hour shifts in 24 hours) x number of clinical officers appointed in the facility.	Calculated from shifts & establishment	HIA2
HR	150	Registered nurse expected workdays	One actual work day is normally equivalent to an 8-hour shift. Expected workdays for registered nurses are the total number of workdays in the month (usually 20-23 days for 40 hours/day facilities) x number of registered nurses appointed in the facility irrespective if the clinical officers are at work or not. For 24 hour facilities the expected workdays will usually be 30-31days x 3 (3x8 three 8 hour shifts in 24 hours) x number of registered nurses appointed in the facility.	Calculated from shifts & establishment	HIA2

Code		Data Element	Definition	Source of data	HIA
HR	155	Enrolled nurse expected workdays	One actual work day is normally equivalent to an 8-hour shift. Expected workdays for enrolled nurses are the total number of workdays in the month (usually 20-23 days for 40 hours/day facilities) x number of enrolled nurses appointed in the facility irrespective if the enrolled nurses are at work or not. For 24 hour facilities the expected workdays will usually be 30-31days x 3 (3x 8 hour shifts in 24 hours) x number of enrolled nurses appointed in the facility.	Calculated from shifts & establishment	HIA2
HR	160	Nurse midwife expected workdays	One actual work day is normally equivalent to an 8-hour shift. Expected workdays for midwifes are the total number of workdays in the month (usually 20-23 days for 40 hours/day facilities) x number of midwifes appointed in the facility irrespective if the midwifes are at work or not. For 24 hour facilities the expected workdays will usually be 30-31days x 3 (3x 8 hour shifts in 24 hours) x number of midwifes appointed in the facility.	Calculated from shifts & establishment	HIA2
HR	165	Pharmacist expected workdays	One actual work day is normally equivalent to an 8-hour shift. Expected workdays for pharmacists are the total number of workdays in the month (usually 20-23 days for 40 hours/day facilities) x number of pharmacists appointed in the facility irrespective if the pharmacists are at work or not. For 24 hour facilities the expected workdays will usually be 30-31days x 3 (3x 8 hour shifts in 24 hours) x number of pharmacists appointed in the facility.	Calculated from shifts & establishment	HIA2
HR	170	Paramedical staff expected workdays	One actual work day is normally equivalent to an 8-hour shift. Expected workdays for paramedical staff are the total number of workdays in the month (usually 20-23 days for 40 hours/day facilities) x number of paramedical staff appointed in the facility irrespective if the paramedical staff are at work or not. For 24 hour facilities the expected workdays will usually be 30-31days x 3 (3x 8 hour shifts in 24 hours) x number of paramedical staff appointed in the facility.	Calculated from shifts & establishment	HIA2
HR	175	Support staff expected workdays	One actual work day is normally equivalent to an 8-hour shift. Expected workdays for cleaning staff are the total number of workdays in the month (usually 20-23 days for 40 hours/day facilities) x number of support staff appointed in the facility irrespective if the cleaning staff are at work or not. For 24 hour facilities the expected workdays will usually be 30-31days x 3 (3 x 8 hour shifts in 24 hours) x number of cleaning staff appointed in the facility.	Calculated from shifts & establishment	HIA2
HR	180	Administrative staff expected workdays	One actual work day is normally equivalent to an 8-hour shift. Expected workdays for administrative staff are the total number of workdays in the month (usually 20-23 days for 40 hours/day facilities) x number of administrative staff appointed in the facility irrespective if the administrative staff are at work or not. For 24 hour facilities the expected workdays will usually be 30-31days x 3 (3 x 8 hour shifts in 24 hours) x number of administrative staff appointed in the facility.	Calculated from shifts & establishment	HIA2
Workloads - Actual workdays					
HR	185	Doctor clinical/preventive workdays on duty	Clinical workdays means the proportion of expected workdays spent on direct patient contact. It is the number of actual work days by clinical staff irrespective of rank or post, used to perform clinical services in the facility during the reporting period (usually month). One actual work day is normally equivalent to an 8-hour shift (40 hours of work per week), so 3.5 12-hour shifts would be equivalent to 5 work days. The clinical work days put in by each clinical officer must be ADDED UP.	HR Workdays Control Sheet tool	HIA2

Code		Data Element	Definition	Source of data	HIA
HR	190	Clinical officer clinical/preventive workdays on duty	Clinical workdays means the proportion of expected workdays spent on direct patient contact. It is the number of actual work days by clinical staff irrespective of rank or post, used to perform clinical services in the facility during the reporting period (usually month). One actual work day is normally equivalent to an 8-hour shift (40 hours of work per week), so 3.5 12-hour shifts would be equivalent to 5 work days. The clinical work days put in by each clinical officer must be ADDED UP.	HR Workdays Control Sheet tool	HIA2
HR	195	Registered nurse clinical/preventive workdays on duty	The number of actual work days by Registered Nurses, irrespective of rank, used to perform clinical services in the facility during the reporting period (usually month). One actual work day is normally equivalent to an 8-hour shift (40 hours of work per week), so 3.5 12-hour shifts would be equivalent to 5 work days. The clinical work days put in by each nurse must be ADDED UP. GUIDE FOR USE: Do not confuse this data element with `Clinical days open during month` - the two would only be equal when there is only ONE nurse in the facility. Only days PRIMARILY used to handle patients are included, NOT days primarily used for e.g. courses, administrative work, on leave, and so forth. If an nurse normally work 4 hours per day with patients and 4 hours with e.g. general (not directly clinical) administration, only half of her/his days should be counted as `Registered Nurse clinical work days.	HR Workdays Control Sheet tool	HIA2
HR	200	Enrolled nurse clinical/preventive workdays on duty	The number of actual work days by Enrolled Nurses, irrespective of rank, used to perform clinical services in the facility during the reporting period (usually month). One actual work day is normally equivalent to an 8-hour shift (40 hours of work per week), so 3.5 12-hour shifts would be equivalent to 5 work days. The clinical work days put in by each nurse must be ADDED UP. GUIDE FOR USE: Do not confuse this data element with `Clinical days open during month` - the two would only be equal when there is only ONE nurse in the facility. Only days PRIMARILY used to handle patients are included, NOT days primarily used for e.g. courses, administrative work, on leave, and so forth. If an nurse normally work 4 hours per day with patients and 4 hours with e.g. general (not directly clinical) administration, only half of her/his days should be counted as `Enrolled Nurse clinical work days.	HR Workdays Control Sheet tool	HIA2
HR	205	Nurse midwife clinical/preventive workdays on duty	The number of actual work days by registered midwifes, irrespective of rank, used to perform clinical services in the facility during the reporting period (usually month). One actual work day is normally equivalent to an 8-hour shift (40 hours of work per week), so 3.5 12-hour shifts would be equivalent to 5 work days. The clinical work days put in by each midwife must be ADDED UP.	HR Workdays Control Sheet tool	HIA2
HR	210	Pharmacists workdays on duty	The number of actual work days by pharmacists, irrespective of rank or specialty, used to perform services in the facility during the reporting period (usually month). One actual work day is normally equivalent to an 8-hour shift (40 hours of work per week), so 3.5 12-hour shifts would be equivalent to 5 work days. The work days put in by each pharmacist must be ADDED UP.	HR Workdays Control Sheet tool	HIA2
HR	215	Paramedical staff workdays on duty	The number of actual work days by paramedical staff irrespective of rank or specialty, used to perform services in the facility during the reporting period (usually month). One actual work day is normally equivalent to an 8-hour shift (40 hours of work per week), so 3.5 12-hour shifts would be equivalent to 5 work days. The work days put in by each paramedical staff member must be ADDED UP.	HR Workdays Control Sheet tool	HIA2
HR	220	Support staff workdays on duty	The number of actual work days by support staff irrespective of rank or specialty, used to perform services in the facility during the reporting period (usually month). One actual work day is normally equivalent to an 8-hour shift (40 hours of work per week), so 3.5 12-hour shifts would be equivalent to 5 work days. The work days put in by each support staff member must be ADDED UP.	HR Workdays Control Sheet tool	HIA2

Code		Data Element	Definition	Source of data	HIA
HR	225	Administrative staff workdays on duty	The number of actual work days by administrative staff irrespective of rank or specialty, used to perform services in the facility during the reporting period (usually month). One actual work day is normally equivalent to an 8-hour shift (40 hours of work per week), so 3.5 12-hour shifts would be equivalent to 5 work days. The work days put in by each administrative staff member must be ADDED UP.	HR Workdays Control Sheet tool	HIA2
Environmental Health Services					
Inspections					
ENV	5	Target premises to be inspected	Target number of premises to be inspected in the reporting period.	Daily Environmental Health Plan	HIA2
ENV	10	Premises inspected	Total number of inspected premises that were compliant.	Daily Environmental Health Plan	HIA2
ENV	15	Premises inspected in compliance	The total number of inspected premises that were in compliance with standards	Daily Environmental Health Plan	HIA2
ENV	20	Target food inspections to be performed	Target number of food premises to be inspected in the reporting period.	Daily Environmental Health Plan	HIA2
ENV	25	Food inspections performed	Total number of food inspections performed in the reporting period.	Daily Environmental Health Plan	HIA2
ENV	30	food inspections resulting in seizure & disposal of food	Total number of food inspections that resulted in seizure and disposal in the reporting period.	Daily Environmental Health Plan	HIA2
ENV	35	Target water sources to be inspected	Target number of water sources to be inspected	Daily Environmental Health Plan	HIA2
ENV	40	Water sources inspected	Number of water sources inspected	Daily Environmental Health Plan	HIA2
ENV	45	Total sanitary facilities (water closets and pit latrines)	Total number of sanitary facilities (a. water closets, b. Pit latrines)	Daily Environmental Health Plan	HIA2
ENV	50	Sanitary facilities inspected	Number of sanitary facilities inspected	Daily Environmental Health Plan	HIA2
ENV	55	Statutory nuisances issues	Number of statutory nuisances issues	Daily Environmental Health Plan	HIA2

Code		Data Element	Definition	Source of data	HIA
ENV	60	Statutory nuisances complied with	Number of statutory nuisances complied with	Daily Environmental Health Plan	HIA2
ENV	65	Prosecutions conducted	Number of prosecutions conducted	Daily Environmental Health Plan	HIA2
Sampling					
ENV	70	Target food samples to be taken	Target number of food samples to be taken	Daily Environmental Health Plan	HIA2
ENV	75	Food samples collected	Number of food samples collected	Daily Environmental Health Plan	HIA2
ENV	80	Food samples in compliance with standard	Number of food samples in compliance with standard	Daily Environmental Health Plan	HIA2
ENV	85	Target water samples to be taken	Target number of water samples to be taken in the reporting period.	Daily Environmental Health Plan	HIA2
ENV	90	Water samples taken	Total number of water samples taken in the reporting period.	Daily Environmental Health Plan	HIA2
ENV	95	Water samples in compliance with WHO standard	Number of water samples in compliance with WHO standard	Daily Environmental Health Plan	HIA2
ENV	100	Target salt samples to be taken for iodine levels	Target number of salt samples to be taken in the reporting period.	Daily Environmental Health Plan	HIA2
ENV	105	Salt samples tested with adequate iodine	Number of salt samples tested with adequate iodine	Daily Environmental Health Plan	HIA2
Rodent and Vector Control					
ENV	110	Vector/Rodent complaints received	Vector/Rodent complaints received	Daily Environmental Health Plan	HIA2
ENV	115	Vector/Rodent complaints attended to	Vector/Rodent complaints attended to	Daily Environmental Health Plan	HIA2
ENV	120	Total number of households	Total number of households	Daily Environmental Health Plan	HIA2

Code		Data Element	Definition	Source of data	HIA
ENV	125	Households having ITNs	Number of households using ITNs	Daily Environmental Health Plan	HIA2
ENV	130	Structures sprayed against mosquitoes	Number of structures sprayed against mosquitoes	Daily Environmental Health Plan	HIA2
ENV	135	Estimated tonnes of refuse generated	Estimated tonnes of refuse generated	Daily Environmental Health Plan	HIA2
ENV	140	Tonnes of refuse collected	Tonnes of refuse collected	Daily Environmental Health Plan	HIA2
Financial data					
FIN	5	MoH releases domestic or non-donor received	Money released by the MoH to districts	District accounts	HIA2
FIN	10	Total budget	Total budget allocated for the year	District accounts	HIA2
FIN	15	Budget for medical supplies	Total budget for medical supplies	District accounts	HIA2
FIN	20	Budget for laboratory supplies	Total budget for laboratory supplies	District accounts	HIA2
FIN	25	Budget for 20_80 drugs	Total budget for 20/80 drug supplies	District accounts	HIA2
FIN	30	Expenditures on allowances	Expenditure during the reporting period on allowances	District accounts	HIA2
FIN	35	Expenditure on laboratory supplies	Expenditure during the reporting period on laboratory supplies	District accounts	HIA2
FIN	40	Expenditures on emergency drugs	Expenditure during the reporting period on emergency drugs	District accounts	HIA2
FIN	45	Expenditure on 20_80 drugs	Expenditure during the reporting period on 20/80 drugs	District accounts	HIA2
FIN	50	Expenditures on fuel	Expenditure during the reporting period on fuel	District accounts	HIA2
FIN	55	Expenditures on capital investment	Expenditure during the reporting period on capital investment	District accounts	HIA2
Supervision					
SUP	5	Supportive supervision visits this month	The number of visits to the facility by a dedicated clinic supervisor, who performs a visit according to the policy on clinic supervision. Each visit should normally be documented in writing. GUIDE FOR USE: Dropping for tea, delivering mail, and/or delivering drugs and supplies do NOT qualify as a supervisor visit, even when done by the supervisor. Clinic supervisors are also often using a large clinic or CHC as their administrative base (office), but do NOT count every day the supervisor is in that office as a `supervisor visit` to that clinic/CHC. Only count those days where the supervisor formally interacts with the clinic/CHC according to the definition above.	Assessment report	HIA2

Code		Data Element	Definition	Source of data	HIA
Utilisation Totals					
SUP	10	Total preventive attendances	This is the sum of all preventive attendances (child health, safe motherhood, family planning, HIV/AIDS VCT and PMTCT services - data elements CH25, RH125, RH130, HIV15, HIV80). GUIDE FOR USE: It is used to gain an impression of the overall utilisation of the health facility by the community for PHC preventive services.	Calculated	HIA2
SUP	15	Total curative services	This is the sum of all curative attendances (Out-patient services, and HIV/AIDS treatment services (ART) and TB services - data elements OPD35, HIV290, TB5). GUIDE FOR USE: It is used to gain an impression of the overall utilisation of the health facility by the community for curative services.	Calculated	HIA2
Notifiable Diseases					
NTF	5	Acute flaccid paralysis (suspected poliomyelitis)	Acute onset of flaccid paralysis of one or more limbs with decreased or absent deep tendon reflexes, without other apparent cause, and without loss of mental functioning or sensation in the affected limb.	OPD Tally sheet	HIA1
NTF	10	Cholera	Profuse, painless, watery, non-bloody stools, causing severe dehydration (with or without positive stool or emesis culture for Vibrio cholera serogroup O1 or O139). Criteria for severe dehydration are two of following: lethargy or unconscious; sunken eyes; inability to drink; skin pinch goes back very slowly. Patients 5 years and older who meet definition most likely have cholera. Only these cases should be notified immediately to the DHMT, not the children under five!	OPD Tally sheet	HIA1
NTF	15	Measles	Patients with fever and a red blotchy rash lasting 3 or more days and one of the following: cough, runny nose (coryza) or red eyes (conjunctivitis).	OPD Tally sheet	HIA1
NTF	20	Meningitis	Severe illness with sudden onset of fever and stiff neck and/or petechial or purpuric rash; (bulging or pulsating fontanel in a child less than 1 year of age). Cerebrospinal fluid should be examined and would normally appear turbid (purulent) cerebrospinal fluid (CSF) or have a positive culture of CSF or blood	OPD Tally sheet	HIA1
NTF	25	Neonatal tetanus	Well newborn during the first 2 days of life who develops feeding difficulty followed by generalized stiffness and/or convulsions or often death between 3 and 28 days of life.	OPD Tally sheet	HIA1
NTF	30	Plague	Acute regional lymphadenopathy (bubo) with headache, myalgia, gastro-intestinal symptoms and malaise; sometimes with septicaemia; rarely as acute pneumonia with hemoptysis. Y. pestis may be identified.	OPD Tally sheet	HIA1
NTF	35	Rabies	History of animal bite history (may be absent) followed weeks to months later by fever, apprehension, headache; progresses to paresis of muscles with delirium, convulsions, and death (within 10 days of first symptoms). If possible, brain tissue of the biting animal or corneal impression should be sent for positive direct fluorescent antibody	OPD Tally sheet	HIA1
NTF	40	Dysentery	Three or more loose stools per day with visible blood. Positive stool culture for shigella or other enteric pathogen would confirm the diagnosis.	OPD Tally sheet	HIA1
NTF	45	Typhoid fever	Gradual onset of prolonged fever (7 days), headache, malaise, anorexia, slow heart rate and dry cough; may progress to prostration and delirium. Salmonella typhi isolated from blood and/or stool.	OPD Tally sheet	HIA1
NTF	50	Yellow fever	Sudden onset of fever, followed by jaundice and one or more of the following: bleeding in the mouth, black vomitus, or death Advanced: same and low white blood count, elevated liver function tests, and in some cases elevated renal function tests.	OPD Tally sheet	HIA1
NTF	55	Any other unusual occurrence of disease or outbreak		OPD Tally sheet	HIA1
Selected Diseases					

Code		Data Element	Definition	Source of data	HIA
Malaria					
ML	5	Clinical malaria	Number of cases with clinical symptoms of malaria - not confirmed by laboratory test.	OPD Tally sheet	HIA1
ML	10	Confirmed malaria	Number of malaria cases confirmed by a laboratory test (usually rapid diagnostic test or smear)	OPD Tally sheet	HIA1
ML	15	Clinical malaria in pregnancy	Number of cases with clinical symptoms of malaria in pregnancy - not confirmed by laboratory test. GUIDE FOR USE: Patients recorded here should not be recorded under "Clinical malaria >5" as well.	OPD Tally sheet	HIA1
ML	20	Confirmed malaria in pregnancy	Number of malaria cases in pregnancy confirmed by a laboratory test (usually rapid diagnostic test or smear) GUIDE FOR USE: Patients recorded here should not be recorded under Confirmed malaria >5" as well.	OPD Tally sheet	HIA1
ML	25	Total confirmed malaria cases	Sum of data elements "confirmed malaria new case" and "confirmed malaria in pregnancy new case". GUIDE FOR USE: The total as defined above indicates that where patients are pregnant (and therefore over the age of 5 years, they should not be entered twice as "Confirmed malaria over 5" as well as "Confirmed malaria in pregnancy"). Patients recorded here should not be recorded under Confirmed malaria >5" as well.	OPD Tally sheet	HIA1
ML	30	Malaria case provided with anti-malarial treatment	Malaria case provided with anti-malarial treatment. GUIDE FOR USE: If any of the above patients, confirmed or clinical, are provided with anti-malaria treatment, this should be recorded, and should be similar in value to the sum of the confirmed and clinical cases.	Calculated	HIA1
ENT					
ENT	5	Ear Disease	Diseases of the ear such as acute or chronic otitis externa, or oititis media.	OPD Tally sheet	HIA1
ENT	10	Nose Disease	Diseases of the nose such as recurrent nose bleeds, rhinitis, allergic rhinitis.	OPD Tally sheet	HIA1
ENT	15	Throat Disease	Diseases of the throat such as tonsillitis, pharingitis, and oral thrush.	OPD Tally sheet	HIA1
Chronic Diseases					
CD	5	Asthma	A first visit by a person at which the diagnosis is made in accordance with standard protocols for asthma management.	OPD Tally sheet	HIA1
CD	10	Cardio-vascular disease	A first visit by a person at which the diagnosis is made in accordance with standard protocols for cardio-vascular disease management.	OPD Tally sheet	HIA1
CD	15	Diabetes	A first visit by a person at which the diagnosis is made in accordance with standard protocols for diabetes management.	OPD Tally sheet	HIA1
CD	20	Hypertension	A first visit by a person at which the diagnosis is made in accordance with standard protocols for hypertension management.	OPD Tally sheet	HIA1
CD	25	Nervous System Disorders: Epilepsy	A first visit by a person at which the diagnosis is made in accordance with standard protocols for epilepsy management.	OPD Tally sheet	HIA1
CD	30	Sickle Cell Anaemia	A first visit by a person at which the diagnosis is made in accordance with standard protocols for sickle cell anaemia management.	OPD Tally sheet	HIA1
AIDS Associated Diseases					
HIV	315	Cryptococcal meningitis	A first visit by a person at which the diagnosis is made in accordance with standard protocols for cryptococcal meninigitis management.	OPD Tally sheet	HIA1
HIV	320	Herpes zoster	A first visit by a person at which the diagnosis is made in accordance with standard protocols for herpes zoster management.	OPD Tally sheet	HIA1
HIV	325	Karposi sarcoma	A first visit by a person at which the diagnosis is made in accordance with standard protocols for Karposi sarcoma management.	OPD Tally sheet	HIA1
HIV	330	Pneumocystis Carini Pneumonia (PCP)	A first visit by a person at which the diagnosis is made in accordance with standard protocols for Pneumocystis Carini pneumonia management.	OPD Tally sheet	HIA1
Other diseases (new cases)					

Code		Data Element	Definition	Source of data	HIA
D	5	Anaemia	Pallor of the palms or conjunctiva, and preferably confirmed by haemoglobin reading indicating a value of < 6 mmol/liter (11 g/dl)	OPD Tally sheet	HIA1
D	10	Dental Carries	Patient requiring their teeth to be extracted or restored as a result of cavities and erosions.	OPD Tally sheet	HIA1
D	15	Dental diseases: Other	Patients seeking dental or oral hygienist care for conditions other than carries.	OPD Tally sheet	HIA1
D	20	Diarrhoea (non-bloody)	The number of patients with diarrhoea with no visible blood in the stools. Diarrhoea is defined in accordance with the IMCI definitions of diarrhoea for children under the age of 5 years.	OPD Tally sheet	HIA1
D	25	Digestive system: (not infectious)	Non-infectious disorders of the digestive system such as diverticulitis, constipation, abdominal cramps, etc.	OPD Tally sheet	HIA1
D	30	Eye Disease: Glaucoma	A diagnosis made in a hospital using a tonometer.	OPD Tally sheet	HIA1
D	35	Eye Disease: Refractory Errors	Refractory disorders	OPD Tally sheet	HIA1
D	40	Eye Disease: Spring Catarrh	Allergic conjunctivitis	OPD Tally sheet	HIA1
D	45	Eye diseases (infectious)	Typically conjunctivitis, characterised by watery or purulent discharge, and the lashes may be stuck together on waking up. There is no pain or blurring of vision.	OPD Tally sheet	HIA1
D	50	Genital-Urinary diseases (except STI)	Typically a urinarary tract infection (UTI) characterised by increased frequency of urination, burning on urination and sense of urgent need to void. Urine sediment microscopy positive or culture growing bacteria.	OPD Tally sheet	HIA1
D	55	Intestinal worms	Worms noted by patient in stool	OPD Tally sheet	HIA1
D	60	Mental Health (Neurosis))	Neurosis, also known as psychoneurosis or neurotic disorder, is a "catch all" term that refers to any mental imbalance that causes distress, but, unlike a psychosis or some personality disorders, does not prevent or affect rational thought. It is particularly associated with the field of psychoanalysis, which is one school of thought in psychology or psychiatry. As an illness, neurosis represents a variety of psychiatric conditions in which emotional distress or unconscious conflict is expressed through various physical, physiological, and mental disturbances, which may include physical symptoms (e.g., hysteria). The definitive symptom is anxieties. Neurotic tendencies are common and may manifest themselves as depression, acute or chronic anxiety, obsessive-compulsive tendencies, phobias, and even personality disorders, such as borderline personality disorder or obsessive-compulsive personality disorder.	OPD Tally sheet	HIA1
D	65	Mental Health (Psychosis)	Psychosis is a generic psychiatric term for a mental state often described as involving a "loss of contact with reality". *Stedman's Medical Dictionary* defines psychosis as "a severe mental disorder, with or without organic damage, characterized by derangement of personality and loss of contact with reality and causing deterioration of normal social functioning." (Source: Wikipedia accessed 21 Oct 2007.	OPD Tally sheet	HIA1
D	70	Muscular skeletal and connective tissue (not trauma)	Any condition of the muscles or bones or connective tissue not associated with trauma. Examples include aches and pains, and backache.	OPD Tally sheet	HIA1
D	75	Neoplasm (All types)	Any benign or malignant tumour, other than breast cancer or cervical cancer (see below)	OPD Tally sheet	HIA1
D	80	Nervous System Disorders: Other	Any nervous system disorder other than those specifically mentioned.	OPD Tally sheet	HIA1
D	85	Poisoning	Acute neurological, mental, gastro-intestinal or respiratory disorder due to a poisonous agent, known for causing clinical signs as seen.	OPD Tally sheet	HIA1
D	90	Pulmonary diseases (not infectious)	Diseases of the lungs other than infectious TB, or pneumonia.	OPD Tally sheet	HIA1

Code		Data Element	Definition	Source of data	HIA
D	95	Pyrexia of Unknown Origin (PUO)	Pyrexia of unknown origin.	OPD Tally sheet	HIA1
D	100	Respiratory Infection: non-pneumonia	One or all of the following: cough, runny nose, sore throat; there is no fast or difficult breathing and no chest in drawing, no stridor	OPD Tally sheet	HIA1
D	105	Respiratory Infection: pneumonia	For children under 5 years, pneumonia is defined as cough or difficult and fast breathing and any one of the following general danger signs: child unable to drink or breastfeed, child vomits everything, child has convulsions during this illness, child is lethargic or unconscious or chest drawing or stridor in a calm child The definition of fast breathing depends on the age of the child: age 1 week up to 2 months: 60 breaths per minute or more = fast breathing age 2 months up to 12 months: 50 breaths per minute or more age 12 months up to 5 years: 40 breaths per minute or more GUIDE FOR USE: The child should be counted only for the first visit presenting with pneumonia. Follow-up visits for the same episode of pneumonia should not be counted here.	OPD Tally sheet	HIA1
D	110	Severe Diarrhoea with dehydration	The number of children with severe diarrhoea (defined as the number of children with more than 4 loose stools (stools containing more water than normal) in 24 hours) presenting with dehydration. Dehydration is present when a diarrhoea is accompanied by two or more of the following signs: lethargic or unconscious, sunken eyes, not able to drink or drinking poorly or drinking eagerly , skin pinch goes back very slowly, restless / irritable, and or thirsty.	OPD Tally sheet	HIA1
D	115	Severe malnutrition (new case)	A child found to weigh less than 60% of Estimated Weight for Age (EWA), or to suffer from Marasmus, Kwashiorkor, or similar, EXCLUDING new-born babies. Severe malnutrition might also be denoted as CLINICALLY malnourished.	OPD Tally sheet	HIA1
D	120	Skin Diseases (not infectious)	This includes conditions like allergic rashes, heat rashes, and eczema.	OPD Tally sheet	HIA1
D	125	Skin Diseases (infectious)	This includes conditions like scabies, herpes zoster, tinea, and impetigo.	OPD Tally sheet	HIA1
D	130	Snake Bite	Injury caused by the bite of a snake.	OPD Tally sheet	HIA1
D	135	Substance Abuse	Any visit to the health facility as a result of substance abuse (glue sniffing, marijuana, or other serious drugs like cocaine, TIK, and heroin).	OPD Tally sheet	HIA1
D	140	TB	TB should be suspected in the case of a patient presenting with fever, weight loss, night sweats, with cough for more than three weeks and no other apparent cause or an ill person who has had contact with a known TB case or a child who does not return to normal after measles or whooping cough, while sputum tests have not been done.	OPD Tally sheet	HIA1
D	145	Trauma: Injuries, Wounds, Burns	Any injury associated with trauma, inter-personal violence, and motor vehicle accidents.	OPD Tally sheet	HIA1
D	150	Other1	Can be used to collect data of local relevance.	OPD Tally sheet	HIA1
D	155	Other2	Can be used to collect data of local relevance.	OPD Tally sheet	HIA1
D	160	Other3	Can be used to collect data of local relevance.	OPD Tally sheet	HIA1
D	165	Other4	Can be used to collect data of local relevance.	OPD Tally sheet	HIA1
D	170	Other5	Can be used to collect data of local relevance.	OPD Tally sheet	HIA1
Sexually transmitted diseases					

Code		Data Element	Definition	Source of data	HIA
STI	5	Genital ulcer	A new episode of genital ulcers treated. Syphilis, chancroid, lymphogranuloma venereum (LGV), granuloma inguinale, and herpes genitalis all present with genital ulcers. In males, ulcers are commonly found on the penis, though they may appear anywhere on the external genitalia. In females, ulcers are on the external genitalia, at the vaginal opening, inside the vagina, or on the cervix. These ulcers may appear with or without swelling and drainage from bubos (infected glands in the groin). Small blisters on the genitals are caused by herpes simplex virus type II. GUIDE FOR USE: Each new episode of genital ulcers must ALSO be counted under `STI treated – new episode`.	OPD Tally sheet	HIA1
STI	10	Genital warts	A new episode of genital warts treated. GUIDE FOR USE: Each new episode of genital ulcers must ALSO be counted under `STI treated – new episode`.	OPD Tally sheet	HIA1
STI	15	Inguinal bubo	A new episode of inguinal bubo treated. GUIDE FOR USE: Each new episode of genital ulcers must ALSO be counted under `STI treated – new episode`.	OPD Tally sheet	HIA1
STI	20	Male Urethritis Syndrome	A new episode of Male Urethritis Syndrome (MUS). The Genital Discharge Syndrome can be caused by either gonorrhoea, chlamydia, or some other pathogens. In males, there is pus dripping from the penis and there may be burning pain when passing urine (dysuria). The diagnosis in females is extremely unreliable, hence the focus on the diagnosis in males. GUIDE FOR USE: Each new episode of MUS must ALSO be counted under `STI treated – new episode`. The data element counts new episodes, not patients. Sometimes it is difficult to decide whether it is a new episode or a persistent episode: A thorough history needs to be taken in patients who report again to the facility shortly after receiving treatment of a previous STI: If symptoms of the previous episode disappeared, or substantially improved and there is a history of recent, unprotected intercourse with a sexual partner whose infection status is unknown or who has not been treated, a new episode should be assumed.	OPD Tally sheet	HIA1
STI	25	Pelvic Inflammatory Disease	A new episode of pelvic inflammatory disease (PID) in a non-pregnant female patient. It is characterised by fever and lower abdominal pain on physical examination. Cervical motion tenderness on bimanual pelvic exam will be evident. (This does not require advanced laboratory equipment, but advanced clinical skills.) GUIDE FOR USE: Each new episode of PID must ALSO be counted under `STI treated – new episode`. The data element counts new episodes, not patients. Sometimes it is difficult to decide whether it is a new episode or a persistent episode: A thorough history needs to be taken in patients who report again to the facility shortly after receiving treatment of a previous STI: If symptoms of the previous episode disappeared, or substantially improved and there is a history of recent, unprotected intercourse with a sexual partner whose infection status is unknown or who has not been treated, a new episode should be assumed.	OPD Tally sheet	HIA1
STI	30	STI treated - new episode	A new episode of a symptomatic Sexually Transmitted Infection (STI). One patient can have more than one new episode at the same time. GUIDE FOR USE: The data element counts new episodes, not patients. Count ONLY NEW episodes of a SYMPTOMATIC STI. Sometimes it is difficult to decide whether it is a new episode or a persistent episode: A thorough history needs to be taken in patients who report again to the facility shortly after receiving treatment of a previous STI: If symptoms of the previous episode disappeared, or substantially improved and there is a history of recent, unprotected intercourse with a sexual partner whose infection status is unknown or who has not been treated, a new episode should be assumed.	OPD Tally sheet	HIA1
STI	35	STI partner notification slips issued	A slip issued to notify a sexual partner (a contact) of a patient with an STI (other than HIV). GUIDE FOR USE: As part of the syndromic approach to STI management, patients who are treated for STI are issued with a notification slip for each contact (partner) that they have had. The slip will contain a code indicating the syndrome for which the patient was treated. If the contact presents the slip to a health worker, the health worker will be able to treat the contact by referring to the code on the notification slip.	OPD Tally sheet	HIA1

Code		Data Element	Definition	Source of data	HIA
STI	40	STI partner treated	Any contact (patient) that presented with a notification for STI treatment and received treatment for a suspected or confirmed STI. ONLY the FIRST visit after a notification is counted. GUIDE FOR USE: The number of STI partner treated should ideally be similar to STI partner notification slips issued.	OPD Tally sheet	HIA1
Reproductive Health					
Obstetric Complications					
RH	245	Pregnancy complications - abortion	Number of pregnancies and deliveries before 24 weeks ending in abortion. GUIDE FOR USE: Note that this data is also collected in the Safe Motherhood register, and may also be collected in wards. Double counting should be avoided when the data is collated.	OPD tally sheet	HIA1
RH	250	Delivery complications - sepsis	Number of deliveries with complications as a result of sepsis either during labour, or the post partum period (up to 6 weeks post delivery). GUIDE FOR USE: Note that this data is also collected in the Safe Motherhood register, and may also be collected in wards. Double counting should be avoided when the data is collated.	OPD tally sheet	HIA1
Screening					
RH	315	Breast cancer	A patient screened for breast cancer and positively diagnosed with breast cancer for the first time.	OPD Tally sheet	HIA1
RH	320	Cervical cancer	A patient screened for cervical cancer and positively diagnosed with cervical cancer for the first time.	OPD Tally sheet	HIA1

Annexure 3.4 Validation Rules

The validation rules are still under development.

Annexure 4 – Data Collection Tools

Below is a summary description of primary health care patient/client records.

Patient/Client Record	Description of use	Associated tools
OPD Booklet	Records OPD services (diagnoses and treatment); Normally kept at the facility	OPD register, OPD attendance tally and Disease tally sheets
IPD sheet	Records IPD services (diagnoses and treatment); Normally kept at the facility	IPD register, Disease tally sheets and Obstetric tally sheet
Under 5 Card	Records immunisation, growth monitoring and nutrition services; Kept by the client	Under 5 Register, Child Health Tally sheet or Child Health Activity sheet
Antenatal Care (ANC) Card	Records antenatal, postnatal services; Kept by the client	Safe motherhood register, SMH tally sheet or SMH activity sheet
Obstetric book	Records antenatal, postnatal and obstetric care (Partogramme) services; Kept by the client	Safe motherhood register, SMH tally sheet or SMH activity sheet, Delivery Register, IPD register, Obstetric tally sheet or Obstetric activity sheet, ANC card
Family Planning card	Records family planning services/methods	Family planning register, FP tally sheet or FB activity sheet
TB card	Records TB treatment services	TB register, TB tally/Activity sheet
PMTCT card	Records PMTCT services	Safe motherhood register, HIV-VCT register, PMTCT tally sheet or PMTCT activity sheet
ART card	Records ART services	Pre-ART register, ART register, ART activity sheet or ART tally sheet
Tetanus Toxoid (TT) Immunisation Card	Records tetanus toxoid immunisation received during childhood and pregnancy	Safe motherhood register, SMH tally sheet or SMH activity sheet

Annexure 4.1 - HMIS Data Collection Model

Role may be played by one or more health workers.

Service Point or Dept	PHC Station	Tools to used	Description of use	Role
OPD	Registry	a) Patient card b) OPD Register c) OPD Attendance tally sheet	a) Retrieve/create patient card b) Enter Identity details into register for 1st visit only	Registry Clerk
	Screening Room	a) Patient card b) OPD disease tally sheet	a) Enter history, diagnosis, treatment on patient card b) Enter patient card reference number and tally on the Disease tally sheet	Clinician
IPD	Ward	a) Patient card b) IPD register c) IPD Activity or Tally sheet	a) Update patient record and register b) On exit enter IPD card reference and tick IPD Activity or Tally sheet	Nurse
MCH- Child Health	Registry	a) Under 5 card b) Under 5 Register	a) Reference Under 5 card and turn to page in register or create new entry and issue under 5 card	Nurse
	Immunization	a) Under 5 card b) Under 5 Activity or Tally sheet	a) Update under 5 card b) Enter under 5 card reference and tick the Activity or Tally sheet	Nurse

Service Point or Dept	PHC Station	Tools to used	Description of use	Role
	Growth Monitoring and Nutrition	a) Under 5 card b) Under 5 Activity or Tally sheet	a) Update under 5 card b) Enter under 5 card reference and tick the Activity or Tally sheet	Nurse/ Volunteer
MCH - Safe Motherhood	Antenatal Care	a) Obstetric record book b) SMH Activity or Tally Sheet c) SMH Register	a) Interview and examine client b) Dispense Prophylaxis and update stock sheet c) Update obstetric record, SMH Activity or Tally and register	Midwife
	Obstetric Care	a) Obstetric record book b) Obstetric Activity or Tally Sheet c) IPD Tally Sheets d) Delivery and IPD Registers	a) Admit & enter IPD register, tally attendance b) In labour, enter Delivery Register c) Dispense Prophylaxis and update stock sheet d) Deliver and dispense prophylaxis to baby e) Update Delivery Register, Tally or activity sheet f) Discharge or Refer to higher institution	Midwife
			g) Update IPD register and IPD discharge tally	Registry Clerk
	HIV-VCT	a) HIV-VCT Activity or Tally Sheet b) VCT Register	a) Counsel client b) Update VCT register, VCT Activity or Tally	Nurse
			c) If agreeable test client	Lab Technician

Service Point or Dept	PHC Station	Tools to used	Description of use	Role
			d) Provide test results to client e) Update VCT register, VCT Activity or Tally	Nurse
	HIV-PMTCT	a) Obstetric record book b) PMTCT Activity or Tally Sheet c) PMTCT Register	a) Counsel client b) Dispense prophylaxis to mother and baby c) Update PMTCT register, PMTCT Activity or Tally	Midwife
	Neonatal Care	a) Obstetric record book b) SMH Activity or Tally Sheet c) SMH Register	a) Interview and examine client b) Dispense Prophylaxis and update stock sheet c) Update obstetric record, SMH Activity or Tally and register	Midwife
	Postnatal Care	a) Obstetric record book b) SMH Activity or Tally Sheet c) SMH Register	a) Interview and examine client b) Dispense supplements and update stock sheet c) Update obstetric record, SMH Activity or Tally and register	Midwife
	Screening	a) SMH Activity or Tally Sheet b) SMH register	a) Interview and examine client b) If necessary refer to OPD or higher institution c) Update obstetric record, SMH Activity or Tally and register	Clinician
FAMILY PLANNING	Family Planning	a) FP Activity or Tally Sheet	a) Counsel, Profile and offer method b) Apply method or refer higher institution c) Update FP record, FP Activity or Tally and Family Planning register	Midwife

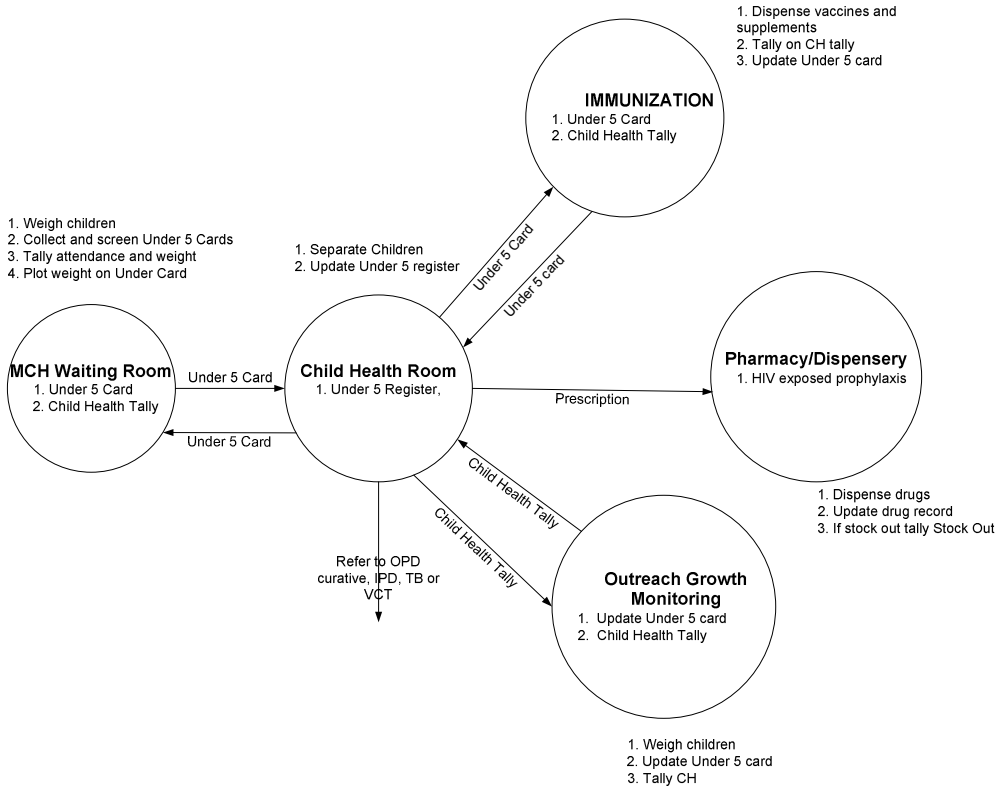
Service Point or Dept	PHC Station	Tools to used	Description of use	Role
PHARMACY (dispensing drugs)	Pharmacy	a) Patient/client Card b) Stock sheet c) Stock out sheet	a) Dispense drugs b) Update Stock sheet and where required the Stock out sheet	Pharmacist
Laboratory	Laboratory	a) Lab TB Activity or Tally sheet	a) Using sample provided run test b) Update test report c) Update register	Lab technician
		a) Lab VCT Activity or Tally sheet	as above	Lab technician
		a) Lab Disease Activity or Tally sheet	as above	Lab technician
TB/Leprosy	TB	a) Patient Card b) TB Service Activity or Tally Sheet c) TB/Leprosy Register	a) Update Patient Card b) Update TB Service Activity or Tally Sheet c) Update TB/Leprosy Register	Nurse
HIV-VCT	HIV-VCT	a) HIV-VCT Activity or Tally Sheet b) VCT Register	a) Counsel client b) Update VCT register, VCT Activity or Tally	Nurse/ Counsellor
			c) If agreeable test client	Lab Technician
			d) Provide test results to client e) Update VCT register, VCT Activity or Tally	Nurse/ Counsellor

Service Point or Dept	PHC Station	Tools to used	Description of use	Role
HIV-ART	ART	a) Patient Card b) ART Activity or Tally Sheet c) Pre ART register d) ART register	a) Counsel client b) Update ART register, ART Activity or Tally c) Update Pre ART register	Clinician
			a) If agreeable test client	Lab Technician
			e) Provide test results to client f) Update ART register, ART Activity or Tally	Nurse/ Counsellor
Environmental Services	Administration	a) Environment Plan and Record tool b) Environment Report and register	g) Set plan for the period h) Inspect, sample and control rodents i) Update environment plan and record tool j) Update register and write report	HCIC, EHT

Annexure 4.2 - Child Health Service Provision

The Child Health or Under 5 Clinic provides preventative health services to children under 5 years of age. The figure below illustrates the normal client flow.

Child Health Services Client Flow Diagram



Refer to section 4.2 for overview description of tools and their use.

Under 5 Card

Purpose: The Under 5 Card is used to record the child's identity, address, history, vital signs, immunisation, growth monitoring graphs and nutrition or prophylaxis dispensed to the child. The Under 5 card is retained by the parent or guardian of the child and serves as the record required for continuity of care regardless of which health facility the child may be attended at.

.

When completed: At the time of consultation.

Who completes: The provider.

Other Tools required: The patient record must be completed together with at least Under 5 tally or activity sheet and the Under 5 register.

Child Health Tally sheet or Activity sheet

Purpose: Aggregation of attendance, immunisation, growth monitoring and nutrition disaggregated by ages less than 12 months, 12 months to less than 59 months and by sex (male or female).

.

When completed: At the time of service provision.

Who completes: The provider.

Under 5 Register

This register is going to be updated to accommodate new data elements and the new under 5 card.

Purpose:

- To serve as a facility-based record of immunisation and growth monitoring services provided to children under 5 years of age;
- To support follow-up of children, particularly those who do not complete the under 1 immunisation series;
- To furnish a basis for self-assessment and supervision

.

When completed: At the time of consultation.

Who completes: The provider.

Location: One Child Under 5 Register should be available at each point of static service delivery, and one Child Under 5 Register should be available for each outreach area or service delivery team

Notes for completing columns in register: A new entry should be made in the register when the child receives the first immunisation or is weighed for the first time. Subsequent preventive services (immunisations and growth monitoring data) should be entered on the same line in the register. The register should be used for children who are receiving on-going services; a child who comes for a single vaccination or weighing but who normally receives services in another catchment's area should not be entered in the register. However, the services provided to the child, such as vaccinations and weighing, should be tallied.

Column	Datum	Comments
a	Under 5 Register Number	This number should match the number on the child's health passport, children's clinic card or file number in the institution's medical records system, or any other reference number the institution finds useful for keeping track of the child.
b	Date of First Attendance	The date on which the child first came for a children's clinic visit.
c	Name and Address	Child's name and address. Enter the name on the top line and the address on the bottom line. The address should include the name of the community or area and the house number if one has been assigned.
d	Origin Code	Location of client's residence in relation to the Institution: **1** = from within 12 KM, within catchment area; **2** = from more than 12 KM, within catchment area; **3** = from within district, but outside catchment area; **4** = from outside district; **5** = from outside Zambia; **6** = unknown. *This column is optional, depending on the instructions from the District.*
e	Date of Birth	Enter the child's date of birth.
f	Sex	The child's sex. Circle M for male; circle F for female.

Column	Datum	Comments
g-p	Immunisations, BCG-Measles	Enter the date when the child receives the immunisation. For BCG scar, enter X when the scar is observed. Measles refers to a dose of measles vaccine given at 9 months or later.
q	Fully Immunised	Enter X on the day when the child completes the standard Under 1 series of immunisations in the first year of life. The standard series of immunisations is BCG, DPT 1-3, OPV 0-3, and Measles. Do not enter an X if the child has passed the first birthday when the series is completed.
r	Birth weight	Enter the child's birth weight in kilogrammes, if it is known. If the birth weight is not known, leave the cell blank.
s-y	Body weight growth 0-6 months	Enter code for growth status during the first month of life; leave blank if child not weighed. If useful, enter the exact weight of the child also. **AG** = above the lower line growing **AS** = above the lower line static **AL** = above the lower line losing **BG** = below the lower line growing **BS** = below the lower line static **BL** = below the lower line losing **note:** When a child comes for the first time, you do not know the previous reference weight and you cannot know whether the child is growing, static or losing weight. Do not use the codes AG/AS/AL or BG/BS/BL, but write the actual weight and the code "A--" or "B--". This means Above Line or Below Line without the growth specified. The same notation may be used when the previous weight was recorded so long ago that the growing, static, or losing cannot be determined.
z	Vitamin A	Enter X if the child receives a dose of Vitamin A by 6 months of age.
aa-ag	Body weight growth 7-11 months	Use the same codes as listed above for columns (s) through (y). **AG** = above the lower line growing **AS** = above the lower line static **AL** = above the lower line losing **BG** = below the lower line growing **BS** = below the lower line static **BL** = below the lower line losing

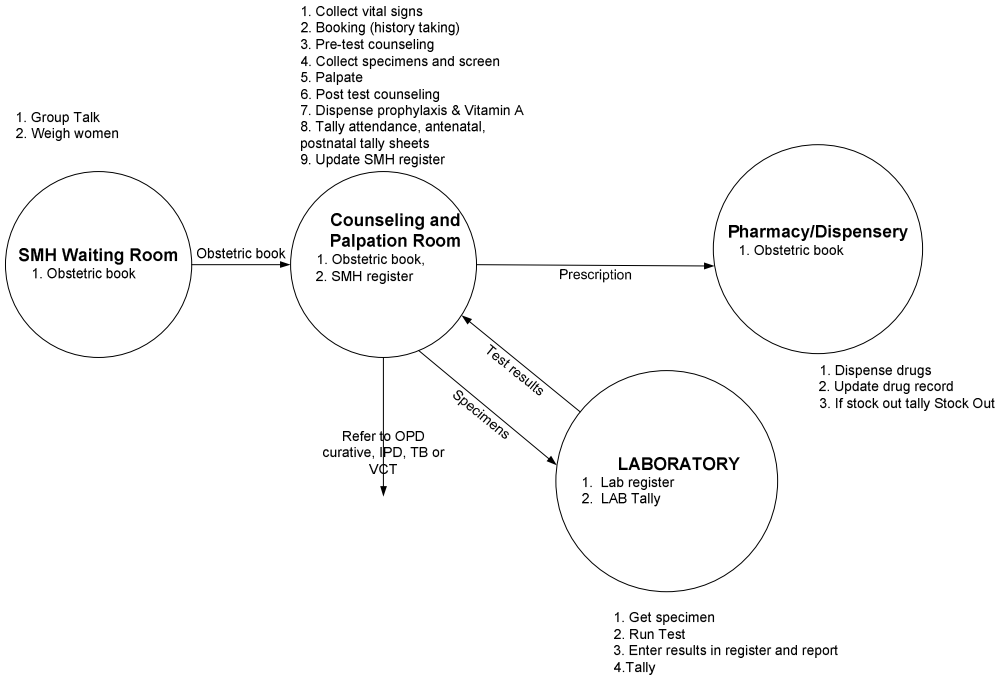
Column	Datum	Comments
af	Vitamin A	Enter X if the child receives a dose of Vitamin A by the time she or he reaches 12 months of age.
ag-ai	Immunisation Boosters	Enter the date when the child receives booster doses of the antigens indicated.
aj-ak am-an ap-aq as-at	Body weight growth by age of child (age 12-35 months)	Enter code for growth status recorded every 3 months; leave blank if child not weighed. Some children are weighed more frequently than quarterly in between ages 12 and 35 months. Hence, use the top line for the first weighing and the bottom line for any subsequent weighing. Use the codes listed above for columns (aa) through (ag).
al, ao, ar, au	Vitamin A	Enter X if the child receives a dose of Vitamin A at the appropriate 6 month intervals.
av, ax az, bb	Body weight growth by age of child (age 36-59 months)	Enter code for growth status recorded every 6 months. Some children are weighed more than once in each 6 month period. Hence, use the top line for the first weighing and the bottom line for any subsequent weighing. Use the codes listed above for columns (aa) through (ag).
aw, ay, ba, bc	Vitamin A	Enter X if the child receives a dose of Vitamin A at the appropriate 6 month intervals.
bd	Home Based Register Number	Enter the number the child has been assigned in the institution's home based care register or notebook. **Note:** Any child whose growth is faltering for three months or more, is losing weight, or has experienced low weight for age with growth faltering should be considered for a home visit or community outreach available in your institution's catchment area.
be	Date of Death (if applicable)	If the child dies, enter the date of death. Leave empty while the child lives.

Column	Datum	Comments
bf	Remarks	Enter observations on the child's health and factors that might affect it like: -one or both parents died -twins -no longer breastfeeding and under age 1 -prolonged illness -TB in the household In addition, enter these risk factors on the children's clinic card. Indicate any action taken in relation to the child's growth status.

Annexure 4.3 - Safe Motherhood Services

The Safe Motherhood Clinic provides preventative health services in the form of antenatal, Prevention of Mother to Child Transmission (PMTCT), obstetric care, family planning, neonatal and postnatal services. The figure below illustrates the normal client flow.

Safe Motherhood Services Client Flow Diagram



Obstetric Book

Purpose: The Obstetric Book is used to record the pregnant woman's identity, address, history, vital signs, immunisation, antennal, delivery, postnatal service data and prophylaxis dispensed. The Obstetric Book is retained by the pregnant woman and serves as the record required for continuity of care regardless of which health facility the woman may be attended at.

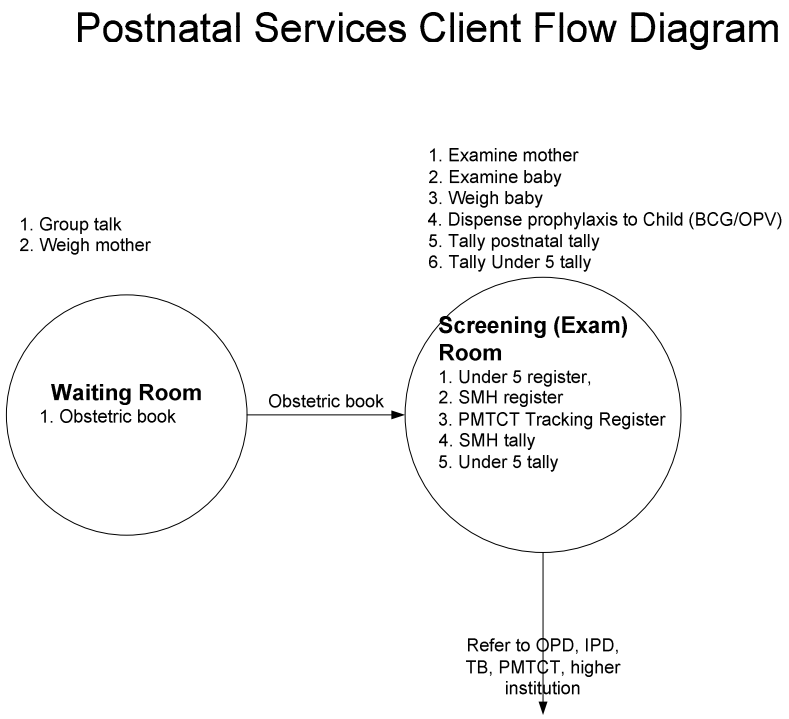
.

When completed: At the time of consultation.

Who completes: The provider.

Other Tools required: The Obstetric Book must be completed together with at least SMH tally or activity sheet and the SMH or Delivery register.

The figure below illustrates the client flow for postnatal services.



Safe Motherhood Tally sheet or Activity sheet

Purpose: Aggregation of attendance, antenatal, neonatal, postnatal, screening, nutrition and prophylaxis

.

When completed: At the time of service provision.

Who completes: The provider.

Safe Motherhood Register: HIR.3

The longitudinal Safe Motherhood register records observations and antenatal and postnatal services provided during the course of a single pregnancy.

Purpose: -To serve as a facility-based record of antenatal and postnatal care.
-To serve as a check-list of at-risk pregnancies or those whose outcome has not yet been determined.
-To furnish a basis for self-assessment and supervision.

When completed: At the times of consultation.

Who completes: The provider.

Location: One Safe Motherhood register should be available at each point of static service delivery, and one Safe Motherhood register should be available for each outreach service delivery team.

Notes for completing columns in register: A new entry should be made in the register when the client makes the first consultation for this pregnancy. Subsequent consultations for the same pregnancy should be entered on the same line in the register. Columns (aa) through (ae) (top) are completed after delivery. Columns (aa) through (ae) should be completed whenever possible, regardless of whether the woman delivers at another institution or at home. Columns ae (bottom) through ai are completed at the time of postnatal care.

The Safe Motherhood register number (column a) should be the same number that is recorded on the client's antenatal care card.

Column	Datum	Comments
a	Safe Motherhood Register Number	Serial number in this Safe Motherhood register. Assign a number to each new antenatal client. This same number should be written on the client's antenatal card. If multiple registers are used for one institution, a mechanism for numbering the register should be devised so that the Safe Motherhood register numbers will be different. Separate tally sheets for each register should be used as well.
b	Date of First Attendance	Date of first attendance at antenatal clinic.

Column	Datum	Comments
c	Name and Address	Client's name and address. Enter the name on the top line and the address on the bottom line. The address should include the name of the community or area and the house number if one has been assigned.
d	Origin Code	Location of client's residence in relation to the Institution. **1** = from within 12 KM, within catchment area; **2** = from more than 12 KM, within catchment area; **3** = from within district, but outside catchment area; **4** = from outside district; **5** = from outside Zambia; **6** = unknown. *This column is optional, depending on the instructions from the District.*
e	Age	The client's age in years.
f	Grava. no.	Gravida is the number of **pregnancies** this woman has experienced. This includes abortions and miscarriages and also includes the current pregnancy.
g	Para. no.	The client's parity—number of **previous deliveries after 28 weeks,** live and still births, as well as those who died after delivery.
h	Date of last normal menstruation	Date on which the client's last normal menstrual period began.
i	Estimated date of delivery	Date client is expected to deliver. This is approximated using the first day on which last normal menstrual period began, adding 9 months and 7 days to arrive at the estimated date of delivery. Or use a calendar and estimate the length of a full term pregnancy of 40 weeks. Do not estimate using height of fundus.
j	RPR positive / negative	Enter + if RPR screen is positive; enter - if RPR screen is negative. Write N/A if the test was not performed.
k	TT1	Enter date of TT1 immunisation. This can be an immunisation given in the past or one given on the day of the visit.
l	TT2	Enter date of TT2 immunisation. This can be an immunisation given in the past or one given on the day of the visit.
m	TT3	Enter date of TT3 immunisation. This can be an immunisation given in the past or one given on the day of the visit.
n	TT4	Enter date of TT4 immunisation. This can be an immunisation given in the past or one given on the day of the visit.
o	TT5	Enter date of TT5 immunisation. This can be an immunisation given in the past or one given on the day of the visit.

Column	Datum	Comments
p	Attendance in months 1-3 of pregnancy.	Tick if client had consultation in months 1-3 of pregnancy.
q-v	Attendance in months 4-9 of pregnancy.	Tick in appropriate column if client had consultation in that month of the pregnancy (e.g. if the woman is in her fourth month of pregnancy, she should be ticked under column (q). The columns for the eighth and ninth months (columns u and v) include space to record two attendances. If a woman comes for two antenatal visits in another month, use the bottom box to put the tick.
w	Risk factor(s) identified in first visit	Enter risk factor. If none is found, enter a straight line: ----------. Do not leave blank. Risk factors include: - Younger than 16 years of age - Older than 35 years of age - > 10 years since last pregnancy - Height under 150 cm - Deformities or paralysis - 6 or more pregnancies - Last delivery vacuum/forceps - Previous cesarean section - Previous third stage complication (e.g. PPH) - Previous stillbirths - Previous neonatal death - > 2 previous abortions - Serious illness (e.g. diabetes, serious anaemia, AIDS)
x	Risk factor(s) identified during subsequent visits	Enter risk factor. Includes all factors listed above plus danger signs and symptoms detected during the pregnancy: - Blood pressure > 140/90 - Oedema and proteinuria - Vaginal bleeding - Pregnancy longer than 42 weeks - Intra uterine death - Uterus too big or too small compared to gestational age - Cough more than 4 weeks - Multiple pregnancy - Malpresentation
y	Referred from	Name of facility or community-based worker who referred client. (Leave blank if client not referred.)
z	Referred to	Name of facility to which client is referred. (Leave blank if client not referred.)

Column	Datum	Comments
aa	Pregnancy outcome date	Date pregnancy completed.
ab	Pregnancy outcome	Enter code for pregnancy outcome: **LB**=Live Birth; **FSB**=Fresh Still Birth; **MSB**=Macerated Still Birth; **MIS**=Miscarriage. In addition, enter **MD** for Maternal Death in red ink.
ac	Location/Assisted by	Enter the location of the delivery on the top line: **INS** for a delivery that occurred in a health institution. **HD** for a Home Delivery. Enter who assisted the home delivery on the bottom line: **tTBA** for Trained Traditional Birth Attendant **R** for Relative, friend or untrained Traditional Birth Attendant
ad	Delivery Register Number	Enter Delivery Register Number (column (a) in Delivery Register) where this delivery is recorded. Leave blank if the delivery did not occur at this institution.
ae	Date of Appointment/ Visit for Postnatal Care	Enter appointment date for postnatal care in the top of the box. Enter the date postnatal visit occurred in the bottom of the box.
af	Mother: General Health	Check nutritional status, especially anaemia; check breasts. Note any problems.
ag	Mother: Uterus/Vagina	Check involution, discharge, scars of tears, episiotomy etc. Note any problems.
ah	Mother: Vitamin A Supplement	Enter X if woman has received a vitamin A supplement. **Note***:* Vitamin A is not recommended for the mother beyond 4 weeks postpartum.
ai	Mother: Contraception	Enter method selected. Leave blank if none is used.
aj	Remarks	Enter anything regarding the mother or infant that needs follow-up. For example, for mothers, episiotomy, Cesarean section, or anaemia; for example, for infants, neonatal conditions like umbilical infections. If the client is referred for delivery, the remarks should include the reasons for referral and feedback from referral institution.

Delivery Register: HIR.4

The delivery register records the progress and outcome of a delivery.

Purpose: -To serve as a record of deliveries attended by Health Institution staff.
-To provide facility-based delivery data.
-To furnish a basis for self-assessment and supervision.

When completed: At the time of delivery.

Who completes: The chief attendant at delivery.

Location: One delivery register should be available at the Health Institution.

Notes for completing columns in register: A new entry should be made in the register when the delivery occurs. Deliveries which occur at the home of the mother can be entered in the register at the discretion of the midwife/practitioner; however these should not be tallied.

✓ Women who enter the health institution for labour or delivery should also be entered in the Inpatient Register in order to account for duration of stay, fees paid, etc.

Column	Datum	Comments
a	Delivery Register Number	Serial number in this delivery register. Assign serial numbers consecutively, beginning with 1 for the first client seen in the year. Alternatively, use the number on the mother's antenatal card or file number in the institution's medical records system.
b	Date of Admission	Date of admission.
c	Time of Admission	Time of admission.
d	Safe Motherhood Register Number	Enter Safe Motherhood Register Number if the client received antenatal care at this institution: column (a) in Safe Motherhood Register. Number is also noted on the ANC card where antenatal care preceding this delivery is recorded.
e	Name and Address	Client's name and address. Enter the name on the top line and the address on the bottom line. The address should include the name of the community or area and the house number if one has been assigned.

Column	Datum	Comments
f	Origin Code	Location of client's residence in relation to the Institution: **1** = from within 12 KM, within catchment area; **2** = from more than 12 KM, within catchment area; **3** = from within district, but outside catchment area; **4** = from outside district; **5** = from outside Zambia; **6** = unknown. *This column is optional, depending on the instructions from the District.*
g	Age	The client's age in years
h	Grava. no.	Gravida is the number of **pregnancies** this woman has experienced. This includes abortions and miscarriages and also includes the current pregnancy.
i	Para. no.	The client's parity—number of previous **deliveries after 28 weeks**, live and still births, as well as children who died after delivery.
j	Duration of pregnancy	Number of weeks between beginning of last menstrual period and delivery. Count the number of days since LMP and divide by 7 for calculating duration of pregnancy in weeks. Do not use height of fundus.
k	Reason(s) for at Risk Pregnancy	Risk factors identified during pregnancy and delivery. Refer to the woman's antenatal card and the Safe Motherhood register for a complete list of risk factors. If none is found, enter a straight line: ---------. Do not leave blank.
l	Date of Delivery	The date on which the delivery actually occurred.
m	Time of Delivery	The time of day of the delivery.
n	Delivery: Characteristics	Characteristics of Delivery: **SVD** = normal (spontaneous vertex delivery) **BRE** = breach **MAL** = malpresentation or lie (for example, oblique, transverse, facial, brow, footling) **BBA** = born before arrival **ABO** = abortion or miscarriage

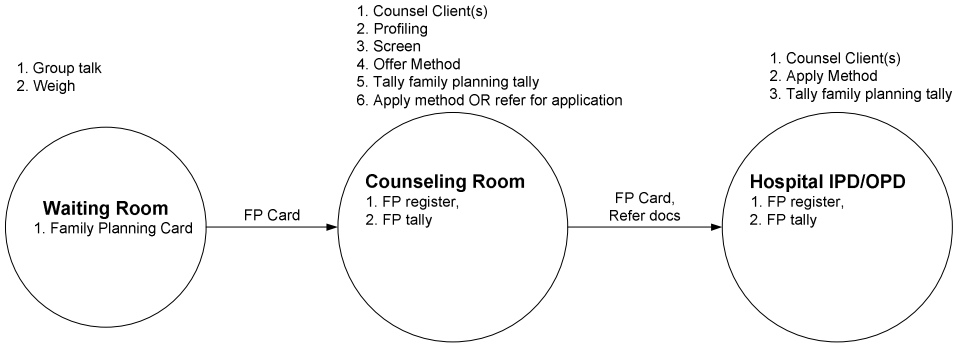
Column	Datum	Comments
o	Delivery: Intervention	Intervention during delivery; leave blank if none **IND** = induction of labour **EPI** = episiotomy **VAC** = vacuum **FOR** = forceps delivery **SYM** = symphysiotomy **V+E** = version and extraction **CS** = Cesarean section **DEC**= decapitation **O** = Others (specify)
p	Third stage delivery: placenta	Enter **CCT** for Controlled Cord Traction, which indicates simple active third stage management. Enter **MRP** for manual removal of placenta or membranes. Note abnormalities of the placenta.
q	Third stage delivery: blood	Note the estimated blood loss in milliliters. More than 500 millilitres indicates abnormal blood loss.
r	Third stage delivery: perineum	Enter: intact, episiotomy sutured or 1st degree tear, 2nd degree tear, or 3rd degree tear.
s	Complication(s)	Enter type of complication occurring during delivery. Examples of a complicated delivery are: - abnormal presentation - abnormal bleeding (APH or PPH) - cord prolapse - multiplets - 3rd degree tear or prolapse - retained placenta - still birth - child distress or child death - maternal death - prolonged or obstructed labour - (pre) eclampsia or toxaemia - other (specify) Note: these complications should also be noted in the Inpatient Register under column (h) diagnoses and tallied as "complications of delivery"
t	Baby: Sex	The baby's sex. Circle **M** for male; circle **F** for female. Enter all information for columns t through w for each child in the case of multiplets.
u	Baby: Birth Weight	The baby's weight at birth, in kilogrammes

Column	Datum	Comments
v	Baby: Live, fresh or macerated stillbirth	Live / still birth **LB** = live birth **FSB** = fresh stillbirth **MSB** = macerated stillbirth Note: FSB and MSB should be noted in the Inpatient Register under column (h) diagnoses and tallied as "complication of delivery".
w	Baby: Perinatal problems	Perinatal problems include low apgar score, pre/dysmaturity, congenital anomalies, twins, etc.
x	Delivery attended by: Name	Name of delivery attendant.
y	Delivery attended by: Title	Title of delivery attendant.
z	Discharge: Vitamin A	Tick if a woman is given a dose of Vitamin A after delivery. Indicate this on the woman's antenatal card.
aa	Discharge remarks	Discharge remarks include transfer of client, maternal death, neonatal death, neonatal transfer, instructions given for postnatal care, etc.

Annexure 4.4 - Family Planning

The Family Planning Service provides preventative health services though the use of family planning methods to protect the woman from unplanned pregnancies. The figure below illustrates the normal client flow.

Family Planning Services Client Flow Diagram



Family Planning Register

The longitudinal Family Planning Register records contraceptive distribution and consultation to a single client (or couple) for a period of three years.

Purpose: -To serve as a facility-based record of family planning services and counselling provided.
-To support follow-up of dropouts.
-To furnish a basis for self-assessment and supervision.

When completed: At the time of providing service.

Who completes: The provider.

Location: One Family Planning Register should be available at each point of static service delivery, and one Family Planning Register should be available for each outreach area or service delivery team.

Notes for completing columns in register: Continuing and new family planning clients should be entered in the register when they come for the first visit upon initiation of the new register. Subsequent visits made by the same client are entered on the same line in the register in the appropriate month columns.

The Family Planning register number (column a) should be recorded on the client's family planning card. The client should have the option of leaving the card at the facility or maintaining it at home. Assign a number to men even if they do not have a family planning card.

Note: In the horizontal box above columns (j) through (u), (w) through (ah) and (aj) through (au), indicates the year services are given. It is important to fill this in to keep track of which year clients are receiving services. At the beginning of each year, a new page in the register should be started.

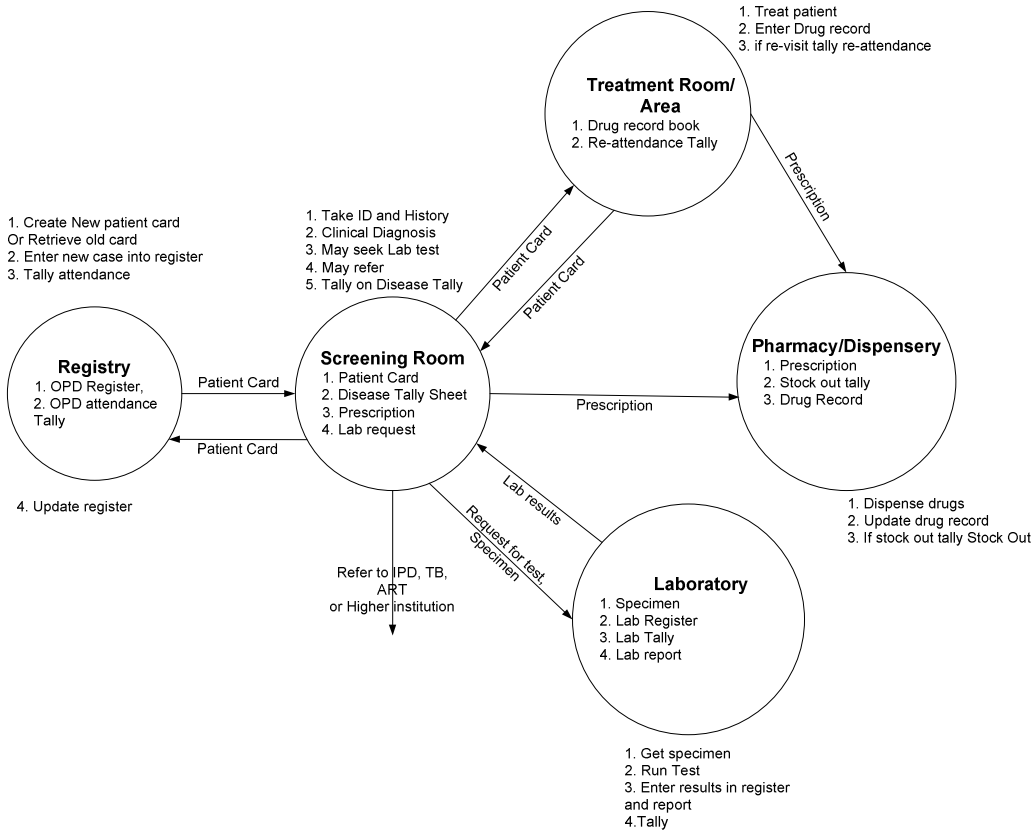
Column	Datum	Comments
a	Family Planning Register Number	Serial number in this family planning register. Assign serial numbers beginning with 1 for the first client entered in the register. When you enter continuing acceptors in the register, give them a new number and copy the new number to the client card. (If you do not give a new number, you will not be able to trace the client back in the register). In addition, you may want to write the page number in the register and the register number on the client's card to ease in finding their name for each visit.
b	Date of Entry into Register	Date that client was entered into this register.
c	Date of FP Acceptance	Date on which client first accepted a family planning method. If exact date is not known, enter month/year of first acceptance of FP.
d	Name and Address	Client's name and address. Enter the name on the top line and the address on the bottom line. The address should include the name of the community or area and the house number if one has been assigned.
e	Origin Code	Location of client's residence in relation to the Institution: **1** = from within 12 KM, within catchment area; **2** = from more than 12 KM, within catchment area; **3** = from within district, but outside catchment area; **4** = from outside district; **5** = from outside Zambia; **6** = unknown. *This column is optional, depending on the instructions from the District.*

f	Age	The client's age in years
g	Sex	The client's sex. Circle M for male; circle F for female.
h	Parity / Live children	For women, indicate the woman's parity (number of deliveries after 28 weeks) as well as number of living children. For men, simply enter the number of living children.
i	Family Planning Method	Indicate on the top line the type of family planning method the client chose: e.g. oral contraceptives (**OC**), injectable contraceptives (**INJ**), male condom **(MC)**, female condom **(FM)**, spermicide, intrauterine device **(IUD),** lactational amenorrhoea (**LAM**), diaphragm, voluntary surgical contraception (**VSC**), etc. If client is using two methods, both should be written on the top line if possible, i.e. "OC/male condoms". If the client changes methods, the bottom line should be used to indicate the new method.
j-u	Month of Visit/Quantity Dispensed	Each time a client comes for resupply, indicate the code for the product in the top box. For example, use: **EUG =** Eugynon **MIC** = Microgynon **MLT =** Microlut **MCV** = Microvat **SP =** SafePlan **NST =** Noristerat **DPO =** Depo Provera or DMPA **VFT =** Vaginal Foaming Tablet **NPL** = Norplant® The quantity of the method dispensed should be indicated in the bottom box. If a woman receives three packs of oral contraceptives in January, put an "x" in the boxes for February and March to indicate that she has received supplies for those months. Use the same system for injectable contraceptives. Continue this process throughout the year(s). If an IUD insertion occurs, write the date of insertion in the box. If a woman comes for a visit to have her an IUD (loop) checked or simply for counseling on any method, indicate this with an "x" in the box. For condoms, indicate the number dispensed that month. For voluntary surgical contraception, enter the date when procedure was performed in the appropriate box for the month.
v	Remarks	Any referral or other relevant information.
w-av	Month of Visit/Quantity Dispensed and Remarks	These spaces are provided for subsequent years of family planning use. Indicate the year at the top of the column. Follow the same instructions for columns (j) through (v).

Annexure 4.5 - Out-Patient Department Curative Service Tools

The OPD provides curative services to 'walk-in' patients. The figure below illustrates the normal patient flow. For new patients the entry point is the registry.

OPD Curative Services Patient Flow Diagram



The tools used during OPD curative service provision are:

a) Patient booklet/Card;
b) OPD register;
c) OPD attendance Tally Sheet;
d) Disease Tally Sheet;
e) Re-attendance Tally Sheet; and
f) Drug Record Book.

Below is an explanation how each tool should be used

OPD Patient record (booklet or Card)

The OPD patient record in the form of a booklet or card is used to record the patient's identity, address, history, vital signs, diagnosis and treatment given to the patient every time curative services are provided. To avoid loss of this record, many health facilities retain the patient record at the health facility.

Purpose: To record the patient's identity, address, history, vital signs, diagnosis and treatment given to the patient every time curative services are provided. Ideally patients should carry the patient record when moving from home facility to another.

When completed: At the time of consultation.

Who completes: The provider.

Other Tools required: The patient record must be completed together with at least OPD disease tally and the OPD register.

The OPD Patient Record should have at least the following:

1. Patient identification—name, address, date of birth, sex, and OPD card number
2. Information on next of kin
3. Relevant history of illness or injury (present and past)
4. Immunisation status } for children
5. Growth chart status }
6. Allergies
7. Date of Visit (s)
8. Temperature, Pulse, Respiration, Body Weight
9. Physical assessment
10. Clinical observation
11. Diagnosis or impression
12. Procedures and Tests performed
13. Treatment given and results

14. Referral notes
15. Review date (where appropriate)
16. Signature of Service Provider

OPD attendance Register

Purpose: To aggregate new attendances.

When completed: At the time of registration.

Who completes: The registry clerk or Provider

Out-Patient Department Register

The transverse Out-Patient Department (OPD) register (HIR1) records new attendances for an episode of disease that is treated in the outpatient department. This register is for recording patients who attend for a new period of disease; it is frequently misunderstood as the first visit of the year which is not correct.

Purpose: To serve as a facility-based archive of clinical diagnosis and treatment by the OPD.
To provide facility-based morbidity data.
To furnish a basis for self-assessment and supervision.

When completed: At the time of consultation.

Who completes: The provider or a registration clerk using provider's documentation. Only a clinician should make a diagnosis.

Location: Each health centre should evaluate its patient flow to determine the best location of the register(s) to assure the most effective and accurate data collection.

Notes for completing columns in register: First attendances for a new episode of illness are entered into the outpatient register. Re-attendances in cases where a new diagnosis is made are recorded as new attendances.

If the client is admitted, the client is entered in the Inpatient Register. If the client has already been entered in the OPD register, the remarks column in the OPD register should indicate "admitted". This client should not be tallied in OPD Attendance or Diagnosis Tallies.

A client with a chronic disease is only entered as a new attendance in the OPD Register for that disease once in his or her lifetime.

Preventive care visits for maternal or child health or family planning are recorded in those registers, not in the OPD register. If an OPD client receives preventive care, like family planning supply or an immunisation, the preventive service should be entered in the appropriate service register.

Optional: To keep track of the new attendances as a cross check on the new attendance tally, use the left margin of the register for writing a sequential number.

Column	Datum	Comments
a	Outpatient Card Number	Indicate the number that appears on the client's OPD card or health passport.
b	Date	Today's date.
c	Name and Address	Client's name and address. Enter the name on the top line and the address on the bottom line. The address should include the name of the community or area and the house number if one has been assigned.
d	Origin Code	Location of client's residence in relation to the Institution: **1** = from within 12 KM, within catchment area; **2** = from more than 12 KM, within catchment area; **3** = from within district, but outside catchment area; **4** = from outside district; **5** = from outside Zambia; **6** = unknown. *This column is optional, depending on the instructions from the District.*
e	Age	The client's age in years. If the client is under one year of age, enter the age in months of a possible twelve. For example, if the client is 5 months old, enter (5 / 12).
f	Sex	The client's sex. Circle M for male; circle F for female.
g	Fee(s) paid (amount	Amount of fees collected from the client in kwacha. The amount can be copied from the receipt the client has been given. For clients who do not pay any fee, the following codes are used: **E**=exempt, **U**=unable to pay, **P**=prepaid insurance. Do not leave the column blank.

h	Diagnoses	Two diagnoses may be entered when appropriate. Primary diagnosis on top line; secondary diagnosis on bottom line. If there is a third diagnosis which is not merely a symptom of the first two diagnoses, it can also be written. The diagnostic code which is given in the Case Definitions Manual can be indicated if this will ease the tallying, but is not a requirement.
i	Treatment Given	Name of medication / treatment. For example: Co-trimoxazole 400+ 80 mg
j	Dosage	The amount of medication listed in column i given. For example: 1 bd x 5/7 or 2 qid x 3/7
k	Referred from	Name of facility or community-based worker who referred client. (Leave blank if client was not referred.)
l	Referred to	Name of facility to which client is referred. (Leave blank if client is not referred.)
m	Remarks	If the client is referred, the remarks should include the reasons for referral and feedback from referral institution. Includes clinical information, such as suspected resistance to anti-malarials or diagnosis of a notifiable disease. If the client is admitted, the remarks column should indicate admitted. This column can also be used to indicate the receipt number given to the patient for fees paid.

OPD attendance Tally Sheet

Purpose: To count the number of clients utilising the OPD services.

When completed: At the time of requesting for OPD services.

Who completes: The provider or a registration clerk.

Location: Each health facility should evaluate its patient flow to determine the best location of the OPD attendance tally sheet to assure the most effective and accurate data collection. The point of entry is highly recommended.

OPD Disease Tally Sheet

Purpose: To count the number of clients utilising the OPD services for a given diagnosis.

When completed: At the time of consultation.

Who completes: The provider (Clinician).

Location: Screening Room or any other suitable place as near as possible to the provider of services.

OPD Re-attendance Tally Sheet

Purpose: To count the number of clients utilising the OPD services on second or more visits for the same condition.

When completed: At the time of consultation.

Who completes: The provider

Location: Treatment Room or any other suitable place as near as possible to the provider of services.

OPD Drug Record Book

Purpose: To record drugs and medical supplies used for providing OPD services/treatment in the OPD and NOT in the pharmacy or dispensary.

When completed: At the time of consultation.

Who completes: The provider

Location: Not in the pharmacy or dispensary.

Annexure 4.6 - In-Patient Department Curative Service Tools

The IPD provides curative services to patients admitted in the facility. The are admitted from OPD or Safe Motherhood..

The tools used during IPD curative service provision are:
g) IPD sheet;
h) IPD register;
i) Disease Tally Sheet; and
j) Drug Record Book.

Below is an explanation how each tool should be used

IPD sheet

Purpose: To record the patient's identity, address, history, vital signs, diagnosis and treatment given to the patient every time curative services are provided. This record is retained at the health facility.

When completed: At the time of service provision.

Who completes: The provider.

IPD Register

Purpose: To aggregate new attendances and discharges.

When completed: At the time of admission, discharge.

Who completes: The registry clerk or Provider

In-Patient Department Register

The transverse In-Patient Department (IPD) register records new attendances for an episode of disease that is treated in the in-patient department. This register is for recording patients who are admitted;

Purpose: To serve as a facility-based archive of clinical diagnosis and treatment by the IPD.

To provide facility-based morbidity data.
To furnish a basis for self-assessment and supervision.

When completed: At the time of admission and discharge.

Who completes: The provider or a registration clerk using provider's documentation. Only a clinician should make a diagnosis.

Location: Each health centre should evaluate its patient flow to determine the best location of the register(s) to assure the most effective and accurate data collection.

Notes for completing columns in register: First attendances for a new episode of illness are entered into the in-patient register

If the client has already been entered in the OPD register, the remarks column in the OPD register should indicate "admitted" and should not be tallied in OPD Attendance or Diagnosis Tallies.

Optional: To keep track of the new attendances as a cross check on the new attendance tally, use the left margin of the register for writing a sequential number.

Column	Datum	Comments
a	Inpatient reference Number	Indicate the number that appears on the client's OPD card or health passport.
b	Date	Today's date.
c	Name and Address	Client's name and address. Enter the name on the top line and the address on the bottom line. The address should include the name of the community or area and the house number if one has been assigned.
d	Origin Code	Location of client's residence in relation to the Institution: **1** = from within 12 KM, within catchment area; **2** = from more than 12 KM, within catchment area; **3** = from within district, but outside catchment area; **4** = from outside district; **5** = from outside Zambia; **6** = unknown. *This column is optional, depending on the instructions from the District.*

e	Age	The client's age in years. If the client is under one year of age, enter the age in months of a possible twelve. For example, if the client is 5 months old, enter (5 / 12).
f	Sex	The client's sex. Circle M for male; circle F for female.
g	Fee(s) paid (amount	Amount of fees collected from the client in kwacha. The amount can be copied from the receipt the client has been given. For clients who do not pay any fee, the following codes are used: **E**=exempt, **U**=unable to pay, **P**=prepaid insurance. Do not leave the column blank.
h	Diagnoses	Two diagnoses may be entered when appropriate. Primary diagnosis on top line; secondary diagnosis on bottom line. If there is a third diagnosis which is not merely a symptom of the first two diagnoses, it can also be written. The diagnostic code which is given in the Case Definitions Manual can be indicated if this will ease the tallying, but is not a requirement.
i	Treatment Given	Name of medication / treatment. For example: Co-trimoxazole 400+ 80 mg
j	Dosage	The amount of medication listed in column i given. For example: 1 bd x 5/7 or 2 qid x 3/7
k	Referred from	Name of facility or community-based worker who referred client. (Leave blank if client was not referred.)
l	Referred to	Name of facility to which client is referred. (Leave blank if client is not referred.)
m	Remarks	If the client is referred, the remarks should include the reasons for referral and feedback from referral institution. Includes clinical information, such as suspected resistance to anti-malarials or diagnosis of a notifiable disease. If the client is admitted, the remarks column should indicate admitted. This column can also be used to indicate the receipt number given to the patient for fees paid.

IPD Disease Tally Sheet

Purpose: To count the number of clients utilising the IPD services for a given diagnosis.

When completed: At the time of discharge.

Who completes: The provider.

Location: Ward or any other suitable place as near as possible to the provider of services.

IPD Drug Record Book

Purpose: To record drugs and medical supplies used for providing IPD services/treatment in the IPD and NOT in the pharmacy or dispensary.

When completed: At the time of consultation.

Who completes: The provider

Location: Not in the pharmacy or dispensary.

Brought in Dead Register HIR.7

The transverse Brought in Dead Register records the details on patients who are brought into the institution already dead (dead on arrival). It is used to fulfill legal requirements for the institution.

Purpose: To serve as a record of patients who are brought in dead.

When completed: At the time that the patient is brought in to the institution

Who completes: Health Centre In-Charge

Location: The register is kept at the registration area.

Special Note: Brought in Registers are not available in hard copy for Health Centres. Rather, the Health Centre staff should use the format in **Annex 1** of this Procedures Manual to make their own register for the institution.

Notes for completing columns in register:

Note: this register is replaced by an exercise book in health centres.

As much information as possible should be completed for columns (a) through (h) at the time the patient is brought to the institution. Columns (j) through (l) should be completed at the time the body is removed from the institution and/or after an autopsy has been completed.

The data collection in the BID register is used for special studies and during supervision. Information on diagnoses is not reported through the routine quarterly HMIS. Hence 'Cause of Death' is not tallied.

Column	Datum	Comments
a	Register Number	This is a sequential number to keep track of BIDs. Assign the first BID 1 for example. Assign the next number to the next BID.
b	Date brought in	Date the patient was brought to the institution
c	Time brought in	Time of day the patient was brought to the institution
d	Name and Address	Patient's name and address. Enter the name on the top line and the address on the bottom line. The address should include the name of the community or area and the house number if one has been assigned.
e	Origin Code	Location of patient's residence in relation to the Institution: **1** = from within 12 KM, within catchment area; **2** = from more than 12 KM, within catchment area; **3** = from within district, but outside catchment area; **4** = from outside district; **5** = from outside Zambia; **6** = unknown. *This column is optional, depending on the instructions from the District.*
f	Name, Address and NRC Number of Person Bringing in Body	Enter the Name, Address and National Registration Number of the person who brought the body to the institution.
g	Age	The patient's age in years. If the patient is under one year of age, enter the age in months of a possible twelve. For example, if the client is 5 months old, enter 5 / 12.
h	Sex	The patient's sex. Circle M for male; circle F for female.
i	Fee(s) paid (amount)	Amount of fees for death certificate or mortuary services paid in kwacha. The amount can be copied from the receipt given to the person paying the fees. Enter U for unable to pay or N/A for those who do not use mortuary services at the institution.
j	Date of death	Date on which the patient actually died

k	Cause of Death	Enter the principle cause of death, if known.
l	Postmortem Confirmation	Enter “yes” or “no” if a postmortem confirmation of the cause of death was made.
m	Date of Removal of Body	Date the body was removed from the institution.
n	Record Number(s)	Record any reference numbers of patient’s records kept at the institution, e.g. OPD Card or IP Register Number(s) where applicable.
o	Remarks	Enter any remarks about the death.

Annexure 4.7 - PMTCT and VCT services

Data Collection

Preamble

Data collection begins with recording of interactions between provider and client/patients. For counselling and testing, data collection commences with individual private counselling and ends with post-test counselling. This is the most important stage towards effective program monitoring and improved quality of service. For this to be attainable, data being collected should be of impeccable quality from which decisions can be made with unshaken confidence. The most common problems of data in routine systems like this one are those to do with consistency and completeness. This chapter discusses two registers and four tally sheets used in data collection or collation with emphasis on standards that should be used by all facilities.

Data Collection Instruments

There are two registers and four tally sheets used under integrated PMTCT/CT. The two registers are: the Integrated Counselling and PMTCT Register and the PMTCT Labour Ward Register. Each of the registers has two corresponding tally sheets (antenatal and counselling) from the counselling register while data from the PMTCT delivery register are tallied on the PMTCT delivery tally sheet and the PMTCT under-five tally sheet.

Integrated Counselling and Testing Register

This register is used to document health transactions that occur during the process of providing CT and PMTCT services in a given facility. This is a revised register based on the previous General VCT Register (form 1) and the integrated VCT/PMTCT (form 2) register.

Purpose: It serves as a tool for obtaining basic information about clients seeking HIV testing and linkages to other services such as PMTCT.

Depending on whether the service being offered is general counselling and testing or counselling and testing for PMTCT, the integrated counselling and testing register changes function. This register will be used in both situations. In non-antenatal settings, only one register will be maintained at a given time. However, for those centres that provide both PMTCT and VCT services, one register should be for PMTCT services and another for general counselling and testing.

Example: *"A husband who escorts his pregnant wife to the one-on-one (individual) counselling session and both of them receive the counselling and/or testing from the antenatal clinic, the wife will be entered in the register maintained for PMTCT and the husband will be recorded in the register maintained for general counselling and testing".*

When Completed: This register is completed upon contact with a client seeking HIV Counselling and Testing services.

Who Completes: The Counsellor or any staff in the Counselling Unit assigned with the responsibility.

Location: This register is located in the room were counselling takes place.
This register has the following minimum data elements:

(1) Client Details

Column ID	Datum	Instructions
(a)	Client Number	Enter the client' serial number (come up with a specific format as in Safe motherhood)
(b)	Date of Initial Visit	Enter the date when client first visited the facility for counselling and testing in the format dd/mm/yyyy
(c)	Client's Name	Enter the client's second name in the upper cell and the first name in the lower cell.
(d)	Age	Enter the client's age in completed years as at last birthday
(e)	Marital Status	Enter **M** for married or **S** for single Enter one of these codes in the cell (1-Never Married or Engaged, 2-Married, 3-Separated 4-Divorced, 5-Widowed and 9-Not applicable) NB: For minors enter 9.
(f)	Sex	Enter **F** for female or **M** for male
(g)	Address	Enter the patient' address in full in the upper cell and chief or district in the lower cell
(h)	Came as a Couple	Enter **Y** for yes if the client came with partner and **N** for no if client came alone. Couple should be of opposite sex and may not necessary be the spouses

Column ID	Datum	Instructions
(i)	Partner Took an HIV test	Enter **Y** for yes if the client's came with partner and **N** for no if client came alone. Couple should be of opposite sex and may not necessary be the spouses

(2) Pre-test Counselling and Testing

Column ID	Datum	Instructions
(j)	Reason for seeking service	Enter the main reason for seeking service i.e. pregnant, planning to get married or sick, just to make sure, plan to have a baby or any other
(k)	Took HIV test on visit 1	Tick in this cell if the client took an HIV test on the first visit (initial visit)
(l)	Took HIV test on visit 2+	Tick in the upper cell if the client took an HIV test on second or subsequent visit and in the lower cell enter the date when test is done
(m)	Test result	Enter **P** for positive, **N** for negative or indicate **I** with a pencil if result is indeterminate. This will be changed after next test result is either positive or negative. **Since tests results can change - use pencil for this field.**

Post-testing Counselling Services

Column ID	Datum	Instructions
(n)	Post test counselled	Tick in the upper cell if post-test counselled and enter the date of post-test counselling in the lower cell
(o)	Collected results on...	Enter the date when the client collected the results in the format dd/mm/yyyy. If the results are not collected, leave the cell blank.
(p)	Assessed for ART	Enter the date the client is assessed for ART eligibility in the upper cell and the result of the assessment in the bottom cell. Assessment can be clinical or through laboratory test. Possible entries are the CD4 values, TLC and WHO Stage
(q)	Referred for ART	Tick in the upper cell if referred for ART and enter the date of referral in the lower cell

PMTCT Services

Column ID	Datum	Instructions
(r)	Consented to ARVs	Tick in the upper cell if client consented to ARVs and enter the date in format dd/mm/yyyy the lower cell. Leave the cell blank if client never consented.
(s)	ARVs dispensed	Enter ARVs dispensed in the upper cell and gestation of pregnancy in weeks in the lower cell
(t)	Opts for 6mths EBF	Tick in the cell if the clients opts for 6 months EBF and leave the cell blank if the client does not opt for 6 months EBF
(u)	Link number	If the client is referred for other services such as TB, request the client to supply this clinic with the TB Card Number which will later be used to update this column. However, for clients who are enrolled onto PMTCT, this number is supplied by same antenatal clinic.

(3) General Remarks

Column ID	Datum	Instructions
(v)	General Remarks	Enter general remarks or observation.

PMTCT Delivery Register

The PMTCT Delivery Register is an institutional-based document. It keeps information on HIV positive women enrolled onto the PMTCT programme during antenatal and delivery in a health institution. All antenatal women will first be recorded in the Delivery Register HIR .4 regardless of whether they are on PMTCT or not. This is a supplementary register to the existing delivery register. It has additional data elements that are unique to mothers on PMTCT programme. It does not however replicate everything from the delivery register except for identifier fields.

Purpose: The PMTCT delivery register provides information on the following:

- HIV prophylaxis in both mother and baby
- woman's decision on feeding option
- delivery outcome for babies born of PMTCT mothers
- post-delivery services at 6 weeks, 12months and 18 months of birth.

When completed: At the time the woman is admitted to the labour ward, until delivery and at 6 weeks, 12 months and 18 months post-delivery follow up of the baby.

Who completes: Nurses in the labour ward assigned the responsibility of updating the PMTCT register at the facility and at 6 weeks, 12 months and 18 months post delivery, the information should be captured by the nurses in the MCH department.

Location: In the labour ward where other obstetric records are kept. Each facility should ensure that registers are updated promptly before mothers are discharged.

NB: The challenge in completing this register lies in the follow up activities at 18 months post delivery. While the follow up will be conducted in the MCH department, the register will permanently be in the labour ward and sometime not necessarily in the same facility. It then means that administratively a system should be devised on how to update this register and provide the required information on HIV status at 6 weeks, 12 months and 18 months for individual babies.

This may require making entries on either the ANC or under-five cards for easy follow up at 18

months post delivery.

(4) Client Details

Column ID	Datum	Instructions
(a)	Date of Admission	Enter the date of admission to the labour ward in the format dd/mm/yyyy. This is the date of admission to maternity ward and is the same date reordered in column (b) in the delivery register (HIR.4)
(b)	Delivery register number	This is the same number as in the delivery register. Copy this number from column (a) of the delivery register (HIR.4)
(c)	Safe motherhood number	This is the same number as in the safe motherhood register. Copy this number from column (b) of the safe motherhood register. This number should take the format of District Code (*xxxx*), Facility Code (*xx*) and the client serial number (*xxxx*)
(d)	Patient's name	Enter surname in the upper cell and first name in the lower cell.
(e)	Address	Enter the physical address of the client In urban areas enter house number and township followed by district name *For example: Plot number 2530, Shimpange Road, Makaliki Site and Service, Luanshya.* In rural settings; enter village and chief followed by district name *For example: Chunsu's Village, Chief Mushili, Masaiti.*

(f)
Marital status
Enter one of these codes in the cell (1-Never Married or Engaged, 2-Married, 3-Separated 4-Divorced, 5-Widowed and 9-Not applicable)

NB: For minors enter 9.

(g)
Partner notified

Enter Y (Yes) if partner has been notified about the HIV positive status and N (No) if partner has not been notified

(h)
Feeding option
Enter the final option that the woman has finally settled on at the time of delivery. This may be different from the one decided upon during counselling

(5) Services to the Mother

Column ID	Datum	Instructions

(i)
Date ARVs taken
Enter the actual date the client actually ingested the ARVs. The date should be in the format dd/mm/yyyy.

(j)
Name of ARV taken
Enter the abbreviation of the ARV ingested e.g. NVP for Niverapine

(k)
Place ARV swallowed
Enter C (Clinic) if ARVs were swallowed at the health facility and H (Home) if swallowed at home. This must always be at commencement of labour

(6) Services to the Baby

Column ID	Datum	Instructions

(l)
Number of births
Enter the number of deliveries.

For example: 1-single baby; 2-twins; 3-triplets etc

(m)
Birth type
Enter L (Live) and S (Still) births

(n)
ARVs given (Name of the ARV drug)
Enter the name of the ARV given to the baby

(o)
ARVs given (Dosage)
Enter the dosage administered to the baby

(p)
Given co-trimoxazole
Enter Y (Yes) if Co-trimoxazole has been given to the baby and N (No) if not given

(7) Post-delivery Follow-up

Column ID	Datum	Instructions

(q)
Planned follow-up date
Enter the date, month and year for which follow up at 6 weeks of birth is scheduled. The date should be in the format dd/mm/yyyy.

(r) thru (t)
Actual date of followup at 6wks, 12 & 18 months
Enter the actual date the baby is brought back to the health facility at 6wks, 12 or 18 months of birth. The date should be in the format dd/mm/yyyy.

(u) thru (w)
Date baby tested
Enter the date the HIV test was done in the upper cell. The date should be in the format dd/mm/yyyy.

Enter the HIV test result in the lower cell. This should be entered as P (Positive), N (Negative) or I (Indeterminate). If Indeterminate, the result should be entered in pencil and upgraded after confirmatory test.

Test Results

(8) General Remarks

Column ID	Datum	Instructions

(t)
General remarks
Enter general comments on services related either to mother or baby

b. Service Utilisation Tally Sheets

Annexure 4.8 - Pre-ART and ART Services

Introduction

1.1 Preamble

The system outlined in this document is a generic idea meant to provide the minimum standards required in each layer of Antiretroviral Therapy (ART) service provision. Some facilities may have the capacity and resources to implement advanced electronic systems. However, what is presented in this document shall be part of these initiatives. The ART information system covers the following areas:

- X Patient enrollment
- X Patient assessment
- X Patient recruitment
- X Patient management
- X Treatment outcomes

1.2 Organisation of ART Services: An Overview

Patients into ART services come from different places, broadly grouped as institutional or self referrals. Data collection hence begins at this point. Patients on entry are entered into the Pre-ART register, they remain in this register until they are commenced on ART. Once on ART, an HIV Care/ART Card is opened. Patient level data from the Pre-ART and ART registers are summarized ointo the HIV Care/ART activity sheet, and the cohort summary sheet. two tally sheets namely the Pre ART Monthly Tally Sheet and the ART Monthly Tally.

At the end of each reporting period, data from the two summary sheets tally sheets are then aggregated on the HMIS hospital (HIA3) and Health Centre (HIA2) aggregation forms.
These aggregates are made up of: Monthly Cross Sectional and the Group Interval Data.

Note: *Hospitals will summarize their ART activities for the period under review and transfer them to the HIA 3. Health centres, likewise shall summarize their activities onto HIA 2. Both of these reports will be consolidated in a District Health Report at the District Health Office.(HIA4)*

1.3 Patient and Data Flow Structures in the Institution

Data quality in health institutions is a function of patient flow. A poorly organized patient flow system potentially leads to data losses. The success of the ART information systems depends partly on this. Organisation of both data and patient flow should be specific to the capacity and infrastructure setup of each facility. This document therefore does not propose a uniform system for organizing the flow of patients and the data thereof. However, an attempt has been made to outline a generic structure that can apply to most of our big health institutions.

Note: *The problem of patient and document flow is more pronounced in bigger institutions than smaller ones. Bigger institutions have more departments and the number of providers patients get into contact with, on a single visit are many, thereby increasing the propensity for omissions and loss of documents.*

1.4 Generic Patient Flow for ART

There are two major sources of patients into the ART programme: those referred by another facility or from a department within the same facility and those who walk in on their own without any documentation (self-referred).

The normal starting point for each of these categories is the outpatient or inpatient registry. The materials presented here are made on the assumption that every patient coming into the facility to seek Antiretroviral Therapy, will pass through all the necessary processes before getting to the ART clinic as shown in figure 1.

All patients (A through C), have to pass through the general registry for registration. Thereafter they proceed to the nurses' bay for recording of vital signs. Once diagnosis is done in the screening room, the patient may be sent for counselling and testing or referred to the ART clinic if it is separate from the screening rooms.

Depending on the circumstances, a clinician in the screening room may order baseline investigations directly (B,D,E). At the ART clinic the Medical Officer conducts either WHO staging or orders/reviews laboratory and/or x-ray investigations to determine if the patient is eligible to start ART. Once the clinician/counsellors are satisfied, the patient is then commenced on ART

Institutional Referrals

For a patient to qualify as a referral, there must be, at least an official letter/note from the source facility or department. Patients referred for ART may be grouped as follows:

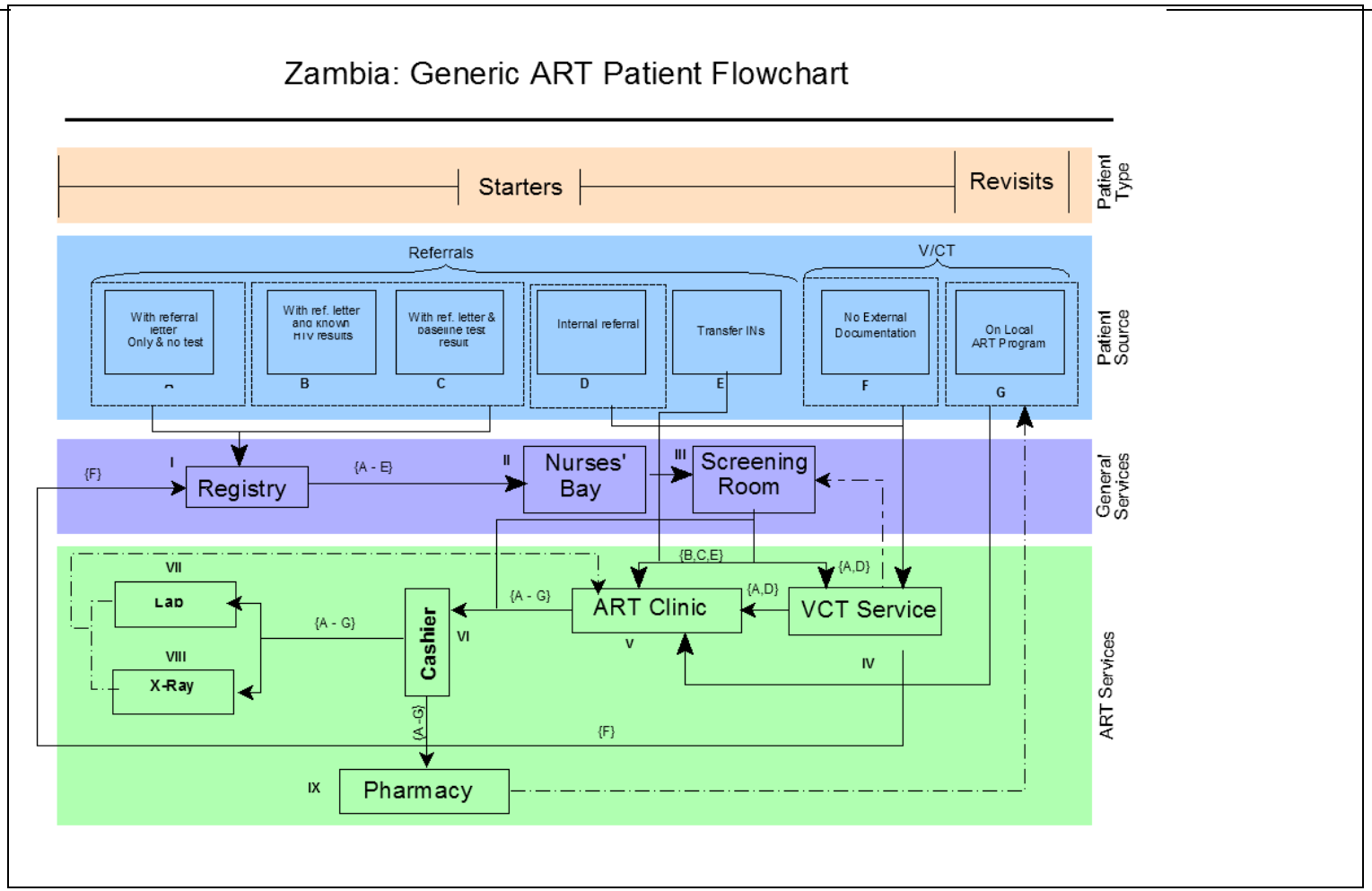
X With a referral letter only and no tests (A): These are patients who are clinically assessed as potential clients for ARVs. They are then referred to facilities with testing facilities for HIV testing.

X With referral letter and known positive results (B): These are patients with known positive HIV results. They are usually referred from counselling centres and health centres with HIV testing capabilities.

X With referral letter and baseline test results (C): These are HIV positive patients with baseline investigations done already and are just referred to this facility to commence on ART.

X Internal referral (D): These are patients referred from other departments within the facility. These may include in-patients, PMTCT and TB Out-Patient.

X Transfer-ins (E): These are patients who are already enrolled in HIV Care in another facility and are transferred to this facility. They are transferred with all the necessary personal patient documentation such as the HIV Care/ART Card.


Zambia: Generic ART Patient Flowchart
Starters
Revisits
Patient Type
Referrals
V/CT
With referral letter Only & no test
With ref. letter and known HIV results
With ref. letter & baseline test result
Internal referral
Transfer INs
No External Documentation
On Local ART Program
A
B
C
D
E
F
G
Patient Source
{F}
I
Registry
{A - E}
II
Nurses' Bay
III
Screening Room
General Services
{B,C,E}
{A,D}
VII
Lab
VIII
X-Ray
{A - G}
Cashier
VI
{A - G}
ART Clinic
V
{A,D}
VCT Service
IV
{A-G}
{F}
IX
Pharmacy
ART Services

Self-Referrals

These are clients who present themselves to the VCT centres (attached to the ART centre) for HIV tests. If they are positive, and they agree to enrol on the ART programme, the client will be referred to the registry where the normal patient flow is followed. There has been a general shift in most hospitals to train more counsellors (clinical officers, nurses and doctors), such that the need for and existence of a separate physical counselling unit may not be as useful. These staff members should then be able to provide counselling as part of their day-to-day work in their respective departments.

Already@ On Local Programme

These are patients who are already on the programme. They visit the hospital for re-supply of drugs, progress monitoring, or for treatment of opportunistic infections. When these patients come for a refill, they go directly to the ART clinic for medical examination to the check on their progress, thereafter, collect the drugs from the pharmacy. However, if an ART patient comes to the health facility for treatment of opportunistic infections, he or she has to use the normal patient flow and the clinician on duty has to be notified by the patient that he or she is on ARVs so that they do not prescribe contraindicative drugs to ARVs.

1.5 Conceptual Framework for ART

Overview

The patient flow system presented in this document is generic and may not entirely reflect individual facility practices. This flow is based on practices currently obtaining in levels 3 and 2 hospitals. The flow at lower levels may vary according to institutional capacities, e.g. human resource and infrastructure. Patient management practices presented in this section are to a large extent influenced by WHO guidelines of 2003. However, some of these practices were adjusted to fit the country specific needs.

Figure 2 presents a framework of care for patients once in HIV Care. The stages presented in this figure are follow ups to the processes already presented in figure 1. These stages only cover those patients who are HIV positive and are being investigated for eligibility and preparedness to commence on ART. This flow provides the basis for much of the discussions outlined in this manual: Indicators, standard key data elements, data collection aggregation and reporting tools.

Although pharmacy and laboratory are not explicitly represented in the diagram, they part of the diagram. Blocks labeled AAssess@ or Assessment@, include laboratory tests such as Liver Function Tests. All the blocks denoted by AContinue@, Asubstituted@ or Aswitched A, imply that the patient is still receiving drugs from the pharmacy.

Note: Much of the emphasis in describing this chart is on *eligible* patients, with limited discussions on patient in non-ART HIV care.

Patient Types into HIV Care

Patient types into HIV care are represented by the two boxes >A= (*New on HIV Care*) and >B= (*Transfer-Ins with Records*) as shown in figure 2. New-in-HIV care, are patients, coming into HIV care without prior records of being in HIV care or on ART. *Transfer-Ins* are patients already on ART programme, transferred from another facility. They are Transfer-ins only if they have official records from the source facility. These documents include: an official letter from the sending facility and the HIV Care/ART patient card.

1) Assessment for Eligibility

X **Assessment for Eligibility** - (C) or (D) is done via WHO staging[2] (optionally with TLC) and/or CD4 (I). This is shown>by A= thru (I) in the diagram.

[2] Details on the definitions can be found in the WHO Treatment Guidelines; Zambia Antiretroviral Therapy for Chronic HIV Infection in Adults and Adolescents and; The Zambian

X Not Eligible: A patient is not eligible (D) due to a number of reasons. These patients are still kept in the Pre-ART Register. Fresh appointment dates are given for reassessment.

X **Eligible:** These are patients **(C)** meeting WHO classification criteria for eligibility and CD4 level. Not every eligible patient will be ready to commence on ART. Those A*eligible but not-ready*@ **(F)** may include patients still being prepared for adherence. The A*eligible-and-ready*@ patients **(E)** are those who are prepared to adhere to take ARVs.

Note: All the above sections (A B F) fall in the pre-ART care of the HIV care/ART services.

2) Treatment Processes

The model presented in the ART stage is based on Charlie=s four >S=s. *Started treatment* (G) is the entry point for all patients on ARVs. Thereafter, a patient can either remain on the *first line regimen* or may be *substituted* to an *alternative first line drug* (H) or be *Switched* to second line (I) or higher drugs. Details on substitution and switching of drugs are explained in the WHO guidelines.

X *Transfer-In with Records* (B) are patients after being assessed can either continue with drugs they were on at the previous health facility or may be Substituted or Switched according to the results of the assessment.

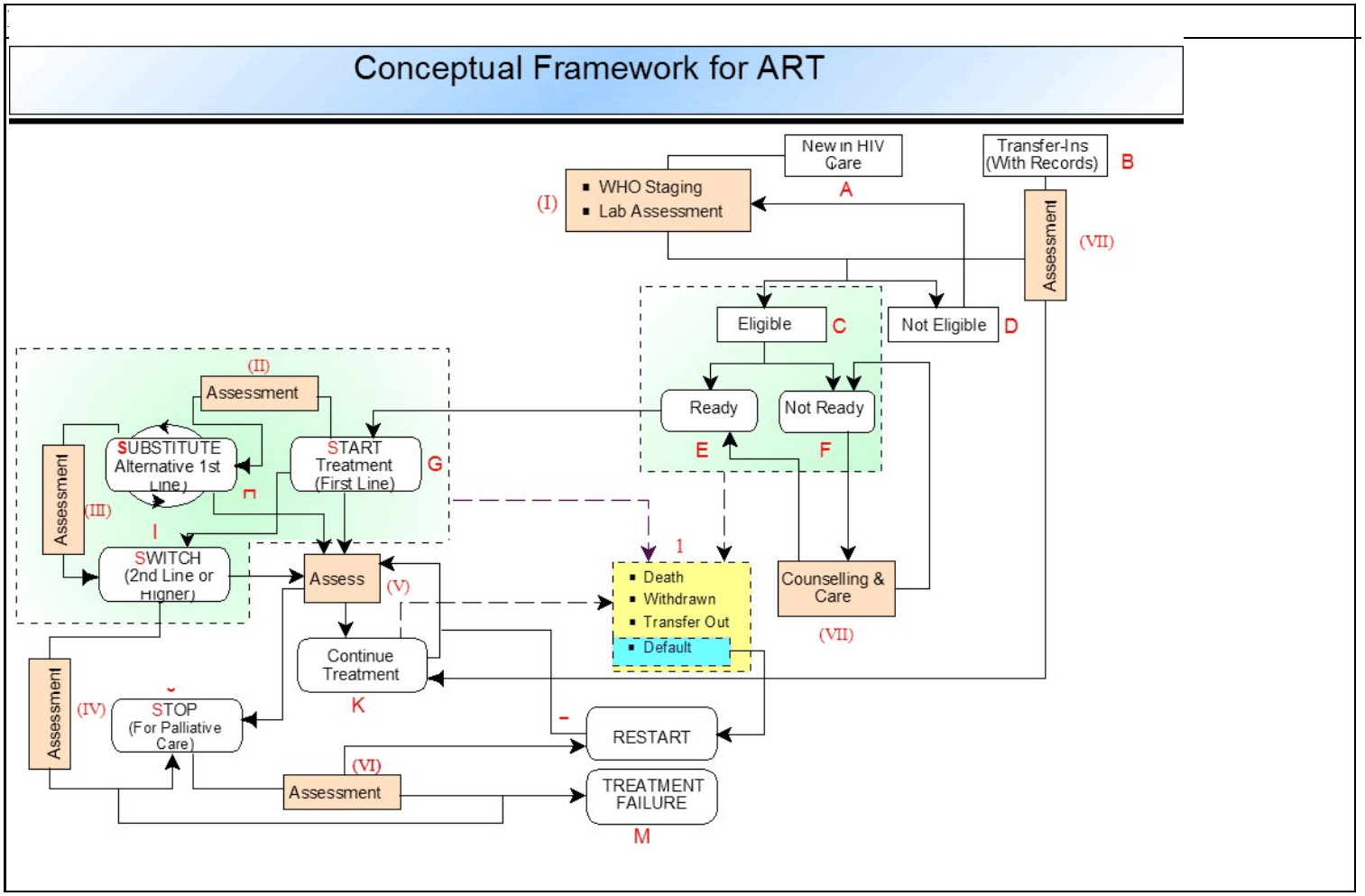
X Under A*Continued Treatment*@ (K), monitoring tests may be carried out at intervals. The frequency of revist to the facilities depends on the state of the payment and the number of months of supply of their drugs. On these visits adherence checking is conducted at pharmacy as a way of monitoring patients.

Note: (1) At both Pre-ART and ART Stage, there are possibilities of DEATH, Withdrawals (STOP), transfer -out (TO) and defaulters (LOST). In case of

defaulters, they may be Restarted (L) depending on the time lapse and the judgment of the Medical Officer.

(2) Later in this document, you will notice that both the HIV Care Card and ART Register are based on the out-going description. The block covering G to M.

The chapters that follow, therefore describe in detail, the data collection processes that take place at each of the stages outlined above.


Conceptual Framework for ART
New in HIV Care
Transfer-Ins (With Records)
B
A
(I)
WHO Staging
Lab Assessment
Assessment
(VII)
Eligible
C
Not Eligible
D
(II)
Assessment
Ready
Not Ready
E
F
SUBSTITUTE Alternative 1st Line)
START Treatment (First Line)
G
Assessment
(III)
SWITCH (2nd Line or Higher)
Assess
(V)
Death
Withdrawn
Transfer Out
Default
Counselling & Care
(VII)
Continue Treatment
K
Assessment
(IV)
STOP (For Palliative Care)
RESTART
(VI)
Assessment
TREATMENT FAILURE
M

Data Collection

1.1 Preamble

A good image of the system can be built around improving these aspects. This stage therefore is the pillar to any data collection system Data collected in the Health Institution serve three primary functions:

X to provide a record of care given to specific clients;
X to provide information on health status and service delivery; and
X to create a rationale for action planning.

1.2 Data Collection Instruments

Data for ART activities are collected using three types of instruments:

X Cards retained by the client or kept by the institution;
X Service registers retained at the facility; and
X Activity sheets and the Cohort summary Sheet (Read carefully on the use of the activity sheet and cohort sheet for this category of service).

Notes: All date columns should be in standard British Format (dd/mm/yy).

1.2.1 History, Physical Exam and Eligibility Form

This form is the first the clinic uses in the process of obtaining information about the patient. It does not provide an exhaustive set of investigative procedures but lists the most basic questions for assessing the patient for eligibility for starting ART. Therefore, the provider is not limited to the listed questions but at liberty to put down additional observations on the patient=s OPD Card and on this form.

Note: *This form will be discontinued and is not discussed here. In its place the following forms used under Smartcare will instead apply: The AInitial History and Physical@ and the AEligibility@ Forms. For more details on how to apply these tools please refer to the Standard Operations Procedure (SOP) for ART under Smartcare.*

Pre ART Register

The Pre-ART Register is an institutional-based document where all patients referred for HIV care are entered. This includes patients identified within the facility and those that are referred or transferred in before they commence ART. While on this register, patients undergo clinical and laboratory assessment to determine their eligibility for ARVs. How long a patient stays in Pre-ART depends on a number of factors.

Purpose:

X Provides facility-based information on the status of patients on entry into HIV care.
X Provides a facility-based record on patient outcome while in Pre-ART.
X Furnishes a basis for self assessment and supervision.

When completed: At the time of consultation.

Who completes: The nurses in the clinic or the data clerk assigned the responsibility of updating ART patient records at the facility.

Location: Each Health Institution should evaluate its patient flow to determine the best location of the register(s) to ensure data accuracy and completeness. Ideally this register should be located in the place where other patient=s records for ART are kept.

Below is a detailed description of the Pre ART Register

Column ID	Datum	Instructions

Column ID	Datum	Instructions
	Serial Counter	This number will run from 1 thru n - Let us assume that a facility starts offering HIV care services on January 1, 2005 and its first patient reports to the clinic on the same day, this patient will be allocated serial number >1= the next >2=, etc. When one register fills up just continue on the next number in the new register. For example if the last patient in a register is 410, the first patient in the new register will take up 411. This column assists in quickly counting the number of patients ever enrolled in care: X time to Date (eg Year to Date). If you have old patients that have not been counted by his method, count them and start on the next available number in your register. For example, if you have 400 old patient ever enrolled into care, the 1st entry in your register will be 401.
(a)	Date Start Chronic HIV care	Enter the date of registration in HIV Care. This is the date a patient comes to the ART clinic for ART services and not the date the patient was referred to the ART clinic. For example, a patient admitted to hospital on 01/01/05 and on 08/01/05, the doctor decides to counsel the patient for an HIV test. On the same day the patient agrees, tests done and results come out positive. If on this same day the doctor starts preparing the patient for commencement on ART, then 08/01/05 becomes the date enrolled in HIV care.
(b)	Patient OPD Number	Indicate the number that appears on the clients OPD card or health passport. This is the same number used for accessing services other than ART services.
(c)	Patients name	Enter second name in the upper cell and first name in the lower cell.

Column ID	Datum	Instructions
		Note: If patient does not know the day but only knows the month and the year the day shall be 15th of that month. If the patient only knows the year but does not know both the day and the month, Enter June for the month and 15th for the day.
(d)	Date of birth.	Ensure that all date cells are entered.
(e)	Sex	The client=s sex. Write M for male or F for female
(f)	Address	Enter the physical address of the patients In urban areas enter house number and township followed by district name For example: *Plot number 1233, off Shula Road, Dambwa Site and Service, Livingstone*. In rural settings; enter village and chief followed by district name For example: *Chipalila=s Village, Chief Chitimukulu, Mungwi*.
(g)	HIV+ date	Write the date the patients knew they were HIV positive. Copy this date from the transfer documents or referral letter.
(h)	Entry point, from where	Indicate where the patient is referred from ie VCT, PMTCT, Inpatient, Another Facility, TB-OPD or Other. Patients register for ART services from different sources. This can be from within this facility (wards, OPD, etc.) or outside (from other health facilities). Indicate where the patient is coming from by writing the actual name of the source. However, when transferring to the summary forms group them thus: VCT, PMTCT, TB and AAll Others@. See the data elements definitions table in section 2.3.

Column ID	Datum	Instructions
(i)	Payment status	Enter the following codes for the respective categories: **P** = Paid, **E** = Exempt, **S** = Scheme **U** = Unable to pay Use similar codes used in the OPD and IPD registers **Note**: With the discontinuation of user-fees policy, this column may be left blank
(j)	CTX Start date Stop date	Record the date the patient was put on Cotrimoxazole in the upper cell and enter the date a patient stopped medication in the lower cell.
(k)	Fluconazole Start date Stop date	Record the date the patient was put on Fluconazole in the upper cell and enter the date a patient stopped medication in the lower cell.
(l)	INH Start date Stop date	Record the date the patient was put on INH in the upper cell and enter the date a patient stopped medication in the lower cell.
(m)	TB Treatment Start date Stop date	Record the date the patient was put on TB Treatment in the upper cell and enter the date a patient stopped medication in the lower cell. **Note**: If INH start date is entered without the stop date, then it implies that the patient cannot be on TB treatment. Therefore, both the start and stop dates in column (m) should be blank. On the other hand, if both the start date and stop dates are filled in, in column (l), the stop date in column (l) must not be later than the start date in column (m).

Column ID	Datum	Instructions
(n)	Pregnancy PMTCT Link number	Enter the EDD in the upper cell if the client is pregnant. Enter the PMTCT link number in the lower cell. This number can be obtained from documents originating from the referring centre. **Note:** Please use pencil. Some patients may fall pregnant more than once while in PreART.
(o)	Indicate if lost or TO before starting ARVs	Enter one of the following reasons: **LOST**. A lost patient is one who misses scheduled visits to the facility and attempts to locate them have failed. **TO**. A TO is a patient who has been transferred to another facility, at this point a transfer letter will have been written to the receiving facility.
(p)	If patient dies before starting ARVs indicate the date	For clients that die outside an institution, this information is obtained by follow up if possible, from reports from relatives and friends. **Note:** Once information has been entered in this column all the subsequent columns (q) to (v) MUST be shaded or crossed out. The date(s) entered here must never be earlier than the date the patient was enrolled in HIV care in column (a)
(q)	Date medically eligible for ART	Enter date when the patient was declared eligible for commencement on ART. For details on assessment for eligibility see AHistory, physical exam and eligibility form@ and accompanying notes. **Note**: The date(s) entered here must never be earlier than the date the patient was enrolled in HIV care in column (a)
(r)	Why eligible	For a patient whose eligibility is through clinical only, enter clinical in the upper cell and the WHO stage in the lower cell. For a patient whose eligibility is through CD4, enter CD4 in the upper cell with the CD4 count or percentage (%) in the lower cell

Column ID	Datum	Instructions
(s)	Date Ready for ART	Enter the date when the patient is ready to commence on ART. **Note:** The dates in (q) and (s) may at times be the same if the two events take place on the same day.
(t)	Date Selected for ART	Enter the date in the format dd/mm/yyyy. Enter the date the patient was selected to commence ART. **Note:** It is possible at times to have patients who are medically eligible and ready but not yet commenced on ART for various reasons such as drug inadequacy. The institution may not have adequate drugs for new patients but only enough for patients already on the programme. As such a patient might be selected for commencement on ART, but he/she may not be started on ART.
(u)	Date ART started (Transfer to ART register)	Enter the date in the format dd/mm/yyyy. Enter the date the patient was started/commenced on ART. This is the date that is transferred to the ART register in column (c).

Column ID	Datum	Instructions
(v)	ART Number	Enter a unique identifier allocated to the patient once commenced on ART. This number is transferred to the ART register in column (a). The unique identifier takes the format ADistrict code, Facility #, Patient Number@, Where; The first four digits are district codes as in HMIS coding system. The next three digits represent the health facility number. The last five digits represent a sequential number generated at health facility level. **Note:** By virtue of allocating this number to a patient, it means this patient is no longer in pre ART. As such, no further recordings are permissible in the pre ART register.

1.2.2 HIV Care/ART Card

Purpose: To serve as a detailed record of clinical diagnosis and treatment. It also serves as a transfer document and basis of continuity of care.

When completed: Although this card can be opened at commenced into HIV Care, due to shortages of stationery as a result of increased demand, it is recommended that the card be opened immediately a patient graduate from the pre-ART register to the ART. Details for that initial visit (pre/ART) are entered appropriately. The card will then be updated on all subsequent visits.

Who completes: Doctor, Clinical Officer or Nurse.

An ART Care Card should have the following minimum details:

1) Part A: Patient Profile

Datum	Instructions
ART Number	Write the ART number allocated to the patient. This is the same number in column (v) on the Pre-ART and column (a) ART registers.
OPD Number	Indicate the number that appears on the clients OPD card or health passport. This is the same number used for accessing services other than ART services.
Health Facility	Write in full the name of the facility where this patient card was opened.
District	Write down in full, the name of the district where the patient is currently residing.
Second Name	Write patient=s second name
First Name	Write patient=s first name
Date of Birth	**Note:** If patient does not know the day but only knows the month and the year the day shall be 15th of that month. If the patient only knows the year but does not know both the day and the month, Enter June for the month and 15th for the day. Ensure that all date cells are entered.
Sex	The client=s sex. Write M for male or F for female.
Marital Status	Write one of the following codes for marital status in the box provided (1-Never Married , 2-Married, 3-Separated 4-Divorced, 5-Widowed and 9 B Not applicable) **NB:** For minors enter 9 and 1 for patients who have never been married or are engaged respectively.

Datum	Instructions
Physical Address	Enter the physical address of the patients In rural settings; enter village and chief followed by district name For example: *Chipalila=s Village, Chief Chitimukulu, Mungwi*. In urban areas enter house number and township followed by district name For example: *Plot number 1233, off Shula Road, Dambwa Site and Service, Livingstone*.
Telephone #	Enter the telephone number for the patient. This can be a fixed line or mobile (cell)
Own	Enter Y if the stated telephone number belongs to the patient or N if it the telephone number is someone else=s. This is useful if a tracing a call has to be made at a later stage.
Treatment Supporter(s)	List down the name(s) of treatment supporters and their addresses, preferably their physical address. Please include telephone number where applicable. The several options indicate that one may change a supporter along the way. This new person should be indicated.
Name/Age of Child or Partner also in Care	List down the names and ages of child or partner that are also in care. For children under one year indicate age in months out of 12. This should include the ART number that is allocated to them.
Home Based Care Provided by..	Write down the name of the institution providing home-based care to the patient, where applicable.

2) Part B: ARV Therapy Outcome Details

Datum	Instructions

Datum	Instructions
Confirmed HIV+ Status	Write the date the patients knew they were HIV positive. Copy this date from the transfer documents or referral letter.
HIV Type	Circle 1 if the HIV type is 1, or 2 if the HIV type is 2. If the HIV type is unknown, circle AU@.
Ab/PCR	For children below 18 months record the type of test used. Indicate either Ab or PCR.
Where Test Done	Indicate facility and district name where the test was done.
Enrolled in HIV Care	Record date patient is enrolled in HIV care. This is not the same as the date patient was put on ARVs.
Medically Eligible	Write the date a patient was declared medically eligible.
Thru....	Eligibility is determined either by clinical staging (WHO) or via CD4. Clinical staging, can be used in conjunction with TLC, where available. For eligibility via clinical only, tick in the box to the left of the AClinical@ box and record the Stage below . If clinical is used in conjunction with TLC, tick on both clinical and TLC boxes, and enter the actual TLC value in the space provided on the right-hand side of the TLC label. On the other hand, if patient qualified through CD4, tick in the box to left and enter CD4 count for adults or percentage for children.
Ready for ART	Enter date when an eligible patient was declared ready to commence on ART. For details on assessment for eligibility see AHistory, physical exam and eligibility form@ and accompanying notes. Enter the date when patient was declared eligible and was ready in terms (eg finances and adherence to treatment)
Weight (kg)	Indicate weight of patient in Kg at commencement of ART. This must be rounded off to one decimal place.

Datum	Instructions
Function	Indicate the functional status of the patient at commencement of ART by entering: AW@ for work AA@ for ambulatory AB@ Bedridden Where Work: able to go to work, school, do house work, harvest and other normal activities like playing for children. Ambulatory: patient is able to move around but cannot work Bedridden: patient not ambulatory
WHO Stage	This stage is not necessarily the same as the stage recorded at time a patient is declared medically eligible. However, if the date of commencement of ART and date medically eligible are the same, then the two will be same. It is also possible that they can be the same if the patient=s WHO stage has not changed since declared medically eligible.
Cohort	Record the month and year in which this patient was commenced on ART. For example a patient enrolled in January of 2002 will belong to the cohort denoted Jan2002 and will mature in July 2002. Please abbreviate the month to three letter as shown in the example. This is the same entry made in the first row of the ART register. SEE instructions on how to complete the ART register. Note: This information is used to updated the ART register for patients transferred from other facilities. Each of these transfers-ins must be allocated to the appropriate cohort in the receiving facility.

Datum	Instructions
Stop/Lost	Stopped: If a patient has stopped, circle stop, indicate the date (dd/mm/yyyy) stopped and give reason for stopping. (codes for reasons for stopping are located on face 3 of the HIV Care Card. Lost: Circle lost if a patient is declared lost. Different facilities may institute different dispensing schedules. For example, some facilities may ask patients to report for drug pickup several days before the patient=s drugs actually run out. A patient should not be declared lost if they do not come on the appointment date but still have drugs from the previous supply. However, a patient is declared lost if they have run out of drugs and have not come back to pick up the next supply. Enter the date (dd/mm/yyyy) when this decision is made. Note: In either case if patient restarts, indicate the date of restart (dd/mm/yyyy). Conditions for restart are determined by the clinician.
Start ART 1st Line	Date of Start 1st Line: Enter the date the patient was started/commenced on first line treatment. 1st Line Drug Name: In space to the right of the label AStart ART 1st Line@, enter the drug combinations. Unlike in the ART Register where the drug combination codes eg A1A are used, on this card, the actual drug combination should be written, (e.g d4t(30)-3TC-NVP))
Substitute Within 1st Line	To the left of the labels (1st Instance, 2nd Instance, 3rd Instance), enter the date when the substitution was done. To the right of the labels (1st Instance, 2nd Instance, 3rd Instance), enter the drug combination of the new regimen, (e.g d4t(30)-3TC-EFV)

Datum	Instructions
Why (Substitute)	Enter the code indicating why substitution occurred. Codes for reasons of substitution are located at the end of the HIV Care Card. Note: Pregnancy: A woman in her first trimester may have her drug substituted/stopped to safeguard the pregnancy. Risks of Pregnancy: Depending on the condition of the pregnant woman, she may develop a condition that might put the pregnancy at risk if continued on the drugs. The clinician may then substitute/stop the drug.
Switch to 2nd Line	To the left of the labels ASwitch@, enter the date (dd/mm/yyyy)when the switch was done. To the right, enter the drug combination of the new regimen, (AZT-3TC-LPV/r) and not the code as in the ART Register.
Substitute within 2nd Line	To the left of the labels (1st Instance, 2nd Instance), enter the date when the switch/substitution was done. To the right of the labels (1st Instance, 2nd Instance), enter the drug combination of the new regimen, (AZT-3TC-LPV/r).
Why (Switch)	Enter the code indicating why switch occurred. Codes for reasons of switch are located at the end of HIV Care Card. NB: The substitution codes, both within the 1st and 2nd Lines are the same. However the code from switching from the 1st to 2nd line are different. Pregnancy: A woman in her first trimester may have her drug switched/stopped to safeguard the pregnancy. Risks of Pregnancy: Depending on the condition of the pregnant woman, she may develop a condition that might put the pregnancy at risk if continued on the drugs. The clinician may then switch/stop the drug.

Datum	Instructions
Dead	Enter the date the patient died. For clients that die outside an institution, this information is obtained by follow-up if possible, or reports from relatives and friends. Note : Once this information has been recorded, this card is closed and no further entries are made to the document.
Transfer out	To the left of the labels (Transfer Out to), enter the date when the transfer was effected. To the right of the labels (Transfer Out to), enter the names of institution and district the patient is being transferred to

3) Part C: Individual Visitation Details

Column ID	Description	Instructions
(a)	Date (TS /SF)	In the left upper cell enter either TS of SF; TS if the person who came to pick the drugs is the Treatment Supporter; SF if the patient picked up the drugs himself or herself. If this visit was scheduled (by appointment), tick in the right upper cell. However, leave it blank if the visit was unscheduled. In either case enter the date (dd/mm/yyyy) of this visit in the bottom cell.
(b)	Appointment date	Enter the date (dd/mm/yyyy) when the patient is scheduled for the next visit.

Column ID	Description	Instructions
(c)	Weight	Enter weight for this visit. The figure should be rounded off to one decimal place. Compare this weight with the weight on face >A= part B (parameters at start of ART). If the percentage increase is equal to or greater than 10%, circle this weight. This comparison must be done at all subsequent visits. **Example:** If a patient=s start weight is 40.5Kg (parameters at start of ART) and the weight on the second visit is 55.5Kg, the percentage change is calculated as follows: 55.5 - 40.5 x 100 = **37.0%** 40.5 You would then circle 55.5
(d)	Functional status	Indicate the state of the patient by entering: A**W**@ for work A**A**@ for ambulatory A**B**@ Bed ridden Where **Work**: able to go to work, school, do house work, harvest and other normal activities. **Ambulatory**: patient is able to move around but cannot work. **Bed Ridden**: patient not ambulatory

Column ID	Description	Instructions
(e)	WHO Staging	Enter the patient=s Staging according to WHO standards. Refer to page 3 of the assessment and eligibility form. If a patient=s WHO staging on commencement of ART is 1, 2 or 3, the patient=s WHO staging should be monitored on each subsequent visit. Once a patient progresses to WHO staging 4 cross out the entire column AE@ for that particular patient.
(f)	TB Status	Enter card number if patient is on TB treatment; For sputums, enter if sent/or enter results, If patient is referred to evaluate signs suggesting TB, enter ?TB-referral; if no signs enter - No signs; for INH prophylaxis record adherence and amount dispensed , signs if there are no signs, enter INH if on INH prophylaxis. ,*Also enter in Adhere:-(Good, Fair, Poor or % by pill count) and number dispensed in dispensed.*

Column ID	Description	Instructions
(g)	Pregnancy/Family Planning Status	Enter the EDD in the upper cell if the client is pregnant and enter the PMTCT link number in the lower cell where the PMTCT services are available otherwise leave the cell blank. The PMTCT link number can be obtained from documents originating from the referring centre. If a client is not pregnant and is on family planning enter **ONFP** in the upper cell and the method in the lower cell using the following coding for Family Planning: **OC**= Oral Contraceptives; **INJ**= Injectable Contraceptives; **MC**= Male Condom; **FM**= **F**emale Condom; **IUD**= Intrauterine Device; **SPM**=Spermicide, ; **LAM**= Lactational Amenorrhea, **DIAP**=Diaphragm, **VSC**=Voluntary Surgical Contraception. If client is using two methods, both should be written down. On the other hand, if a client is not pregnant and is not on family planning enter **NOFP** in the upper cell and leave the lower cell blank.
(h)	Potential Medication Side effects	Write the word or highlighted letter for the code of the possible side effects. These may be due to ARV or other medications and occurred at any time since the last visit. **N**ausea, **D**iarrhea, **F**atigue, **H**eadache, **BN** burning/numb/tingling, **R**ash, **A**nemia, **A**bdominal pain, **J**aundice, **Fat** changes, **CNS**: dizzy, anxiety, nightmare, or depression

Column ID	Description	Instructions
(i)	New opportunistic infections and other problems	Write the word or highlighted letter for the code of the opportunistic infection. Enter **Z**oster, **P**neumonia, **D**ementia/**Enceph**, **Thrush**-oral, vaginal, **Ulcers**-mouth, genital etc, **F**ever, **Cough, DB** difficult breathing, **IRIS**, **W**eight loss or write in or use code in column (h) **Note:** This is a proposed list, clinicians can enter any other OIs not listed above.
(j)	Cotrimoxazole adherence	
(k)	Cotrimoxazole dispensed	Enter dosage and quantity dispensed.
(l)	Other medicines dispensed	Enter the generic name for any drugs dispensed during this visit.
(m)	ARV drugs Adherence	If patient is on ARVs, write satisfactory (95%) to mean the patient has missed less than or equal to three doses (3 doses) or unsatisfactory (95%) to mean the patient has missed more than 3 doses. If the response is unsatisfactory, use the codes on face 3 of the form for reason to unsatisfactory adherence, e.g unsatisfactory adherence due to alcohol will be recorded as U(11).

Column ID	Description	Instructions
(n)	ARV drugs Dispensed	ZDV or AZT = Zidovudine 3TC = Lamivudine d4T = Stavudine DDI = Didanosine ABC = Abacavir NVP = Nevirapine EFV = Efavirenz NFV = Nelfinavir LPV/r = Lopinavir/ritonavir TDF = Tenofovir
(o) thru (s)	Laboratory Tests Done	Enter the results of the tests done. **Note:** The results for tests done must be appropriately recorded against the date on which they were done and not against the date the patient comes to pick up the results. For tests not ordered on this visit, leave the appropriate cells blank.
(t)	Refer or consult or link/provide	If a patient has been referred for other specialized services such as dental or gynaecology, write reasons for referral and indicate destination for referral .

ART Register

The ART register is an event-based document. Information recorded for a patient on each visit may be different from patient to patient. In the initial phase this register is designed to track patients up to 72 months post ART initiation. On the second page, the register provides space on the top left corner where the cohort period is recorded. This cohort period is obtained from Part AB@ (parameters at start of ART) of the HIV Care/ART Card.

Note: Once users have gotten accustomed to recycling patients through columns (aa) to (bk), the next edition will be freeform - where visit months will not be pre-inserted. Users will therefore have the freedom to fill in months 1 to months n. Where An@ is the visit month for which there is no patient left on a given cohort.

Data clerks/nurses will have to start a new register page each month. This facilitates analyzing cohort outcomes at month 6, 12, 18 and 24 etc. Transfer-ins whose ART start date is within that month, should be entered below the dark line on this month=s page and enter (**TI)** in column (h). For retrospective data entry of transfer-ins who started therapy before the current month, they should be entered on the appropriate cohort page below the dark at TI recorded in column. **For the old versions of the registers refer to the April 2005 edition of the HMIS-ART Procedure Manual**

Purpose:

X Provides record of patient outcome.
X It provides a track record of patients from initiation to terminal monthly visits.
X It serves as a source of information on patient drug mix.
X It also serves as a data source for tallying and aggregation (this is not optional for cohort analysis)

When completed: On each patient visit.

For example, patients who start ART between March 1st and 31st, are entered on a page (or pages) and March is written under month zero. In April, a new page is used (for patients commencing therapy in April) and April is written under month zero.

Who completes: The nurses in the clinic or the data clerk assigned the responsibility of updating ART patient records at the facility.

Location: Each Health Institution should evaluate its patient flow to determine the best location of the register(s) to ensure data accuracy and completeness. Ideally this register should be located in the place where other patient=s records for ART are kept. For purposes of updating the register each facility should ensure that records for patients seen on that day are kept separately, for use at the at the end of the day should be used to update the ART register.

Below is the detailed description for ART Register

Column ID	Datum	Comments
(a)	ART Number	Copy the ART number from column (v) of the Pre-ART register to column (a) of the ART register. For a transfer-in already on ART, the ART number is obtained from the care card. *Note: If you are transferring an existing cohort from a filled up register, copy the ART number from the old register.*
(b)	Patient OPD Number	Copy the patient=s OPD number from column (b) of the Pre-ART register or the Care Card. *Note: If you are transferring an existing cohort from a filled up register, copy the OPD number from the old register unless there have been changes.*
(c)	Start date	Date should be in the format dd/mm/yyyy. Copy this date from column (u) of the Pre-ART register. *Note: If you are transferring an existing cohort from a filled up register, copy the Start Date from the old register.*
(d)	Patients Name	Enter second name in the upper cell and first name in the lower cell. *Note: If you are transferring an existing cohort from a filled up register, this field is optional*
(e)	Sex	The client=s sex. Write M for male or F for female. *Note: If you are transferring an existing cohort from a filled up register, copy Sex from the old register.*

Column ID	Datum	Comments
(f)	Date of Birth	Date should be in the format dd/mm/yyyy. Note: If patient does not know the day but only knows the month and the year the day shall be 15th of that month. If the patient only knows the year but does not know both the day and the month, Enter June for the month and 15th for the day. Ensure that all date cells are entered. *Note: If you are transferring an existing cohort from a filled up register, copy Date of Birth from the old register. If part of the date was previously unknown, update it with fresh information if now available.*
(g)	Address	Enter the physical address of the patients In urban areas enter house number and township followed by district name For example: Plot number 1233, off Shula Road, Dambwa Site and Service, Livingstone. In rural settings; enter village and chief followed by district name For example: Chipalila=s Village, Chief Chitimukulu, Mungwi. *Note: If you are transferring an existing cohort from a filled up register, this field may be optional*

Column ID	Datum	Comments
(h)	Why eligible	For a patient whose eligibility is through clinical only, enter clinical in the upper cell and the WHO stage in the lower cell. For a patient whose eligibility is through CD4, enter CD4 in the upper cell with the CD4 count or percentage (%) in the lower cell For a patient whose eligibility is through clinical with TLC, enter clinical in the upper cell with the TLC value in the lower cell. For a transfer in enter TI in the upper cell and the eligibility criterion in the lower cell. This criterion can be copied from the transfer documents (copy of HIV Care/ART Card) *Note: If you are transferring an existing cohort from a filled up register, copy from the old register.*
(i)	Functional Status	Indicate the state of the patient by entering: AW@ for work AA@ for ambulatory AB@ Bed ridden Where Work: able to go to work, school, do house work, harvest and other normal activities. Ambulatory: patient is able to move around but cannot work. Bedridden: patient not ambulatory *Note: If you are transferring an existing cohort from a filled up register, this field is optional.*

Column ID	Datum	Comments
(j)	Weight in KGs	Indicate weight of patient in Kg at commencement of ART. This must be rounded off to one decimal place. This is the same weight recorded on the HIV/ART Card under AParameters at start of ART@ in Part B. *Note: If you are transferring an existing cohort from a filled up register, copy from the old register*.
(k)	Medical Status	Enter the value of the CD4 count or percentage (%) for children at the bottom. *Note: If you are transferring an existing cohort from a filled up register, copy from the old register*.
(l)	CTX Start date Stop date	Record the date the patient was put on Cotrimoxazole in the upper cell and enter the date a patient stopped medication in the lower cell. *Note: In transferring an existing cohort from a filled up register, copy (start date) from the old register if the patients is still on CTX, otherwise enter a current status.*
(m)	INH Start date Stop date	Record the date the patient was put on INH in the upper cell and enter the date a patient stopped medication in the lower cell. *Note: In transferring an existing cohort from a filled up register, copy (start date) from the old register if the patients is still on INH, otherwise enter a current status.*

Column ID	Datum	Comments
(n)	Fluconazole Start date Stop date	Date should be in the format dd/mm/yyyy. Record the date the patient was put on Flucanozole in the upper cell and enter the date a patient stopped medication in the lower cell. *Note: In transferring an existing cohort from a filled up register, copy (start date) from the old register if the patients is still on Fluconazole, otherwise enter a current status.*
(o)	TB Treatment Start date Stop date	Enter the start/stop date in the format dd/mm/yyyy. Record the date the patient was put on TB Treatment in the upper cell and enter the date a patient stopped medication in the lower cell. Note: If INH start date is entered without the stop date, then it is not expected that this patient can be on TB treatment. Therefore, both the start and stop dates in column (o) should be blank. On the other hand, if both the start date and stop dates are filled in, in column (n), the stop date in column (n) must not be later than the start date in column (o). *Note: In transferring an existing cohort from a filled up register, copy (start date) from the old register if the patients is still on TB Treatment, otherwise enter a current status.*
(p)	Pregnancy (PMTCT link and due date)	Enter the EDD in the upper cell if the client is pregnant. Enter the PMTCT link number in the lower cell. This number can be obtained from documents originating from the referring centre. *Note: In transferring an existing cohort from a filled up register, copy (Due date and links number) from the old register if the patients is still pregnant, otherwise enter a current status.*

Column ID	Datum	Comments
(q)	Original Regimen (1st Line)	Enter the first line drug combination codes a patient is put on, at commencement of ART. *Note: If you are transferring an existing cohort from a filled up register, copy from the old register.*
(r)	(1st and 2nd substitutions within the 1st Line)	Enter the drug combination codes of first substitution in the upper cell and that of the second substitution in the lower cell, e.g A1A Note: Any additional combinations should be coded appropriately and written in the space provided (Refer to the coding sheet). Make sure that once a code has been introduced, it has to be used consistently through out the register. *Note: If you are transferring an existing cohort from a filled up register, copy from the old register.*
(s)	Date (of substitution)	Enter the date of first substitution in the upper cell and that of the second substitution in the lower cell in the format (dd/mm/yyyy). *Note: If you are transferring an existing cohort from a filled up register, copy from the old register.*
(t)	Reasons for substitution	Enter the reason(s) for this substitution in column (t) Enter the reasons for the first substitution in the upper cell and that of the second substitution in the lower cell. *Note: If you are transferring an existing cohort from a filled up register, copy from the old register.*
(u)	Original Regimen (2nd Line)	Enter the 2nd line drug the patient has been switched to. Use the abbreviated codes at the bottom of the register

Column ID	Datum	Comments
(v)	Date (of switch)/Reasons	Enter the date of switch in the upper cell in the format (dd/mm/yyyy), and record the reason for switching from the 1st Line. *Note: If you are transferring an existing cohort from a filled up register, copy from the old register.*
(w)	Substitutions within the 2nd Line	Enter the drug combination codes of second substitution in the upper cell and that of the second substitution in the lower cell, e.g A2A Note: Any additional combinations should be coded appropriately and written in the space provided (Refer to the coding sheet). Make sure that once a code has been introduced, it has to be used consistently through out the register. *Note: If you are transferring an existing cohort from a filled up register, copy from the old register.*
(x)	Dates of Substitution (within 2nd Line)	Enter the dates in British format. The date for the 1st substitution is recorded in the upper cell while that of the 2nd substitution should be recorded in the lower cell. *Note: If you are transferring an existing cohort from a filled up register, copy from the old register.*
(y)	Reasons	Enter the reason(s) for this substitution in column (y) Enter the reasons for the first substitution in the upper cell and that of the second substitution in the lower cell. Note: If you are transferring an existing cohort from a filled up register, copy from the old register.

Column ID	Datum	Comments
(z)	Month 0 (zero)	Enter the cohort month inside the box labeled AMonth 0" which indicates the month when the patient commenced ART. For example, for patients who start ART between March 1st to 31st their initial month (March) is recorded inside the box labelled month 0 (zero). April then is recorded inside the box labelled month 1and so on. *Note: If you are transferring an existing cohort from a filled up register, copy from the old register. This entry should correspond to the Cohort ID in the top left corner of page 2 of the register, regardless of the age of the cohort.*
(aa thru af) (aj thru ao) (as thru ax) (bb thru bh)	Monthly visitations	Enter the drug combination code the patient is on for those patients that picked their drugs for that month, e.g (A1A) This indicates that the patient is alive and on the ART programme. (The codes for the drug regimens are located at the bottom of this register). Alternatively for patients who are not active on ART enter one of the following outcomes: STOP B Stopped ART DEAD LOST Transfer Out (TO) Note: For the patient whose status is ADEAD@ block the remaining part of the row for this patient. These columns MUST be updated at the monthend.

Column ID	Datum	Comments
(ag thru ai) (ap thru ar) (ay thru ba) (bi thru bk)	Visitation to the Clinic at intervals of six months till 72 months	Data for these cells are recorded at 6 monthly intervals (till 72) after starting ART. Patients are assessed for functional status, CD4 count level and any other parameter deemed necessary by the clinician, e.g. viral load or weight. NB: If weight or Viral Load (or any other numeric parameters) are chosen, ensure that data the columns are not switched when entering/reading data. Enter functional status in columns (ag), (ap), (ay) and (bi), refer to column (i) of the ART register. Enter value of CD4 count or the percentage (%) for children in columns (ah), (aq), (az) and (bj). Refer to column (k) of the ART register. Enter any other result/value of test conducted in columns (ai), (ar), (ba) and (bk)

1.3 Service Utilization Summary Sheets

There are two types of summary sheets for HIV Services: Activity Sheets (3) and the Cohort summary Sheet for ART. Instructions for data collection and collation are described for each data element according to category of service - VCT, PMTCT and ART. See tables below:

1.3.1 Voluntary Counselling and Testing

i) Prevention of Mother-to-Child Transmission

ii) Anti-retroviral Therapy

(1) Cross-sectional Data Elements

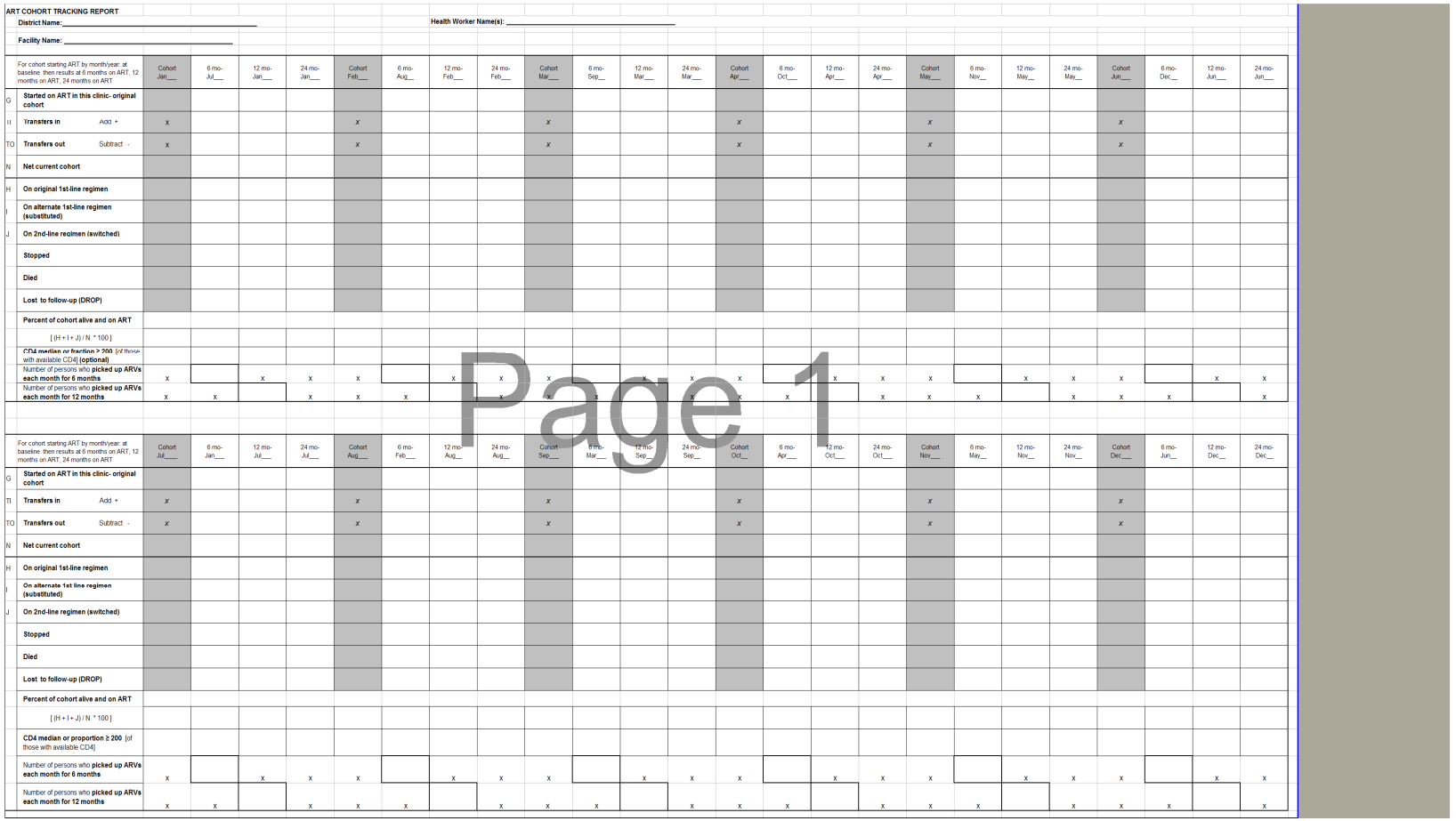
(2) Cohort or Interval Data Elements

(a) HIV295 ART initiated 12 months ago

(1) HIV300 On original 1st line ART after 12 months

(2) HIV305 Alive on ART after 12 months

(3) HIV310 ART patient consistently collecting drugs for 12 months



ART COHORT TRACKING REPORT

District Name: _____ Health Worker Name(s): _____

Facility Name: _____

	For cohort starting ART by month/year: at baseline, then results at 6 months on ART, 12 months on ART, 24 months on ART	Cohort Jan___	6 mo- Jul___	12 mo- Jan___	24 mo- Jan___	Cohort Feb___	6 mo- Aug__	12 mo- Feb___	24 mo- Feb___	Cohort Mar___	6 mo- Sep__	12 mo- Mar___	24 mo- Mar__	Cohort Apr___	6 mo- Oct__	12 mo- Apr___	24 mo- Apr___	Cohort May___	6 mo- Nov__	12 mo- May__	24 mo- May__	Cohort Jun___	6 mo- Dec__	12 mo- Jun___	24 mo- Jun___
G	**Started on ART in this clinic- original cohort**																								
I1	**Transfers in** Add +	x				x				x				x				x				x			
TO	**Transfers out** Subtract -	x				x				x				x				x				x			
N	**Net current cohort**																								
H	**On original 1st-line regimen**																								
I	**On alternate 1st-line regimen (substituted)**																								
J	**On 2nd-line regimen (switched)**																								
	Stopped																								
	Died																								
	Lost to follow-up (DROP)																								
	Percent of cohort alive and on ART																								
	[(H + I + J) / N * 100]																								
	CD4 median or fraction ≥ 200 [of those with available CD4] **(optional)**																								
	Number of persons who **picked up ARVs each month for 6 months**	x		x	x	x		x	x	x		x	x	x		x	x	x		x	x	x		x	x
	Number of persons who **picked up ARVs each month for 12 months**	x	x		x	x	x		x	x	x		x	x	x		x	x	x		x	x	x		x

	For cohort starting ART by month/year: at baseline, then results at 6 months on ART, 12 months on ART, 24 months on ART	Cohort Jul___	6 mo- Jan___	12 mo- Jul___	24 mo- Jul___	Cohort Aug___	6 mo- Feb___	12 mo- Aug__	24 mo- Aug__	Cohort Sep___	6 mo- Mar___	12 mo- Sep__	24 mo- Sep__	Cohort Oct__	6 mo- Apr___	12 mo- Oct___	24 mo- Oct___	Cohort Nov___	6 mo- May__	12 mo- Nov__	24 mo- Nov__	Cohort Dec___	6 mo- Jun__	12 mo- Dec__	24 mo- Dec__
G	**Started on ART in this clinic- original cohort**																								
TI	**Transfers in** Add +	x				x				x				x				x				x			
TO	**Transfers out** Subtract -	x				x				x				x				x				x			
N	**Net current cohort**																								
H	**On original 1st-line regimen**																								
I	**On alternate 1st line regimen (substituted)**																								
J	**On 2nd-line regimen (switched)**																								
	Stopped																								
	Died																								
	Lost to follow-up (DROP)																								
	Percent of cohort alive and on ART																								
	[(H + I + J) / N * 100]																								
	CD4 median or proportion ≥ 200 [of those with available CD4]																								
	Number of persons who **picked up ARVs each month for 6 months**	x		x	x	x		x	x	x		x	x	x		x	x	x		x	x	x		x	x
	Number of persons who **picked up ARVs each month for 12 months**	x	x		x	x	x		x	x	x		x	x	x		x	x	x		x	x	x		x

Sample HIV ART Cohort Tracking

Annexure 4.10 - Notifiable Diseases

Notifiable diseases are:

- acute flaccid paralysis (suspected poliomyelitis)
- diarrhoea with severe dehydration in patients over five years (suspected cholera)
- Any other unusual occurrence of disease or outbreak
- dysentery
- measles
- meningitis
- neonatal tetanus
- plague
- rabies
- typhoid fever
- yellow fever

IMPORTANT: Districts can decide to add specific diseases to the list of notifiable diseases, dependent on the disease profile in the district, e.g. Anthrax, Sleeping sickness.

Notifiable diseases are serious diseases which constitute a public health hazard and cause epidemics. Early recognition, further diagnosis, case detection and measures to prevent spreading of the disease are extremely important.

✓ **All notifiable diseases should be reported to the district immediately because the district needs to have an overview of possible epidemics at all times. The DHMT can best offer assistance if information is received immediately.**

✓ **The only exception is dysentery**:

- If dysentery is not endemic, all cases should be reported immediately, like all other notifiable diseases.
- If dysentery is endemic, the district has to establish the "normal" endemic level, e.g. 15 cases per 1000 people per year.
- Health centres should keep a disease trend graph with a threshold line on their "normal" weekly incidence of dysentery. If the health centre has 10,000 population and if the district threshold is 15/1000 per year, then the weekly threshold value for the health centre is 3 (three). If the threshold is passed during that week, the health centre reports on the weekly form ND.2.
- Furthermore the health centre reports when more cases from one family (or one small compound) are seen, or from one boarding school, one prison, or other concentration of people.
- If the threshold is not passed, the health centre follows the monthly aggregation and quarterly reporting.

There are two forms that are used in conjunction with notifiable diseases. The Individual Case Report is used to report isolated cases of disease. The Weekly Form is used to report when more than five cases of a single notifiable disease have been diagnosed in one week.

Each notifiable disease treated in the OPD or admitted should be put in the register, tallied and included in the Disease Registration Form, HIA.1, in the appropriate disease category. When

active case finding takes place in the community, diagnoses and treatment are noted in a temporary register (e.g. a notebook) and copied later to the outpatient register.

The quarterly disease registration form HIA.1 reports notifiable diseases detected in the previous quarter. The numbers on notifiable diseases reported on HIA.1 should match with the individual case reports and weekly case reports on specific notifiable diseases.

Notification of Communicable Disease Individual Case Report (ND.1)

Purpose: To report to the District Health Office individual cases of notifiable diseases.

Who completes: Any qualified health worker can fill in the form and sign it, though it is recommended that the health workers with the most clinical skills review the patient if possible. (But this should not lead to delays in reporting.)

When completed: ND.1 Form should be filled immediately when a case is diagnosed and sent as soon as possible to the District Health Office. Urgent submission is required, especially in those cases where further diagnosis must take place, where laboratory confirmation is needed quickly, or very rapid spreading of the disease is feared.

Location: The forms are present in each health facility.

Instructions for making entries:

1	Health Institution Data	Write the name of health centre or hospital as well as the district. Also include the date the form is filled out (immediately when case of a notifiable disease is suspected or confirmed).
2	Notifiable Disease	Only one notifiable disease should be reported on this form. Indicate if the diagnosis is suspected, probable or confirmed by a laboratory by putting a line through the answers that do not apply, e.g. suspected/~~probable~~/~~confirmed by laboratory~~
3	Patient Data	Fill in completely, including EXACT location of residential address for case detection and review. Fill in details even when patient died before notification.
4	Date of onset/date of death	Indicate the date the onset of disease occurred; indicated the date of death of the patient only if applicable.
5	Place and Source of Infection	If a place or a source is suspected or confirmed, indicate this information in as much detail as possible.
6	Vaccination status	Verify vaccination status using the Children's Clinic/Road to Health Card, the Child under 5 Register or by asking the parent/guardian of the child. Indicate the source of information by putting a line through the answers that do not apply. e.g. ~~Children's Clinic Card~~/~~register/~~verbal
7	Status of relatives/others	Indicate whether there are other people in the environment suffering from the same disease by circling yes or no.
8	Action taken	Specify actions taken, clinical and case control. Remember to take blood/stool samples if possible.

9	Support needed	Specify support needed, in terms of drugs, IV fluids, transport, etc.
10	Notification	Print your name clearly and indicate your designation/job title

Notification of Communicable Diseases Weekly Report Format (ND.2)

Purpose: To report to the District Health Office weekly cases of notifiable diseases.

Who completes: Any qualified health worker can fill in the form and sign it, though it is recommended that the health workers with the most clinical skills perform this task. (But this should not lead to delays in reporting.)

When completed: The weekly report form is used when 5 or more cases of the same notifiable disease have been diagnosed in one week. In general this is when an outbreak has been established.

Location: The forms are present in each health facility.

Instructions for making entries:

1	Health Institution Data	Write the name of health centre or hospital as well as the district.
2	Week of report	**From:** indicate the first day in the week the report refers to. **to**: indicate the last day in the week the report refers to.
3	Notifiable Disease	Only <u>one</u> notifiable disease should be reported on this form.
4	Source of Infection	Indicate if the source of the outbreak is most likely from one source only or from multiple sources. Indicate this by putting a line through the answers that do not apply, e.g. probably one source/~~multiple sources~~ of infection.
5	Date when the first case was recognised	This refers to the date when the first case was diagnosed. It does not refer to the date when the first case in this week was recognised but rather to when the entire epidemic case to the attention of the health system.
6	Newly diagnosed cases during the week	Enter the information by age category and sex only for cases reported in the week covered by this form. If the age of the patient was not know, enter it in the unknown category. In the last column, total the cases by male and female; in the bottom row, total by age category.
7	Deaths during the week	Enter the information by age category and sex only for deaths from the disease in the week covered by this form. Follow the instructions above on age and sex categories.
8	Disease preventable by vaccination	If the disease was preventable by vaccination, indicate the vaccination status of each case by age category. Total each row.
9	Cumulative cases and deaths for epidemic	Look back at the total columns of all the weekly reporting forms filled out since the epidemic first began and total them to arrive at the cumulative cases and deaths in the epidemic.
10	Action taken	Specify actions taken, clinical and case control.
11	Support needed	Specify support needed, in terms of drugs, IV fluids, transport, etc.

12	Notification	Print your name clearly and indicate your designation/job title

Annexure 4.11 - Aggregation and Analysis

Disease Aggregation Form: HIA.1

Purpose: To aggregate information on diagnoses made at health institutions on a monthly and quarterly basis, for the purpose of mapping disease trends and calculating disease indicators.

When completed: The Disease Aggregation Form (HIA.1) is filled on a monthly basis by health institutions. At the end of the quarter the data is aggregated and a copy of this aggregated form is forwarded to the District Health Office. It should be sent the District Health Information Officer within **4** weeks after the end of the quarter.

Who completes: At health institutions, the in-charge or statistics clerk, with the assistance of other staff members.

Location: The forms are present in each health facility.

Filling out the Form
The HIA1 is filled in from aggregated data from the OPD attendance, Disease Tallies – Attendance, IPD discharges and IPD deaths. Each total in the tally sheet against a given disease is transferred to the corresponding line on the HIA1.

Below is the HIA1.

District: _____ **Month:**_____
Health Institution_____ **Year:** _____

DIAGNOSES		OPD First Attendance				IPD Discharge				Deaths			
		under 1 year	1 to under 5 years	5 years and over	total	under 1 year	1 to under 5 years	5 years and over	total	under 1 year	1 to under 5 years	5 years and over	total
NOTIFIABLE DISEASES													
Acute flaccid paralysis (suspected poliomyelitis)	NTF05												
Cholera	NTF10												
Measles	NTF15												
Meningitis	NTF20												
Neonatal tetanus	NTF25												
Plague	NTF30												
Rabies	NTF35												
Dysentery	NTF40												
Typhoid fever	NTF45												
Yellow fever	NTF50												
Any other unusual occurrence of disease or outbreak													
SELECTED DISEASES													
Malaria													
Clinical case of malaria	MLR05												
Confirmed case of malaria	MLR10												
Clinical malaria in pregnancy	MLR15												
Confirmed malaria in pregnancy	MLR20												
ENT													
Ear Diseases	ENT05												
Nose Diseases	ENT10												
Throat Diseases	ENT15												
Chronic Diseases													
Asthma	CRN05												
Cardio-vascular diseases	CRN10												
Diabetes	CRN15												
Hypertension	CRN20												
Nervous System Disorders: Epilepsy	CRN25												
Sickle Cell Anaemia	CRN30												
Retroviral Diseases (RVD)													
Cryptococcal meningitis	RVD05												
Herpes zoster	RVD10												
Karposi sarcoma	RVD15												
Pneumocystic Carnii Pneumonia (PCP)	RVD20												
Other diseases													
Anaemia	D05												
Dental Carries	D10												
Dental diseases: Other	D15												
Diarrhoea (non-bloody)	D20												
Digestive system: (not infectious)	D25												
Eye Disease: Glaucoma	D30												
Eye Disease: Refractory Errors	D35												
Eye Disease: Spring Cattarah	D40												
Eye diseases (infectious)	D45												
Genital-Urinary diseases (except STI)	D50												
Intestinal worms	D55												
Mental Health (Neurosis))	D60												
Mental Health (Psychosis)	D65												
Muscular skeletal and connective tissue (not trauma)	D70												
Neoplasm (All types)	D75												
Nervous System Disorders: Other	D80												
Poisoning	D85												
Pulmonary diseases (not infectious)	D90												
Pyrexia of Unknown Origin (PUO)	D95												
Respiratory Infection: non-pneumonia	D100												
Respiratory Infection: pneumonia	D105												
Severe Diarrhoea with dehydration	D110												
Severe malnutrition (new case)	D115												
Skin Diseases (not infectious)	D120												
Skin Diseases (infectious)	D125												
Snake Bite	D130												
Substance Abuse	D135												
TB	D140												
Trauma: Injuries, Wounds, Burns	D145												
Bilharzia	D150												
TOTAL DIAGNOSES													

DIAGNOSES		Treated											
		0 to 14 years		total	15 to 24 years		total	25 years and above		total	Grand Total		
		M	F		M	F		M	F		M	F	total
Sexually transmitted diseases													
Genital ulcer	STI05												
Genital warts	STI10												
Inguinal bubo	STI15												
Male Urethritis Syndrome	STI20												
Pelvic Inflammatory Disease	STI25												
STI partner notification slips issued	STI30												
STI partner treated (new case)	STI35												
Obstetric Complications													
Delivery Complications - sepsis	OBS05												
Pregnancy Complications - abortion	OBS10												
Screening													
Woman newly diagnosed with breast cancer	CNS05												
Woman newly diagnosed with cervical cancer	CNS10												

Health Centre Service Delivery Aggregation Form: HIA.2

Purpose: This form provides a summary of information on services provided by the health institution in each of its areas of operation (Outpatient, Inpatient, Maternal and Child Health, Obstetrical Care, Vaccinations, Environmental Health etc.). In addition, management information is recorded on drugs, human resources, and supervision.

When completed: The form is filled on a monthly basis by health institutions; one form is used for all three months of the quarter plus the quarterly aggregate. Data is aggregated on the far right column of the form and forwarded to the District Health Office within **4** weeks after the end of the quarter. The annual form is used to aggregate data from all four quarters of a calendar year.

Who completes: At health institutions, the in-charge or statistics clerk, with the assistance of other staff members.

Location: At all health centres; hospital departments functioning as health centres.

The source of information for each entry in the Health Centre Service Delivery Aggregation Form is listed below.

Month: _____ **Year**_____ **Completed by:** _____ **Verified by:** _____

District: _____ _____ _____

Facility: _____ _____ _____

1 Child Health (CH)			*Source: Child Health Activity sheet*
1.1 Under 5 Clinic Attendance		**Value**	**Comment**
Attendance child health <12 months male	CH05		
Attendance child health <12 months female	CH10		
Attendance child health 12-59 months male	CH15		
Attendance child health 12-59 months female	CH20		
Attendance child health total. (Sum CH05 to CH20)	CH25		
Attendance from outside catchment's area	CH30		
1.2 Growth monitoring and nutrition			
Child 0 – 23 months weighed	CH32		
Child 24 – 59 months weighed	CH34		
Total Child <5 years weighed (Sum CH32 + CH33)	CH35		
Not gaining weight 0–23 months	CH40		
Not gaining weight 24–59 months	CH42		
Weight between -2Z & -3Z scores 0–23 months	CH45		
Weight between -2Z & -3Z scores 24–59 months	CH47		
Weight below -3Z scores 0–23 months	CH50		
Weight below -3Z scores 24–59 months	CH52		
Weight above +2Z scores 0–23 months	CH53		
Weight above +2Z scores 24–59 months	CH54		
Vitamin A supplement to 6-11 months infant	CH55		
Vitamin A supplement to 12-59 months child	CH60		
Mebendazole dose to child 12-59 months	CH65		
1.3 Immunisation			
BCG dose <1 year	CH70		
OPV 0 dose	CH75		
OPV 1st dose	CH80		
OPV 2nd dose	CH85		
OPV 3rd dose	CH90		
OPV 4th dose	CH95		
DPT-Hib+HepB 1st dose	CH100		
DPT-Hib+HepB 2nd dose	CH105		
DPT-Hib+HepB 3rd dose	CH110		
Measles 1st dose <1 year	CH115		
Immunised fully <1 year new	CH120		
Number of days fridge non-functional	CH125		

2 Reproductive Health (RH) Safe Motherhood	*Source: Safe Motherhood Activity sheet*		
2.1 **Antenatal**		**Value**	**Comment**
2.1.1 **First antenatal visit**			
Antenatal 1st visit before 20 weeks	RH05		
Antenatal 1st visit 20 weeks or later	RH10		
Antenatal 1st visits total ……..(Sum RH5 + RH10)	RH15		
Antenatal 1st visit by woman < age of 18	RH20		
2.1.2 **Antenatal Follow-ups**			
Antenatal follow-up visits	RH25		
Total antenatal attendances…….(RH15 + RH25)	RH30		
Attendance antenatal from outside catchment's area	RH35		
2.1.3 **Screening**			
Screened for anaemia at first ANC visit	RH40		
Antenatal client tested for syphilis	RH45		
Antenatal client tested positive for syphilis new case	RH50		
Cervical smear performed	RH55		
Screened for breast cancer	RH60		
2.1.4 **Prophylaxis during pregnancy**			
IPT 1st dose	RH65		
IPT 2nd dose	RH70		
IPT 3rd dose	RH75		
ITN provided at ANC visit	RH80		
Mebendazole dose	RH85		
Ferrous Sulphate dose	RH90		
Folic acid dose	RH95		
Tetanus Toxoid 2nd Booster Dose	RH100		
2.2 **Postnatal**			
Postnatal care within 6 days	RH105		
Postnatal care between 6 days - 6 weeks	RH110		
Postnatal visits total……..(RH105 + RH110)	RH115		
Vitamin A supplement to woman < 8 wks after delivery	RH120		
2.3 **Safe motherhood attendances**			
Attendance safe motherhood total.(RH30 + RH115)	RH125		
2.4 **Family Planning**		*Source: FP Activity sheet*	
2.4.1 **Utilisation**			
Attendance family planning	RH130		
2.4.2 **Methods**			
Condoms	RH135		
Oral pill cycle	RH140		
Medroxyprogesterone injection	RH145		
Norethisterone enanthate injection	RH150		
Implant	RH155		
IUCD inserted	RH160		
Sterilisation – female	RH165		
Sterilisation - male	RH170		
2.5 **Obstetric Care**		*Source: Obstetric Activity sheet*	
2.5.1 **Deliveries**			
Normal deliveries in facility	RH175		
Assisted delivery in facility	RH180		
Caesarean section	RH185		
Institutional deliveries total….(Sum RH175 to RH185)	RH190		

2.5.2 **Delivery Supervision**			
Deliveries by skilled personnel	RH195		
Deliveries by trained personnel	RH200		
Deliveries in facility by trained TBA's	RH205		
Home deliveries by any TBA's	RH210		
Supervised deliveries total ...(Sum RH195 to RH210)	RH215		
2.5.3 **Delivery Complications**			
Sepsis	RH220		
Obstructed labour	RH225		
Hypertensive disorders	RH230		
Haemorrhage	RH235		
Abortion	RH240		
Ruptured uterus	RH245		
Retained placenta	RH250		
Women with obstetric fistula	RH255		
Delivery complications total.(Sum RH220 to RH255)	RH260		
Maternal deaths in facility	RH265		

2.6 Neonatal care			
2.6.1 **Live Births**		**Value**	**Comment**
Live birth in facility <2500g	RH270		
Live birth in facility >2500g	RH275		
Live births in facility total .....(Sum RH270 + RH275)	RH280		
Baby initiated to breast feed within an hour of birth	RH282		
2.6.2 **Still Births**			
Macerated still birth in facility	RH285		
Fresh still birth in facility	RH290		
Still births in facility total .....(Sum RH285 + RH290)	RH295		
2.6.3 **Neonatal Deaths**			
Inpatient death - early neonatal	RH300		
Inpatient death - late neonatal	RH305		
Neonatal deaths total.....(Sum RH300 + RH305)	RH310		

3 HIV/AIDS Services (HIV)			
3.1 **Counselling and Testing**		*Source: CT Activity sheet*	
3.1.1 **Attendance**		**Value**	**Comment**
Pre-test counselled for HIV first visit	HIV05		
Pre-test counselled for HIV subsequent visit	HIV08		
Follow up psycho-social counselling	HIV10		
Attendance – Counselling and testing (HIV05 + HIV10)	HIV15		
3.1.2 **Testing**			
<12 months males	HIV20		
<12 months females	HIV22		
12-59 months males	HIV25		
12-59 months females	HIV26		
5-14 years males	Hiv27		
5-14 years females	HIV28		
> 14 yrs males	HIV30		
> 14 yrs females – excl ANC	HIV35		
HIV tested total – excl ANC.....(Sum HIV20 to HIV35)	HIV40		

3.1.3 **Positive Results**			
<12 months males	HIV45		
<12 months females	HIV46		
12-59 months males	HIV50		
12-59 months females	HIV51		
5-14 years males	HIV52		
5-14 years females	HIV53		
> 14 yrs males	HIV55		
> 14 yrs females – excl ANC	HIV60		
HIV Positive Total – excl ANC*... (Sum HIV45 to HIV60)*	HIV69		
Collecting results 0-14 years	HIV70		
Collecting results >14 years	HIV72		
Collecting results total (HIV70 + HIV72)	***HIV74***		
Referred for Pre ART from C&T	HIV75		
3.2 **Prevention of Mother-to-Child Transmission**			
3.2.1 **Counselling & Testing**			*Source: PMTCT ANC Activity sheet*
Antenatal client tested at 1st antenatal visit	HIV80		
Antenatal client tested at follow-up antenatal visit	HIV85		
Antenatal client with known HIV positive status	HIV90		
Antenatal client HIV positive new case	HIV95		
Antenatal Client HIV positive collecting results	HIV96		
Antenatal client collecting HIV test results total	HIV97		
Antenatal client male partner counselled	HIV100		
Antenatal client male partner tested for HIV	HIV105		
3.2.2 **Post-test Services**			
Referred for Pre ART from PMTCT	HIV110		
Opting for 6 months EBF at 1st visit	HIV115		
3.2.3 **PMTCT Deliveries**		*Source: PMTCT DELIVERY Activity sheet*	
Live Births HIV exposed	HIV120		
3.2.4 **Prophylaxis**		*Source: PMTCT DELIVERY Activity sheet*	
ARV prophylaxis mono therapy to woman	HIV125		
ARV prophylaxis dual therapy to woman	HIV130		
ARV prophylaxis triple therapy to woman	HIV132		
ARV prophylaxis mono therapy to baby	HIV135		
ARV prophylaxis dual therapy to baby	HIV136		
Cotrimoxazole started by baby within two months	HIV140		*Source: PMTCT CH Tally Sheet*
3.2.5 **Follow up** *(Source: PMTCT CHILD HEALTH Tally Sheet)*		**Value**	**Comment**
Live birth HIV exposed 1 month ago	HIV145		
Live birth HIV exposed 12 months ago	HIV150		
Live birth HIV exposed 18 months ago	HIV155		
HIV test to HIV-exposed baby at 6 weeks	HIV160		
HIV test to HIV-exposed baby at 12 months	HIV165		
HIV test to HIV-exposed baby at 18 months	HIV170		
HIV test positive at 6 weeks new case	HIV175		
HIV test positive at 12 months new case	HIV180		
HIV test positive at 18 months new case	HIV185		
3.2.6 **Post – HIV Exposure Infant and Child Feeding**		*(Source: PMTCT CHILD HEALTH Tally Sheet)*	
HIV exposed infants EBF within 6 days	CH130		
HIV exposed infants EBF within 6 days to 6 weeks	CH135		
HIV exposed infants EBF within 6 weeks to 6 months	CH140		
HIV exposed infants ERF within 6 days	CH145		
HIV exposed infants ERF within 6 days to 6 weeks	CH150		
HIV exposed infants ERF within 6 weeks to 6 months	CH155		

3.3	**Anti-Retroviral Therapy**			*Source: ART tally sheet*
3.3.1	**Registering for Pre ART (entry points)**			
	Pre ART registration from Counselling and Testing	HIV190		
	Pre ART registration from PMTCT	HIV195		
	Pre ART registration from TB	HIV200		
	Pre ART registration from other sources	HIV205		
	Pre ART registration total new case (Sum HIV190 to HIV205)	HIV210		
3.3.2	**Eligibility for ART**			
	Patients eligible for ART this month	HIV215		
3.3.3	**Initiated on ART**			
	ART initiated <12 months male	HIV220		
	ART initiated <12 months female	HIV225		
	ART initiated 12–59 months male	HIV230		
	ART initiated 12–59 months female	HIV235		
	ART initiated 5-14 years male	HIV240		
	ART initiated 5-14 years female	HIV245		
	ART initiated >14 years male	HIV250		
	ART initiated >14 years female	HIV255		
	ART initiated total new cases (Sum HIV220 to HIV255)	HIV260		
	Cumulative ART initiated in this clinic 0–14 years	HIV265		
	Cumulative ART initiated in this clinic >14 years	HIV267		
	ART initiated in pregnant women	HIV270		
	ART initiated in TB HIV positive patient	HIV275		
	ART follow up	HIV280		
	ART current count 0 – 14 years[1]	HIV285		
	ART current count > 14 years	HIV287		
	Attendance ART total ….(Sum HIV210 + HIV260 + HIV280)	HIV290		
3.3.4	**Treatment Outcomes & Management[2]**			
	ART initiated 12 months ago	HIV295		
	Original 1st Line ART at 12 months	HIV300		
	On alternative 1st line ART after 12 months	HIV302		
	Switched to 2nd line ART at 12 months	HIV303		
	Alive and on ART at 12 months	HIV305		
	ART patient consistently picked drugs for 12 months	HIV310		
3.3.5	**Post – Exposure Prophylaxis**			
	Post HIV exposure prophylaxis to workers	HIV315		
	Post HIV exposure prophylaxis for sexual assault	HIV320		
	Post HIV exposure prophylaxis for other reasons	HIV325		

			Value	**Comment**
4	**Tuberculosis (TB)** *(Source: TB Activity sheet)*			
4.1	**TB Diagnosis**			
	Attendance TB	TB05		
	Suspected TB case with sputum sent	TB10		
	New smear positive	TB15		
	New smear negative	TB20		
	Relapse TB patient	TB25		
	New TB patients total…….(Sum TB15 to TB25)	TB30		
4.2	**TB Outcomes**			
	TB patient cured	TB35		
	TB patient completed treatment	TB40		
	TB patient defaulted treatment	TB45		
	TB patient died	TB50		
	TB patient transferred out	TB55		

[1] Source: PMTCT Follow Up Register or Under 5 Register and/or SMARTCARE
[2] Source: Use ART Cohort Tracking Tool and/or SMARTCARE

4.3 **HIV/TB Screening**			
New TB patient screened for HIV	TB60		
TB patient who is HIV positive	TB65		
HIV positive new patient with confirmed TB	TB70		
Referred for Pre-ART from TB	TB75		

5 Curative Care Contacts (OPD & IPD)			*Source: OPD and IPD Tally sheets*
5.1 **Out-patients (OPD)**		**Value**	**Comment**
Attendance OPD <12 months male	OPD05		
Attendance OPD <12 months female	OPD10		
Attendance OPD 12-59 months male	OPD15		
Attendance OPD 12-59 months female	OPD20		
Attendance OPD >5 years male	OPD25		
Attendance OPD >5 years female	OPD30		
Attendance outpatients total (Sum OPD05 to OPD30)	OPD35		
5.2 **Inpatient Care (IPD)**			
5.2.1 **Discharges**			
Inpatient discharge <1 year	IPD05		
Inpatient discharge 12-59 months	IPD10		
Inpatient discharge >5 years	IPD15		
Inpatient discharges total...(.Sum IPD05 to IPD15)	IPD20		
5.2.2 **Transfers- Out**			
Inpatient transfer out <1 year	IPD25		
Inpatient transfer out 12-59 months	IPD30		
Inpatient transfer out >5 years	IPD35		
In-patient transfers-out total..(Sum IPD25 to IPD35)	IPD40		
5.2.3 **Inpatient Deaths**			
Inpatient death <1 year	IPD45		
Inpatient death 12-59 months	IPD50		
Inpatient death >5 years	IPD55		
Inpatient deaths total.....(Sum IPD45 to IPD55)	IPD60		
5.2.4 **Other Inpatient Data Elements**			
Day patients	IPD65		
Inpatient days	IPD70		
Usable beds total	IPD75		
In-patients referred to a higher level of healthcare	IPD80		

6 Drugs and Supplies Management (DRG) *(Source: Drugs Stock Out sheet)*			
Erythromycin 500mg capsule/tablet stock out	DRG05		
Doxycycline 100mg tablet stock out	DRG10		
Any 1st line anti-malarial stock out	DRG15		
Amoxicillin 125mg/5ml suspension (75ml) stock out	DRG20		
Amoxicillin capsules stock out	DRG25		
Any 1st line ARV drug stock out	DRG30		
Folic acid stock out	DRG35		
4 FDC (TB) drug stock out	DRG40		
Crystapen stock out	DRG45		
Cotrimoxazole 480mg stock out	DRG50		
Cotrimoxazole syrup stock out	DRG55		
DPT-HepB+Hib vaccine stock out	DRG60		
ORS stock out	DRG65		
Paracetamol 500mg stock out	DRG70		
Rapid HIV test stock out	DRG75		

7 Human Resources (HR)[1] (other paramedical staff: environmental health staff, radiographers, physiotherapists, nutritionists)			
7.1 **Staff on Establishment**		**Value**	**Comment**
7.2 **Newly recruited**			
Doctors	HR50		
Clinical officers	HR55		
Registered nurse	HR60		
Enrolled nurse	HR65		
Nurse midwife	HR70		
Pharmacists	HR75		
Other Paramedical staff	HR80		
Support staff	HR85		
Administrative staff	HR90		
7.3 **Staff Losses**			
Doctor	HR95		
Clinical officer	HR100		
Registered nurse	HR105		
Enrolled nurse	HR110		
Nurse midwife	HR115		
Pharmacist	HR120		
Other Paramedical	HR125		
Support	HR130		
Administrative	HR135		
7.4 **Workloads**			
7.4.1 **Expected Workdays**			
Doctor	HR140		
Clinical officer	HR145		
Registered nurse	HR150		
Enrolled nurses	HR155		
Nurse midwife	HR160		
Pharmacist	HR165		
Other Paramedical staff	HR170		
Support staff	HR175		
Administrative staff	HR180		
7.4.2 **Actual workdays on duty**			
Doctor	HR185		
Clinical officer	HR190		
Registered nurse	HR195		
Enrolled nurse	HR200		
Nurse midwife	HR205		
Pharmacists	HR210		
Other Paramedical	HR215		
Support staff	HR220		
Administrative staff	HR225		

[1] *Source: HR Activity sheet*

8 Environmental Health Services (ENV) *(Source: ENV Activity sheet)*			
8.1 **Inspections**		**Value**	**Comment**
Target premises to be inspected	ENV05		
Premises inspected	ENV10		
Premises inspected in compliance	ENV15		
Target food inspections to be performed	ENV20		
Food inspections performed	ENV25		
Food inspections resulting in seizure & disposal of food	ENV30		
Target water sources to be inspected	ENV35		
Water sources inspected	ENV40		
Total sanitary facilities (water closets and pit latrines)	ENV45		
Sanitary facilities inspected	ENV50		
Statutory notices issued	ENV55		
Statutory notices complied with	ENV60		
Prosecutions conducted	ENV65		
8.2 **Sampling**			
Target food samples to be taken	ENV70		
Food samples collected	ENV75		
Food samples in compliance with standard	ENV80		
Target water samples to be taken	ENV85		
Water samples taken	ENV90		
Water samples in compliance with WHO standard	ENV95		
Target salt samples to be taken for iodine levels	ENV100		
Salt samples tested with adequate iodine	ENV105		
8.3 **Rodents and Vector Control**			
Vector/Rodent complaints received	ENV110		
Vector/Rodent complaints attended to	ENV115		
Total number of households	ENV120		
Households having ITNs	ENV125		
Structures sprayed against mosquitoes	ENV130		
Estimated tones of refuse generated	ENV135		
Tones of refuse collected	ENV140		
9 Financial data (FIN) *(Source: DHMT/HC Accounting Records)*		**Value**	**Comment**
MoH releases (domestic, non-donor) received	FIN05		
Total budget	FIN10		
Budget for medical supplies	FIN15		
Budget for laboratory supplies	FIN20		
Budget for 20_80 drugs	FIN25		
Expenditures on allowances	FIN30		
Expenditure on laboratory supplies	FIN35		
Expenditures on emergency drugs	FIN40		
Expenditure on 20_80 drugs	FIN45		
Expenditures on fuel	FIN50		
Expenditures on capital investment	FIN55		
10 Supportive Supervision (SUP)			
Supportive supervision visits this month by DHMT	SUP05		
11 Total Attendances			
Total preventive attendances (Sum CH25+RH125+RH130)	SUP10		
Total curative attendances(Sum HIV290+TB05+OPD35)	SUP15		
12 HMIS Quality Assurance			
Was full set of HMIS tools present for reporting period?	QA05		