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CMT 04212 Health Information Management and Financing

NTA Level 4 Semester 2

Student Manual

August 2010

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Background and Acknowledgement

In April 2009, a planning meeting was held at Kibaha which was followed up by a Task Force Committee meeting in June 2009 at Dodoma and developed a proposal which guided the process of the development of standardised Clinical Assistant (CA) and Clinical Officer (CO) training materials which were based on CA/CO curricula. The purpose of this process was to standardize the entire curriculum with up-to-date content which would then be provided to all Clinical Assistant and Clinical Officer Training Centres (CATCs/COTCs). The perceived benefit was that, by standardizing the quality of content and integrating interactive teaching methodologies, students would be able to learn more effectively and that the assessment of students' learning would have more uniformity and validity across all schools.

In September 2009, MOHSW embarked on an innovative approach of developing the standardised training materials through the Writer's Workshop (WW) model. The model included a series of three-week workshops in which pre-service tutors and content experts developed training materials, guided by facilitators with expertise in instructional design and curriculum development. The goals of WW were to develop high-quality, standardized teaching materials and to build the capacity of tutors to develop these materials.

The new training package for CA/CO cadres includes a Facilitator Guide, Student Manual and Practicum. There are 40 modules with approximately 600 content sessions. This product is a result of a lengthy collaborative process, with significant input from key stakeholders and experts of different organizations and institutions, from within and outside the country.

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Introduction

Module Overview
This module content has been prepared to enhance learning of students of Clinical Assistant (CA) and Clinical Officer (CO) schools.. The session contents are based on the sub-enabling outcomes of the curricula of CA and CO. The module sub-enabling outcomes are as follows:
4.1.1 Practice the use of MTUHA tools
4.1.2 Manage in-patient and out-patient admissions and procedures
4.1.3 Organize patient's medical records
4.2.1 Complete health insurance claim forms
4.2.2. Perform billing and collection procedures
4.2.3. Demonstrate how to post entries in appropriate account books
4.2.4 Submit daily collections to the relevant authority
5.3.4 Prepare general, technical reports and correspondence

Who is the Module For?
This module is intended for use primarily by students of CA and CO schools. The module's sessions give guidance on contents and activities of the session and provide information on how students should follow the tutor when he/she teaches the module. It also provides guidance and necessary information for students to read the materials on his/her own. The sessions also include different activities which focus on increasing students' knowledge, skills and attitudes.

How is the Module Organized?
The module is divided into 23 sessions; each session is divided into several sections. The following are the sections of each session:

- **Session Title:** The name of the session.
- **Learning Objectives** – Statements which indicate what the student is expected to have learned at the end of the session.
- **Session Content** – All the session contents are divided into subtitles. This section includes contents and activities with their instructions to be done during learning of the contents.
- **Key Points** – Each session has a step which concludes the session contents near the end of a session. This step summarizes the main points and ideas from the session.
- **Evaluation** – The last section of the session consists of short questions based on the learning objectives to check if you understood the contents of the session. The tutor will ask you as a class to respond to these questions; however if you read the session by yourself try answering these questions to evaluate yourself if you understood the session.
- **Handouts** – Additional information which can be used in the classroom while the tutor is teaching or later for your further learning. Handouts are used to provide extra information related to the session topic that cannot fit into the session time. Handouts can be used by the students to study material on their own and to reference after the session. Sometimes, a handout will have questions or an exercise for students to answer.

How Should the Module be Used?
Students are expected to use the module in the classroom and clinical settings and during self study. The contents of the modules are the basis for learning Health Information Management and Financing. Students are therefore advised to learn all the sessions including all relevant

handouts and worksheets during class hours, clinical hours and self study time. Tutors are there to provide guidance and to respond to all difficulty encountered by students. One module will be assigned to 5 students and it is the responsibility of the tutor to do this assignment for easy use and accessibility of the student manuals to students.

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care Clinic
BBA	Born Before Arrival
BCG	Bacille Calmette-Guerin (vaccine for infants)
CBD	Community Based Delivery
CFR	Case Fatality Rate
CHF	Community Health Fund
CHMT	Council Health Management Team (includes both technical, administrative and policy makers at district level)
DHMT	District Health Management Team (technical team at facility)
DMO	District Medical Office
DPF	District Processing File
DPT 3	Diphtheria Pertusis Tetanus
DRF	Drug Revolving Fund
DTC	Diarrhoea Treatment Corner
EOHC	Emergency Oral Health Care
EPR	Electronic Patient Record
FBO	Faith-based Organization
FIFO	First In, First Out
FP	Family Planning
HFR	Hospital Fatality Rate
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HSR	Health System Reform
IASB	International Accounting Standard Board
ICF	Internal Classification of Diseases
IMCI	Integrated Management of Childhood Illness
IPD	Inpatient Department
LIFO	Last In, Last Out
LNMP	Last menstrual period
LOFEM	Lo Femenal
MARV	Marvelon
MCH	Maternal and Child Health
MGYN	Microgynon
MLUT	Microlut
MOHSW	Ministry of Health and Social Welfare of Tanzania
MSD	Medical Stores Department
MTUHA	Mfumo wa Taarifa za Uendeshaji wa Huduma za Afya
MVAL	Microval
NGO	Non-governmental Organization
NHIF	National Health Insurance Fund
NSSF	National Social Security Fund
OHD	Oral Health Department
OPD	Outpatient Department
ORS	Oral Rehydration Salts

RCH	Reproductive child health
RHMT	Regional Health Management Team
RMO	Regional Medical Office
TB & LP	Tuberculosis and Leprosy
TBA	Traditional Birth Attendants
TT	Tetanus Toxoids
VDRL	Venereal Disease Research Laboratory
VVF	Vesico-vaginal Fistula
WA	Weighted Average method

Session 1: Introduction to Health Management Information System (HMIS/MTUHA)

Learning Objectives

By the end of this session, students will be able to:

- Define HMIS
- Explain the purpose of the HMI system in Tanzania
- Identify sources of HMIS data
- Explain key issues in HMIS
- Explain the five sets of HMIS data tools

Background and Definition of HMIS (MTUHA)

Background

- HMIS was introduced throughout the country during the period 1994 through 1997.
- HMIS is a decentralized, integrated and functional system.
- It covers all health programs and health care services.

Definition

- HMIS is the system designed to collect facility based health and health related data, compile, store and retrieve for data analysis to produce report which in turn inform service providers, health managers, decision markers/policy makers and the public to make informed decision on health planning, monitoring and evaluation.
- HMIS in Tanzania in Kiswahili is called MTUHA.
- MTUHA is the acronym for 'Mfumo wa Taarifa za Uendeshaji wa Huduma za Afya'.

Purpose of HMIS (MTUHA) System in Tanzania

- Provides each facility with information which allows the staff to accurately evaluate and then appropriately modify the activities, in order for the health facility to provide optimal health care and health prevention for its communities.
- Assists the in-charge and staff in the management of the health facility.

Sources of HMIS (MTUHA) Data

Major Sources of HMIS (MTUHA) Data

- Outpatient department (including dental and eye clinics)
- Inpatient department (IPD)
- Diagnostics services (laboratory and X-ray)
- Reproductive child health (RCH) services
- Pharmacy
- Pathology department
- Medical records department
- Administration
- Accounts
- Community (Book 3)

Key Issues in HMIS (MTUHA) System

Confidentiality

- All service providers using HMIS (MTUHA) system are subjected to confidentiality regarding MTUHA data.
- All health facility patient and client records are strictly confidential and should not be handled by or exposed to unauthorized person.
- Authorized persons include the following groups:
  - Health personnel who is under employment in the hospital and whose duties require the handling of patient/client records.
  - Health personnel of the district medical office (DMO).
  - Health personnel of the regional medical office (RMO).
  - Health personnel of ministry of health and social welfare institutions and programmes.
  - Officials of the ministry of health and social welfare headquarters.
  - Any other person officially designated by the Government of the United Republic of Tanzania.
- Serious disciplinary steps will be taken where there is proof of negligence on this issue of confidentiality.

Health Facility Management

- HMIS facilitates good management of a health facility through:
  - Monitoring the staff: Number of staff, work stations, and work schedule
  - Monitoring workloads: Determining proper allocation of the staff based on workloads.
  - Monitoring expenditure for improvement, maintenance and salaries
  - Monitoring and discussing problems, ideas for improvement, special events in staff meetings and further actions as needed.

Logistics

- HMIS facilitates good maintenance of essential equipments in the facility.
- It facilitates the projection and procurement of required medical and non medical supplies.

Quality of Health Care

- HMIS facilitates improvement of the quality of health care provided through:
  - Improving coverage of preventive services
  - Lowering the morbidity and mortality in served population

Five Sets of HMIS (MTUHA) Tools

- HMIS (MTUHA) has five sets of tools which are used in health facilities.
- Most of these tools are arranged in books.
- The twelve HMIS (MTUHA) books/registers are as follows:
  - Book 1: HMIS (MTUHA) Guidelines
  - Book 2: Facility and Hospital Summary Book
  - Book 3: Community book
  - Book 4: Ledger book
  - Book 5: OPD register
  - Book 6: Antenatal care register

- Book 7: Child register
- Book 8: Family planning register
- Book 9: Diarrhoea treatment corner
- Book 10: Report book
- Book 11: Dental register
- Book 12: Delivery book

Five sets of HMIS (MTUHA) Tools

Set 1: Guidelines

- MTUHA guideline is the book used as reference and or instruction manual to other books/registers (Books 2–12).
- Each facility is supposed to have at least one copy accessible to all service providers at all time.

Set 2: Data Collection Tools (Books/registers)

- These are tools used in collecting the data (Book 3, Book 4, Book 5, Book 6, Book 7, Book 8, Book 9, Book 11 and Book 12).
- Two books which do not have numbers are inpatient and post natal.

Set 3: Tally Sheets

- These are four forms used at the facility level to summarize data from specific health service area in a given period of time. These are:
  - Form F201 – children attendance
  - Form F202 – immunization
  - Form F203 – general tally sheet
  - Form F204 – neonatal tetanus

Set 4: Summary (Compilation) Book

- This is Book 2, is the book used to compile data from different health service department.
- In places where computers are available, this can be kept electronically.

Set 5: Reporting Forms

- There are facilities and district report forms used for reporting daily, monthly quarterly and annually.
- Some are found in Book 10 and district processing file (DPF).
- Reporting forms at facility level are monthly, quarterly, semi-annual and annual forms (Book 10) which consist of:
  - F001 Staff List Report (annual)
  - F002 Equipment inventory (annual)
  - F003 Status of buildings report (annual)
  - F004 Management report (quarterly)
  - F005 Management report (annual)
  - F006 Maintenance and rehabilitation report (annual)
  - F008 Equipment breakdown report (annual)
  - F009 Notifiable diseases/ outbreak (emergency)
  - Reporting forms at district and regional level:
    - D001 – Staff report
    - D004 – Quarterly management report (one copy is sent to the ministry of health and social welfare)

- D005 – Annual report
- District processing file (DPF)
- District report

Activity: Small Group Exercise

Instructions
Work in groups to examine a set of the HMIS (MTUHA) tools.

Your group will identify the following about each tool, and then pass the tools to the next group.
- What is the name of the tool?
- To which set does it belong?
- What is the purpose of the tool?

Remember to circulate the tools in turns until all groups have seen all the tools.

Key Points

- There are 5 sets of MTUHA tools.
- There are 12 books within the five sets of MTUHA tools.
- There are 4 types of tally Sheets.
- There are eight different reports (F001, F002, F003, F004, F005, F006, F008 and F009) for facility level and district/regional levels.

Evaluation

- What is HMIS?
- What is the purpose of HMIS?
- What are the five sets of MTUHA tools?
- How many books are in the HMIS?
- What are the four different tally sheets used in HMIS?
- What are the report forms used at the facility, district and regional levels?

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Session 2: Managing Out-Patient and In-Patient Registration Procedures

Learning Objectives

By the end of this session, students are expected to be able to:

- Define registration of out-patient and in-patient
- Identify types of patient registration
- Explain the procedure of patient registration
- Explain scheduling and follow-up procedures of patient appointments
- Explain clinic preparation in appointment system

Definition and Types of Patient Registration

- Patient registration is a procedure of documenting personal and health data of patient before treatment.

Types of Patient Registration

- There are two types of patient registration:
  - Out-patients registration
  - In-patients registration

Patient Registration Procedure

The Unit System

- A health records system in which all health records and notes, relating to one patient are contained in one case folder/card, under one health facility registration number.
- Principles of unit system used in the health facility during the registration of out-patient and in-patient are:
  - A patient is a unit.
  - One patient, one folder/card.
  - One patient, one number.
    - Patient should be asked whether he has attended that hospital before-if 'yes' then he/she should use the same unit number.
    - If the answer is 'no', then a new number should be given.

Patient Registration Procedure

- Out and in- patients, the patient is registered and file/card opened.
- The registration environment should be conducive and the patients should be interviewed individually and in privacy.
- The identification details that are taken during the registration time are used to create the patients file/card.

Activity: Case Study

Instructions

Work in small groups to review the scenario and complete Worksheet 2.1.

Refer to Worksheet 2.1: Registration Procedure

Activity continued on next page

Scenario

Amina comes to the health facility a place where she does not live with some kind of symptoms. In the process of being registered, she claims that she was already registered in a different health facility where she lives. She says that she cannot remember her unit number but has been assigned one previously and she needs to be registered.

Answer the following questions in your groups:

- What is the information that you would need to know from the patient to register her?
- What things are important to ask the patient in order to get accurate information?
- What would you do about the patient's unit number?

Your group will have approximately 10 minutes to answer the questions.

Your group may be asked to present your responses to the class. Be prepared to give a brief summary of your answers.

- **Identification details include:**
  - Patients full names
  - Date of birth
  - Place of birth (district)
  - Sex
  - Religion
  - Health facility number given
  - Address
  - Street
  - Location
  - Sub location
  - Division
  - Patient/client telephone number
  - Occupation
  - Marital status
  - Name of next of kin
  - Address of next of kin
  - Height
  - Weight

Scheduling and Follow-Up of Patient Appointments

Patients Appointment

- A systematic way of giving a specific date, time and venue of the clinic to an individual patient/client.
- The staff working in the clinics should ensure that they arrive to work on time so that patients are not kept waiting for long before they are seen.
- Overloading of clinics should be avoided.
- It is important to keep track of the number of appointments that are scheduled each day so that the clinic is capable of dealing with all of the scheduled patients that will come on that day.
- Each facility should have their own protocol on how to schedule and accommodate urgent or severe cases.

Importance of Scheduling Patient Appointments

- Scheduling patient appointments helps to:
  - Reduce patients waiting time
  - Provide an even spread of work over the whole clinic session
  - Provides an even spread of work among the medical staff running the clinic
  - Allow the health facility to prepare for each patient in advance so that registration delay upon arrival to the clinic can be reduced
  - Provide for special clinic arrangements, for example recording of social history, weighing of patients, removal of plaster pathological and radiological examinations
  - Provide time of planning for teaching arrangements
  - Allow presentation of an interesting case to students for educational purposes

Tools Used to Record Appointments

The choice of tools will depend on whether the appointment is being made centrally or decentrally.

The following are most commonly used appointment tools:

- Loose -leaf binders
  - These are books which vary in size and it is recommended that they be in loose-leaf form to facilitate additions and removal of the sheets
  - The type to be used depends on the local circumstances
- Visible-edge sheet
  - These sheets are fixed on the cardex and the information written on them can easily be seen when the cardex is open
- Diaries
  - Books that are bound can be used to write all the appointments for one doctor
- Disadvantage of using diaries are
  - Many cancellations can lead to an untidy the diary
  - You cannot photocopy from the diary directly and shared, list must be written out on separate paper first before photocopying

Follow-Up

- Done through the routine scheduling of the appointments.
- Whenever a patient is scheduled for a next appointment, follow-up is conducted.
- Based on the outcome of each appointment, patient is assessed to determine whether or not another appointment is needed.

Clinic Preparation in Appointment System

- There are three types of appointment systems commonly used in the health facility.
- These are:
  - Centralized
  - Decentralized
  - Combined appointment system

Centralized Appointment System

- This means that all the appointments for the various clinics are made in one central place
- Advantages:
  - Easier control of staff, stationery and equipment
  - Each of the appointment recorder become familiar with the working systems of the various health facility

- All enquiries concerning appointments are referred to one place
- Urgent cases can be channelled quickly to the respective clinics

Decentralized Appointment System

- In this approach, different appointment systems are used in different clinics.
- Advantages:
  - The recorder dealing with the appointments becomes familiar with the patients and knows them by name.
  - The consultant/clinician in charge of the clinic will know the number of patients on her/his list without having to walk or ring the central area.
- Disadvantages:
  - Control of available resources is difficult.
  - When the recorder of the clinic becomes sick or is on leave the work becomes difficulty to the new recorder.
  - Enquiries concerning appointment are directed to different places.

Combined Appointment System

- Some of the health facilities have the two systems combined.
- Return appointments being made in the various clinics, and new bookings being done in the central area.

Key Points

- Patient registration is a procedure of documenting patient data.
- There are two types of patient registration namely out-patients and in-patients registration.
- Each and every patient should only have one unit number throughout the registration/return appointment processes.
- Scheduling and follow up of patients should be done in a systematic way by giving specific date, time and venue of the clinic.
- The three types of appointment systems are centralized, decentralized and combined appointment systems.

Evaluation

- What is patient registration?
- What are the patient registration details?
- What is centralised, decentralised and combined appointment?
- What are the advantages of centralized and decentralized appointment system

References

- B., Benjamin. (1980). *Medical Records Management: Lecturer/Tutorial Handouts* (2nd ed.*)*. USA.
- Huffman, E.K. (1994). *Health Information Management* (10th ed.). Illinois: Physician Record Company.
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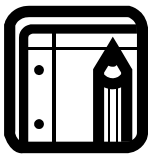

Worksheet 2.1: Case Study-Registration Procedure

Scenario

Amina comes to the health facility a place where she does not live with some kind of symptoms. In the process of being registered, she claims that she was already registered in a different health facility where she lives. She says that she cannot remember her unit number but has been assigned one previously and she needs to be registered.

Questions

1. What is the information that you would need to know from the patient to register her?

_____
_____
_____
_____

2. What things are important to ask the patient in order to get accurate information?

_____
_____
_____
_____
_____

3. What would you do about the patient's unit number?)

_____
_____
_____
_____
_____

Session 3: Patient's Medical Records

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain the medical records system
- Identify different types of health records
- Explain the uses of health records
- Explain types of special health records
- Explain the legal aspect of health records
- Identify forms and contents of health records folder

Medical Record System

Definition

- Medical record is a clearly and accurately written description of patient condition, illness and treatment of a disease.
- Medical records systems are either manual or electronic systems that are used to organise and catalogue information regarding treatments, general health conditions or other data that is relevant to patients.

Basic Information of Medical Records

- Medical records includes:
  - Name
  - Gender
  - Age of the patient
  - Contact information for next of kin or other persons authorized to receive information about the patient.
  - Notes on any allergies are also documented.
  - If the patient has some type of insurance or some kind of health care discount plan, and other relevant details are also kept in the patient file.
- Along with the basic patient data, medical records systems also can store information about:
  - Doctor's visits
  - Patient hospital stays
  - Surgical procedures
  - Medication prescribed on a short- or long-term basis
- Most systems include spaces where physicians, nurses and other authorized medical personnel can enter notes relevant to each event where medical care was given to the patient

Types of Health Records

- Case records
  - These are records initiated for patients who get admitted into the wards or who continuously attend the various consultant clinics.
  - The information that is contained in the case can be expressed verbally, graphically, diagrammatically or in a tabular form (depends on the person who is taking in the information).

- The range of documents to be included in the case record also depends on local requirements, although certain documents will be common to all health facilities.

- Out-patient records
  - Includes all the cards that are used in the outpatient departments, for example, casualty cards, ante-natal cards, immunization cards and any other card that may be used in the out-patient departments.
- Diagnostic records
  - These include notes on lab investigations, radiology and pathology.

Special Health Records

- Psychiatric records
  - Maintained differently from the general records according to the mental health act.
- Tuberculosis (TB) records
  - Maintained in order to identify the affected population.
  - Since it is an infectious disease notification must be made to the medical officer or health officer (a register is maintained for this notification).
  - Copies of the notification of new cases are sent to the TB and Leprosy clinic.
  - A unit record is opened for this patient and the information contained in it should be very comprehensive.
  - The records belonging to these patients are supposed to be kept for long periods and therefore the case folder must be made of strong material to resist wear and tear.
  - The notes should be written in full scape and A4 sized paper.
- Radiotherapy records
  - All radiotherapy cases are supposed to be registered nationally for follow up.
  - All patients' radiotherapy records are kept in the patient's hospital record with one unit number and maintained at the national cancer registration unit.

Uses of Health Records

- Treatment
  - The health record is first and foremost of value in the present and future treatment of the patient.
  - The individual record is a reminder to the specialists, clinician, nurse, social workers or health technicians of what he or she has personally observed during the patient's illness and can assist in prescription of future treatment.
  - It provides or should provide complete history of the patient so that all facts that might be important are permanently available for reference at any time.
  - A complete record prevents duplication of work, effort and facilitates future care of the patient.
- Planning
  - Health statistics and information gathered from the health record can be used to plan for future programs and service.
    - It is important that statistics/information is accurate and disseminated promptly to the users.
- Research
  - Accurate recording of observations can provide useful information for research purposes.
  - If medical record is used for research, it should contain basic information required for achieving the goals of research.
- Teaching

- Health records can be used as an educational tool or instrument.
- Good quality health records facilitates effective learning of students

- Administration
  - Complete health records increase efficiency in health service to the public, avoiding dissatisfaction, facilitates fair settlement of claims and enhances capacity to answer enquiries about the work.
  - Record should be designed to capture necessary information needed for its purpose
  - It is important for the record to meet the requirements of both the clinician and the records personnel.

Legal Aspect of Health Records

- The legal requirements affecting health records will concentrate on
  - Confidentiality of patient records
  - Ownership of patient records
  - Security and disclosure of information

Confidentiality

- Information concerning a patient is confidential and should not be disclosed to any unauthorized person.
- If members of the health facility staff improperly disclose any information concerning a patient, the patient can sue the health facility and the responsible officer.
- To minimize risks, it is suggested that the health facility should have a policy of confidentiality regarding patients' health information.

Disclosure of Information

- There are five main categories under which contents of patient's records can be disclosed.
  - Consent by the patient, which can be verbal or written consent
  - If there is a court order
  - In transferring patients between health facilities, clinics or doctors in the interest of the patient
  - Notification of infectious diseases, births and deaths registration and notification of poisons and chemicals

Ownership

- The records do not belong to the patients even if the fees have been paid.
- The records belong to the various health facilities that have created them.
- In the case of government health facilities they belong to the government.
- Case records of private health facilities belong to the health facilities because they have contributed to the creation of records.

Contents and Forms of Health Records Folder

- The folder should be made of strong material with holders to keep the forms and records intact
- Contents of the health records folder include:
  - Front sheet or identification sheet
  - Clinical history sheet
  - Surgical operation chart
  - Anaesthetic record
  - Temperature, pulse and respiration (T.P.R) chart

- Report mount sheets
- Consent forms
- Report forms
- Clinical photographs
- In-patient summary
- Correspondence

Front Sheet or Identification Sheet

- This is the area where all the patient's social demographic details are recorded from the pre-registration form, for example, patient names, address, sex, age.
- The back side should be provided to record signs and symptoms of patient conditions.
- A section on this side is provided to record the consultants/clinicians' names or a clinic the patient has attended or wards him/her has been admitted.

Clinical History Sheet

- Provides space for clinicians to write patients history.
- Continuation sheet-They are continuation of history sheets or treatment sheets.
- Prescription chart-This chart makes formal provision for the doctor to prescribe medicine for inpatients or outpatients.

Surgical Operation Chart

- Special forms are provided on which operations may be recorded.
- Normally contain sections in which the names of all surgeons and anaesthetists taking part in the operation are recorded, may be provision for special remarks (for example drainage, blood loss information and recovery treatment).

Anaesthetic Record

- Anaesthetic record forms contain records of anaesthetic drugs given to the patient during the operation and immediate postoperative period.

Temperature, Pulse and Respiration (T.P.R) Chart

- One type of temperature chart is the twice-daily chart for the recording of the routine observations of morning and evening temperatures.
- Urine and stool details are usually recorded at the foot of the T.P.R. chart.
- A second type is the 4-hourly temperature chart used to record vital signs of serious patients.
- This is frequently printed on coloured paper, or in coloured ink, to make it noticeable.

Report Mount Sheets

- Many reports which are smaller than the size of most forms have to be filed in the folder.
- Usually attached to a report mount sheet.
- These mount sheets vary in designs and the method of attachment.
- The reports attached on a mount sheet are consent form, laboratory results, radiological pictures and others.

Consent Forms

- Written consent has to be obtained for all operative procedures.
- For minor operations like tubeligation, vasectomy (sterilization procedures), for post mortems examination.

- The consent has to be obtained from patient, relative or parent (for less than 16 years old).
- Consent for testing and counselling for HIV.

Report Forms
- All investigations – laboratory (haematology, biochemistry, bacteriology, histology), cardiology, radiological results, in some sort of report form that will have to be filed into the patient's record folder.

Clinical Photographs
- When a patient has an interesting condition, a clinical photograph may be taken.
- In plastic surgery where the patient may pass through several stages of treatment, a photograph is often taken at intervals to record progress.
- Photographs may be kept centrally in the medical photographic department, but they are frequently filed in the patient's folder, either mounted on a card or in a special plastic holder with pockets for the storage of a series of smaller photographs or slides.

In-Patient Summary
- This is a form where patient's information on discharge is recorded.
- It is used for follow up purposes

Correspondence
- Copies and originals of all communications about patient's health information or condition must be filed in the patient's record folder.
- These may include referral letters.

Activity: Timed Exercise

Instructions
The tutor will guide you through this timed review activity. You will need a pen and a blank piece of paper. When complete, use this manual to review your work. How many components of the patient record did you remember correctly?

Key Points
- Medical record is a clear, accurate and comprehensive written description of patient condition, illness and treatment of a disease.
- Types of health records include case records, outpatient records, diagnostic records and special health records.
- Legal aspect of health records involves confidentiality, disclosure of information and ownership.

Evaluation
- What are the types of health records?
- What are the uses of health records?
- Where are we supposed to keep special health records in the health facility

References

- B., Benjamin. (1980). *Medical Records Management: Lecturer/Tutorial Handouts* (2nd ed.*)*. USA.
- Huffman, E.K. (1994). *Health Information Management* (10th ed.). Illinois: Physician Record Company.
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Session 4: Medical Records Filing and Numbering Systems

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain filing and numbering systems
- Explain methods of filing and types of numbering system
- Describe patient records filing procedure
- Explain how to fill patient medical records

Filing System in Medical Records

- A filing system is a plan or method of arranging documents in a prescribed order.
- The purpose of filing documents is to enable a quick retrieval of complete information whenever it is required.
- Requirements of a good filing system:
  - Simplicity-The filing method must be easy to understand and simple to operate.
  - Easy access-Documents should be easily identified and located to enable speedy pulling and filing.
  - Security-Documents should be safely kept and well preserved.
  - Tracer system-The whereabouts of documents removed from the storage must be known.
  - Neatness and flexibility-Completeness is needed with regard to both convenient filing and cost of storage space, but the filing system must also provide ability to expand and contract according to future need.
  - Economy-It should be economical in terms of equipment and operation.

Methods of Filing in Medical Records

- There are four common methods of filing patient records used in health facilities
  - Alphabetical
  - Chronological
  - Geographical
  - Numerical

Alphabetical Filing System

- Alphabetical filing is a very commonly used method for filing in general.
- Advantages:
  - It does not need a supporting index because it is either applied to names or subjects.
  - Only valuable to health facilities with small quantity of records.
  - It does not function satisfactorily in large institutions because of its inflexibility.
  - Examples of alphabetical filing system are, Abdallah, followed by Bakari, then Charles.

Chronological Filing System

- Chronological filing means filing in time order.
- It is used in combination with another method.
- Letters for example are usually filed alphabetically according to name or subject and within each group in date order.

- Various documents are arranged according to type (clinical notes, reports).
- Documents of the same type are then filed in date order.
- Chronological filing works satisfactory when used for waiting lists and follow-up systems.
    - Example of chronological filing system is, those patients who are expected to be admitted on 14th February 2010, Abdallah/14, Bakari/14, Charles/14. The 14 is a filing position in filing waiting list.
- The waiting list is having filing position from 1 up to 31 according to dates.

Geographical Filing System

- Geographical filing is based on geographical units like countries, regions, and town.
- Very often it is used in combination with other method.
- It is a satisfactory method for example in business companies where filing according to places and customers is needed.
- Geographical filing is not suitable for filing medical records.
- Like chronological filing this method used in combination with other method of filing.
- It can be used for follow-up systems.
- Examples of geographical filing system are
    - Temeke district: 00-00-01/Temeke, 00-00-02/Temeke, 00-00-03/Temeke. (Filing is done in shelves identified for Temeke district).
    - Kinondoni district: 00-00-04/Kinondoni, 00-00-05/Kinondoni. (Filing is done in shelves identified for Kinondoni district).

Numerical Filing System

- Numerical and alphabetical filing systems are the most commonly used.
- Unlike the alphabetical method, numerical filing cannot work alone.
- If a number is not known there must be ways of finding it.
- Numerical filing must be supported by an alphabetical index.
- Different techniques can be applied when filing numerically.
- Medical records are usually filed according to numbers.
- Three types of numerical filing systems which are commonly used by health facilities are:
    - Straight numerical filing system (example: File number 1, 2, 3, 4, 5 ……)
    - Terminal digit filing system (example: File number 00-00-**01**, 00-00-**02**...)
    - Middle digit filing system (example: File number 00-**01**-00, 00-**02**-00, …)
- Note: All filing systems methods can be used together in the same unit system of keeping health records.

Numbering System in Patient Medical Records

- Health facilities register patients by giving them hospital numbers and file the patients' medical records according to these numbers.

Types of Numbering Systems

- Serial numbering system
    - In serial numbering the patient receives a new number each time he or she is admitted or treated as a new out-patient case.
    - This means that if a patient is admitted three times he or she gets three different numbers and his medical records are filed in three different places.
- Unit numbering system
    - This system is based on the principle that the patient (not the disease episode and a

patient) is the unit and that all notes on one individual patient are kept in one file.
    - When the patient comes to the hospital for the first time, either as an out-patient or an in-patient, he or she is given a hospital number.
    - This is a permanent number and is going to remain his for all subsequent attendances no matter how many times and how many departments he or she will visit.
- Serial unit numbering system
    - This numbering system is a combination of the serial and unit numbering systems.
    - The patients are given numbers according to the principle of serial numbering.
    - Each time a patient receives a new health facility number his previous record is brought forward and filed under the latest number.
    - A unit record is thus created.
    - When the older record is brought forward some type of tracer card should be left in its place indicating the new number.
- Annual numbering, monthly numbering
    - When serial numbering is used the series of numbers should continue.
    - It is quite common in Tanzania to begin new series each year or even each month and to distinguish the series by a letter and by the last two calendar year digits or the digits for month and calendar year (Example: F 2345/78, M 6789/4/78).

Patient Records Filing Procedures

Filing Procedure for Patient Records

- Auditing of patient documents
    - Critical checking, if there is missing documents from the clinics/departments
- Editing of patient documents
    - Arrange documents in a systematically order, for example from registration sheet to discharge summary
- Sorting of patients' file
    - Arrange files in a sequence order, from the smallest number to the largest one.
    - It facilitates speed in filing
- Filing of patients' file
    - Insert files in the shelf according to the patient registration number or the alphabetic order of their names

Observation of Hospital Record Filing and Numbering

Activity: Site Visit

Instructions
You will go to the Medical Record Department in small groups to learn about registering, filing, numbering and cataloguing of health facility records. You will listen to medical record personnel and you may ask questions.

Key Points

- A filing system is a method of arranging documents in a prescribed order.
- Alphabetical, chronological, geographical and numerical methods are used as filing system in health records.
- Hospital numbers given to patients are used during filing the patients' medical records.

Evaluation

- What are the requirements of good filing system in health records keeping?
- What are the methods of filing system in health records system?
- What are the types of numbering systems in health records keeping?
- What are the filing procedures used to file patients records?

References

- B., Benjamin. (1980). *Medical Records Management: Lecturer/Tutorial Handouts* (2nd ed.*)*. USA.
- Huffman, E.K. (1994). *Health Information Management* (10th ed.). Illinois: Physician Record Company.
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Session 5: Electronic Patient Records

Learning Objectives

By the end of this session, students are expected to be able to:

- Define electronic patient records
- Explain uses of electronic patient record
- Explain reasons for applying electronic patient record in healthcare services
- Explain computerization of medical records
- Describe benefit of using computerized medical records
- Identify challenges of using electronic patient records

Electronic Patient Records

Definition

- Electronic patient record (EPR) is a file kept in a computer.
- EPR is used to organize and keep information about the patient's history, general health condition and other data that are relevant to patients.
- Most public health facilities in Tanzania keep hard copies of patient records in physical files. Some health facilities are converting to an electronic (computer-based) medical records system.

Uses of Electronic Patient Records

Registration, Admission and Discharge

- Specially designed software used to register out- and in-patients.
- It is used to discharge a patient from the health facility after treatment.
- The software is used in the:
  - Outpatient area for registration of new case attendances and return case attendances.
  - All data pertaining to outpatient is recorded and stored directly in the computer.
  - In-patient area for registration of admissions.
  - In the ward, the software is used to keep records of number of admission, inter-wards' transfers, patient discharge and death.

Medical Service Billing

- Medical billing is extremely complex, especially when a medical facility is handling billing to multiple insurance companies along with government agencies and private consumers, and all of these groups require different billing process.
- The software is used to:
  - Generate patients` bills
  - Track payments and overall patient and facility trends.
- In the health facility, once a patient record is initiated in a medical billing software program, the patient history is entered in, along with outstanding unpaid charges.
- The program automatically generates bills for patients, or for insurance companies, employers, and other individuals who may be paying the patient's bills.
- Electronic medical record-keeping facilitates billing through medical billing software.
- Medical billing software interfaces with an electronic medical records system.

Equipment (Hardware and Software) Requirements in the Health Facility for Smooth Functioning of Electronic Patient Records/Medical Billing

- Special computer for health records, doctors, laboratory, radiology, pharmacy, wards, offices and finance
  - Fax machine
  - Information kiosk
  - Local area network/ Wide area network
  - Telephone
  - Special printers for health activities
- For improvement of healthcare services, the electronic patient records software should be connected in all areas which provide health services to the patients

Computerization of Medical Records

Changing from Paperwork to Electronic System

- In many cases, when a health care practitioner wants to invest in computerized medical records, the paper medical records can simply be scanned and entered into a medical records system.
- Instead of documenting patient information on paper and creating files and for extra storage space, electronic medical records are stored on a computer server.
- Computerised medical records are accessed quickly and efficiently, eliminating the need for employees to physically look for the records in an office.
- This saves medical service resources, since employees are no longer expected to lose time while retrieving records.
- Searching for and recovering medical records is as simple as typing on a keyboard and clicking buttons on a mouse.
- Data that would have to be stored at a remote storage facility are easily entered into medical records systems and stored on a hard drive as well as on CDs for easy retrieval.

Advantages of Converting to Electronic Patient Records in Healthcare Services

Activity: Small Group Discussion

Instructions
Work in small groups to discuss the advantages of shifting from a manual patient record system to electronic patient record system.

One group will present their findings and the other groups will be asked to give their input, so be prepared to share your small group findings with the whole class.

Advantages of Using Electronic Patient Record System

- Electronic patient record (EPR) file are easier to transfer electronically from one area to another within a hospital and outside the hospital.
- It improves efficiency in healthcare services, leading to a cost savings for both the patient and medical provider. For example, it reduces lost of examination results, medical documents, etc. from paperwork.
- A doctor can access a computer in the treatment room and look at all vital and relevant

information before rendering a diagnosis and prescribing treatment.

- Doctor can put a prescription directly into the computer and immediately sending the order to the pharmacy of choice.
  - Information is saved and there is no need to worry about misplacing a file.
- Emergency physician needs access to a patient's medical history, and a doctor's office is not open, an EPR may be available immediately.
  - This save lives by ensuring that an incapacitated patient is not given a drug he or she is allergic to or which reacts negatively with a medication the patient is already receiving.
- Note: This assumes the health facility has access to the same database that the doctor's office uses.

Advantages for the Patient

- Electronic medical records are easily accessible during emergencies and serve patient life.
- Records are quickly updated for patients who have serious, progressive or chronic illnesses.
- Patient with digital records do not have to worry about unsecured storage facilities or the loss of records through theft, accident or natural disasters.
- It reduces waiting time leading to accessibility of medical service in time.

Advantages for Healthcare Provider

- It saves time and money
- It helps health service provider to better serve the patient
- It reduces unnecessary work for employee to search for files
- Reduces the issue of medication errors
- Reduces miscommunication among health workers
- It facilitates billing through medical billing software
- It reduces risk of misfiling
- It enables quick review of patient history without going through large amounts of printed documents
- It is easy to compile statistics on the number of patients treated for a given illness or type of medications
- It assists in monitoring and evaluating the scope of practice and general quality of care offered by a physician and other paramedical staff
- It helps in financial control
- It provides healthcare data on time for planning and decision making

Training-Related Advantages

- Provides materials for education
- Provides easy access of research data

Challenges of Using Electronic Patient Records

The following are challenges associated with electronic patient record system:

- Unauthorized accessibility
  - Unauthorized person could access the record for illegitimate purposes.
  - The potential for abuse with electronic files is greater, because there is more opportunity for more people to access them, and information can be moved, analyzed and sold much more rapidly.

- Unreliable electricity
  - Electronic files, by their nature require access to computer, which, in turn, requires electricity. Thus, when electric power is unavailable, the records also would not be available.
- Security
  - Patient information is confidential, and records systems need to develop ways to protect patients so that their medical records are not unnecessarily shared.
- Cross-platform compatibility
  - The cross-platform compatibility is a large issue in using electronic patient records. For example:
    - When two medical offices use different electronic medical records systems, it may not be possible to exchange data between the two systems.
    - System has difficulty converting or reading files written by older versions of the system or by different programs.

Key Points

- Electronic patient record is a file kept in a computer, used to organize and keep patient's records.
- Electronic patient records are used in registering, intra transferring, discharging and billing of patients.
- Electronic patient records are easily accessible, and save time and money.
- Electronic patient records enable health care provider to quickly review patient history without going through large amounts of printed documents.
- Challenges to EPR include unauthorized access for illegitimate purposes, and necessity for reliable source of power.

Evaluation

- What is electronic patient record?
- What are the uses of electronic patient record?
- What are the advantages of using electronic patient records?
- What are the challenges of using electronic patient records?

References

- B., Benjamin. (1980). *Medical Records Management: Lecturer/Tutorial Handouts* (2nd ed.*)*. USA.
- Huffman, E.K. (1994). *Health Information Management* (10th ed.). Illinois: Physician Record Company.
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Session 6: HMIS (MTUHA) Data Collection Tools (Registers)

Learning Objectives

By the end of this session, students are expected to be able to:

- Define the term data collection tools
- Explain nine types of MTUHA data collecting tools
- Describe the importance of MTUHA data collection tools

Definition and Nine Types of HMIS (MTUHA) Data Collection Tools

- MTUHA data collection tools are instruments used to collect health related data for the purpose of future analysis and decision-making in health.
- MTHUA uses 9 data collection tools (Books 3-9 &11-12)

Community Book: Book 3

- This book is used to take projection population census of the service target area.
- The projection census assists the health facility to plan for health needs e.g. vaccines, family planning methods in a year.
- Catchment area is the population of the area served by the health facility over a year.
- Catchment population includes population outside of catchment area which utilize the health facility services.

Ledger Book: Book 4

- This book is used to monitor commodity supplies which include vaccines, contraceptives, and client cards.
- Drugs and consumable supplies will be called commodities.
- Consumable commodities are usually used and replaced.
- Non-consumable commodities are equipment that can be used over and over again without replacement.

Outpatient Department Register (OPD): Book 5

This register is used to record patients attending the outpatient department

Antenatal Care Register (ANC): Book 6

- A register for pregnant women
- Used from their first visit to their last visit of their pregnancy (refer to MTUHA Guideline)

Child Register: Book 7

- Register for all children who:
  - Attend the health facility as newborns
  - Transferred from other facilities
  - Children who are registered during community outreach visits

Family Planning Register: Book 8

- Day-to-day book used to record the amount of contraceptives accepted at each client visit.
- It helps to keep track of the quantity of contraceptives that has been dispensed and the number of clients coming to the facility

Diarrhoea Treatment Corner (DTC): Book 9

- This is the register used by the diarrhoea treatment corner.
- It is used to record the management of all patients who are referred to the DTC.

Dental Register: Book 11

- This register is used only in dental clinics.
- Health centres or hospitals who are providing emergency oral care should record these attendances in the OPD registers.

Delivery Book: Book 12

- The register contains information on both mothers and newborns.
- It has been designed to be usable at both maternity wards and in small health facility delivery rooms.

Supplementary Registers

- Registers which are currently not yet prepared, but their description of what information to be collected (columns) in each register have been provided in MTUHA Book 1 (Guideline).
- These have to be adapted by all health facilities to make the information easily compiled and keep the uniformity throughout the country.
- Other information (columns) may be added locally for local use depending on the facility need.
- Some of these registers are:
  - Postnatal visits
  - In-patient registers (IPD)
  - HIV and AIDS
  - Tuberculosis and leprosy (TB & LP)
  - Diagnostic services (Laboratory, X-ray, Ultra-sound)
  - Blood services
  - Physiotherapy
  - Mortuary

Importance of HMIS (MTUHA) Data Collection Tools

- Monitoring of epidemics to prevent outbreaks, to determine prevalence and trends in diseases.
- Research-source of data for researchers within or outside the health facility.
- Intervention- used to determine if a new intervention is necessary.
- Planning for improvement of health services including ordering, logistics, number of staff, equipment.
- Decision making- used to make decisions based on daily, monthly, quarterly and annual information.

Identification of HMIS (MTUHA) Data Collection Tools

Activity: Small Group Exercise

Instructions
You will work in small groups to review a HMIS (MTUHA) data collection tool.

Your group will have approximately 10 minutes to review the data collection tool and answer the following questions:

- What is the title of data collection tool?
- What is the purpose of the tool is?
- What is the data that is collected in the tool?

Your group will be asked to give a brief (2-3 minute) presentation to teach your classmates about this tool.

You will also have an opportunity to review other HMIS (MTUHA) data collection tools.

Key Points

- MTUHA data collection tools are instruments used to collect health related data for the purpose of future analysis and decision making in health.
- There are 9 different types of MTUHA data collection tools.
- Data collection tools are important for the health facility to monitor and plan health services.
- Other supplementary registers are IPD, HIV and AIDS, TB & LP, diagnostic services, blood services, physiotherapy, and mortuary.

Evaluation

- What are the 9 types of HMIS (MTUHA) data collecting tools?
- What are the supplementary registers?
- What is the importance of (MTUHA) data collection tools?

References

- Deluca, M.J. & Embark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisco: John Wiley & Sons Inc.
- MOHSW (2002).*Health Management Information System HMIS (MTUHA) Guidelines Book 1.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare
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Session 7: Filing HMIS (MTUHA) Out Patient Department (OPD) and Dental Registers

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain terms used in HMIS (MTUHA) OPD and dental registers
- Describe notifiable diseases
- Describe how to fill out patient (OPD) registers
- Describe how to fill dental registers

HMIS (MTUHA) OPD Register

- OPD register is the register that is used to record outpatient particulars in the health service delivery points.
- It is important to use these registers because it is used to:
  - Record every attendance, because it is the only way of knowing the disease pattern for the facility catchment area, district and ultimately the entire country.
  - Increase the level of efficiency in drug uses by closely monitoring the way treatment is written by clinicians.
- Each OPD Register must be numbered serially on the cover before use.
- In health facilities where clinicians fill OPD and dental registers, each clinician should be provided with a separate register.
- A new register should not be opened unless the previous one is finished.

Dental Diagnosis in the OPD Register

- The oral health department is concerned with emergency oral health care (EOHC) at health centres and dispensaries, and with dental clinics at hospital.
- Dental diagnosis is entered in the dental register, and also recorded in the normal OPD registers with other OPD diagnosis.
- EOHC includes extraction, draining of abscesses, control of acute infection with appropriate drug therapy, first aid for maxillofacial trauma and recognition of oral conditions requiring patient referral to higher levels.
- Health facilities with trained staff in EOHC will provide services.
- If a facility has a dental clinic, the clinic must record dental attendance in both the daily dental register and the OPD Register.

Terms Used in HMIS (MTUHA) OPD Register

Attendances

- When a patient comes to the OPD clinic to seek initial treatment for specific symptoms, she/he is considered to be an ‘attendance’.
- Each attendance is given a number starting with number one at the beginning of each month.
- This is the identification number for the patient throughout his/her treatment count of attendances seen during the month.
- The number of attendance is used to estimate workload in the OPD clinic.

Diagnoses

- A diagnosis is a clinical impression made about a disease episode with or without laboratory confirmation.
- A diagnosis can be a specific disease or complications of another disease.
- Diagnoses are recorded for every attendance.
- One attendance can have (and often does have) a number of diagnoses.

Cases

- When diagnoses are considered individually, they are synonymous with a case e.g. a clinician can talk of a single case of measles.
- A case can also refer to an attendance as a patient e.g. a case because you have attended the OPD for health service.
- The term case is rarely used for summation or analysis purposes in MTUHA.

Chronic Diseases

- The first visit in a calendar year for patients with a chronic disease is considered an attendance.
- Further visits for the chronic disease in the same calendar year are considered to be re-attendances.

Re-Attendance

- Re-Attendances fall under the following categories:
  - Patients who are coming for continuing treatment as part of a course of treatment of a disease, e.g. tuberculosis patients.
  - Patients who are reporting back and are found to have the same disease which apparently did not respond to the initial treatment, e.g. patients with resistant malaria.
  - Patients with chronic diseases revisiting the facility during the same year with the same diagnosis, e.g. diabetes mellitus.

Referrals

A patient being transferred from one department/ health facility to another usually from lower level to higher level for diagnosis and /or treatment.

Treatment

- A full set regimen prescribed to patients when they are diagnosed.
- The treatment written in the registers should always relate with the diagnosis made.
- In instances where the second diagnosis differs from that of the primary diagnosis, each diagnosis and its corresponding treatment should be written on a separate line.
- In cases of chronic illness, such as hypertension, and illness demanding long course of treatment, such as tuberculosis and leprosy, only the treatment being given at that particular visit should be recorded.

Notifiable Diseases

- The OPD Register has two parts. In the first part, normal diseases are recorded. In the second part, notifiable diseases (as determined by the MOHSW) are recorded.
- Notifiable diseases are those diseases which are stipulated in the national outbreak management guidelines.
  - Can be an outbreak of many patients or one patient depending on the type of disease.
- In some outbreaks, the expected number of patients should be agreed upon with the

district medical officer (DMO).

- In Tanzania, diseases occurring as outbreak are:
  - Cholera
  - Dysentery
  - Louse borne typhus (relapsing) fever
  - Meningitis
  - Plague
  - Rabies
  - Rabid animal bites
  - Typhoid.
- Diseases prevented by immunization
  - Measles
  - Neonatal tetanus
  - Poliomyelitis) are also considered as notifiable diseases in Tanzania
  - These are targeted for control worldwide
  - They are recorded in column 11 of the MTUHA OPD register

Reporting of Notifiable Diseases

- Health Facility in-charge should report to the DMO immediately when an outbreak occurs.
- At the end of the quarter, summation will be done and reported in form F004.
- During the course of an outbreak, the DMO (MOH) and the DHMT will keep a record of the new attendances and deaths seen in the district.
- The hospital will work closely with the local community government and with the Village health workers.
- All instructions from the DMO and ministry of health and social welfare (MOHSW) must be followed.
- If there is an outbreak, then follow the MOHSW guidelines
  - Look at the record of attendances seen at the clinic. Determine the total number seen and communities where the patients are from.
  - Inform the DMO immediately by whatever means available.
  - Give information on the number of attendances and communities affected.
  - Follow DMO's instructions, and the national guidelines.
  - Information to the DMO through the phone should be followed with a notifiable disease report form (F009). This must be filled in and sent for reference.
- Send the notifiable disease report F009 to the DMO as fast as possible.
  - Copies of the F009 are provided at the beginning of the calendar year.
  - The ledger book should be used to monitor the stock level of these forms. Ensure that there is always a week's supply (seven days).
  - If the stock goes below this number, request more from the DMO Office.
- Every attendance will continue to be completed on and the notifiable disease report (F009) will continue to be completed. They are sent to the DMO on a daily basis until the DMO considers the outbreak over.
- If a temporary camp is set up, then the DMO may bring extra notifiable disease report (F009) forms to use as a register since the space at the end of the OPD Register may not be enough.
  - When this is the situation, make duplicate copies of each form.
  - One is to be kept by the hospital and stapled to the OPD Register for a permanent record of the outbreak. The other is sent to the DMO Offices.

Filling HMIS (MTUHA) OPD Registers

- OPD register will be placed at the outpatient department and will be used to record patient particulars, disease conditions and treatment given
- The OPD register has two parts
  - Records of normal diseases
  - Records of notifiable diseases as guided by the MOHSW

Activity: Exercise 1

Instructions
The instructor will distribute copies of the OPD Register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

Filling the OPD Register under Normal Disease Occurrence
- Fill the date line at the top of every page
- One line should be filled for each attendance with one diagnosis on that line
- Write additional diagnoses each on a new line
- For additional diagnoses, it is necessary to fill columns 1 through 6 again

Columns 1-8
- Column (1): If it is the first visit of the year, then put a star (*) in the column.
  - In hospitals, this column should not be filled in.
- Column (2): The attendance number. Each month in each register should start with number 001 (one).
  - Each attendance is numbered.
  - Give only one attendance number even if the patient has more than one diagnosis.
- Column (3): The name of the patient.
  - Print the patient's names clearly.
- Column (4): The name of the village or area of the city (if urban) where the patient currently lives.
  - The hospital should determine a list of the villages and areas that commonly feature in the OPD register.
- Column (5): The age of the patient.
  - If the patient is under the age of one year, record the age in months out of the twelve months.
  - For example, a five month old patient would be written as '5/12'. If the patient is over one year, print the number of years. A neonatal child is recorded '0'.
- Column (6): The sex of the patient.
  - Make a circle around 'M' for male or 'F' for female.
- Column (7): The diagnosis.
  - Enter the diagnosis clearly and neatly.
  - Remember that there is only one diagnosis per line.
  - Ensure that all clinicians write specific diagnoses so that the summation into categories for reporting is easy and clear.
- Column (8): The treatment.
  - Since only one diagnosis is written on each line, the treatment should refer directly to the one diagnosis.

- Write this clearly, using terms that are agreed upon within your hospital.
- At the bottom of each page there is space set aside for the tallying of re-attendances and referrals.
  - No line is filled for these types of patient visits.
  - Use the definitions of terms explained earlier in this session (attendance, diagnosis, chronic disease).

Filling of OPD Registers for Notifiable Disease Occurrence

- In the OPD register there is a special section at the end where notifiable diseases are recorded in columns 9, 10 and 11.
  - Ensure that all notifiable disease attendances are recorded there.
- There is extra information recorded about each notifiable disease attendance. Instructions for this extra information are as follows:-
  - Column (9): The date of onset. This is the date of onset of the symptoms.
  - Column (10): Lab status. If the laboratory test is positive write '+ve'. If negative, write '-ve'. If no laboratory test was done, write '—'.
  - Column (11): Immunization status. This is recorded only for the immunizable diseases of polio, measles, and neonatal tetanus.
    - If the patient has received a vaccination then, write 'Y'.
    - If the patient has not received vaccination then, write 'N.'
    - If the patient (or mother) is uncertain whether a vaccination has been received write '?' for 'don't know.'
- For neonatal tetanus, the mother's vaccination status is recorded.
  - If a patient is admitted to the hospital's permanent inpatient facility, do not record the information in the OPD register. All such patients will be counted and reported by the inpatient department.
  - If a temporary inpatient facility or camp is set at the hospital, then the patient is recorded in the OPD register.
- To fill these registers, follow the instructions given in the MTUHA Guidelines: Book 1.

Filling HMIS (MTUHA) Dental Registers

Activity: Exercise 2

Instructions
The instructor will distribute copies of the Dental Register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

- Column (1): The date
  - The date is written for each attendance
- Column (2): Attendance number
  - Attendances at the dental clinic are numbered sequentially starting with '1' each month. This sequential number identifies the attendance
- Columns (3), (4), (5), and (6): Are patient information
  - Since the dental clinic usually provides services for the entire district, the range of entries for 'village/address' will probably be larger than that for general OPD
  - Consistent names of villages/address in the register will make investigation of the geographical distribution of patients easy.

- Column (7): Diagnoses
  - Four specific categories are listed on the register: caries, periodontal diseases, trauma, and neoplasms.
  - A tick (√) can be entered, or when appropriate more specific information about the diagnosis can be entered, e.g. the tooth number if the diagnosis is 'caries'.
  - A fifth category (on side 2) is 'other - specify'
  - All diagnoses for the patient are entered on the same line in the register
- Column (8): Treatment
  - Four specific treatments are listed: con (conservation), ext (extraction), and pros (prosthesis), and scaling
  - For conservation, the material used should be written, e.g. ZnO Amalgam.
  - A tick (√) can be entered for other treatments
  - If a surgical procedure is used, then the procedure is written under the column 'surgical procedure - specimen'.
  - If another treatment is given, then it is written under the column 'other - specify'.
- Column (9): Referral
  - If the patient is referred, the name of the health facility is written here.
- Column (10): Re-attendance
  - If the patient is returning for any reason, the patient's initial attendance line is found, and then on this same line the date and the reasons for the return are written.
  - If the reason is because of a complication, this should be indicated clearly. The number of re-attendances with complications is recorded and reported.
- In filling these registers follow the instructions given in the HMIS (MTUHA) guidelines: Book 1

Key Points

- The OPD register has two parts; one part contains records of normal diseases while the second part records notifiable diseases.
- Notifiable diseases in Tanzania include cholera, dysentery, louse-borne typhus, (relapsing) fever, meningitis, plague, rabies, rabid animal bites, and typhoid, measles, neonatal tetanus and poliomyelitis.
- The health facility in-charge should report to the DMO immediately when an outbreak occurs.
- Record information in the registers correctly, clearly and precisely.
- Keep the registers in a safe place.

Evaluation

- What are the parts of the OPD register?
- Where do you record the date in the OPD register?
- Where do you record re-attendance in the OPD register?

References

- Deluca, M.J. & Enmark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisco: John Wiley & Sons Inc.
- MOHSW (2002).*Health Management Information System HMIS (MTUHA) Guidelines Book 1.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare
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- MOHSW (2007*). Health Management Information System HMIS (MTUHA) Version 2.0 Composite.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare.
- MOHSW (2007). *Pre-service HMIS Module Draft.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare.

Session 8: Recording of MTUHA Child and Diarrhoea Treatment Corner Registers (DTC)

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain MTUHA child and diarrhoea treatment corner register
- Describe recording of MTUHA child register
- Describe recording MTUHA diarrhoea treatment corner register

HMIS (MTUHA) Child and Diarrhoea Treatment Corner Register

Child Register -Book 7

- This register is for all children who attend RCH clinic. It includes:
  - Children who come to the Reproductive Child Health (RCH) clinic as newborns should be entered in the register and given a card.
  - Children who are transferred in from another RCH clinic should be entered in the register, but only those without a card should be given a card.

Diarrhoea Treatment Conner (DTC) -Book 9

- This register is to be used by the staff at DTC.
- It is used to record the management of all patients who are referred to the DTC.
- All patients should be seen by the OPD clinician first before coming to the DTC.
- If the patient is severely ill, then the patient should be seen in the clinician's room before others who have been waiting in the queue.
- The register has a space to record 500 patient visits.

Filling the HMIS (MTUHA) Child Register

Activity: Exercise 1

Instructions

The instructor will distribute copies of the Child Register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to review the tool in small groups or look on with a neighbour.

Information to Record on the First Visit

- Column (1): The date of first contact
  - This is the current date when you register the child's first attendance
  - All dates (columns 1, 4, 9, 10 and 11) should be written in a consistent manner
  - It is suggested that the day be written as a number and that common letter abbreviations be used for the months
- Column (2): The identification number given to the child
  - The identification number has two parts
  - The first part is the last two digits of the calendar year e.g. in 1993, 93 would be written for every child registered during the year
  - The second part is a serial number of the registration
  - Each child is numbered consecutively starting with one (1)

- If a child's card has been lost, then search the register for their listing before giving them a new identification number and entering them again in the register
- If their original listing is found, give them a new card using the original number
- Transfers from another health facility should be listed and a new number given to them
- If they have a card, use it but cross out the identification number on the card and enter the identification number of your RCH clinic

- Column (3): Indicate the date of birth
  - Try to get the day and month of birth
- Column (4): Indicate the date that Bacillus Calmette-Guerin (BCG) was given
- Column (5) and (6): Indicate the name of the child and mother
- Column (7): The tetanus protection status of the mother at birth
  - Ask the mothers to bring their tetanus cards to every visit they make to the health facility regardless of whether they are coming for themselves or for their children.
  - Use the card to determine whether the woman was protected against tetanus.
  - If the card indicates that the woman was protected, then circle the symbol 'N' under the column.
  - If the card indicates that she was not protected, then circle the symbol 'H' under the column.
  - Circle the symbol '?' when the mother does not bring her card and therefore her status is unknown.
  - Always check whether it is time for another dose of tetanus for the woman or not.
  - If women do bring their cards every visit, then this column is filled routinely, it will give a better estimate of the tetanus coverage than the current method of using the antenatal visits.
    - This is because the second tetanus dose needs two weeks to be effective, and at antenatal visit it is not easy to know exactly when the woman will give birth
  - Neonatal tetanus is targeted for elimination in Tanzania, it is very important to concentrate on this immunization programme among mothers.
- Column (8): Indicate the name of the hamlet (village) leader.
- Column (9) and (10): indicates the dates that the final doses DTP-HepB-Hib and Polio 3 were given.
- Column (11): Indicates the date that the measles immunisation was given.
- Column (12): The weight of the child when the measles immunisation was given
  - Enter a tick (√) under the correct column.
  - Enter under '<60%' if the child's weight was plotted in the red area of the child growth chart (RCH 1)
  - Enter between <80%' if the child's weight was plotted on grey area of the child growth chart
  - Enter >80%' if the child's weight was plotted in the green area of the child growth chart.
- Column (13): Vitamin A supplementation.
  - During measles immunisation, children are to receive their first vitamin A supplementation.
  - If this is done, then enter a tick (√).

Filling the HMIS (MTUHA) Diarrhoea Treatment Corner (DTC) Register

Activity: Exercise 2

Instructions
The instructor will distribute copies of the DTC Register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to review the tool in small groups or look on with a neighbour.

The following information should be completed and filled in the relevant column for each patient brought to the DTC:

- Column (1): The date of the visit
  - Print the day and the month only
  - The year is not necessary
  - Record the day in numbers and a three letter abbreviation for the month
- Column (2): Patient number
  - Start every month with patient number '001' and number each patient consecutively
  - Put one patient per line
- Column (3): The name of the patient
  - Print the name of the patient clearly and neatly
- Column (4): Village/Street of residence of the patient
  - Print the name of village/street clearly and neatly
  - The health facility should determine a list of villages/streets and areas (in urban places) which commonly use the health facility
  - The list should be posted in the DTC and the names consistently used
- Column (5): Sex of the patient
- Use the abbreviation K for female and use M for male
- Column (6): Age of the patient
  - If the patient is under the age of one year, then record the age in months e.g. a five month old patient would be recorded as 5/12
  - If the patient is over the age of one year, then write the number of years
  - For children under one month, write '0'
- Column (7): Weight of the patient
  - Write the weight of the patient rounded to the nearest kilogram
- Column (8): Degree of dehydration of the patient**.** Determine this based on the integrated management of childhood illness (IMCI) chart booklet on managing diarrhoea
  - Write either 'none', 'some', and 'severe' depending upon the state of the patient
- Column (9): Amount of oral rehydration salt (ORS) given to the patient
  - Record the total amount of ORS given to the patient during the entire time the patient spent at the DTC
  - Use the patient's card to record each amount given, and only enter the total amount
- Column (10): Whether the patient had bloody stool or fever
  - Write 'N' if present and 'H' if absent
- Column (11): Treatment other than ORS given to the patient
  - If treatment other than ORS is given to the patient to take either at the DTC or after leaving, write down the drug and the amount
  - With the OPD, determine a consistent set of abbreviations to use for the common drugs given
  - Write each drug and its abbreviation in the inside cover of the register

- Column (12): The time the patient spent at the DTC
  - In the first space put the number of hours, writing a '0' if the time was less than one hour
  - In the second space write the number of minutes, rounding to the nearest 15 minutes, that is, use 15, 30, 45 or 00 minutes
- Column (13): The outcome of the patient visit
  - If a patient is discharged, then use the abbreviation 'D'
  - If a patient dies, then use the abbreviation '+'
  - If the patient leaves without notifying you or before you feel the patient should leave, then the patient has absconded. Use the abbreviation '?' for this situation
  - When a patient is admitted for inpatient care. Enter the ward number e.g. ward D6 if the patient is referred write referred 'rufaa'. Remember to give two packets of ORS to a child and four packets to an adult to continue treatment at home

Simulation Exercise on Recording Child and DTC Registers

Activity: Simulation Exercise

Instructions
You will work in pairs. One member of your pair will play the role of patient, and the other person will play the role of a healthcare provider in the facility.

The objective of the activity is to record one complete page for each MTUHA tool (Child Register and DTC Register).

Be sure to include the following patient information on each tool:
- For Child: Age, BCG coverage, DTP-HepB-Hib, Polio, and TT coverage.
- DTC: Age, weight of child, degree of dehydration, amount of oral rehydration salt (ORS) given to the patient and outcome of the patient visit.

The student playing the role of the patient should respond with example patient data, should not provide real information about him/herself.

You will have approximately 20 minutes, and then you and your partner should switch roles. You will have another 20 minutes to practice after you switch roles.

Refer to MTUHA Guidelines (Book 1) for instructions for filling forms.

Key Points
- Child register is for all children who attend RCH clinic.
- DTC register is used to record the management of all patients who are referred to the DTC).
- The DCT register has a space to record 500 patient visits.
- Child and DTC register both have 13 columns and should be entered correctly and neatly following the guidelines.

Evaluation

- What is child register?
- What are the information filled in the child register?
- What is DCT register?
- What are the information filled in the DTC register?

References

- Deluca, M.J. & Enmark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisko: John Wiley & Sons Inc.
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Session 9: Recording MTUHA Family Planning and Postnatal Registers

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain MTUHA family planning register and postnatal data records
- Describe how to record MTUHA family planning register
- Describe how to record MTUHA postnatal data register

HMIS (MTUHA) Family Planning Register and Postnatal Records (F203)

Family Planning Registers-Book 8

- Day-to-day book used to record the amount of contraceptives accepted at each client visit.
- It helps to keep track of the quantity of contraceptives dispensed and the numbers of clients that come to the facility.
- One line will be filled in for every client that receives a contraceptive on that visit, or advice in the case of natural methods.
- If a client is referred, then do not fill in a line.
- If a client is not accepting a contraceptive on a particular visit, do not fill in a line.
- If a client comes for the first time, a family Planning client card is started, and if the client accepts a contraceptive, this information is recorded both on the card and on the family planning register.
- A ledger book has to be kept for contraceptives and other supplies in order to maintain adequate stock balances.

Postnatal Records (F203)

- Currently there is no universal HMIS (MTUHA) register dedicated for postnatal services.
- Facilities providing postnatal services use facility counter book to record important information from the mother and child.
- Postnatal report is found in register number 2.

Activity: Small Group Review Exercise

Instructions

You will work in small groups for this activity. Each group will receive two completed postnatal tally sheets from the instructor. Review the components of these tally sheets in your group.

Summary

This exercise demonstrates:

- Post natal visits are tallied using a General Tally sheet (F203).
- The overall quarterly totals are entered in a summary book (Book 2).

Filling HMIS (MTUHA) Family Planning Register

Activity: Exercise

Instructions
The instructor will distribute copies of the Family Planning Register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to review the tool in small groups or look on with a neighbour.

The following information should be completed and filled in the relevant column for each patient coming to the family planning clinic:

- Column (1): Date
  - Print the date using day and month
  - Since the year is recorded on the cover of this book, you do not fill in the year
- Column (2): Client name
  - Print the name of the client
- Column (3): Client number
  - Print the client's identification number that is written on his/her client card
  - For new clients you will give consecutive numbers starting with '001' for the first client in the year
  - Put the year in the first part of the column and the number within the year in the second part of column
- Column (4): Client type
  - Put a tick (√) under the correct type of client
  - New clients are those who have never accepted a contraceptive before anywhere at any time
  - All others are those who have accepted a contraceptive at some time in the past include those continuing without interruption and those returning after a period of no contraception, and those accepting a contraceptive at different clinic.
- Column (5): Contraceptive dispensed at this visit
  - Under oral contraceptives there are five blank spaces. Enter the names of the oral contraceptives that are available in the health facility in the headings.
  - The most common oral contraceptives in Tanzania and suggested abbreviations are
    - Marvelon (MARV)
    - Lo Femenal (LOFEM)
    - Microgynon (MGYN)
    - Microlut (MLUT)
    - Microval (MVAL)
  - For each visit, write the amount of the contraceptive given to the client
  - If a client is given more than one contraceptive, then write all the amounts on the same line
  - Use individual units, e.g. number of condoms, tubes of tablets, cycles of pills
  - If a client does not accept any contraceptive, do not fill in a line
- Column 6: Remarks/Complaints
  - Write all complains or remarks as observed

Practice Filling HMIS (MTUHA) Family Planning Register

Activity: Group Discussion

Instructions
You will work in pairs to fill the Family Planning Register (Book 8). In your pair, one of you will be the family planning client and the other will be the service provider.
The objective of the activity is to record one complete page for each HMIS (MTUHA) tool (Family Planning) by asking the 'Client' for information and giving family planning services to the client.

Be sure to ask and record the following information for family planning:
- New family planning
- Revisit family planning
- Contraceptive dispensed

Note: the student playing the role of the patient should make up information for this exercise, and not share their personal information.

You will have approximately 20 minutes to do this activity, and then you and your partner will switch roles and work for another 20 minutes

Key Points
- Family planning register is a day-to-day book used to record the amount of contraceptive accepted at each client visit.
- The family planning register has 6 columns.
- Postnatal visits are recorded using general tally sheet (F203).

Evaluation
- What is family planning register?
- What is a postnatal record?
- What are the types of data found in family planning register?

References

- Deluca, M.J. & Enmark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisko: John Wiley & Sons Inc.
- MOHSW (2002).*Health Management Information System HMIS (MTUHA) Guidelines Book 1.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare
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Session 10: Recording Departmental Registers

Learning Objectives

By the end of this session, students are expected to be able to:

- Describe recording of departmental registers (Laboratory, Blood bank, Physiotherapy, Pathology, X-ray, and Mortuary)

Filling Laboratory Registers

Activity: Exercise 1

Instructions

The instructor will distribute copies of the Laboratory Register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

- Each facility providing laboratory services will require a laboratory register for recording services rendered
- Every section of the laboratory will have its own register depending on the type of tests done. Important data from the registers will be recorded as follows:
- Column (1): Date
  - Date specimen received in the laboratory e.g. 20th Feb
- Column (2): Serial number
  - Each test gets a unique number starting with the number one (001) at the beginning of each month
- Columns (3): Name
  - Write the name of the patient clearly
- Column (4): Age
  - If the patient is under one year, then write the age in months over twelve months
  - For example if the child is 5 months old write '5/12'.
  - If the patient is one year and above, then write age in complete years
- Column (5): Sex
  - Sex of the patient
  - Write 'KE' if female and 'ME' if male
- Column (6): Patient number
  - Write patients number as found on patient card or file
- Column (7): Specimen
  - Write the type of specimen e.g. stool, sputum, skin smear, blood
- Column (8): Test requested
  - This is the specific test to be done, for example, blood smear for malaria parasite, borrelia, microfilaria or stool for ova or cyst occult blood
  - Each test should be recorded on a separate line
- Column (9): Results
  - This is the main laboratory diagnosis or the results of the test, which was requested
  - Each result should be recorded to correspond to the respective specimen
- Column (10): Other abnormalities

    - Additional results not requested from the specimen
- Column (11): Remarks
    - Additional information about the patient or about the results
    - For example, if a Tuberculosis test is being done, indicate whether the patient is a new case or a re-attendance
    - Opinion concerning the result is also recorded here

Filling Blood Donor Registers

Activity: Exercise 2

Instructions
The instructor will distribute copies of the registers of blood donors and blood recipients. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

- Health facilities with blood bank services should keep records concerning this service
- There will be not less than two registers in this department
    - Register for blood donors
    - Register for blood recipients

Components of the Register for Blood Donors
- Column (1): Date
    - Date blood donated
- Column (2): Serial number
    - This will be the serial number of the blood donor
    - It will begin with 001 each month
- Column (3): Name
    - Name of blood donor
    - Write the name accurately
- Column (4): Age
    - Age of blood donor in completed years
- Column (5): Sex
    - Write sex of blood donor
    - Write 'KE' if female and 'ME' if male
- Column (6): ABO
    - Blood group of blood donor
- Column (7): Rh-Rhesus status of blood donor
- Column (8): Serology
    - Serology for HIV/VDRL
    - Write results of the test as follows (+ HIV/+VDRL) or (- HIV/-VDRL)
    - Use codes if provided by the hospital
- Column (9): Hb
    - Write the haemoglobin of the blood donor
- Column (10): Amount
    - Write amount of blood donated in millilitres
- Column (11): Bottle number
    - Write the number indicated on the bottle
- Column (12): Patient's name

- Write the name of patient donated for
  - If the blood donor is not donating for any particular patient then write (-)
  - If more than one donor donate blood for a patient then a patient name should appear under each donor
- Column (13): Ward
  - Number or name of the ward where they patient is admitted
- Column (14): Relationship
  - Write the relationship between patient and blood donor, e.g. uncle, husband, wife, sister or (--) if not related

Blood Recipients Register

- Used to collect information on blood group and cross matching results of both the patient and donor.
- It will enable to obtain information on patients who require blood transfusion from wards, departments or other health facilities.
- If recorded correctly, it will also enable to obtain information on patients who require blood transfusion but could not get.
- Remember to record information on blood returned from the ward because of 'reaction' in remarks column.

Components of the Blood Recipients Register

- Column (1): Date
  - Date when blood sample was received in the Laboratory e.g. 20 Feb
- Column (2): Serial number
  - Each sample should be given a number starting from 001 at the beginning of each month
- Column (3): Health facility number
  - Health facility number as shown on the patient's file
- Column (4): Patients name
  - Write patient's name accurately and neatly
- Column (5): Age
  - Age of the patient
  - If the patient is below one year then write age on twelve months basis e.g. for a child aged five months write '5/12'
  - If a patient is aged one year or more then enter age in complete years
- Column (6): Sex
  - Write sex of patient
  - Write 'KE' if female and 'ME' if male
- Column (7): Ward
  - Write number or name of the ward where the patient is admitted
- Column (8): ABO
  - Patient's blood group
- Column (9): Rh
  - Status of Rhesus e.g. (+) or (-)
- Column (10): X-match
  - Fill in cross matching results
- Column (11): Amount given
  - Write amount of units given to the patient
- Column (12): Bottle number

    - Write the number shown on the blood bottle given to the patient
- Column (13): Name of technician
- Column (14): Name and signature of blood collector
    - Should fill in name and signature
- Column (15): Remarks
    - Write if reaction has occurred and blood was returned, and any other comments

Filling Physiotherapy Services Register

- Each health facility providing physiotherapy services should use a register to collect all-important data concerning the services provided.
- This register is used to record patients attending as both outpatients and inpatients. This will help in following up of patients attended in the department throughout the year.
- Patients who are not admitted should pass through the OPD before being attended at the physiotherapy department.
- The total number of diagnosis from physiotherapy services should be recorded in the departmental data book.
- Total number of attendances and re-attendances should be recorded.

Activity: Exercise 3

Instructions
The instructor will distribute copies of the physiotherapy register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

In filling these registers follow the instructions below:

- Column (1): Date
    - Date of registration on first visit
- Column (2): Serial number
    - Patients serial number is written starting with 001 at the beginning of the month
- Column (3): Health facility number
    - Write patient's number as it appears on the patient's card/file
- Column (4): Patient's name
    - Write patient's name clearly
- Column (5): Sex
    - Write patient's sex
- Column (6): Age
    - Write age of the patient in completed years
    - If the patient is below one year then write age on 12 months basis e.g. Child of 5 months, write 5/12
- Column (7): Address/ward
    - Write the physical address of the patient. If patient is in the ward, then write ward number/name
- Column (8): Diagnoses
    - Write diagnosis as found in the physiotherapy section and it may not necessarily be the diagnosis indicated from the ward
- Column (9): Date of discharge
    - Write date patient was discharged from the ward
- Column (10): Re-attendances

- Tally each re-attendance visit to physiotherapy section, there are two boxes enough for tallying attendances for a month

Filling Pathology and Mortuary Register

Pathology Register

- Health facility with pathology services need to have registers to collect information on activities occurring in the department.
- Laboratories will continue to use the existing registers.
- The following are to be included in the register
  - Identity number
  - Date specimen received
  - Patients name
  - Patient's sex, address and patient age
  - Clinical diagnosis
  - Histo-pathological findings
  - Date when specimen results were sent to originating office

Mortuary Services Register

Activity: Exercise 4

Instructions
The instructor will distribute copies of the mortuary services register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

- Every health facility is supposed to have a room where dead patients are kept (mortuary), which is also used for post-mortem.
- Each room should have a register to record important information.

Information to Be Collected In Mortuaries

- Column (1): Date
  - The date when the body was received
- Column (2): Serial number
  - Everybody received, is labelled with a number starting with 001 each month
- Column (3): Name of the deceased
  - Write the name clearly
- Column (4): Address
  - Write address in short
- Column (5): Sex
  - Write the deceased sex, 'KE' if female and 'ME' if male
- Column (6): Age
  - Write age of the deceased at the time of death. If the deceased is below one year then write age on 12 months basis e.g. Child of 5 months, write 5/12
- Column (7): Health facility number
  - For health facility deaths write the ward, where the deceased was admitted before death
- Column (8): Place of death
  - Write the name of the place where the death occurred e.g. Kigamboni or Ruvu

- Column (9): Name of the person who brought the deceased
  - Write name of the person who brought the deceased if from outside the health facility
- Column (10): Date of post-mortem
  - Write the date when a post-mortem was conducted
- Column (11): Police case
  - If the deceased was a police case, then enter a tick (√) if not put a dash (-)
- Column (12): Post-mortem diagnosis
  - Write the Post-mortem diagnosis
- Column (13): Name of a person who performed post-mortem
  - Write the name of the doctor who performed the post-mortem
- Column (14): Name of Attendant
  - Write name of the mortuary attendant
- Column (15): Date the body was taken
  - Write Date when the body was collected from mortuary
- Column (16): Remarks
  - Additional comments about the deceased
  - Write if biopsy was sent for further investigation

Recording X-ray Services Register

- Each hospital providing X-ray services should record data in a register book.
- The register enables the staff to get necessary information on the type of X-rays taken, number of films used and number of X-rays films spoiled.
- Other services provided in this department e.g. Ultra sound and CT scan will continue to be recorded using existing register format.
- Monitoring of X-ray film stocks is done using ledgers.

Filling the X-ray Register

Activity: Exercise 5

Instructions
The instructor will distribute copies of the x-ray register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

- Column (1): Date
  - Insert the date X-ray was done e.g. 2nd Feb
- Column (2): Serial number
  - Each patient should be given a serial number starting with 001 at the beginning of each year
- Column (3): Name of patient
  - Write patient's name clearly
- Column (4): Age
  - If the patient is under one year, then write the age in months over twelve months for example if the child is 5 months old write '5/12'
  - If the patient is one year and above then write age in completed years
- Column (5): Sex
  - Write 'KE' if patient is a female and 'ME' if a male
- Column (6): OPD/IPD number
  - Record patient's number as found in the patients card/file or request form

- Column (7): Requested from
  - Write name of the doctor, department/ ward/ or health facility where the patient is coming from
- Column (8): X-ray requested
  - Put a tick (√) under the respective column for each X-ray requested. For example 'skull, chest, abdomen, spine'.
  - In the column 'others' write specifically the type of X-rays requested
- Column (9): Number of films spoiled
  - Write the number of X-ray films spoiled
- Column (10): Name of radiographer
  - Write name of the technician taking the X-ray
- Column (11): Remarks
- If there are any remarks on patients status and X-ray findings e.g. under or over exposure, restless patient, not well prepared for Barium meal or enema. The state of the film and the quality may also be recorded here, e.g. film split into two, poor film quality

Key Points

- Departmental registers include laboratory, blood bank, X-ray, pathology and mortuary.
- Every section of the laboratory will have its own register depending on the type of tests done.
- Blood donor services have two recording registers, blood recipients' registers and blood donor register.
- Each health facility providing X-ray services record data in a register book.
- Pathology services data are collected with two registers, mortuary register and pathology laboratory register.
- Each health facility providing physiotherapy services use a physiotherapy register to collect all inpatients and outpatients data concerning the services provided.

Evaluation

- What are the departmental registers?
- What are the two types of blood services registers?
- What are the two registers used in pathology department?

References

- Deluca, M.J. & Enmark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisko: John Wiley & Sons Inc.
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Session 11: Recording in HMIS (MTUHA) Antenatal (ANC) and Delivery Registers

Learning Objectives

By the end of this session, students are expected to able to:

- Describe HMIS (MTUHA), antenatal care (ANC) and delivery registers
- Explain how to record in HMIS (MTUHA) ANC register
- Explain how to record in HMIS (MTUHA) delivery register

HMIS (MTUHA) ANC and Delivery Registers

The Antenatal Register

- The Antenatal (ANC) Register is the register used to collect data from pregnant women.
- All pregnant women attending to antenatal clinic are recorded in the register.
- The information recorded in the register helps to monitor pregnancy growth, history of previous pregnancies, services administered and appointment schedule.
- The register records women from their first visit to their last visit of a pregnancy.
- The register has two pages, the first page contains information that will be recorded on the first visit of a pregnant woman.

On the second page record the following:

- In the first section, put a tick (√) into a return visits box
- Continue recording by putting a tick (√) in the risk factor box when risk factors are present during the month of attendance
- The risk factors to be recorded are:
  - Anaemia
  - Oedema
  - High blood pressure
  - Proteinuria
  - Failure to gain weight
  - Antepartum haemorrhage and abnormal lie
- If syphilis screening is carried out, record the results
- Record the date when the protective dose of TT is administered
- Finally, at any visit after the 30^{th} week of gestation, record the information about the survival of the last born child

The Delivery Register

- The delivery register contains both mother and child information.
- It has been designed to be useable at both maternity wards and in smaller delivery rooms.
- It is provided by HMIS (MTUHA) and one register has a room for about 500 deliveries.
- Information entered in the register includes
  - Miscarriages
  - Abortions
  - Women delivering before arrival (BBA)
  - Live births
  - Still births occurring at the facility
- In facilities there should also be an admissions register, as it is recommended that

maternity patients are registered and given identification number separate from other inpatients.

Filling the HMIS (MTUHA) ANC Register

Activity: Exercise 1

Instructions
The instructor will distribute copies of the ANC register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

On the First Visit (Columns 1-6)

- Column (1): The date of the first visit.
  - Record the date and the three letter abbreviation for the month.
  - Year is not necessary since it is on the cover.
- Column (2): The identification number.
  - Give consecutive numbers to your client starting with 001 on 1st January.
  - Put the calendar year in the first small column and put the number of the client in the second small column.
  - If a client lost her card, you can re-issue one but do not give them a new identification number.
  - The number of new clients is monitored quarterly and reported annually.
- Column (3): Name of the client.
  - Write the name neatly and clearly.
- Column (4): Tetanus card (TT) card.
  - All clients should bring their tetanus card whenever they come to the clinic.
  - It is especially important when they come for their first antenatal visit.
  - If they bring the card, then the nurses will know when another TT dose is appropriate.
  - Write 'Y' if she has a card or 'N' if she doesn't have a card, this should be written clearly.
  - If a woman says she does not have a TT card yet, and then start one for her.
- Column (5): The gestation age in weeks.
  - Estimate the gestation from the date of the woman's last menstrual period (LNMP).
  - If the gestation is less than 20 weeks, then enter a tick (√) in the first section of this column.
  - If the gestation is 20 weeks or more, then enter a tick (√) in the second section. Only fill in one section.
  - Column (6): Maternal risks.
  - A series of maternal risks are listed in this column. Fill in each one.
  - 'Grav' is the gravidity of the client and includes this pregnancy.
  - 'Age' is the estimated age of the client. Estimate this if the client is unsure.
  - The 'Hgt' is the height of the woman in centimetres.
  - Under 'Ab' record the number of abortions.
  - Under 'CS' record the number of caesarean sections that the client has had. Circle all those that indicate a risk**.**

Notes: Tanzania MOHSW considers the following characteristics as a risk (see ANC card).

- Gravidae 5 and more

- Age below 20 years
- Age over 35
- Height under 150cm
- Three consecutive abortions
- One caesarean section
- High blood pressure
- Proteinuria
- Anterpartum haemorrhage
- Abnormal lie
- Failure to increase weight
- Anaemia
- oedema

Return Visits (Column 7)

- Column (7): Re-attendances and risk factors.
- Each re-attendance of a client should be recorded in this column by putting (√) under the correct month.
- Alternatively, if the woman presents with any of the following risk factors, instead of the tick the abbreviation of the risk factors should be written under the month of the visit.
- If more than one risk factor is noted, then all abbreviations are written.
    - The risk factors and their abbreviations are anaemia (A), oedema (O), high blood pressure (H), proteinuria (P), failure to increase weight (U), ante partum haemorrhage (D), and abnormal lie (M).

On Any Visit (Columns 8-9)

- Column (8): Results of syphilis screening
    - The results of syphilis test should be recorded. This may be done at the first visit and the results known later. Whenever it is done, the results are indicated here.
    - If the result is positive, then a tick (√) should be placed under the section labelled '+ve'.
    - If the result is negative, then a tick (√) should be placed under the section labelled '-ve'. Only one section should be marked.
- Column (9): Write the date that a woman received the dose of tetanus.
    - Nothing should be written otherwise. For example, if a client had received no tetanus vaccine before her pregnancy, the date when she received her second dose would be written here.
    - Every dose of TT given to pregnant women is also tallied on a special tally sheet.

After the 30th Week of Gestation (Columns 10-11)

- Column (10): Information on the last live birth.
    - At the first visit, the number of previous live births and deaths is recorded on the antenatal card.
    - At the first visit after the 30th week of gestation, this information is obtained.
    - Check the card, and if the client has not had any previous live births, enter 'NA' under birth year (Brt yr).
    - If the birth was in 1992, enter '92' under 'Brt yr'.
    - Ask the client whether the last-born child is still alive. Put a tick (√) under the section labelled ALIVE if the child is alive.
    - Put a tick (√) under the section labelled DEAD if the child has died.

- Ensure that the client does not 'forget' about mentioning children that have died.
  - The information on the last live birth will enable the estimation of the death rate among small children. This will be calculated yearly.
  - It gives a good estimate of the number of children born alive that will die before their second birthday.
  - If the information is collected at the right time (within 3 months of delivery), accurately (about the last live birth), and completely (all women are asked). The statistic calculated is called the early child mortality rate.
- Column (11): Referrals. Write the name of the facility if the client has been referred elsewhere for continuing antenatal care or for delivery.

Filling the HMIS (MTUHA) Delivery Register

Activity: Exercise 2

Instructions
The instructor will distribute copies of the delivery register to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

The delivery register consists of 15 columns that are required to be filled with information as follows:

- Column (1): Delivery date
  - The day and month that the woman delivered
- Column (2): Serial number
  - The serial number starts with '001' each year
- Column (3): Name of the woman
- Column (4): Village/street of residence of the woman
  - The list of villages compiled by the health facility for other services should be used here
- Column (5): Age
  - The age of the woman
- Column (6): Gravidity of the woman
  - This is the number of times the woman has been pregnant including the current pregnancy
- Column (7): Para of the woman
  - This is the number of previous deliveries for the woman
- Column (8): Date of admission
  - Write date of arrival
- Column (9): If the outcome was a born before arrival or an abortion
  - Write 'BBA' if the child was born before arrival at the facility
  - Write 'KM' if the outcome was an abortion
- Column (10): Type of delivery
  - A normal delivery is defined as a delivery that occurs at term and is spontaneous in onset with the foetus presenting by the vertex
  - The process is completed within 12 hours and no complications arise
  - If the delivery is normal then 'normal' is written in this column
  - If not normal, then the reason for it being not normal is written, for example, 'premature', 'induced labour', 'prolonged labour', 'breech', 'vacuum', 'caesarean

section (CS)', 'forceps' or others will be written as it is indicated in the maternal complications or child complication columns (11 and 13 respectively)

- Column (11): Complications during delivery
  - Write complications of the mother
  - Post-partum haemorrhage, retained placenta, and third degree tear are specifically reported
  - Others (e.g. 'anaemia' or 'pre-eclampsia') will be grouped together for reporting but can be written here for local use
- Column (12): Mother's final status
  - Write either 'well' or 'died'
- Column (13): Live birth information
  - A birth is defined as a live birth if the newborn breathes independently after birth
  - If there is a live birth, then the sex, weight in kilograms, and the 'apgar' score are recorded, as well as any complications
  - Complications are written briefly, such as 'premature', 'congenital deformity'.
  - The final status of the child is divided into three categories
    - Well
    - Died within 24 hours ('<24') and died 24 hours or later ('24+') tick (√) in the correct sub-column
    - If the outcome was not a live birth, then dashes (---) should be entered in every sub-column
    - For multiple births, use additional lines in the register but do not repeat columns 1 through 12
- Column (14): Still birth information
  - A birth is defined as a still birth if the gestation period is at least 28 weeks, and the newborn does not breathe independently after birth nor heart beat on auscultation
  - If a delivery resulted in a still birth, enter a tick (√) under the 'still births' sub-columns of fresh ('Fr') when the still birth has intact skin or under macerated ('Mac') when the still birth has broken skin
  - If the outcome was not a stillbirth, then dashes (---) should be entered in both sub-columns
- Column (15): Name of person assisting the delivery

Important Information for ANC and Delivery Registers

Activity: Small Group Discussion

Instructions
In your small group, answer the following questions:

- What are the important pieces of information required to be recorded in antenatal care register?
- What are the important pieces of information required to be recorded in delivery register?

You will have approximately 10 minutes to answer the questions. Your group may be asked to present your responses to the class. Be prepared to give a brief summary of your answers.

Key Points

- The antenatal (ANC) register is the register used to collect data from pregnant women
- The delivery register contains both mother and child information
- Maternity patients are separately registered and given identification number.

Evaluation

- What are HMIS (MTUHA) ANC and delivery registers?
- What are the pieces of information entered in delivery register?
- What is the risk factor recorded in ANC register?
- What are the pieces of information recorded in ANC register?

References

- Deluca, M.J. & Enmark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisko: John Wiley & Sons Inc.
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Session 12: Recording HMIS (MTUHA) Ledger and Community Registers

Learning Objectives

By the end of this session, students are expected to be able to:

- Describe HMIS (MTUHA) ledger book
- Explain how to record in HMIS (MTUHA) ledger book
- Describe HMIS (MTUHA) community book
- Explain how to record in HMIS (MTUHA) community book

HMIS (MTUHA) Ledger Book

- In HMIS, drugs and consumable supplies are known as commodities.
  - Consumable means that, the item can be used only once and must be replaced after use.
  - Non-consumable supplies are equipment, they are used over and over without replacement.
- All commodities used in government health facility are to be recorded into the HMIS (MTUHA) ledger book.
- These commodities includes drug kit, vaccines, contraceptives, clients cards, stationery, separate receipt of sexually transmitted illnesses (STIs) drugs, separate receipt of condoms and all other consumable items.
- The ledger book is used for monitoring flow of commodities into and out of the store. It has a separate page called the stock record for each commodity.
- Even if a commodity is received from different sources, still there should be only one stock record for it.
- The person in charge of each store should receive instructions on how to use the ledger book.
- All health facilities are supposed to have a list of all commodities that the store currently receives or has in a stock.
- The commodity record should refer to the commodity name and page number which can be used to access it in the ledger.

Information to Record for Every Commodity Brought to the Government Health Facility

- Commodity code: Use the commodity code as provided by the medical store department (MSD), leave blank for unknown code.
- Name of commodity: Print the name of commodity use separate page for each commodity.
- Storage condition requirement: Record all requirements for commodity storage. Example, refrigerator, dry place.
- Ordering quantity: This is the agreed amount of quantity the facility can order in order to consume before receiving the next order.
- Description order: Print briefly and precisely the description of the ordering commodity example (tablets, injections, suspension) and measurements. Example (50mg/5ml, 100mg and 7.5 sizes).
- Measurements: Use measurements used on ordering a commodity e.g. vial, cycle and tabs.

- Commodities with different number of content should be reordered separately example differentiate between a box with 500 tablets and that of 100 tablets.
- Maximum quantity: This is the maximum quantity a facility can handle according to the number of patients/clients served and storage facilities.
    - Minimum stock: This is the minimum stock a facility is not supposed to go beyond before it places an order.
    - Storage place: Describe where the commodity is stored example in the cabinet.

Filling the HMIS (MTUHA) Ledger Book

Activity: Exercise

Instructions
The instructor will distribute copies of the ledger book to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

The following are instructions on how to record in the Ledger Book.

- Column 1: Date a commodity received or dispensed. Write date and month
- Column 2: Reference number. Print all references as you receive or issue
- Column 3: Received quantity. Record all quantity received
- Column 4: Quantity issued. Record all quantity issued
- Column 5: Adjustment. Record loss, destroyed, expiry or returned
- Column 5: Balance stock. Record balance at the stock taking period
- Column 6: Explanations. Write explanations of the commodity as observed
- It is recommended that a person in charge of each store in the health facility should receive directives on how to use the ledger book

Practice in Filling a Ledger Book

Activity: Small Group Exercise

Instructions
You will work in a small group and remain in this small group for the rest of the class period. Your instructor will distribute the following:

- One copy of the filled ledger book
- One copy of HMIS guidelines
- One copy of blank ledger book that you used to follow along with the previous presentation

Read the descriptions in the ledger pages and play the role as stock taker. Use a previously filled ledger to fill in the new page of unfilled HMIS (MTUHA) ledger. Using the HMIS (MTUHA) guidelines (Book 1), your group will spend approximately 15 minutes doing the following:

- Fill descriptions on top of ledger page
- Record commodity received and issued according to the instruction in the columns
- Fill quantity issued/dispensed, adjusted, loss or expired, amount in stock and any remarks

HMIS (MTUHA) Community Book

- In HMIS (MTUHA), the villages and neighbourhoods near to a health facility is referred to as a community.
- HMIS (MTUHA) provides the community book for storing information about the community. These books are kept in the health facility and taken to the community at every visit.
- The community book is used to take census of the key statistics that are necessary for health service in a targeted area.
- Key information obtained from the community is used by the health facility during planning and management.
- All health facility must conduct community visiting to collect all necessary indicators for health services.
- It is important to note that, each community book has to be used for a period of three (3) years and then another book has to be started

Activity: Exercise 2

Instructions
The instructor will distribute copies of the community book to the class. Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

- The following data are required to be recorded in the HMIS (MTUHA) community book:
- Part 1: General introduction
  - Involves date of visit, village boundaries, agriculture and weather, economic activities and comments
- Part 2: Administration information
  - Involves particulars of leaders in the specific area visited
- Part 3: Recording of other health service including:
  - Table 1: Record a list of health facilities including government, parastatal, faith based and private also record traditional healers, pharmacy shops available in the village/street
  - Table 2: Write list of names of members of the health committee in the village/street
  - Table 3: Write names of village health workers and tick (√) when a member submits a quarterly report throughout the year
  - Table 4: Write names of trained traditional birth attendants (TBA) in the village/street. Put a tick (√) when the TBA submits quarterly report throughout the year.
  - Table 5: Write list of names of traditional birth attendants who has not yet received training
  - Table 6: Write names of community based delivery (CBD) in the village/street. Put a tick (√) when they come to collect family planning commodities
- Part 4: Population projection. Village/street leaders are supposed to keep records of deliveries and death in their respective areas
  - Ask if they have a village government registers for vital statistics
  - If there is village register, then record village/street population using the village register
  - If there is no village register then use the census population
- Part 5: Reports of neonatal (under 28 days) deaths

    - The report records neonatal data on deaths and follow-up of Vaccination coverage in the community
- Part 6: Community services
    - Records family particulars in the village/street normally the information is collected by health officers
    - Information collects household's data including standard toilets, availability of refuse pits and families with drying racks
- Part 7: Results of nutritional status of under-five children weighing quarterly
    - Measuring of nutritional status of children in the community is important, this will make the community participate fully in improving the nutrition status of children.
- Part 8: Implementation reports from trained tradition birth attendants (TBAs)
    - Data collected includes total deliveries, live births, Fresh still birth, Macerated still birth, neonatal death and maternal deaths by TBAs
- Part 9: Date and village/street visit report
    - Reports collected are date of visit, description of what it has been conducted in the visit and names of staff who conducted the visit to the village/street
- Part 10: Health development project. Record all projects by writing short description on the following
    - Date of project commencement
    - Purpose of project
    - Estimated cost
    - Source of funds
    - Expected date of accomplishment

Practice Filling MTUHA Community Register

Activity: Small Group Exercise

Instructions
You will work in small groups to fill the community register book. Your instructor will read the guideline instructions on how to fill a community register and when they are done, you will work in your groups to fill the book.

Key Points

- In HMIS, drugs and consumable supplies are known as commodities.
- All commodities used in public health facility are to be recorded into the HMIS (MTUHA) leger book.
- All health facilities are supposed to have a list of all commodities that the store currently receives or has in a stock.
- The community book is used to take census of the key statistics that are necessary for health service in a targeted area.
- All health facilities must conduct a community visits to collect all necessary indicators for health services.

Evaluation

- What is the HMIS (MTUHA) ledger book?
- What is HMIS (MTUHA) community book?
- What are the uses of ledger book?
- What are the uses of HMIS (MTUHA) community book?

References

- Deluca, M.J. & Enmark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisko: John Wiley & Sons Inc.
- MOHSW (2002).*Health Management Information System HMIS (MTUHA) Guidelines Book 1.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare
- MOHSW (2002).*HMIS Health Evaluation and Planning (Help) Manual for the In Charges of Health Facilities.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare.
- MOHSW (2007*). Health Management Information System HMIS (MTUHA) Version 2.0 Composite.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare.
- MOHSW (2007). *Pre-service HMIS Module Draft.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare.

Session 13: HMIS (MTUHA) Tally Sheets

Learning Objectives

By the end of this session, students are expected to be able to:

- Identify the four types of HMIS (MTUHA) tally sheets
- Describe how to record in HMIS (MTUHA) tally sheets

Types of HMIS (MTUHA) Tally Sheets

- HMIS (MTUHA) tally sheets are forms used in summarizing data from specific health services area in a given period of time
- The four common tally sheets used in health services are:
  - Form F201 – Child tally sheet
  - Form F202 – Immunization and vitamin A tally sheet
  - Form F203 – General tally sheet
  - Form F204 – Neonatal tetanus tally sheet
- The main function of the tally sheet is to summarize data in health facilities

Filling the HMIS (MTUHA) Tally Sheets

Activity: Exercise

Instructions

The instructor will distribute copies of the following tally sheets:

- F201: Child attendance
- F202: Immunization
- Vitamin A, F203: General
- F204: Neonatal Tetanus

Review the tool and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

Form F201 – Children Attendance

- A tally sheet used for child attendance and weight determination during measles immunization.
- When used in a facility with a catchment population of 10,000 people, then one tally form can last for one quarter of the year or three months.
- It is stored by the in-charge of the facility and after the quarterly totals have been done, it is recorded in the child register.
- Ensure that each row of the tally sheet is filled in completely across the box before continuing to the next row.
- There should be no spaces in between tallies. This will make it much easier to count the tallies at the end of the quarter.
- A special mark before the first tally of a month can be used to differentiate between months if this is desired.
- The top of this tally form is for child attendance.
- Each attendance of a child at the reproductive child health (RCH) clinic should be tallied.

- The total numbers will be used in estimating workloads in the health facility.
- During measles immunization, record the weight category of children at the bottom of the form. It gives a good indication over time of the nutritional level of the children aged 10-12 months.

Form F202 – Immunization and Vitamin A

- The numbers of immunizations and vitamin A supplementation are collected.
- Each row should be filled in completely across the box before going on to the next row.
- There should be no spaces in between tallies. This will make it much easier to count the tallies at the end of the quarter.
- A special mark before the first tally of a month can be used to differentiate between months if this is desired.
- For health facilities with a catchment population of 10,000 people, one tally form can last for one quarter.
- A new tally sheet should be started quarterly.
- The used tally forms are stored safely with other MTUHA data forms once the quarterly totals have been counted.

Immunizations

- For the child immunizations there are two columns:
  - Children less than one year of age (<1 year) to the left
  - Children over one year to the right (1+ year)
- All doses are recorded separately. The dates of the Bacillus Calmette-Guérin (BCG), DPT-HepB-Hib, Polio 3 and measles immunizations should also be entered in the child register.
- Maternal tetanus immunizations are recorded separately for antenatal (pregnant) clients and non- pregnant women. Each dose is tallied separately.

Vitamin A Supplement

- A tally should be made for each child receiving the vitamin A supplement.
- The child vitamin A supplement given at measles immunization is also recorded in the child register.

Form F203 – General Tally Sheet

- A general tally form F203 is used for the tallying of the diagnoses in OPD, which is collected using the OPD register.
- The other registers (for example – antenatal, delivery, family planning, and diarrhea treatment corner [DTC]) are not tallied using the general tally form F203.
- The form is a series of empty boxes. There is space above each box to write the diagnosis and age group which are tallied in the box.
- Six common notifiable diseases are included in one box.
- One entire box is reserved for the counting acute respiratory infection cases if it is very common.
- Tally each diagnosis and record its total in the department data book.
- During reporting use the diagnoses categories as it is shown in the diagnosis classification categories in the HMIS (MTUHA) guidelines.
- Every diagnosis is represented by one slash (/).
- Five slashes go in one square. The squares are filled in completely in one column before going to the next.

- The total tallies for the month are written in the last box. Each box has space for 455 occurrences to be tallied.
- If it is not possible to tally all the diagnoses of the day, then the places in the outpatient department (OPD) register where tallying stopped must be clearly marked.
- The diagnoses of every register used during the day must be tallied.
- Diagnoses are summarized by two age groups for all diagnoses.
  - Age less than 5 years (<5 years).
  - Age 5 years and greater (5+ years).
- If a health facility normally completes more than five OPD registers a month, then count a 10% sample of the diagnoses recorded in the general section.
- In this case, tally all diagnoses on every 10th page. Clearly mark each page that is counted.
- The final count of the tallies is then multiplied by 10, that is, a zero is added to each count.
  - For example, if a 10% sample is taken and a count of 43 malaria attendances for children fewer than five years is made, this would be recorded as 430.

Notifiable Diseases

- It is recommended that in case of epidemic occurrences (notifiable diseases) a complete count must be reported.
- The monthly totals are entered into summary book of notifiable diseases (table 17).
- After the counts have been entered, ask yourself the following questions
  - What trends are occurring?
  - What looks strange?
  - What counts are unusual?
  - What are the most common diagnoses in your facility?
- Lastly fill in summary book (table 18) with the top ten diagnoses of the month.

Form F204 – Neonatal Tetanus

- Tetanus toxoids (TT) vaccination can be given through either pregnant mothers or non pregnant mothers.
- Every dose given to the client (TT1-TT5) must be clearly indicated in a separate column.
- Neonates' immunization status will be assessed through their mothers' maternity card.

Practice Filling the General Tally Sheet – HMIS (MTUHA) Form 203

Activity: Small Group Exercise

Instructions

Your instructor will distribute the following materials:

- General Form F203
- Book 1 MTUHA Guidelines
- Previously filled OPD Registers

You will work in small groups to conduct a tally exercise to fill the form F203: General Tally Sheet using the data from previously filled OPD registers. You group will tally 100 patients visit from the previously filled OPD registers.

Activity continued on next page

You will use the instructions in the HMIS (MTUHA) Guidelines for more information as needed to fill the tally sheet.

One group will present their findings and the other groups may give their input, so be prepared to share your small group findings with the whole class.

Filling Tally Sheets (Forms F201, F202 and F204) and Summary Book

Activity: Small Group Exercise

Instructions
The instructor will distribute the following materials:

- Form F201: Children Attendance
- Form F202: Immunization form
- Form F204: Neonatal Tetanus
- Book 1 MTUHA Guidelines

Working in small groups, you will create a tally for one month. Use the instruction on how to fill tally forms found in this session, and also refer to the MTUHA Guidelines for more information. You should fill each of the tally sheets with example data using the instructions in the MTUHA Guidelines. You will have approximately ten minutes filling out each tally sheets.

One group will present their findings and the other groups may give their input, so be prepared to share your small group findings with the whole class.

Key Points

- HMIS (MTUHA) tally sheets are forms used in summarizing data from specific health services area in a given period of time
- The four common tally sheets used in health services are:
  - F201: Child tally sheet
  - F202: Immunization and vitamin A tally sheet
  - F203: General tally sheet
  - F204: Neonatal tetanus tally sheet
- The main function of the tally sheet is to summarize data

Evaluation

- What is the F 201 tally sheet?
- What is the F 202 tally sheet?
- What is the F 203 tally sheet?
- What is the F 204 tally sheet?
- What is the use of a tally sheet?

References

- Deluca, M.J. & Enmark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisko: John Wiley & Sons Inc.
- MOHSW (2002).*Health Management Information System HMIS (MTUHA) Guidelines Book 1.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare

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- MOHSW (2007). *Pre-service HMIS Module Draft.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare.

Session 14: HMIS (MTUHA) Summary Book

Learning Objectives

By the end of this session, students are expected to be able to:

- Define HMIS (MTUHA) summary book 2
- Identify the components of HMIS (MTUHA) Summary Book 2
- Describe monitoring component of HMIS (MTUHA) Summary Book 2
- Describe the recording instruments used in the administration department

Definition of HMIS (MTUHA) Summary Book

- Summary book is the book which contains compiled information extracted from facility health service departments.
- In places where computers are available, this is kept electronically.
- Currently the summary book used is HMIS (MTUHA) book 2.

Components of HMIS (MTUHA) Summary Book

- The HMIS (MTUHA) summary is comprised of sets of tables grouped according to departments in the health facilities
- The groups of tables cover the following:
  - Administration
  - Monitoring commodities
  - Monitoring equipment
  - Outpatient department
  - Inpatient department
  - Records department
  - Laboratory department
  - Blood bank services
  - Physiotherapy department
  - Pathology department
  - X-ray services
  - Dental services
  - RCH services

Monitoring of Administration Department

Recording Instruments

- Administration department consist of ten recording instruments in the form of tables
- The tables are part of the overall Summary book 2.
- The ten recording instruments(tables) are:
  - Staff listing table
  - Health facility staff by current position
  - Record of leave, training and other Absences
  - Recording of revenue and expenditures
  - Physical structure inventory
  - Monitoring renovation and maintenance
  - HMIS (MTUHA) management indicators

- Monthly management meetings
- Supervision visit
- End of the year reporting

Staff Listing Table

- Staff are listed on the staff listing form F001.
  - The form is completed in duplicate at the beginning of the year, and one copy is kept with the health facility data book.
  - The other copy is sent to the district medical office (DMO).
- The listing is done at the beginning of January each year.
- The objective of this form is to provide the health facility and the district with a current, complete list of staff and to document staff qualifications, year of last promotion, current position, and recent history of training (short courses, workshops, and continuing education).
- All health facilities are required to record and report in this form.

Health Facility Staff by Current Position Table

- This information is obtained from the annual staff-listing column 'current position.'
- Then, using the information, heads of departments and the facility in-charge should estimate the proportion of time the person spends working in each service over the year.
- The proportion can be determined by estimating the average number of days per week.

Activity: Exercise

Instructions

Below are examples of how to estimate proportion of time a person spends in each service.

Example 1: If a person works five days a week and on average spent one day a week in reproductive child health (RCH), and the rest of the time in outpatient department (OPD), then the proportions would be RCH 0.20 and OPD 0.80 for a total of 1.00. Also hours can be used if a staff works in more than one area in a day.

Example 2: If the staff works on a part-time basis, the actual time spent at the health facility should be determined by calculating a proportion which will be less than 1.00. For example if a clinician is a tutor, and spends only half of his/her time at this health facility, the total proportion should be 0.5. This proportion should then be divided in the respective working areas in the health facility. If the clinician spends 2 hours at IPD - and 3 hours at OPD this will be 0.20 for In Patient Department (IPD) and 0.30 for OPD and the total is 0.50.

Record of Leave, Training and Other Absences

- This is a table used to record leave, training and other absences of staff.
- It is used to plan for expected absences, such as annual leave.
- It is a very important instrument for recording unexplained absences such as absconding.

Recording of Revenue and Expenditures

- All income earned and expenditures made by the health facility and on behalf of the health facility are to be recorded and documented.
- A summary of these incomes and expenditures are recorded in Tables 3A, 3B, and 4 in the health facility data book.

- Table 3A is a record of the monthly totals of income by source.
- Table 3B is for development expenditures.
- Development expenditures are costs for items such as the costs for a new X-ray machine, generator, and construction.
- Table 4 is for recurrent expenditures.
- Recurrent expenditures are all other expenditures not found in development expenditures, and also include expenditure that are repetitive, for example salaries, electricity bill.
- Estimates should be used where actual cost is not known.

Physical Structure Inventory
- At the beginning of each calendar year, all public health facilities will complete two copies of the physical inventory form (F003).
- One copy stays at the health facility and the other is sent to the DMO/RMO.
- For referral hospitals, the copy should be sent to the ministry of health and social welfare (MOHSW).

Monitoring Renovation and Maintenance
- All renovation and maintenance done during the year are entered into the renovation / maintenance report (F006).
- If work will be done in separate, distinct stages, then each stage is listed separately.
- If different sources of funds are used for different parts of the work, then each part is listed separately.

HMIS (MTUHA) Management Indicators
- The management indicators in the HMIS (MTUHA) answer specific management questions.
- Throughout this book and the facility data book, the questions are highlighted whenever they appear.
- Each question has a numeric response that is calculated from the information collected.
- The numeric response has a target value and a threshold value attached to it, which represents the goals and objectives of the MOHSW.
- If an indicator's value is below the target and threshold, then there is an immediate problem that should be acted upon.
- There are 10 HMIS (MTUHA) indicators on the health facility quarterly report (F004) and 5 indicators on the health facility annual report (F005).
- There are additional indicators that are not reported but are to be used at the health facility.
- There are other HMIS (MTUHA) indicators that are reported annually, but are calculated and monitored at the health facility level quarterly.
- The health facility in-charge and heads of department should work together to calculate and then discuss each indicator on a quarterly basis.
- Indicators that show a problem are entered on table 5 in the health facility data book.
    - If an indicator value shows a decline in performance from one quarter to the next, this should be considered as a potential problem.
- If the health facility is performing so well that it does not have any problems as defined by the national thresholds, then higher standards should be set by the health facility in-charge and an evaluation should be done against this higher standard.
- Table 5 can form the basis for discussion of actions to take to improve the situation.
- Discussions should be directed towards feasible and practical solutions.

Monthly Management Meetings

- It is recommended that each health facility department should hold monthly management meetings.
- Before the meeting, use HMIS (MTUHA) data to plan the agenda.
- Review HMIS (MTUHA) data to see if there are conflicts in planned leaves, or whether there are people returning from training who can present a summary of what they learned.
- See what development activities are on schedule and which are behind from Table 4B.
- Review the problems shown by the HMIS (MTUHA) management indicator information listed in Table 5. This help to identify the major problems at the health facility before the meeting.
- Management meeting should not spend a long time identifying the problem(s), instead it should focus on ways to improve performance, in whatever manner is available to the health facility.
- In table 5 records all the planned actions with the persons responsible for action or follow-up.

Supervision Visits

- It is important for the health facility to review previous health facility quarterly report and the comments made.
- In addition, the following health facility data book tables are relevant:
  - Table 5 record of problems and reactions
  - Table 6 record of supervision visits
- The health facility management team should be prepared to discuss with the supervisors these problems and the identified solutions.
- Supervisors from the district, region or MOHSW will inform the health facility of any official reactions on the solutions attempted.
- The supervisors will also check the quality of the collection and recording of the information to ensure that there are no errors in compilation or calculation.
- Any supervision visit should be recorded on table 6 of the health facility data book.
- The results of the discussion(s) on how to solve the problems should be listed and the supervisors should append their signatures in the relevant column.

End of the Year Reporting

- At the end of each calendar year, estimates of the workloads of the health facility are calculated and used to determine re-allocation of staff within the health facility.
- The DMO/ RMO/MOHSW will also use the values in order to determine distribution of resources. Tables 7 through 10 of the health facility summary book are used to calculate and record these estimates.

Field Visit

Activity: Field Visit

Instructions

You will go to the Medical Records Department of a nearby health facility in small groups in order to learn how the summary book 2 is used. You will listen to the medical record officer and may ask questions.

Key Points

- HMIS (MTUHA) summary book 2 contains sets of tables with compiled information extracted from health service departments.
- There are 10 different recording instruments used for monitoring in the administration department.

Evaluation

- What is HMIS (MTUHA) summary book?
- What are the components of HMIS (MTUHA) summary book?
- What are the 10 recording instruments of the administration department?

References

- Deluca, M.J. & Embark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisko: John Wiley & Sons Inc.
- MOHSW (2002).*Health Management Information System HMIS (MTUHA) Guidelines Book 1.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare
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- MOHSW (2007). *Pre-service HMIS Module Draft.* Dar es Salaam, Tanzania: Ministry of Health and Social Welfare.

Session 15: Departmental Summary Book

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain the HMIS (MTUHA) departmental summary book
- Explain the uses of departmental forms from HMIS (MTUHA) summary book

HMIS (MTUHA) Departmental Summary Book

- HMIS (MTUHA) departmental summary book is a tool made up by sets of tables in which compiled data are placed and used for monitoring of health services provided by the following departments
  - Laboratory
  - Blood bank
  - Pathology
  - X-ray
  - Dental
  - RCH

Monitoring of Laboratory Services

- At the end of each month the laboratory in-charge will record totals from department registers and fill in Table 27 of the department data book.
- To monitor the laboratory's specific activities, the in-charge of each section should periodically examine 10 or 20 entries in their laboratory register (pertaining to his/her section) and give feedback to other staffs.
- Ensure that the results are delivered to respective users and emergency requests should be given special attention.
- One of the indicators for good performance is the reduction in time between the submission of the specimen and the delivery of results.
- The laboratory in-charge together with the staff can establish means of improving laboratory services.

Monthly Record of Tests and Annual Reporting

- The numbers of specimen and results are summed up monthly and recorded in the register.
- The totals are then recorded in Table 27 of the department data book and reported to the medical officer in charge.
- This information is used in calculating the workload in the laboratory department using Table 10 in health facility data book.
- The total number of requests and results are reported in the annual health facility Report F005.

Monitoring Blood Bank Services

- At the end of each month, data from blood bank services should be compiled and recorded in Table 29 of department/ health facility data book
- The in-charge of the blood bank section and the in-charge of laboratory services should review information from this section together with other staff.

- Important information to be reviewed include;
  - The number of positive HIV and positive VDRL tests
  - Number of blood bottles (units) returned from the ward due to 'reaction.'
  - Every month data on blood donors should be filled in Table 29A of department/ health facility data book.
  - Indicator question includes: Is the rate of returning blood transfusion units from ward due to reaction too high?
  - Members of staff in the department should answer this question in each quarter in Table 29B of department/ facility data book and discussed.
  - At the end of the year total of blood units and total number of patients who received blood will be reported on form F005 of the facility report book.

Estimation of People with HIV

- Rate of blood donors with HIV is used to estimate HIV prevalence in the population served by the health facility.
- The estimates are done in Table 28 of health facility data book.
- Results will be reported each year on annual facility report book (F005) in order to get estimates for the district, region and the country.

Monitoring Pathology Department Services

- At the end of each month, the head of pathology department should ensure that the summary on number of specimens and results is made.
- At the end of the year the totals are recorded in Tables 31 and 32 of department/ health facility data book.
- The medical officer in charge will ensure that all data collected and compiled is recorded in the hospital data book.
- In each quarter the department will review the efficiency of submission of specimen results to the originating office by calculating the following indicator.
  - Indicator question: where the specimen results dispatched within a month of receiving them? The target is 90%, it is a problem if the indicator is below 80%.

Monitoring X-ray Services

- Each health facility providing X-ray services should record data in an X-ray register book.
- The register enables the staff to get necessary information like:
  - Type of X-rays taken
  - Number of films used
  - Number of X-rays films spoiled
- Other services provided in this department e.g. Ultra Sound and CT scan will continue to be recorded using the same register format
- Monitoring of X-ray film stocks is done using ledgers. Total from the registers are recorded in Table 25 in the department data book

Monitoring Dental Patients

- At the end of each month, the attendances, re-attendance, diagnoses and treatment are counted from the dental register and the values are entered into the same register using the next available line.
- Attendances
  - Children aged <5 years (under five years)
  - People aged 5+ years (five years and older)

- Diagnoses
  - Caries
  - Periodontal diseases
  - Other diagnoses
- Treatment for caries
  - Filling (conservation)
  - Other
- Re-attendances
  - Without complication
  - With complication
- The monthly values for attendances and diagnoses are entered into in the department/ hospital data book
- At the end of each quarter, the quarterly totals are made for all the above categories and are entered in the register using a separate line
- The values for treatments for caries and re-attendances are recorded in Table 33 in the department/ health facility data book
- A tally sheet is not necessary as the register is organised so that the counts can be obtained easily from the register
- During the year, the information should be monitored for trends

Examples and Interpretation
- If the number of attendances is declining, then one of the reasons may be lack of supplies (especially lignocaine for local anaesthesia).
- If it is increasing, one of the reasons may be an increased level of dental disease or an increased awareness in the population.
- Another reason may be the lack of supplies at a peripheral level.
- These issues should be discussed at the health facility management meetings and with district/regional dental personnel.
- Change in the ratio of children to adult patients should be discussed with the district dental personnel.
- If the number of referrals is increasing, the register can be scrutinized to see what diagnoses the referred patients have had.

Management Indicators for Dental Clinic
Two management indicators can be calculated in order to monitor the activities of dental clinic. These are as follows
- Indicator question: Are the number of fillings done among patients with caries decreasing?
  - If the percent of caries diagnoses and filled at the moment, is very low. If this remains low or even decreases, it is most probably due to a shortage of filling materials or non-functioning equipment.
  - The indicator is calculated in the department/hospital data book.
- Indicator question: Are too many patients returning with complications**?**
  - The number of re-attendances with complications should be kept to a minimum.

Monitoring RCH Services
- Each major programme within the RCH has client cards that are used to monitor and manage the client. The four cards are:
- The child health card (RCH 1): Is given to children at their first contact with the health

services and is used until the child's fifth birthday.
    - It is used for growth monitoring, child immunizations and morbidity.
    - The parents keep the card.
- The antenatal card (RCH 4): Is given to pregnant women at their first visit to the antenatal clinic.
    - It is used to monitor each woman through her pregnancy, and is kept by the woman.
- The tetanus immunization card: Is given to all women at their entrance into the childbearing ages or at their first pregnancy.
    - It is a record of her tetanus injections.
    - The woman keeps the card.
- The family planning card: Is the only card currently kept at the clinic.
    - This contains a record of all the family planning consultations held with the client.

Guidelines Used During Monitoring RCH Services

Monitoring Accuracy
- Ensure that all registers and tally forms are being filled correctly. This can only be done through regular monitoring and observation.
- Ensure that all totals from the registers and tally forms are being calculated correctly.
- Count a few totals in each register and check them against the recorded values in the department/hospital data book.
- Do each indicator calculation at least twice. Continue until you get the same answer twice.

Monitoring the Client Cards
- Review the client card information with the staff.
    - Ensure they know how to fill them correctly.
    - Remind them to serve clients with respect.
- Observe the filling of the client cards to check for accuracy in recording.
    - Check that the correct actions are being taken for the client.
    - Check whether the client is aware of the risks or problems noted on the card.

Ensuring Quality of MCH Services
- Ensure that the staffs in the clinic know the correct procedures for child growth monitoring.
- It is very important to realize that child growth monitoring is not just weighing the children.
    - It concerns the growth of the child.
- The advice to the mother must depend upon the growth line of the child, that is, whether the child's individual line is going up (this is good), going down (this is serious) or staying even (this is a problem).
- Tasks that can be checked include
    - Does the worker know how to adjust the scales and check that they are measuring correctly?
    - Is the weight of the child read correctly on weighing scale?
    - Is the weight of the child plotted on the growth chart correctly?
    - Is the growth line filled in correctly?
    - Is the correct advice / encouragement given to the mother of the child?

Ensuring Quality of Family Planning

Ensure that the health facility is providing good service for family planning by reviewing the following checklist.

- History taking
  - If a new acceptor, was the history of the client taken completely and accurately?
  - If a returning acceptor, was the update on history taken completely and accurately?
- Assessment
  - Was there a proper assessment of the client and the best method for the client chosen?
  - Were all methods explained to the client?
- Explanation
  - Did the staff mention all possible problems / side effects and other conditions to be aware of for the method selected?
  - Did the staff allow adequate time for the client to ask questions about the methods?
- Recording
  - Did the staff fill the client card and the day-to-day activity log correctly?
- Atmosphere
  - Was the staff pleasant and helpful at all times?
  - Was the consultation in privacy?

Ensuring Quality of Antenatal Care

Antenatal care, as family planning, requires sympathetic, individual attention so that the women feel comfortable asking questions. Review the following to ensure a high standard of care:

- History taking
  - If a first visit, was the history of the client taken completely and accurately?
  - If a re-attendance, was the update on history taken completely and accurately?
- Assessment: Was there a proper assessment of the client medical needs?
- Treatment
  - Were the drugs or vitamins or minerals needed for this client available?
- Explanation
  - Did the staff give a good explanation of the special care the women should take and of the return visit date?
  - Was the staff pleasant and considerate?
  - Was the wait excessively long for the clients?
- Recording: Did the staff fill the client card and the antenatal register correctly?

Ensuring Quality of Immunizations

To ensure high standards in the procedures required in the immunization programme, check if each of the following is in operation:

- Sterilization procedures.
  - Ensure that the proper procedures for sterilization are followed.
  - Make sure that each vaccinator uses one sterile syringe and one sterile needle per child immunization.
  - Ensure that the syringes and needles are sterilized one day before use.
- Schedule of immunizations.
  - It is important to ensure that the timing between doses of DTP-HepB-Hib and Polio is at least four weeks.
  - It is also important to adhere to the correct schedule for tetanus vaccinations in women.

- Make sure that the staff is aware of the correct procedures and schedules.
- The age at which measles vaccination is to be given must be at least nine completed months.
- In cases when a child is vaccinated before the age of nine months (as is done in outbreaks) a repeat dose has to be given at age nine months.
- If any incorrect timings or lack of re-vaccination are found, confer immediately with the staff and correct it.

- Potency: Make sure that all staff members involved in vaccinations know how to use the cold chain monitor card and the freeze watch.
- Opportunity: Ensure that every contact with children is utilized to check their immunization schedule for omissions and to correct such omission.
  - Also ensure that every contact with women of childbearing ages is utilized to screen her, for lack of tetanus vaccinations**.**

Ensuring Quality of Vitamin A Supplementation

- Nine preventive doses of Vitamin A are to be given to children.
- The first dose is given when the child receives his/her measles immunization or at first contact after nine months of age.
- The following doses then occur at intervals of six months - therefore in the optimal case at 15, 21,27, 33, 39, 45, 51 and 57 months of age.
- When a new child health card is printed, there will be a space to enter this supplementation on it.
- Write the supplementation dates on the child growth chart under the respective month.
- Vitamin A is also to be given as part of the treatment when a child is diagnosed with measles, acute respiratory infections, diarrhoea, or severe protein energy malnutrition.

Key Points

- HMIS (MTUHA) departmental summary book is comprised of tools used for monitoring of health services provided in the health facility departments.
- At the end of each month, data from all departmental registers are compiled and recorded in HMIS (MTUHA) summary book.

Evaluation

- What are pieces of information recorded in the HMIS (MTUHA) summary book from laboratory department/services?
- What are the pieces of information from the dental clinic recorded in the HMIS (MTUHA) summary book?
- In which register is RCH data found?
- What are the data from RCH clinic that is recorded in HMIS (MTUHA) summary book?

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Session 16: Outpatient Department (OPD) and Inpatient Department (IPD) Summary Book

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain OPD and IPD summary book
- Explain the indicators used to monitor OPD and IPD department

OPD and IPD HMIS (MTUHA) Summary Book

- OPD and IPD summary book is the set of tables from health facility summary book which contains compiled information extracted from OPD and IPD.
- It contains compiled data placed in OPD and IPD summary tables used for monitoring of health services provided in those particular departments.

Monitoring Outpatient Department

- At the end of the year, sum the monthly totals in tables 16 and 17.
- The resulting annual totals are reported on the facility annual report F005.
- Make a list of the attendances and diagnosis totals. Post it in the facility book.
  - Determine the seasonal trends in diagnoses and attendances.
  - Plan your health education and health promotion topics to match with the trends.
- The top ten diagnoses by month are easily referenced in Table 18.
- The following indicators are calculated and reported.
  - Indicator question: Was the daily OPD attendance of the health facility reasonable?
    - The indicator is calculated quarterly in table 19. Information used for calculation of the indicator comes from table 15 (total attendance at OPD).
    - The indicator target is based upon the situation of the health facility, and the past experience.
  - Indicator question: Was the daily OPD workload of the health facility staff reasonable?
    - At the end of the year, average workloads for the health facility staff (and for the health facility) are calculated in table 7.
    - The average workload per health staff should be between 20 and 50 attendances each day.

Monitoring Inpatient Department (IPD)

Summarizing Admissions and Deaths by Diagnosis

- The numbers of admissions and deaths for two age groups for each diagnosis category are compiled monthly and reported annually.
- The age groups are
  - Under five years (<5 years)
  - Five years and older (5+ years)
- Compilation at ward/department level is by each specific diagnosis and by diagnoses category (a group of diagnoses) at health facility level.
- There are two alternative procedures for summing admissions and deaths by diagnosis.
  - Index card system- a card is created for each diagnosis. Each diagnosis has a code number from the international classification of diseases (ICD) and these code number

files the cards.
    - Information from the inpatient summary sheet is transcribed to the admissions register and to the card when the inpatient leaves the health facility.
    - At the end of each month, the counts of admissions and deaths by the two age groups are made from each card.
    - It is recommended that the health facility keep the monthly totals for each card. From this complete list, the totals by category groupings are calculated and entered in table 21 (for notifiable diseases) and table 22 (for common diseases)
- Use of general tally forms (F203).
    - The age, final diagnoses, and final status of each inpatient listed are referred to when the tallying is being done.
    - All final diagnoses of admissions and deaths are to be tallied.
    - The tallies should normally be done daily so that accumulation does not form.
- Each individual ward will have to do the summary using information in the ward register.
- The medical records office will total the ward information to obtain the health facility's totals.
- The health facility totals are entered in tables 21 through 22 in the facility data book.
- At the end of the year, the annual values are calculated and reported on the facility annual report F005.

Monitoring Inpatient Recording

- All inpatient medical files in the medical records office and on the wards should be scrutinized regularly.
- It is important to ensure that the recording is done routinely and accurately.
- Observation of the coding and recording process is necessary.
- Compare some inpatient treatment sheets with the information in the admissions register and make sure that the information is consistent.
- Start with ten observations (ten patient records). If there are any inaccuracies or incompleteness found, and then scrutinize ten more.
- If there are still some problems, instruct the staff immediately on correct procedures.
- Indicators which are calculated and monitored include
    - Bed occupancy rate
    - Average length of stay
    - Percent of patients staying in the ward after discharge
    - Case fatality rate (CFR) and health facility fatality rate (HFR)
    - The top ten causes of admission and deaths for inpatients
    - Maternal death rate
    - Prenatal mortality rate
    - Rate of post-operative sepsis
    - Vesico-vaginal fistula (VVF) repair success rate
    - Neonatal septicaemia rate
    - Rate of bed sores

Bed Occupancy Rate

- This indicator measures the average number of beds occupied by patients daily.
- It measures the utilization of beds in the ward. The target is 70%-90% occupancy. If the indicator is more than 90 it means that:
    - The capacity of the health facility is not sufficient in comparison to the demand by the community.

- Criteria for admission are loose and clinicians are admitting many patients who should have been treated at OPD.
- Patients are kept for an unnecessary longer time.

- At ward/departmental level, this indicator will be calculated monthly in table 9 of department data book and annually in facility data book.
- Occupancy rate = [(Patient days in given period x 100)/ (Number of beds x number of days in a given period)]

Average Length of Stay

- Shows the average number of days a patient stays in a ward.
- Calculation of the indicator is done monthly at ward/ departmental level in table 9 of department data book and at health facility level, and at the end of the year in facility data book.
- Average length of stay is shorter in wards admitting acute diseases and longer in wards admitting chronic diseases.
- Some of the reasons for a patient to stay in the ward for a longer period than expected are as follows:
  - Delays in obtaining results for investigation
  - Misdiagnosis
  - Inadequate or wrong treatment regime
- Average length of stay =[patients days/(number of discharge + number of deaths)]

Percent of Patients Staying in the Ward after Discharge

- This indicator measures the magnitude at which patients continue to stay in the ward after being discharged.
- The target is to reduce the number of patients who continue to stay in the ward after being discharged.
- There is a serious problem if the percent of patients staying after discharge increases.
- The facility management should investigate and find reasons for patient to continue staying in the ward after discharge and take the necessary action.
- The indicator is calculated in table 9 of department data book and facility data book.
- Percent of patients staying after discharge = [(Total Patient Days after discharge x 100)/ Total patient days)]

Case Fatality Rate (CFR) and Health facility Fatality Rate (HFR)

- This indicator is useful in measuring the probability of dying from particular diseases.
- The probability of dying depends on the type of the disease, condition of the patient, availability of resources and the quality of care given.
- The objectives is to reduce CFR and HFR, there is a problem if these indicators are increasing every month.
- Summary of diagnosis by individual are recorded in table 22 of department data book.
- Paediatric ward will monitor more closely diarrhoea case fatality rate.
  - At the facility level morbidity and mortality of all the diagnoses will be combined to calculate health facility fatality rate (HFR).

The Top Ten Causes of Admission and Deaths for Inpatients

- Check the trend of diseases monthly to see if there is any pattern.
- If there are specific months where particular diseases tends to occur more frequently take the necessary precautions by:

    - Having adequate resources
    - Providing continuing education about the disease to the clinicians and nurses
    - Preparing and giving health education lessons to the patients/clients
- These diseases/deaths will be recorded by departments/ wards monthly in table 23A of the department data book at health facility level and at the end of the year in the facility data book.

Maternal Death Rate
- This indicator measures the quality of care given to pregnant women before, during and after delivery.
- Data for calculating the indicator is in table 36A and the indicator is recorded in table 23C of the department and facility data book.

Prenatal Mortality Rate
- This indicator measures the quality of care offered to the pregnant woman at the time of delivery.
- Data for calculating the indicator is obtained from table 36C and the indicator is recorded in table 23D in the department and hospital data books.

Rate of Post-Operative Sepsis
- The indictor measures the degree of sterility and cleanliness before, during and after operations.
- The indictor is relevant in wards/departments conducting operations.
- For maternity wards, indicator is based on caesarean sections performed.
- Data for calculating the indicator is obtained from the ward report books.
- Therefore the head of department/ward and the nurse in charge should ensure that Post operative patients developing sepsis are recorded in the ward report books.
- The indicator is recorded monthly in table 23E of department data book.

VVF Repair Success Rate
- The indicator measures the quality of VVF repair operations.
- Data for calculating this indicator is obtained from the ward report book.
- The head of gynaecology department/ ward and the nurse in-charge should ensure that VVF repair operations and the outcome are recorded in the ward report book.
- The total number of success the VVF repairs is recorded monthly in table 23F of department data book.
- The indicator is calculated annually in table 23G of department data book.

Neonatal Septicaemia Rate
- The indicator measures the quality of services offered in the neonatal unit/ward only.
- The indicator is calculated in hospital with a neonatal ward or unit.
- Data for calculation of this indicator is obtained from the neonatal admission book.
- Calculation of the indicator is done table 23H in of department data book.

Rate of Bed Sores
- The indicator measures the quality of nursing care to the inpatients.
- Every time the medical officer in-charge and nurse in-charge makes a supervision visit, they should check all debilitated patients and lists those found to have bedsores.
- A patient should be entered once, even if he/she has more than one bedsore.

- Monthly totals are recorded in table 23I and the indicator is calculated quarterly in Table 23J of department data book.

Summarizing and Computing OPD and IPD Data

Activity: Small Group Exercise

Instructions
Using the instruction from the HMIS (MTUHA) Guidelines, you will work in a small group to summarize and compute the given health statistics from the OPD and IPD forms. Your instructor will distribute the following:

- MTUHA Guidelines
- Summary Books (Book 2)
- Filled Tally Sheets F203 from previous session

Use data from the filled tally sheets to compile summary of OPD and compute the following health administrative statistics:

- Top ten OPD diagnosis
- Total attendees and diagnosis

Compile summary of IPD data from the IPD report forms and compute the following administrative health statistics:

- Bed occupancy rate
- Average length of stay
- Percent of patients staying in the ward after discharge
- Case fatality rate and health facility fatality rate (CFR/HFR)
- Diarrhoea case fatality rate
- The top ten cause of admission and deaths for inpatients
- Maternal death rate
- Prenatal mortality rate
- Rate of post-operative sepsis
- VVF repair success rate
- Neonatal septicaemia rate
- Rate of bed sores

One group will present their findings and the other groups may give their input, so be prepared to share your small group findings with the whole class.

Key Points

- Data compiled from tally sheet F203 is used to fill the OPD and IPD summary book 2
- Occupancy bed rate measures the average number of beds occupied by patients daily
- Average length of stay measures the average number of days a patient stays in a ward
- Maternal death rate measures the quality of care given to pregnant women before, during and after delivery
- Rate of post operative sepsis measures the degree of sterility and cleanliness before, during and after operations.

Evaluation

- What are the data recorded in HMIS (MTUHA) OPD summary book 2 forms?
- What is the in patient data required to be record in the IPD forms of summary book 2?
- What is number of patient days?
- What is percentage bed occupancy?
- What is patient average length of stay?

References

- Deluca, M.J. & Enmark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisko: John Wiley & Sons Inc.
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Session 17: HMIS (MTUHA) Reporting Forms

Learning Objectives

By the end of this session, students are expected to be able to:

- Identify the nine HMIS(MTUHA) reporting forms at health facility level
- Describe the nine health facility reporting forms
- Identify the three HMIS(MTUHA) forms used at district (council health management team[CHMT]), regional (regional health management teams [RHMT]) and national (ministry of health and social welfare [MOHSW]) levels
- Explain the district processing file (DPF)
- Explain the annual national report

Nine Types of HMIS (MTUHA) Reporting Forms Used at Facility Level

At the facility level, there are nine quarterly, and semi-annual and annual forms found in HMIS (MTUHA) Book 10. These include:

- F001 Staff list report (annual)
- F002 Equipment inventory (annual)
- F003 Status of buildings report (annual)
- F004 Management report (quarterly)
- F005 Management report (annual)
- F006 Maintenance and rehabilitation report (annual)
- F008 Equipment breakdown report (annual
- F009 Notifiable diseases/ outbreak (emergency)

Description of Nine HMIS Facility Reporting Forms

Activity: Exercise 1

Instructions

The instructor will distribute copies of the following:

- F001 Staff list report (annual)
- F002 Equipment Inventory (annual)
- F003 Status of buildings report (annual)
- F004 Management report (quarterly)
- F005 Management report (annual)
- F006 Maintenance and rehabilitation report (annual)
- F008 Equipment breakdown report (annual
- F009 Notifiable diseases/ outbreak (emergency)

Review the forms and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

- F001 staff list report (annual).
  - This report is compiled at the beginning of the year, and is immediately sent to the district level.
  - All staffs at the health facility are listed with their personal particulars.

    - Two copies are completed, and one is sent to the district medical officer (DMO) and the other remains at the facility.
- F002 equipment inventory (annual).
    - This report is compiled in all health facilities providing health services.
    - The report is filled at the beginning of the year and is immediately sent to the district level.
    - In this form, all equipment in the health facility is listed.
    - In large facilities, each department uses one full page to list equipment.
    - Two copies are completed and one is sent to the DMO, while the other remains at the facility.
    - If the department wishes to remain with a copy, a photocopy is made.
- F003 status of buildings report (annual).
    - This is used by the public health facilities only.
    - It is filled at the end of the year and immediately sent to the DMO. In this report, all rooms in the buildings are listed.
    - Two copies are printed; one copy is sent to the DMO and the other remains at the facility.
- F004 management report (quarterly).
    - This report is compiled by all health implementing facilities.
    - It is compiled on a quarterly basis.
    - Two copies are printed, one is sent to the DMO and the other remains at the facility.
- F005 management report (annual).
    - This report is compiled at the end of the year and immediately sent to the district.
    - It is a compilation of annual statistics.
    - Three copies are printed, two are sent to the DMO and one remains at the facility.
- F006 maintenance and rehabilitation report (annual).
    - This is a report for public health facilities only.
    - It is completed once maintenance or rehabilitation has been done in the implementation year.
    - It is also completed when maintenance of equipment has been done or when equipment has been replaced.
    - Two copies are printed, one is sent to the DMO and one remains at the facility.
- F008 equipment breakdown report (annual).
    - This is a report completed by the public facilities and other facilities providing RCH services.
    - It is completed immediately when there is a breakdown of equipment. Each event is reported once.
    - Two copies are printed, one is sent to the DMO and other remains at the facility.
- F009 notifiable diseases/outbreak (emergency).
    - This report is completed by all health facilities.
    - It should be completed upon the onset of epidemic diseases and immediately sent to the DMO.
    - Common epidemic diseases in Tanzania are acute flaccid paralysis, cholera, dysentery, measles, meningitis, neonatal tetanus, plague, rabies, animal bites, louse borne typhus (relapsing) fever, and typhoid.
    - Two copies are printed, one is sent to the DMO, and the other remains at the facility.

HMIS (MTUHA) District and Regional Reporting Forms

- At district (CHMT), regional level (RHMT) and national level (MOHSW), there are three monthly, quarterly, semi-annual and annual forms found in HMIS (MTUHA) book 10.
  - D001 staff report
  - D004 quarterly management report
  - D005 annual report

Activity: Exercise 2

Instructions
The instructor will distribute copies of the following:

- D001 staff report
- D004 quarterly management report
- D005 annual report

Review the forms and follow along with the instructor's presentation. If there are not enough copies for each student, you may be asked to look on with a neighbour.

- D001 staff report (annual).
  - This report is completed once in a year in the first quarter (January – March).
  - It is compiled from all health facility reports in the districts. Summary of staff by cadre is compiled, and three copies are printed.
  - One copy is sent to the MOHSW (national level), another copy is sent to the regional level, and one remains at the district level.
- D004 quarterly management report.
  - This report is completed at the district level.
  - It aggregates (compiles/sums) all health implementing facility reports in the district. It is compiled on quarterly bases.
  - Three copies are printed, one is sent to the MOHSW and other to the RMO (regional level).
  - One copy remains at the district level.
- D005 annual report.
  - District annual implementation report is completed by the end of each year.
  - Three copies are printed; one copy is sent to the MOHSW (national level), another copy to the RMO (regional level) and one copy remains at the district.

Uses of Regional Report

- Regional reports are compiled in line with the district timeline
- The report is generated from a compilation of district reports. The regional report is used to:
  - Provide feedback to the district level
  - Assist district with planning
  - Advise district on health interventions
  - Compare health service performance between different districts within the region
  - Inform the national level the performance of the region

The HMIS (MTUHA) District Processing File and National Annual Report

District Processing File (DPF)

- DPF was the manual data file used for compilation of facility reports at the district levels.
- The file was also used as a database to store district health statistics.
- Currently the DPF has been replaced by the application of HMIS (MTUHA) database.

National Annual Report

- Nation reports are used to generate the annual health statistical abstract.
- The abstract reports are used as source of information to policy makers, decision makers health program managers, implementing partners, NGOs, FBOs, in-country and international organizations on the status of health service delivery in the country.
- The report is also used to track diseases patterns and trends.

Practice Compiling the Facility-level HMIS (MTUHA) Reporting Forms-Book 10

Activity: Small Group Exercise

Instructions

You will work in small groups to compile a summary of filled departmental registers and write quarterly and annual facility HMIS (MTUHA) reports. The instructor will distribute the following:

- HMIS (MTUHA)
- Departmental registers
- HMIS (MTUHA) guidelines

Your group will only have one copy of each document so you will have to work together and share the documents in order to complete the forms. Your group will work on completing the following nine forms of HMIS (MTUHA) book 10 Facility Report Forms:

- F001 Staff list report (annual)
- F002 Equipment inventory (annual)
- F003 Status of buildings report (annual)
- F004 Management report (quarterly)
- F005 Management report (annual)
- F006 Maintenance and rehabilitation report (annual)
- F008 Equipment breakdown report (annual)
- F009 Notifiable diseases/ outbreak (emergency)

Fill the facility forms shown above using the instructions in the HMIS (MTUHA) guidelines (book 1), and book 10 instructions to fill the provided forms. After about 35-40 minutes of working, one group will present their findings and the other groups may give their input, so be prepared to share your small group findings with the whole class.

Key Points

- Report forms (nine) received from facilities are used to compile district and regional reports.

- District and regional reports (three) are used to generate the annual health statistical abstract.
- Report findings from departments, districts and regions used to track diseases patterns and trends.
- The abstracts reports used as sources of information to policy makers and decision makers on the status of health deliveries in the country.

Evaluation

- What are the data reported at the facility level?
- What are the data received from facility level that is then sent to the district level?
- What are the uses of health care data at the national level?
- What is the use of annual health statistical abstracts?

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- Deluca, M.J. & Enmark, R. (2002). *The CEO Guide to Health Care Information Systems* (2nd ed.). San Francisco: John Wiley & Sons Inc.
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Session 18: Cost Sharing Options for Health Services in Tanzania

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain the concept of cost sharing in Tanzania
- Describe four types of cost sharing options in Tanzania
- Identify cost sharing tools in health facility
- Explain how to fill cost sharing tools

The Concept of Cost Sharing in Tanzania

- Cost sharing can be defined as:
  - The government pays part and the individual pays the other part of the cost of care.
  - It is the share of health expenses that a beneficiary for health services must pay, including the deductibles, co-payments, coinsurance, and charges over the amount reimbursed by the funding system.
- Introduction of cost sharing is in line with health sector reform as one alternative for improving health care financing.
- The ministry of health appraised the health sector performance with the intention of raising strategies to improve quality of health services and increase equity in health accessibility and utilization.
- This appraisal came up in the report named 'Proposals for health reforms, ministry of Health, 1994 (HSR)'.
- The reforms are in the following dimensions
  - Managerial reforms or decentralization of health services, financial reforms, such as enhancement of user-charges in government hospitals, introduction of health insurance and community health funds.
- The health sector reforms programme has some of the following objectives:
  - Ensuring a sustainable health care financing which involves both public and private funds as well as donor resources, and exploring a broader mix of options such as health insurance, community-cost-sharing as well as user fees.
  - Improve access, quality and efficiency of primary health (district level) services.
  - Strengthen the national support systems for personnel management, drugs and supplies, medical equipment and physical infrastructure management, transport management and communication.
  - Increase the financial sources and improve financial management.
  - Promote private sector involvement in the delivery of health services.

Refer to Handout 18.1: Concept for Paying for Health Care.

Types of Cost Sharing Options in Tanzania

National Health Insurance Fund (NHIF)

- The NHIF is the outcome of a 1990-1992 study on the long-term options for financing health services in Tanzania.
- It was established by an act of parliament: Act No. 8 of 1999.

- The scheme commenced its operations on 1st July 2001 by members and their respective employers starting to contribute.
- The scheme is compulsory, it covers all public sector employees.
- The membership includes principal members their spouses and up to four children and/or legal dependants.
- Where both a couple (man and woman) are both workers in the public service have equal rights to register four different children or dependants.
- There are other schemes that also operates in Tanzania, they include
  - Social health insurance benefit scheme.
  - The national social security fund (NSSF).
  - Private health insurance (by some registered insurance companies which have health insurance component).

User Fees

- Here the patient pays user fees directly out-of-pocket for services rendered to him or her.
- In public health facilities the cost is shared between the user of the service and the government whereby user of the service (in the formal cost sharing) are required to pay half of the actual price of the service, which is highly subsidized by the government.
- For example, an individual comes to the health facility. This cost is not covered by any insurance, or for any available benefit package, so the client pays from his or her own pocket.
- User fees structure varies with district and type of facility.

Community Health Fund (CHF)

- A voluntary scheme, which enables a household to pay when they have funds rather than at the time of illness, and members are entitled to access services at the primary health facilities.
- It started in 1996 in Igunga district as a pilot scheme and later expanded to other councils with the expectation of covering the whole country, (ministry of health 1999).
- The scheme was identified as a possible mechanism granting access to basic health care services to populations in the rural areas and the informal sector in the country.
- The aim was not primarily to raise additional funds but rather, to improve access to health care for the poor and vulnerable groups.

Drug Revolving Fund (DRF)

- This was a government strategy to reduce drug shortage in hospitals and other health facilities in the country.
- The government offered initial funds to facilities to buy the medicines and sell them at full price.
- The fund was later revolved as capital on purchasing medicines.
- This program was not sustainable because of poor drug management, exemption and waivers policy.
- Currently very few hospitals, faith based organization facilities operate on DRF.

 **Refer to Handout 18.2: Financing Options for Health Insurance.**

Common Challenges Encountered in Collection of Cost Sharing in Health Facility

- Leakage of collection

- Inadequate record keeping
- Inadequate capacity of staff to carry out finance collection
- Lack of incentive
- Inadequate monitoring and supervision
- Lack of updates in cost sharing policy guideline
- Lack of financial accountability
- Poor utilization of data collected from health facility

Activity: Small Group Discussion

Instructions
In small groups, you will work the issue assigned to your group. The issues are listed below. Some groups will work on user fee, some groups will work on NHIF, and some groups will work on CHF.

- Option A: User Fee
- Option B: NHIF
- Option C: CHF

 **Refer to Worksheet 18.1: Activity for Cost Sharing Challenges.**

You will work for fifteen minutes to answer five of the questions on the worksheet for how to resolve their assigned situation. You need to be prepared to present your answers at the end of the fifteen minutes.

For all options one group will present their findings and the other groups may give their input.

Cost Sharing Tools in Health Facility

- Each of the financing options mentioned above has tools for operationalization, these include tools for user fee and NHIF
- Tools for user fee cash
  - Collection receipts (fixed fee receipts (FFR))
  - Cash collection book
- Tools for NHIF
  - Membership ID card
  - NHIF2A &B health provider in/outpatient claim form & surgery claim forms
  - NHIF 2D optical requisition and claim form
  - NHIF 6 monthly report form
  - NHIF 2C pharmacy prescription/claim form
- Tools for CHF
  - Membership ID card
  - CHF cashbook
  - Daily patient/cash ledger

Filling in Tools for Cost sharing

Activity: Demonstration and Practice

Instructions
Observe the instructor filling in the following forms:

 **Refer to:**

- **Worksheet 18.2: NHIF 2A&B Health Provider In/Out Patient Claim Form**
- **Worksheet 18.3: NHIF 2C Pharmacy Prescription/Claim Form**
- **Worksheet 18.4: CHF Daily Patient/Cash Ledger**

After you have observed the demonstration, you will work in small groups to practice filling in the different tools for cost sharing.

Key Points

- Deterioration of health services due to single source of financing (government) made it necessary to introduce alternative health financing (health financing options such as cost sharing).
- Introduction of cost sharing is in line with health sector reform was one alternative for improving health care financing.
- Cost sharing increases commitment and sense of ownership of resources among the users and community.
- Good book keeping is a pre-requisite for effective financial management.
- It is important for learners to be conversant with the cost sharing tools.

Evaluation

- Describe concept of paying for health care services.
- What are the reasons led to introduction of cost sharing?
- What cost sharing tools are used in managing cost sharing funds in a health facility?

Resources

- MOHSW (2007): *Planning of District Health Services, Core Module 4, Modular Course in District Health Management*. Dar es salaam, Tanzania: Ministry of Health and Social Welfare.
- MOHSW (2001). *District Health Management Training, Module Three: Management of Health Resources*. Dar es salaam, Tanzania: Ministry of Health and Social Welfare
- MOHSW (2005). *Modular Course 3: Management of Hospital Resources*. Dar es salaam, Tanzania Ministry of Health and Social Welfare.
- MOHSW (2009). *Cost Centres Management, Budgeting, Revenue Targeting and Report Writing in Public Health Facilities*. Dar es salaam, Tanzania: Ministry of Health and Social Welfare.

Handout 18.1: Concept of Paying for Health Care

Why Pay for Health Care?

- The reality of health is that there is an infinite demand for it (never-ending and increasing demand for health services.)
- The delivery of health services requires the use of limited resources such as labor, raw materials, production equipment, a building or structure, and finances. Resource availability relative to demand is a fundamental problem of health economics as the health sector absorbs a very high level of resources.
- Countries are faced with great challenges as to how to raise resources and best allocate them to produce health services for the people and distribute the available services in an equitable manner.
- Countries worldwide have taken different approaches in trying to address these problems trying to find solution as to how best to raise money for health care and then allocate these funds efficiently

Who Should Pay for Health Care?

In the previous system, health services were free for the individual, and the government was the sole financer of health services for all Tanzanians. Growing population and increasing cost of resources led to progressive decline in quality of health services it became necessary to seek alternative health financing options. There is no one best practice solution, as the decision about who is going to pay for health will largely depend on the individual country's make up.

In Tanzania this led to the establishment of alternative financing options, or 'cost sharing' for health services. Cost sharing requires that some patients must pay part of the cost of their own services in order to maintain the quality and range of health services available in Tanzania. However, patients who are unable to pay are still covered by exemption options.

As a first step the government introduced user fees into public hospitals (now also to health centres and dispensaries). This served the purpose of familiarizing people with the concept of contributing to their health expenses and thereby complementing public spending. User fees alone could not significantly and equitably contribute towards the public – health budget as time showed. So other alternative health financing options were introduced. These included National Health Insurance Fund and Community Health Fund.

Therefore, cost sharing can be defined as the government pays part and the individual pays the other part of the cost of care.
In other words it is the share of health expenses that a beneficiary for health services must pay, including the deductibles, co-payments, coinsurance, and charges over the amount reimbursed by the funding system

Handout 18.2 : Financing Options for Health Services

Four types of cost sharing options in Tanzania are:

- National Health Insurance Fund(NHIF)
- User fees
- Community Health Fund (CHF)
- Drug Revolving Fund

The National Health Insurance Fund (NHIF)

National Health Insurance Fund is a compulsory, comprehensive national health scheme, covering currently all public sector employees and their dependants. The scheme commenced its operation on 1st July 2001. The membership includes principal members, their spouses, and up to four children and/or legal dependants. When a couple (man and woman) are both workers in the public service, they have equal rights to register four different children or dependants. The scheme has no option for opting out.

The NHIF Act section 30(j) empowers the Board of Directors to review and make some improvements to the benefit package, including a review of rates used to reimburse the health care providers. Currently the benefit package includes:

- Registration fees
- Basic diagnostic tests
- Outpatient services which include payment for consultations, Laboratory investigations and all drugs prescribed for its beneficiaries in both accredited private and public hospitals / facilities under the NHIF scheme.
- The prescribed drugs should be from the list of essential drugs – generic prescriptions
- Inpatient services pay for accommodation, medication, consultation, investigations and surgery.

Identity Cards

The NHIFF fund is obliged to issue an identity card to every registered member. However, in order for the identity card to be issued, members are required to properly complete NHIF registration forms and pass them to their employers for certification before being sent to NHIF offices.

Premiums/Contributions

The contribution rate provided in the Act establishing the fund is 6% of the monthly employee's gross salary which is shared by half from the employee and the employer respectively i.e. 3% / 3%

Provider Payment Mechanism

Providers are reimbursed through a fixed fee per service; however, the fund administration is expected to gradually move to capitation as the volume of business and the complexity of the benefit package increases.

Other schemes that also operate in Tanzania include:

Social Health Insurance Benefit Scheme
The National Social Security Fund (NSSF) has Social Health Insurance Benefit component (SHIB) as part of the package it offers to members. It covers private sector employees, non-pensionable government and parastatal employees and the self-employed. Members of the SHIB scheme benefit from health services through the financing of their 20 % contributions to the National Social Security Fund (NSSF)

Private Health Insurance
Tanzania has registered insurance companies which have health insurance component. The vast majority of expenditure is at the hospital level (83%) rather than dispensary or health centre level.

User Fees
User fees are out – of –pocket payments directly paid by the patient for services not covered by any insurance, or for services in the benefit package for which co-payments (formal cost sharing) are required because they are not fully covered by the health insurance. For example, an individual comes to the health facility and he/she has no health insurance, so he or she must pay for the service from his or her own pocket. User fees structure varies with district and type of facility.

Community Health Fund (CHF) –Public Initiated
Community Health Fund is a decentralized voluntary health insurance scheme operating at district level. It is a government initiative trying to target people from the formal and informal sector as well as well as the poor. This program covers basic health care services and gives access to health care to people who would otherwise not receive it.
The implementation of the scheme is coordinated under the Health Sector Reform and Local Government reforms context. It is expected to strengthen community participation, ownership and empowerment as households recognize public health services have a value and that they, as contributors, have the right to express their demands and as it provides complementary resources at local level to respond to community defined needs.

How does CHF Operate?
Community Health Financing encompasses both fee for service and the community Fund. Each District Council has to request the establishment of CHF, after which the Health Sector Reform Secretariat provides sensitization and orientation. Prior to initiating community health financing, each District Council has to have in place a council Health Services Board and Facility Committees, and has to pass a CHF By-Law. Each district determines the amount to be charged for services (fee schedule) and sets the annual membership fee (can be paid in two installments) based upon their own assessment of their population's ability to pay. The fee schedules vary, therefore, from one Local Government Authority to another.

Note: central government does not set the fees.

To encourage communities to join, CHF membership fee revenues are matched 1 to 1 by the ministry of health. Fund revenues, matching funds and revenues from user fees are deposited into a single account which is then employed for locally defined activities, which are planned and form part of the activities in the Comprehensive Council Health Plans (CCHP). The health services board includes representatives of the community who utilize basic health

facilities. Such activities include purchasing additional drugs and medical supplies when a shortage occurs, providing solar power to health centre, to expand hours of service, purchasing new microscopes, gloves, detergents, scales for growth monitoring, transport for midwives to visit pregnant women and transport for referral.

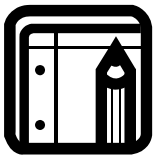
CHF Contributions
Each family is asked to contribute predetermined per year. The amount has ranged from Tshillings 5,000 to 15, 000/= depending on the district decisions, but the average is Tshillings 5,000/=.However, it is not obligatory for all people in the district to participate, but voluntary for each household in the district to decide.

CHF Exemptions and Waivers
The government system foresees: that the following services should be exempted from paying fees and do not require CHF membership card:

- RCH services
- TB
- Leprosy
- Paralysis
- Typhoid
- Cancer
- HIV and AIDS
- epidemics

A health facility based waiver occurs when facility waives fee for the provision of services other than the listed above to individuals whom they determined that s/he cannot afford to pay.

CHF System Approach
The community based waiver refers to the preferred approach whereby communities identify poor households and provide membership cards to them free of charge. This is preferable because the individual is not required to prove to a health provider that they cannot pay at the point of service, and the service provider cannot distinguish a ‘free’ card from a membership card which has been paid for. Communities list the households each year to receive free cards, and the district health council makes the payment into the fund equivalent to membership fees. There is an incentive for the district council to do so because these funds are included in calculating the matching funds.

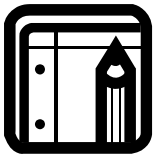


Worksheet 18.1: Activity for Cost Sharing Challenges

Instructions:
Answer the following 5 questions in your small group for your assigned option:

- Option A: User Fee
- Option B: NHIF
- Option C: CHF

1. What do you think might be the causes of low income from your assigned type of cost sharing?
2. What intervention or effort will you do to improve the collection (i.e. increase the amount that is being collected)?
3. What are the common tools will you use to collect funds?
4. How will you account for the money collected?
5. How will you account for the expenditure of the money?



Worksheet 18.2: NHIF 2A&B Health Provider In/Out Patient Claim Form

A: PARTICULARS

1. Name of Hospital/Health centre/Disp: …… 2. NHIF Accrediation No: …….....
3. Address: ……..... 4. Registration Fees: ……
5. Name of Patient: …….....6. Age: ……7. Sex M/F 8. Membership No: ……..
9. Occupation: …….. 10. Type of illness (code)…… 11. Date of attendance.....

B: COST OF SERVICE

INVESTIGATION			**MEDICINE/DRUGS**				**IN-PATIENT**		**SURGERY**			
Type	Code	Costs	Type (Generic)	Codes	Quantity of Drugs	Costs	Admission (Date)	Total Costs	Type of surgery	Codes	Costs	Total Costs
							Admitted on …….		Specialized			
									Major			
							Discharged on …….		Minor			
							No. of days					
SUB TOTAL					**SUB TOTAL**		**SUB TOTAL**		**SUB TOTAL**			
										GRAND TOTAL		

C: **Name of attending Clinician:** …….Qualifications: ……. Signature: ……

D: **Patient Certification:**

I certify that I received the above named services. Name: …….Signature: ……. Tel No: ……..

Employer's Name and Address: ……

E: **Description of In-patient management/any other additional information (a separate paper can be used):**

……

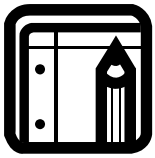
……

F: **Claimant certification**

I certify that I provided the above services. Name: …… Signature: …… Official stamp: ……

NB: **Fill in Triplicate and please submit the original form on monthly basis, and the claim form should be attached with a monthly report**

Any falsified information may subject you to prosecution in accordance with NHIF Act No. 8 of 1999 Serial Number ……..



Worksheet 18.3: NHIF 2C Pharmacy Prescription/Claim Form

This form should be utilized only when the initial prescribed medicine/medical supplies are out of stock.

Names of patient (Surname, second name): ……..
Age …….. Sex ……. Membership Number
……

A: Health Facility (Hospital/Health Centre/Dispensary)

Name of Health Facility…… Accreditation Number …….
Address of the Facility ……
Kindly supply the following medicines/medical supplies

S/N	Medicine and Medical Supplies	Quantity
1		
2		
3		
4		
5		

Prescriber's Name (Surname, First name, second name): ……
Designation: ……..... Qualifications: …….
Signature: …… Date: …….. Official Stamp …….

B: Pharmacy

Name of the Pharmacy …….
Accreditation Number ……
I have dispensed the following medicines/medical supplies

S/N	Medicine and Medical Supplies	Quantity	Unit NHIF Price	Total Price
1				
2				
3				
4				
Total Claimed Costs				

Name of Pharmacist (Surname, First name, Second name)
……

C. Patient Certification

I certify to get the above mentioned services (Drugs/Medicine)
Name of the Patient (3) ……...
Signature …… Date ……
This form should be filled in triplicate (three copies) as follows:-

- *Original form to NHIF Headquarters by the pharmacy (White)*
- *1st copy to be retained by the pharmacy (Blue)*
- *2nd copy to NHIF Headquarters by the treatment facility (yellow) to be attached to the beneficiary claim form No. 2A & B to be sent to the Fund headquarters.*

Worksheet 18.4: CHF Daily Patient/Cash Ledger

CHF Agent at Health Facility …….

				Number of patients										Cash collection		
Date	**Name of patient**	**CHF card No.**	**Receipt no.**	**Use fees month**		**NHIF month**		**Exemptions month**		**Unable to pay month**		**Total patients month**		**User fees collected today**	**CHF premiums collected today**	**TOTAL Tshs collected today**
				Today	**To-date**	**Today**	**To-date**	**Today**	**To-date**	**Today**	**To-date**	**Today**	**To-date**			

Checked by CHF Coordinator Date: …….. Name: ……. Signature: …… form 2.1

Session 19: Introduction to Accounting Part 1

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain the concept of bookkeeping and accounting
- Identify users of financial statements
- Identify the elements of financial statements
- Describe the qualitative characteristics of financial statements
- Explain the fundamental policies, assumptions, concepts and principles of accounting

Concepts of Bookkeeping and Accounting

Bookkeeping

- Bookkeeping is the art of recording monetary or business transactions in a regular and systematic manner.
- It is concerned with the recording of business transactions on a day-to-day basis following certain guidelines.
- It is the record keeping part of accounting and enables the business to determine the results of its business operations in terms of profit or loss.

Purposes of Bookkeeping

- It keeps records of the transaction of the business systematically
- At any given time it helps to ascertain nature and volume of transaction such as:
  - Expenses incurred & their amounts
  - Earnings and their amount
  - Amounts business owe to creditor
  - Amounts which others owe to the business
- It is the basis of accounting, and helps in creating data used in the preparation of financial statements.
- It helps to safeguard the assets of the business from unjustified and unwarranted use.
- It fulfils the requirements of various government laws relating to business operation.

Accounting

- Accounting is the art of analyzing, recording, classifying, summarizing, interpreting and communicating in terms of money to the interested users to enable them to make economic decisions.
- This definition includes the following attributes of accounting:
  - Events and transactions of financial nature are recorded
  - Events of non financial nature cannot be recorded
  - The records must be maintained in way to clearly display the significance of all events and transactions
  - The parties concerned must be able to clearly understand the message of results in the statements prepared.
- The accounts clerk or other accounting staff will determine the financial significance of each transaction or event in order to record it
  - A transaction is any event which involves an exchange between two or more persons.

- Accounting is concerned with financial transactions (i.e. exchanges of money)

Recording

- Once a transaction is recognized as a business transaction, accountants keep careful and systematic records.
- Transaction of a financial nature must be written down reasonably soon after occurrence in the books of accounts e.g. cash books, sales and purchases day books.

Classifying

- Classifying means arranging business transactions into classes of similar items.
- The purpose of classification in accounting is to group the recorded information under appropriate accounts.
  - For example, expenses may be classified into salaries, rent, stationery, cost of the goods sold.
- One may classify sales as internal and external.
- All cash transactions are recorded in the cash book.
- Sales day books can be used to record credit sales and purchases day books can be used to record credit purchases.

Summarizing

- Summarizing means to bring to gather a number of items and express them in one item.
  - For example, the accounts of various customers are grouped under a single item of debtors.
  - The accounts of suppliers are grouped under the title of creditors.
- All accounts of revenues are recorded in the income statement to get a one figure of profit or loss.
- In conclusion, the art of summarizing involves the preparation of an income statement, balance sheet, and other reports from the classified data in a manner useful to the users of accounting information (both the owner(s) of the information and the external users of the information).

Interpreting

- Interpretation means that: the accounts clerk or other accounting staffs are required to explain the contents of their statements and reports in a manner beneficial to the users, and to enable the users to make meaningful decisions/judgments about the profitability and/or financial position of the enterprise.
- Interpretation is the main function of accounting staff since to date, the routine work of recording, classifying and summarizing business transactions can be easily managed by the electronic devices/computers.

Reporting/Communicating

- Reporting is done when the financial statements are communicated to the users both internal and external.
- Internal users are the managers who use the financial reports for making decisions and plans for the future prosperity of the organization.
- Examples of information that is useful for internal purposes include:
  - Reports on the cost of manufacturing the goods produced by the entity
  - Reports on expected or forecasted financial outcomes (budgets)
  - Reports comparing the budgeted and actual financial outcomes

Users of Financial Statements

Users of Financial Statements

- Users of financial statements include present and potential investors, employees, lenders, suppliers, and other trade creditors, customers, governments and their agencies and the public.
- They use financial statements in order to satisfy some of their different needs for information.
- Investors or shareholders
  - These are individuals who contribute their cash money into the business through buying shares to own health facilities.
- Existing investors
  - The providers of risk capital and their advisors are concerned with the risk inherent in, and return provided by, their investments.
  - They need information to help them determine whether they should buy, hold or sale.
  - Shareholders/stakeholders are also interested in information which enables them to assess the ability of the health facility to provide health services
- Prospective investors
  - The prospective investors are in need of detailed information about the progress of the concern.
  - They make decisions regarding the investment to be made in a particular health. Facility on the basis of the information revealed by accounting financial statements.
  - They would like to know the data relating to past and present performance of the health facility, and details about decisions for the future programmes.
- Employees and their representative groups are interested in information about the stability and performance of the health facility.
  - They are interested in information which enables them to assess the ability of the health facility to provide services.
- Lenders
  - These are long-term providers of loans to the health facility such as banks, mortgages, and long term debts.
  - They are interested in information that enables them to determine whether their loans, and the interest attached to them, will be paid when due.
- Suppliers and other creditors
  - Interested in information that enables them to determine whether amounts owing to them will be paid when due.
  - Trade creditors are likely to be interested in an enterprise over a shorter period than lenders, unless the trade creditor is dependent upon the continuation of the enterprise as a major customer.
- Customers
  - Have an interest in information about the continuance of health services, especially when they have a long term involvement with, or are dependent on, the service.
- Government and agencies
  - Interested in the allocation of resources. The allocation of resources determines the activities of the health facility and thus, the basis for national income and similar statistics.
  - The government has to collect income tax, sales tax, excise duty and other taxes from the business.

- For this, it is necessary that proper accounts are made available to the government.
- General public
  - Financial statements may assist the public by providing information about the trends and recent developments in the prosperity of the health facility and the range of its activities.
- The management of a health facility
  - Has the primary responsibility for the provision of health services.
  - It is interested in the information contained in the financial statements in order to carry out its planning, decision-making and control responsibilities.
- Creditor
  - Interested in knowing whether an organization can settle its obligation on scheduled dates in a timely manner.
  - As a result, the existing cash position, outstanding debts, present and future earnings of a health facility are of utmost concern.

Elements of Financial Statements

Ten Elements of Financial Statements

- Opening stock: The amount of goods on hand for the purpose of resale at the commencement of the accounting period.
  - The previous year's closing stock will become the opening stock of the current period.
- Purchases: Goods acquired or bought for the purpose of resale.
  - It includes both cash and credit purchases. The purchase return and discount should be deducted from the purchases.
- Direct Expenses: Expenses directly connected either with the purchases of goods or services or incurred to make the goods ready for resale
  - For examples: Freight, transit insurance, carriage inwards, dock charges, import duty, custom duty and wages.
- Revenue: Consists of services provided to health customers in exchange of cash or a promise to pay at later date (credit).
  - It includes both cash and credit.
- Closing stock: The amount of goods remaining unused or unsold at the year end.
  - This is also an asset, and will be transferred to a balance sheet as well.
- Income and expenditure: Income is the excess of revenue over the expenses paid or incurred during the period.
  - It is the difference between gross income and expenses incurred in generating the income.
- Expenses: Costs which are incurred in order to sell the service or medical goods to customers. These expenses are grouped into administration, selling and distribution expenses.
  - Examples of expenses are office rent, electricity, postage, telephone charges, printing and stationery, bank charges, depreciation, office salaries.
- Assets: Assets are economic resources (things of value) owned by the health facility which are expected over a period of time to benefit operations. Types of assets include non-current assets (formerly Fixed or long-term assets) and current assets
  - Non-current assets: Divided into tangible and intangible noncurrent assets.
    - Tangible non-current assets: These are assets that can be seen, felt or touched.
    - They are the assets acquired by the health facility to assist the health services operations for a long period of time such as land, building, medical apparatus,

plant and machinery, furniture, motor vehicle, office equipment, premises, fixtures and fittings.
        - Intangible non-current assets: These are the assets that cannot be seen, felt or touched. They are also used by the firm for the long period time generating revenue.
    - Current assets: These are assets acquired by the business to be converted into cash at the earliest opportunity such as debtors, stock of medicines, cash, and bills receivable, payments in advances.
- Liabilities: Debts or claims of the creditors against the health facility provider arising on accounts of goods or services or assets acquired on credit. There are two types of liabilities:
    - Non-current liabilities and current liabilities
        - Non-current liabilities (formerly long-term liabilities): Liabilities which do not become due for payment within a year such as long-term bank loan, mortgages.
        - Current liabilities: Liabilities expected to be cleared within a year, such as trade creditors, bills payable, and bank overdrafts/incomes received in advance.
- Accumulated fund
    - Represents the resources invested by the government or health facility into the health facility.
    - Includes the amount of fund increase either by fresh investments by the government or by the health facility itself
    - Can also include the amount of net income earned by the health facility.
    - The drawings and losses reduce the amount of capital.

Qualitative Characteristics of Financial Statements

- Qualitative characteristics of financial statements are those attributes that make the information provided in the financial reports useful to users.
- The four main qualitative characteristics of financial statements are:
    - Understandability
    - Relevance
    - Reliability
    - Comparability

Understandability

- An essential quality of information provided in the financial statement is that it is readily understandable by users.
- For this purpose, the users are assumed to have a reasonable knowledge of business, economic activities and accounting, and a willingness to study the information with reasonable diligence.

Relevance

- To be useful, information must be relevant on the decision-making needs of users.
- Information has the quality of relevance when it influences the economic decisions of users by helping them evaluate past, present or future events or confirming or correcting their past evaluation.

Reliability

- To be useful, information must also be reliable.
- Information has the quality of reliability when it is free from material error and bias.

- Information that is reliable can also be depended upon by users to faithfully represent that which it is intended / expected to represent.

Comparability
- Users must be able to compare the financial reports of an entity through time in order to identify trends in its financial position and performance.
- Users must also be able to compare the financial reports of different entities in order to evaluate their relative financial position, performance and changes in financial position.
    - The measurement and display of financial effect of like transactions and other events must be carried out in a consistent way throughout an entity, and also in a consistent way for different entities.

Fundamental Accounting Policies, Assumptions and Concepts

Accounting Policies
- Are the specific principles, bases, conventions, rules and practices adopted by an enterprise in preparing and presenting financial statements.
- Management should select and apply an entity's accounting policies so that the financial statements comply with all the requirements of the applicable financial accounting standards.
- Financial accounting relies on several underlying concepts that have significant impact on the practice of accounting.

Accounting Assumptions and Concepts
- There are seven basic assumptions and concepts of accounting. They include:
    - Separate entity assumption
    - Going concern assumption
    - Money measurement
    - Currency stability
    - Accrual basis concept
    - Realization concept
    - Conservatism/prudence concept

Separate Entity Assumption
- The business is an entity that is separate and distinct from its owners so that the finances of the firm are not co-mingled with the finances of the owners.
- Without such separation or distinction, the affairs of the firm will be mixed up with private affairs as well as other business affairs of the proprietor, and the true picture of the firm will not be available.
- Items recorded by accountants or proprietors in the books of the business are restricted to the transaction of the business. In the eyes of law, a business is a legal entity which can sue or can be sued.

Going Concern Assumption
- This assumes that the business will continue to be in operation for the foreseeable future when the end-of-year financial statements are being prepared.
- It is assumed that the firm has neither the intention, nor the need to restrict scale of operations, nor to liquidate its materials.

Money Measurement

- Accounting records only those transactions which are expressed in monetary terms.
- An event will not be recorded unless its monetary effect can be measured with a fair degree of accuracy.

Currency Stability

- Since money is accepted as a common denominator, it is assumed that it should be stable in its value e.g. USD, Pound, Euro.
- This assumption becomes less tenable with high inflation rate economies like Zimbabwe.

Accrual Basis Concept

- It states that income and expenditure (revenue and expenses) are recognized when earned or incurred, and not necessarily when money is actually received or paid.
- The revenue and expenses are recorded in the financial statements of the period to which they relate.
- When monetary revenue is earned or any expense is incurred, it must be recorded in the books of accounts (e.g. sale or purchase of goods on credit).

Realization Concept

- Income is recognized for the purpose of recording only when income is received-- either in the form of cash or in the form of any other asset.
- The income which is likely to accrue in the future is not recorded in the books of account
    - For example if customer 'A' promises to buy some goods worth 500,000/= in future, but he is not buying anything now.
    - At the present, there is no transaction to be recorded, because there is no income that has been received by the business.

Conservatism Concept or Prudence Concept

- Conservatism means early recognition of unfavourable events.
- It is a policy of playing safe in a world of uncertainties.
- The concept has two aspects: recognize revenues and recognize expenses.
    - Recognize revenues (increases in retained earnings/income only when they are reasonably certain).
        - Revenues are recognized only when they are reasonably certain, whereas expenses are recognized as soon as they are reasonably possible.
        - This concept explains why bad debts expenses are recognized in the period in which the related sales/revenues are recorded, rather than later when some customers actually default payments.
    - Recognize expenses (i.e. decreases in retained earnings, as soon as they are reasonably possible).
        - The concept is the basis for recognizing future warranty costs as expenses in the period warranted goods are sold, rather than later when warrant costs are paid.
        - In other words, according to the conservatism/prudence concept, profits are not anticipated but recognized only when realized due to the uncertainty of future events.
        - It is important to recognize that the amount of profit cannot be determined with certainty, and represents only a best estimate in the light of available information.

Fundamental Principles of accounting

- There are six fundamental principles of accounting.
  - Historical Cost Principle
  - Full Disclosure
  - Consistency Principle
  - Materiality
  - Matching principle
  - Duality

Historical Cost Principle

- Assets are reported and presented at their original costs and no adjustment is made for changes in the market value.
- Assets are normally shown at cost price.
- This principle prohibits accountants to report assets at the current (market value) price because doing that implies that the asset is in the marketplace.

Full Disclosure

- All information required about the business entity that is needed by users is disclosed in an understandable form.
- All information of significant impact on financial statements should be clearly displayed to all interested parties (users) to enable them to make informed decisions.
- Everything should be transparent (all accounting procedures/records should be visible/available to all users, there should not be any hidden information).

Consistency Principle

- Once management adopts a method to be used in financial statements, it should be applied consistently without change (within a certain period of time). For example:
  - Depreciation methods: straight line, reducing balance, sum of year's digits
  - Stock (Inventory) valuation methods: First in, first out (FIFO), last in, first out (LIFO) and weighted average method (WA).

Materiality

- Something is determined to be material if its exclusion from financial statements could result in a misleading interpretation of financial statements.
- Materiality is the discretion of management.
- Whatever one organization's management determines to be material does not necessarily mean that another organization's management will categorize that same thing as material.
- The determination of something as material usually depends on the financial soundness of that management/enterprise.
- A wealthy enterprise may treat or qualify a transaction to be immaterial, while the poor enterprise may treat the same amount as material.
- Significant events must be noted, insignificant events can be disregarded. In all cases, there must be full disclosure of all important information.

Matching Principle

- States that expense are recognized in the same period as the related revenue.
- The matching principle requires that all expenses incurred in generating that same revenue must be recognized. Therefore, the net income is considered to be the result income generated, minus the expenses required to generate that income.

- In other words, matching involves comparison of the revenue and expenses that were used to generate that income in order to determine the net profit or loss position for the period.
- Comparison should be made of the same period.

Duality
- Every transaction has two aspects, and both aspects should be recognized and recorded by the business firm. One aspect is debit and the other one is credit.
- To every transaction, there should be a debit entry to correspond with credit transaction and vice versa.
- This is the basis of the double entry system of bookkeeping and accounting.

Key Points
- Bookkeeping is the art of recording monetary or business transactions in a regular and systematic manner.
- There are four qualitative characteristics of financial statements which include understandability, comparability, reliability and relevance.
- There are seven basic assumptions and concepts of accounting.
- There are six fundamental principles of accounting.
- Accounting is all about analyzing, recording, summarizing, interpreting and communicating financial information to interested users.

Evaluation
- What is bookkeeping?
- What is accounting?
- Who are some of the users of financial statements?
- What are the elements of financial statements?
- What are the four qualitative characteristics of financial information?
- What are the seven basic assumptions and concepts of accounting?
- What are the six fundamental principles of accounting?

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- Arora, M.L. (2000). *Bookkeeping Manual: Principles of Accounting and Auditing*. NBAA.
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Session 20: Introduction to Accounting Part 2

Learning Objectives

By the end of this session, students are expected to be able to:

- Describe the accounting cycle
- Describe the purpose of the different types of books of original entry
- Prepare the different types of original books of entry
- Explain the fundamental rules of accounting and double entry

Accounting Cycle

Accounting Records

- Accounting records are any listings or book which records the transactions of a business in a logical manner.
- Source documents are part of the business accounting records, but the information contained in them needs to be more clearly laid out by the use of the books of prime entry.

Route of Recording Transactions

- The route by which the transactions are recorded in the final output of the accounting system is as follows:
  - Business transactions
    - This is concerned with the collection of data relating to the transactions affecting the accounting entity
    - Transactions are reflected in documents like sales invoices, purchases invoices, receipts, bills, which provides the data required for accounting purposes
  - Analysis of transactions
    - A process concerned with determining the effect of each transaction on the business entity.
    - Transaction analysis determines the account to be debited and account to be credited.
  - Day books/preparation of journals
    - Used to record the transactions before posting to the ledgers in form of a journal in terms of debit and credit
  - The ledger accounts
    - Transactions entered in the journal/day books are posted or transferred to the ledger.
    - While a journal is written each day, the ledger posting may be done less frequently, for example once per week
  - Preparation of trial balance
    - A trial a balance is a listing of ledger accounts, along with their net debit or credit balances.
    - It is prepared usually on monthly basis
    - It is used to portray the equality of debits and credits of the transactions.
  - Passing adjustments
    - At the end of accounting period, which is normally a period of twelve months after a trial balance has been prepared, several adjusting entries need to be made

- Preparation of financial statements
  - Entries in the journal are adjusted and then posted to the ledger accounts.
  - Finally, an adjusted trial balance is extracted. The trial balance is then used to prepare financial statements.
  - The preparation of various financial statements involves income statement, balance sheet, cash flow statement, statement of changes in owners' equity and notices to the accounts

 **Refer to Handout 20.1: The Accounting Cycle.**

Books of Original Entry

Definition

- Books of origin entry are books used to record all transactions on daily basis and in chronological order prior to posting to their relevant accounts in the ledgers.
- Book of original entry is used specifically to record the details relating to different types of the business transaction.

Figure 1: Example of Format of Books of Original Entry

Date	Particulars	Invoice or Credit No.	Folio	Amount

Types of Books of Original Entry (or Prime Entry)

- Sales day book
  - The book of original entry for credit sales. All credit sales on a daily basis are listed and their totals are summed
  - The total is then posted as a single entry to the sales ledger, and also posted to a sales control account in a single total to tally with the corresponding sales ledger
- Purchases day books
  - A book of original entry used to record all details and amounts of all goods purchased on credit
  - As each credit purchase is recorded, the personal account of the credit suppliers in the ledger is credited
  - At the end of the month or other posting period, the total is ascertained and posted to the purchase account in the ledger. This is done to record the credit purchases in the ledger and also to complete the double entry.
- Purchase return book/returns outward
  - A list of all returns of goods made to credit suppliers
  - A debit note is issued to the supplier stating the amount of allowance to which the firm returning the goods is entitled
- Sales return book/returns inward
  - When a credit customer returns goods previously sold to him/her due to whatever reason, a credit note is issued in favour of that customer reducing the debt due from him/her
  - It is called credit note because the customer's account will be credited with the amount of returns, thus reducing owing by him
  - Reasons for returns of goods purchased or sold
    - Do not conform to the order

- Wrong specification delivered
- Defective goodsF
- Obsolete/outdated goods or wrong quality

Recording Sales, Purchases and Returns in the Day Book

Activity: Small Group Exercise

Instructions
In small groups, you will work together for five minutes to read the information provided at the top of the worksheet and use the information from the scenario to prepare a day book for sales, purchases and returns.

 **Refer to Worksheet 20.1: Recording Sales, Purchases and Returns in the Day Book.**

Preparation of Books of Original Entry (Cash Book)

- Cash book is a book of original entry.
- The first record of cash received or paid is made in this book.
- The cash book also contains the account of the cash and bank transactions.
- The entry made in the cash is one half of the double entry record, the other half of the corresponding entry is made in the concerned accounts.
- Instead of maintaining two books, one for cash and another for bank account, both these amounts can be maintained in the cash book which is much more convenience to ascertain the amount of cash in hand and in the bank.
- Therefore, the cash book is known as a two-column cash book.

Activity: Small Group Exercise

Instructions

 **Refer to Worksheet 20:2: Preparing a Two-Column Cash Book.**

You will work in small groups. First, read the information at the top of the worksheet, and then use the information to prepare a two-column cash book and find out the balance of cash and bank accounts. You will be allowed 10 minutes to work on this activity.

Preparation of Books of Original Entry (Petty Cash book)

- Book of original entry is used to record cash transactions of small and repetitive nature.
- Examples of payments that are considered small and repetitive include the following: postage, telephone expenses, stationery, fax, transport expenses, electricity, tea and coffee, newspapers and magazines.
- If all of these transactions (expenses) are recorded in the cash book, it will be very cumbersome and tedious.
- Petty cash transactions can conveniently be recorded in the petty cash book

Activity: Large Group Exercise

Instructions

 **Refer to Worksheet 20:3: Recording Petty Cash Transaction in Petty Cash Book.**

You will read the worksheet together, and use the information to conduct the exercise in a large group. Using information provided in the worksheet, your instructor will show how petty cash transactions are recorded in a petty cash book.

Fundamental Rules of Accounting and Double Entry (Cardinal Rules)

Fundamental Rules of Accounting

- Equality of debit and credit
  - Every business transaction affects two sides
  - One is called debit and other is called credit in the double entry system
  - Equal debit and credit entries are made for every transaction
- Classification of accounts
  - An account is a record of transactions of a particular type or with a particular person usually expressed in financial terms and maintained in the ledger
- The accounts can be classified into three categories
  - Personal accounts
  - Impersonal accounts
    - Real accounts
    - Nominal accounts

Personal Accounts

- Such accounts are relating to transactions with persons
- The transaction may be concerning the amount received or receivable, paid or payable to any person like: Kibaigwa health centre, Mr. Omari, Morogoro Polyester Co, Limited, Capital account, Debtors and Creditors accounts.

Impersonal Accounts

- The accounts which do not contain the name of any person or business are called impersonal accounts and are divided into real and nominal accounts
- Real accounts
  - These are the accounts of assets
  - Things of value owned by the business which are expected to benefit future operations of the business are known as assets e.g. land, building, office furniture, stock of medicines
  - The balance of the real accounts is carried forward into a succeeding accounting year
- Nominal accounts
  - Accounts relating to gains or losses and expenses such as the accounts of salaries, rent, interest, discount allowed, electricity expense, commission received or dividend received
  - The balances of such accounts are transferred to the income and expenditure account at the end of the accounting period

Rules of the Double Entry System (Cardinal Rules)

There are three cardinal rules of double entry system of bookkeeping:

- Rule of personal accounts: Debit the receiver, and credit the supplier
- Rule of real accounts: Debit what comes in and credit what goes out
- Rule of nominal accounts: Debit losses and expenses and credit gains and income
- Alternatively, rules of double entry can be well understood by the following:
  - Increases in assets are recorded by debits and decreases in assets are recorded by credits
  - Decreases in liabilities and owner's equity (capital) are recorded by debit
  - Increases in liabilities and owner's equity (capital) are recorded by credits
  - Expenses and losses are recorded by debits and Revenue and Income are recorded by credits

Activity: Small Group Exercises

Instructions

 **Refer to Worksheet 20:4: Preparing the Correct Type of Account.**

For 5 minutes, you will work in small groups to read the information provided at the top of the worksheet for exercise A, and you will then use the information to state the nature of account (Personal, Real or Nominal) and show which account will be either debited or credited.

After completing Exercise A, you will read the information about Exercise B on the worksheet, and use the information to analyze the transaction and prepare the relevant account for ten minutes.

Key Points

- Accounting records are books which record the transactions of a business in a logical manner.
- Categories of accounts are personal accounts, impersonal accounts, real accounts and nominal accounts.
- Books of original entry are accounting books that are used to record all transactions on daily basis and in chronological order.

Evaluation

- What is a cash book?
- What is petty cash book?
- What are the books of original entry?
- What are the fundamental rules of accounting and double entry?

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- Arora, M.L. (2000). *Bookkeeping Manual: Principles of Accounting and Auditing*. NBAA.
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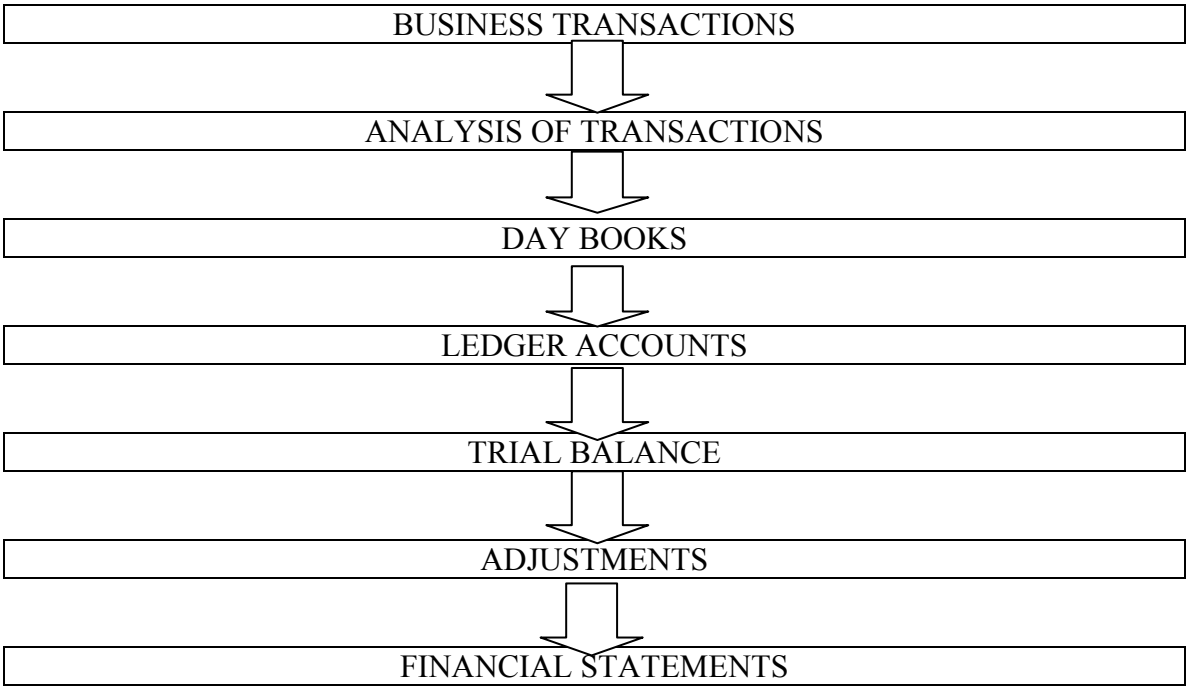
- Wood, Frank and A. Sangster. (2005). *Business Accounting* (10th ed.). London: Prentice Hall.

Handout 20.1: The Accounting Cycle

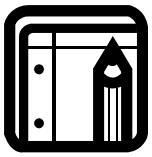
- Accounting records are any listings or book which records the transactions of a business in a logical manner.
- Source documents are part of the business accounting records, but the information contained in them needs to be more clearly laid out by the use of books of prime entry.

Chart For the Route by Which the Transactions are Recorded in the Final Output of the Accounting System



- Business transactions
  - This is concerned with the collection of data relating to the transactions affecting the accounting entity.
  - Transactions are reflected in documents like sales invoices, purchases invoices, receipts, bills, which provides the data required for accounting purposes
- Analysis of transactions
  - This is a process concerned with determining the effect of each transaction on the business entity.
  - Transaction analysis determines the account to be debited and account to be credited.
- Day books/preparation of journals
  - Day books are used to record the transactions before posting to the ledgers in form of a journal in terms of debit and credit
- The ledger accounts
  - Transactions entered in the journal/day books are posted or transferred to the ledger.
  - While a journal is written each day, the ledger posting may be done less frequently, for example once per week.
  - The frequency of this information processing activity may vary from one entity to another depending on the needs of management.

- **Preparation of trial balance**
  - A trial a balance is a listing of ledger accounts, along with their net debit or credit balances. It is prepared usually on monthly basis.
  - It is used to portray the equality of debits and credits of the transactions.
  - The trial balance is prepared as important stage after the ledger accounts and later on proceeds to making adjustments and financial statements.
- Passing adjustments
  - At the end of accounting period, which is normally a period of twelve months after a trial balance has been prepared, several adjusting entries need to be made.
  - These are meant to reflect economic events relating to the accounting period but not recorded such as;
    - accrued expenditures and income
    - allocation of income and expenditure received and paid in advance
    - provision for bad and doubtful debts
    - write off of bad debts, and
    - provision for depreciation
- Preparation of financial statements
  - After adjusting entries are made in the journal and posted to the ledger, then; an adjusted trial balance is extracted to prepare financial statements.
  - The preparation of various financial statements involves:
    - Income statement
    - Balance sheet
    - Cash flow statement
    - Statement of Changes in owners' equity
    - Notices to the accounts



Worksheet 20.1: Recording Sales, Purchases and Returns in the Day Book

Instructions: Work together in your small group. First read the information below, and then use the information to prepare a day book for Sales, Purchases and Returns.

Information given

- May 1, 2003:Credit purchases: Burton Shs 2,500,000 Mathias Sh. 1,450,000 and Adam 3,550,000
- May 5, 2003: Credit sales: David Shs 4,100,000 Willy 3,400,000 and Baraka 2,700,000
- May 7, 2003: Credit purchases Thomas 1,470,000 Burton 1,000,000 Mathias 1,900,000
- May 9, 2003: Goods returned by us to: Burton 350,000 Mathias 500,000
- May 10,2003:Goods returned to us by: Willy 250,000 Baraka 300,000
- May 12, 2003:Credit purchases: Thomas 1,860,000 Burton 2,500,000 Mathias 800,000
- May 15, 2003:Credit Sales: Willy 1,500,000 David 2,200,000
- May 18, 2003:Goods returned by us to: Thomas 200,000 Mathias 100,000,000
- May 25, 2003:Goods returned to us by Willy 180,000

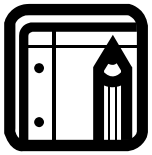
Worksheet 20.2: Preparing a Two-Column Cash Book

Instructions: Work together in your small group. First read the information below, and then use the information to prepare a two-column cash book and find out the balance of cash and bank accounts.

Information for Kanzugu Transactions

The following are transactions from Kunzugu ward hospital for the period ending December, 2009.

- Cash in hand Sh 200,000
- Paid cash into bank Sh 150,000
- Bought bicycle for official use by Medical Assistant Sh 25,000 by cheque
- Received a cheque from Ruhululu stores and paid into bank Sh. 13,000
- Paid in cash: Wages Sh. 2,500 and rent 1,500
- Cash sales of medicines Sh. 29,000
- Paid cheque to creditor Mr. Zacharia stores Sh.47,000
- Goods purchased for cash Sh. 20,000
- Bought stationery for cash Sh.1,500
- Withdrew cash from bank for office use Sh.30,000
- Purchased office equipment by cheque Sh.30,000



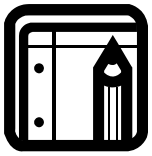
Worksheet 20.3: Recording Petty Cash Transactions in Petty Cash Book

Instructions: You will read the scenario below together as a large group. Then, the tutor will use the information from the scenario to show you in a large group how to record petty cash transactions in a petty cash book.

Information on Salam Mission Dispensary Transaction

Petty cash transactions from Salama Kati Mission Dispensary for the month of July, 2008:

1 A cheque of Sh 200,000 received from cashier
2 Postage stamps Sh 20,000 paid
3 Stationery Sh.35,000 paid
4 Transport expenses Sh. 16,030 paid
5 Paid Telephones expense Sh.7,040
6 Ink, rubber, scale(stationery) Sh.3,730
7 Office cleaning expenses paid Sh. 3,800
8 Refreshments to guests paid Sh.4,570
9 Paid for fuel expenses Sh. 30,590
10 Paid travelling expenses Sh. 8,500
11 To replenish the petty cash fund, the necessary amount of cash was given in the form of a cheque



Worksheet 20.4: Preparing the Correct Type of Account

Instructions
Exercise A: Work in your small group. First read the information given in Exercise A, and then use the information to state the nature of account (Personal, Real or Nominal) and show which account will be either debited or credited.
Exercise B: First read the scenario in Exercise B, and then use the information from the scenario to analyze the transaction and prepare the relevant account.

Exercise A

Information given

- Building Purchased for cash
- Furniture purchased on credit from Safi Sana Ltd
- Deposited cash with bank
- Office rent paid for cash

Exercise B

Information

Give analysis of the following transactions relating to Kazimzumbwi district hospital for the month of July 2009:

1. The Government of Tanzania, the owner of the hospital, introduced Shs. 40,000,000 cash for the hospital.
2. Purchased a building for Shs. 10,000,000 cash.
3. Purchase furniture for Shs. 2,000,000 on credit from Dar Furniture Co. Ltd.
4. Sold part of building for Shs. 3,000,000 on credit to Marsh.
5. Paid Shs. 1,000,000 to Dar Furniture Co. Ltd.
6. Received Shs. 3,000,000 from Marsh.
7. Wages paid to casual laborer Shs. 1,200,000
8. Fee received for services rendered Shs. 8,000,000

Session 21: Introduction to Accounting Part 3

Learning Objectives

By the end of this session, students are expected to be able to:

- Explain how to prepare journal entries
- Explain how to prepare ledger accounts
- Explain how to prepare a trial balance

Journal Entries

The General Journal

- The general journal is a book of prime entry.
- It gives all information about transactions in one place along with explanations.
- It provides a chronological day-to-day record of business events.
- It is a memorandum book, and is the source of posting to the ledger.
- Transactions are recorded in the journal in the form of entries on the basis of documentary evidence in support of the transactions.

Journal Entry

- Item prepared and recorded in the book of original entry in order to demonstrate the effect of the transaction of the accounts by which one account is debited and the other account is credited with the same amount.
- The process of recording a transaction in a journal is called 'journalizing the transaction'.
- Journaling helps to analyze the transaction into debits and credits in order to avoid arithmetic errors.
- A journal provides the history of the business event which affects the financial position.
- In summary, a journal gives the explanation of every transaction.

Figure 1: Format or Layout of the Journal

Page No:……

Date	Account Title & Explanations	Ledger Folio	Dr. Shs	Cr. Shs
20xx				
Jan. 1				

Activity: Demonstration

Instructions

Refer to Worksheet 21.1: Preparing a Journal of Entries.

The instructor will demonstrate how journal entries are prepared. You will be able to practice preparing journal entries at a later time.

The Ledger Accounts

- The ledger is a book or book of registers which contains numerous accounts of the

business.
- Each register contains the name of an account.

Types of Ledgers

Double entry accounts are kept in various types of ledgers described as follows:

- Sales ledgers
  - This ledger is also known as debtors' ledger.
  - It contains personal accounts of credit customers or debtors.
  - When a person buys goods on credit, an account is opened in his/her name in this ledger and will remain open until when he/she settles the debt in full.
  - Debtors' account: a personal account of a customer buying on credit
  - Sales account, an income account for amounts received from both cash and credit sales.
- Purchase ledger
  - Also known as creditors' ledger contains the personal accounts of credit suppliers or creditors.
  - All transactions affecting each and every creditor for goods for resale are posted to each creditor's personal account in the purchases ledger.
- General ledgers
  - The remaining accounts are recorded in the general ledger.
  - After the above transactions have been journalized, the posting will be made in the related accounts in the general ledger.
  - Journaling: the process of recording in the journal.
  - Posting: the process of recording in the ledger.
  - They include nominal accounts.

Relationship between Journal and Ledger

- The journal and the ledger are the most important books of the double entry system of bookkeeping.
- The relationship between journal and ledger can be described by the following:
  - First, the transactions are recorded in the journal and then from the journal they are posted in the ledger.
  - The journal is a book of chronological record, and the ledger is a book for analytical record.
  - The unit of classification of data within the ledger is the account, and within the journal it is the transaction.

Posting

- The bookkeeping process of transferring information from the journal to accounts in the ledger.
- Posting from the journal is done daily or periodically, (for example weekly), as per the convenience of the business.
- For an account debited in the journal, the posting is made to the debit of that account in the ledger by writing the name of corresponding entry account.
- For an account which credited in the journal, the posting is made to the credit of that account in the ledger by writing the name of the corresponding entry account.
- As soon as the entry posted in an account, the account number is recorded in the journal against the entry.
- This is also a proof that the entry has been posted in that particular account.
- Also the journal folio (page) number is recorded in the account, so that one can easily

know from which journal folio the amount of the entry is recorded.

Account

- A formal record of particular type of transactions expressed in money and kept in a ledger.
- A separate account for each item is maintained in the ledger.
- The simplest form of account is called 'T' account as it resembles to the letter T.

 **Refer to Handout 21.1: Specimen of 'T' Account** for example of a general journal and a general ledger.

Trial Balance

- A list of balances extracted from the ledger accounts in order to test the arithmetical accuracy of the postings.
- It is used to portray the equality of debits and credits of the transactions.
- A trial balance is prepared from the ledger balances.

Importance of Trial Balance

- Trial balance is the starting point of preparing income statement and balance sheet, (in other words, it is the starting point of a financial statement).
- It proves the accuracy of postings (for example, confirms correct or incorrect postings).
- Proves the equality of debits and credits of the transactions.
- It arranges data in convenient form for preparation of financial statements.

 **Refer to Handout 21.1: Specimen of 'T' Account** for an example of a Trial Balance.

Activity: Small Group Exercise

 **Refer to Worksheet 21.2: Preparing a Trial Balance.**

You will work in a small group. Read the scenario of transactions on the worksheet. Using the double-entry bookkeeping system, go through the steps to create a final trial balance for these transactions (in other words, 'balance off' the accounts and prepare a trial balance).

First, create a general journal based on the transactions, and then create a general ledger based on the general journal. Finally, the trial balance will be created based on the general ledger.

Your group may be selected to present their findings and the other groups may give their input, so be prepared to share your small group findings with the whole class.

Key Points

- Journal is a book of prime entry that gives all information about transactions at one place along with explanations.
- Ledger is a book used to record double entry transactions.
- Ledgers are divided into sales ledgers, purchase ledgers and general ledgers.

- Trial balance is a list of balances extracted from the ledger accounts in order to test the arithmetical accuracy of the postings.
- Trial balance is used to prove the equality of debits and credits of the transactions and proves the accuracy of postings and is a starting point of preparing financial statements.

Evaluation

- What is a journal?
- What is the importance of ledgers?
- What is trial balance?
- What are the uses of a trial balance?

References

- Arora, M.L. (2000). *Bookkeeping Manual: Principles of Accounting and Auditing*. NBAA.
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Handout 21.1: Specimen of 'T' Account

PURCHASE ACCOUNT **Ledger Folio…….**

Debit (left-hand side) (Title of the Account) (right hand side) Credit

Date	Particular	Journal Folio	Amount Shs.	Date	Particular	Journal Folio	Amount Shs.

Debit: An entry on the left hand side of the account.
The abbreviation is Dr.

Credit: An entry on the right hand side of the account
The abbreviation is Cr.

After the above transactions have been journalized, the posting will be made in the related accounts in the general ledger.

Step 1: Prepare the general journal based on the transactions.
Step 2: Prepare the general ledger based on the general journal
Step 3: Prepare the trial balance based on the general ledger.

Example
These are the following transactions for Karangansi Dispensary and Maternity Home in January 2009:

1 Funds injected into the project by the Ministry of Health and Social Welfare Sh. 100,000,000/= cash
2 Goods purchased for cash Tshs. 80,000,000/=
14 Medicines sold for cash Tshs. 5,200,000/=
18 Goods purchased on credit from R.T.C. Tshs. 20,000,000/=
27 Medicines sold on credit to Ministry of Water workers in Karangansi Tshs. 27,000,000/=
30 Cash received from Ministry of Water workers in Karangansi Tshs. 20,000,000/=
31 Payment made to RTC Tshs. 15,000,000/=

Worksheet 21.1: Preparing a Journal of Entries

Instructions: Using the information provided in the scenario below, the tutor will conduct a demonstration of how to prepare journal of entries. The following transactions will be recorded using the double entry bookkeeping system.

Scenario	
January 1	Mtakuja Kaliua health center started the medical services by utilizing fund of Tshs 10,000,000 in cash
January 2	Opened bank account and paid in Tshs 6,000,000 cash
January 3	Bought office furniture for Tshs 2,000,000 cash
January 4	Bought goods for resale Tshs 1,600,000 by cash
January 5	Withdrawal cash from bank for medical use use Tshs 3,000,000
January 8	Bought goods by the cash Tshs 2,000,000
January 9	Cash sales 1,500,000
January 10	Credit sales to Ndewedo Tshs 1,000,000
January 11	Cash sales paid directly into bank 1,720,000
January 13	Credit sales to Amani Tshs 1,820,000
January 15	Bought goods on credit from Sumaiya Ltd Toss 1,500,000
January 17	Paid for office rent Tshs 400,000 cash
January 19	Cash sales Tshs 600,000
January 20	Paid cash into bank Tshs 2,000,000
January 22	Received cheque from Ndewedo
January 24	Paid salaries by cash Tshs 700,000
January 26	Paid for sundry expenses Tshs 480,000 cash
January 28	Cash sales Tshs 2,480,000
January 29	Paid Sumaiya Ltd by cheque

Worksheet 21.2: Preparing a Trial Balance

Instructions: Work together in small groups to read the information of transactions below. Using the double-entry bookkeeping system, go through the steps to create a final trial balance for these transactions (in other words, 'balance off' the accounts and prepare a trial balance). After 20 minutes, be prepared to share your answers with the large group.

Remember the steps of the double-entry bookkeeping system are as displayed in the example of the 'T' Account in Handout 21.1.
Step 1: Create a general journal based on the transactions
Step 2: Create a general ledger based on the general journal
Step 3: Create a trial balance based on the general journal

Transaction Information

Feb 2010

1	The Government agency for medical services started operations in downtown Dar Es Salaam for Tshs 40,000,000 in cash
2	Bought furniture for Tshs 5,000,000 cash
3	Bought goods for Tshs 6,400,000 cash
5	Cash sales Tshs 3,600,000
6	Opened bank account and paid in Tshs 15,000,000 cash
8	Cash sales paid direct into the bank Tshs 3,800,000
10	Cash sales Tshs 1,600,000
11	Credit sales to Kinigonigo Tshs 2,800,000
13	Bought goods on credit from General stores Tshs 7,800,000
14	Credit sales to Banka Tshs 3,200,000
16	Received cheque from Kinigonigo Tshs 2,800,000
17	Cash sales Tshs 3,300,000
19	Cash sales paid into bank Tshs 3,400,000
20	Bought goods by cheque Tshs 4,400,000
22	Cash sales Tshs 3,800,000
23	Cash paid into bank Tshs 4,800,000
24	Paid General Store by cheque Tshs 5,000,000
27	Paid the following by Cash; Salaries Tshs 1,200,000; Rent Tshs 900, 000; Sundry expenses Tshs 1,500,000
28	Cash sales Tshs 2,600,000

Session 22: Banking Procedures

Learning Objectives

By the end of this session, students are expected to be able to:

- Describe the different types of receipts
- Explain how to record cash receipts and cash payments
- Explain the importance of a pay-in-slip
- Explain importance of conducting bank reconciliation
- Explain the legal requirements of banking procedures

Types of Receipts

Definition

Receipts: Collections in terms of cash or otherwise from different sources. Different types of receipts include:

- Exchequer receipts
- Petty cash receipts
- Service charge receipts

Description of Types of Receipts

- Health facilities are required to keep receipts for expenditures and provide receipts for their own charges to customers.
- Exchequer receipts are the receipts received from treasury through sub-treasury.
- Petty cash receipts are the receipts raised and collected by the health facilities themselves within their areas of operations.
- Service charges are the receipts collected from charging on the goods or services by the health facility for which the customers pay cash in order to get the services.
- Petty cash collections and service charges include the collections convened and possessed by the health facilities.
- The government of Tanzania has decided to give some autonomy to health facilities to charge and raise the revenue which is not necessarily accountable to the Treasury.
- These sources may include gate collections, prescriptions fees and others.

Recording of Receipts and Cash Payments (Procedures)

- All receipts collected for either cash or cheques should be maintained/ recorded in cash books (in respect to revenue collections).
- All sums collected should also be banked on a daily basis (or at the convenience of the receiver).
- For security purposes, it is advised not to keep large sums of cash in the office.
- All daily bank deposits shall be done accompanied by the police or any other security forces available.
- All payments exceeding the petty cash amount will be paid into the bank by writing a cheque.
- Any other amounts categorized as petty cash (small and repetitive) will be paid by the cashier at the counter of the office.
- Whenever cash is banked, acknowledgement of the same transaction is shown by receipt

of the bank pay-in-slip or cash deposit
- The bank pay-in-slip may be required to be filed in the organization or entity concerned.

How to Record Cash Receipts and Cash Payments
- All cash receipts are recorded on debit side of cash account
- All cash payments are recorded on credit side of the cash account
- No transaction of cash or cash payments enters cash account without having a written evidence (voucher)
- Cash account starts with opening balance (bal b/d) and ends with closing balance (bal c/d)
- Cash receipts may include the following
  - Grant from central government
  - Sale of medicine
  - Sale of other supplies by a hospital
  - Sale of stationery
  - Any other collections receivable by hospital
- Cash payments may include the following
  - Salary and wages to staff
  - Transport expenses
  - Expenses for tea, coffee, soda (refreshments)
  - Purchase of medicines
  - Expenses incurred for cleanliness
  - Any other payable by a hospitals
  - Purchas of stationery
  - Repairs of assets (e.g. building, motorcycle)

Figure1: Cash Account

DR			CR
Grants from central government	XX	Salary wages	XX
Sale of medicines	XX	Transport expenses	XX
Sale of stationery	XX	Sunday expenses	XX
Cash from debtors	XX	Purchase of medicine	XX
Any other collections	XX	Purchase of stationery	XX
Ending receipts	_____	Bal c/d	_____

A Cheque and Pay-in-Slip

- Bank pay-in-slip is a document used to record cash or cheque details when depositing money into the bank account.
- It is a document issued by bank in acceptance/evidence for deposit money into the account.
- When cash or cheque is deposited, the bank retains its original copy, and the customer (for example the health facility) will be provided with the duplicate or copy as evidence of deposit.
- The copy is retained by the customer to acknowledge that the cashier or any officer deposited the cash.

 **Refer to Handout 22.1: Example of Pay-in-Slip.**

Importance of Pay-in-Slip
- It is a legal document acknowledging settlement of transaction to a creditor

- Evidence of fulfilling contractual obligations related with finance cash

Bank Reconciliation and Legal Requirement for Banking Procedures

Definition

- Bank reconciliation: is the process of agreeing the cash book and bank balances
- The bank as a firm also keeps records of government, health facilities, business and individuals account in its own book.
- The bank periodically (example monthly) sends statements showing all the transactions through the bank to its customers.
- The entity will compare the transaction in the bank statement with transactions recorded in its own cash book.
- If all transactions recorded by the bank were recorded in the cash book, then it is expected that the bank statement and the cash book to show the same balance.
- However it is usual to find the two balances different.

Major Reasons for Differences in Two Balances (Bank Statement and Cash Book)

- Un-presented cheques
  - These are cheques written by the government to various suppliers of goods and services, but the same cheques have not been taken to the bank for encashment.
  - The person having the government's cheque may present to the bank for payment any time within 6 months from the date written before it becomes out of date.
  - Since bank statements are prepared monthly, it is possible that some of the cheques written may not yet be presented for payment.
  - The government cash book will differ from the bank statement.
- Un-credited cheques
  - This usually happens for cheques deposited at the end of the month.
  - Some banks take two or more days to clear the cheque, customer account is credited after the clearance, and therefore causes a difference in the two balances.
- Direct credit
  - Government's customers may pay directly to the government's bank account.
  - The government may also receive tax or other incomes credited direct to the bank account.
  - The government will not be aware of these transactions until and when receiving the bank statement.
- Bank charges
  - The bank as a firm may charge its customers for services rendered, and debit the firm's account with the amount charged.
  - The firm will be aware of the charges after receiving the statement.
- Standing orders
  - The firm may order its bank to pay certain transactions on his behalf from its account.
  - For example insurance premium, electricity bills etc.
  - When the firm receives the bank statement, the firm will be aware of the transactions.
- Dishonoured cheques
  - Some of the cheques deposited by the firm may be returned due to insufficient funds; these are known as dishonoured cheques.
  - Dishonoured cheques are debited in the firms account by the bank.
  - This is communicated to the firm through bank statement.
- Errors

- Errors are very common and may be made in the bank statement, cash book, or both, and cause the two balances to differ.

Legal Requirements for Banking Procedures: Receipts
The circulars and finance act requires that every acceptance of revenue shall be acknowledged immediately by means of appropriate and approved type of receipts.

Key Points

- Receipts are documentations of collections of cash or cheque.
- Types of receipts includes: exchequer receipts, petty cash receipts and service charges receipts.
- Bank pay-in-slips are documents used to record cash or cheque details when depositing money or receipt into the bank account.
- Bank reconciliation is the process of comparing the cash book and bank balance to make sure that they agree.
- All revenues should be recorded and provide evidences of receipts.

Evaluation

- What are receipts and payment procedures?
- What are the three types of receipt?
- What is a cheque?
- What is the importance of pay-in-slips?

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- Arora, M.L. (2000). *Bookkeeping Manual: Principles of Accounting and Auditing*. NBAA.
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Handout 22.1: Example of a Pay-in-Slip

KAKAKUONA BANK LIMTED

CASH DEPOSIT
BRANCH.

Date:……...
Account Number:……...
Account holder's name:…….

	AMOUNT		
	NOTES	SHS	CTS
	10,000/= X		
	5,000/=X		
	2,000/=X		
	1,000/=X		
	500/=X		
	COINS		
	200/=X		
	100/=		
DUPLICATE	50/=		
	20/=		
	10/=		
	5/=		
	1/=		
	TOTAL		

AMOUNT IN WORDS…….
……

……
Signature

Session 23: Payment Procedures

Learning Objectives

By the end of this session, students are expected to be able to:

- Describe legal requirements for payment procedures
- Describe the different payment procedures
- Explain the importance of payment vouchers
- Describe how to complete a payment voucher

Legal Requirements for Payment Procedures

- The function of the accounting section is to receive all monies remitted by accounting officers for the purpose of funding payments by the warrant holder through sub-treasury
- The function of the accounting section also includes drawing the cheque on behalf of the warrant holders for these payments.
- The finance act, financial orders and financial circulars require that all expenditure or payments must be evidenced or supported by payment vouchers.
- Any payment effected without having a payment voucher is said to be nugatory.
- Nugatory expenditure is the expenditure through the government or its agency will not receive any good or service.
- Examples of nugatory expenditure include: payment made twice for one service, payment in which the government gets no service, irrecoverable over-expenditure.

Payment Procedures

Cash Payment and Cheque Payments

- Payment is categorized into cash payment and cheque payments.
- Cash payment is one whereby payee receives solid cash and cheque payment is one whereby the payee has to receive a cheque and present it to the bank for encashment
- Whether a payment is made on cash or cheque basis, it should be done through payment voucher.
- The payment in bank account will be operated under two signatures.
- Four signatures will be appointed and split into two categories.
    - Category ‘A’ consists of the head of sub-treasury and another not currently employed in the accounting section.
    - Category ‘B’ consist of two officers employed in the accounting section. For a cheque to constitute a valid payment one officer from each list must sign it.
    - The second signatory on category ‘A’ will only sign in the absence of the head of sub-treasury.

Procedures

- Prepare and enter payment vouchers
- Verify correctness through pre-audit (examination) section
- Approve payments
- Print the cheque
- Sign cheques
- Cash postings into the cash book

- DEBIT (DRR)---Payee's account
- CREDIT (CR)---Cash account

- Deliver cash to payee (if payment by cash) and
- Issue cheque list to the bank
- All payments made by the warrant holder must be supported by properly completed payment vouchers
- When a payment voucher is prepared, it is submitted to pre-audit (examination) for checking its accuracy
- While preparing a payment voucher, it is necessary to ensure that:
  - Payment Voucher has been completed
  - Proper supporting documentations are attached
  - All calculations (deductions, additions) are accurate
  - Dated properly
  - Goods and services supplied conform with account codes charged
  - Authorized to pass payment by responsible officer

Payment Voucher

- A payment voucher is the source document from which financial regularity or authenticity and proprietary of transaction may be attested.
- It is a legal evidence of payment.

Completion of Payment Vouchers

The following are the details required to be filled in completion of a payment voucher:

- Station number and name originating the payment
- Name and address of the party who is being paid (payee)
- Paying instructions (whether by cheque or by cash)
- Vote number, sub-vote number and expenditure code to which the payment is chargeable
- Description of the nature of service upon which the payment is made
- Reference to the supporting documents of the payment (invoices, bills)
- Amount payable both in figures and words
- Authority for expenditure
- Declaration of the liquidity position of the paying officer
- Signature and date of person who prepared the payment voucher
- Signature and date of the person who is authorizing the payment

 **Refer to Handout 23.1: Example of a Payment Voucher.**

Site Visit to Accounts Department

Activity: Site visit

Instructions

In small groups, you will go to the accounts department to learn how payment and banking procedures are done. You will listen to the Accounts Personnel and may ask questions.

Key Points

- The function of the accounting section is to receive all monies remitted by accounting officers for the purpose of funding payments by the warrant holder through sub-treasury
- Payment is categorized into cash payment and cheque payments.
- No payment can be processed (whether in cash or cheque) without a payment voucher.
- A cheque is a document used to get cash in the bank.

Evaluation

- Mention the importance of legal requirements underlying payments.
- Mention different payment procedures.
- Why are payment vouchers important?
- List the details that must be included in a payment voucher.

References

- Arora, M.L; Muhimbi, J.A.M and Utouh, L.S.L. (1987). *Government Accounting and Financial Reporting Procedures*. Mzumbe: IDM Publishers.
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Handout 23.1: Sample of Payment Voucher

THE KAREMA MEDICAL CENTER
PAYMENT VOUCHER

Name and address of payee	ALLOCATION				
	DESCRIPTION	CODE	SUB-CODE	DEPARTMENT	AMOUNT

DETAILS
Being Payment for----------

Shillings in Words
……
……
……
I certify that the sum stated above is correct and payable to the named person

Prepared by;	Checked by;	Authorized by;
…….	……..	……
……..	……	……
Sign:……	Sign:……	Sign:……..
Date:…….	Date:……	Date:……..
---	---	---
Signature of paying Officer	Witness to Payee	Signature of payee

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