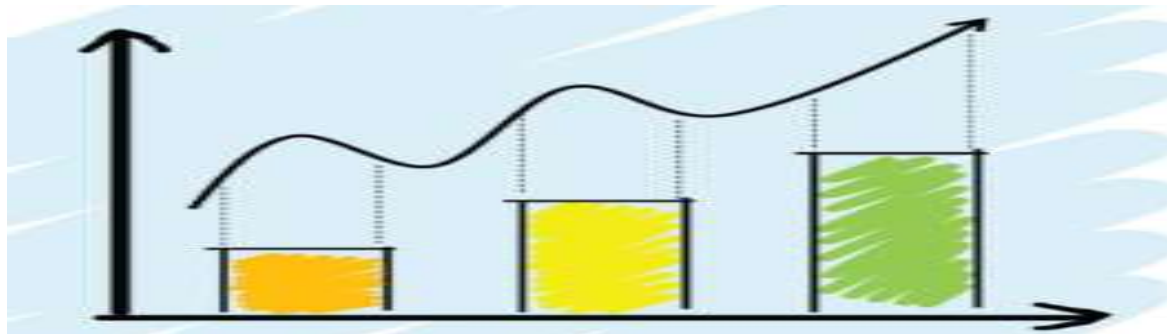


MIDWIFERY LEVEL-III

BASED ON JANUARY 2022, CURRICULUM VERSION I



MODULE TITLE: BASIC HEALTH STATISTICS AND SURVEY

Module Code: HLT MDW3 MII 0722

Nominal duration: 80 hours

Prepared By: Ministry of Labor and Skills

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Addis Ababa, Ethiopia

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Acronyms

EBM	Evidence Based Medicine
EFY	Ethiopian Fiscal Year
FGD	Focus Group Discussions
GPS	Global Positioning System
HIV/AIDS	Human Immune Deficiency Virus/ Acquired Immune Deficiency Syndrome
HMIS	Health Management Information System
HWs	Health Workers
IT	Information Technology
LAP	Learning Activity Performance
LLITN	Long Lasting Insecticide Treated Bed Net
MFI	Master Family Index
MOH	Ministry of Health
NGO	Nongovernmental Organization
NSAID	Non Steroidal Anti Inflammatory Drug
PHI	Protected Health Information
USB	Universal Serial Bus
WHO	World Health Organization

Module units

- Prepare for the application of health survey
- Undertake data collection
- Compile, interpret and utilize health data
- Prepare and submit reports
- Take intervention measures accordingly

Learning objectives of the Module

At the end of this session, the students will able to:

- describe application of health survey
- Undertake data collection
- Compile, interpret and utilize health data
- Prepare and submit reports

Introduction Basic Health statistics

Statistics is the process of data collection, organization, Summarization, analysis and reporting. The word statistics can mean two things: the subject itself or data. Recently Statistics is defined as the science of uncertainty. The subject of Statistics is a wide discipline, ranging from ordinary use such as collection of data and its description to methods used in evaluation and research.

A statistic is a quantity computed from sample observations for the purpose of making an inference about the characteristic in the population. The characteristic may be any variable which is associated with a member of the population, such as age, income, employment status, etc. the quantity may be a total, an average, a median, or other quantiles. It may also be a rate of change, a percentage, a standard deviation, or it may be any other quantity whose value we wish to estimate for the population.

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Health care statistics deals with the collection, organization, management, analysis and reporting of healthcare data in addition to using some of this data to assist in making decisions about planning and resource allocation.

Healthcare data comes from all facilities; hospitals, health centres, clinics and health posts. Examples of how statistics (and collected data) can be used in a health care setting include assisting in decision-making for medical treatment, administrative decision-making, monitoring the incidence of disease and conditions, measuring and reporting quality initiatives, improving performance in clinical or administrative units, and reporting statistical data both internally and externally to meet governmental and other agency requirements..

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UNIT ONE: PLAN AND PREPARE FOR DATA COLLECTION

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Definition of terms
- Characteristics of health statistics
- Scales of measurement
- Basic principles of health statistics
- Calculating rates and ratios
- Basic principles of health survey

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to :

- Identify characteristics of health statistics
- Explain scales of measurement
- Apply basic principles of health statistics
- Calculate rates and ratios
- Apply basic principles of health survey

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Learning instruction

1. Read the specific objectives of this learning guide
2. Read the information written in the information sheet
3. Follow the instruction described below
4. Accomplish the self checks
5. Perform the LAP (if any)

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1.1. Definitions of terms

- **Health-** world health organization defined health as complete physical, social, psychological, and spiritual well beingness and not merely the absence of disease.
- **Statistics-** the term statistics is used to mean either statistical data or statistical methods.
- **Health statistics-** the application and utilization of statistical data or statistical methods for health
- **Variable:-** a characteristic that can take on different values in different situations.
- **Population:** the largest collection of entities used in a study. For example, the population could be hospital inpatients, all patients with a specific diagnosis, all of the inhabitants of Addis Ababa, or the population of Ethiopia.
- **Sample:** a small group or subset of a population. For example, when the entire population of a city cannot be studied, a sample is used that would represent the entire population. Methods of sampling will be explained later in this module.
- **Parameter:** - any numerical property, characteristics or facts that are descriptive of a population. (A statistic applies to a sample).
- **Data:-** is a set of facts expressed in quantitative form usually obtained from a measurement, totals or from counting.
- **Data Sources:** Data can also be data considered as primary or secondary Primary data is data obtained directly from a source or population. Secondary data is data that has been obtained and stored and can be used by anyone with access to the data.
- **Database:** A database is an organized way to store data for easy access
- **Coded data:** data that have been translated into standard nomenclature of classification so that they can be aggregated, analysed, and compared.
- **Quantitative data** can be expressed as a number, or quantified. Examples of quantitative data are scores on achievement tests, number of hours of study, numbers of patients with a specific disease, or heights and weight of a subject. Quantitative data is a useful method when you want to know how much or how many related to the topic. Because quantitative data are reported in

numbers be used to manipulate and report this data. These data can also be represented by ordinal, interval or ratios scales which will be discussed below.

- **Qualitative Data** cannot be expressed as a number. Data that represent nominal scales such as gender, socio-economic status, and religious preference are usually considered to be qualitative data. Data from qualitative studies often result in themes, perceptions or categories of data such as nominal data. Nominal data really means data that is —named or assigned a category.

Both types of data are valid types of measurement but yield different results. The data that results from quantitative studies are numbers or scores (quantitative data) and the data resulting from qualitative studies is more thematic or answers a —why question. Only quantitative data can be analyzed statistically, and thus more rigorous assessments of the data are possible.

- **Data and information**

Terms like data, information and knowledge are often used interchangeably in common speech. Each of these terms however, has a quite precise and distinct definition in the information sciences. Data consists of facts. Facts are observations or measurements about the world. For example- ‘today is Sunday, the patient’s blood pressure is 125/70mmHg or Aspirin is a NSAID’

Information: Information is processed data of meaningful value, enabling a decision to be taken. For example- 42 when it is realized as the temperature reading of a patient in degree Celsius, we have some information about the status of the patient’s health showing it is much higher than the average, which indicates danger and request for action. This information then enables a decision to be taken about the patient.

Health information includes information gathered on individuals from their birth to their death and can range from the individual patient record to aggregate data on a patient population that can span the whole world. Data typically collected and processed into health information include:

- **Health care data**

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Health data is any data "related to health conditions, reproductive outcomes, causes of death, and quality of life" for an individual or population. Health data includes clinical metrics along with environmental, socio-economic, and behaviour information pertinent to health and wellness.

Some typical types of health care data are grouped below according to the stakeholders who typically create or use the data, but it is important to note that there is wide variation in whether or not these data are available in one's local community, city, county, or state. Some types of data may fall under more than one category and may be available either at an individual or aggregate level. Each type of data can support multi-sector initiatives

Health care data can be expressed in different forms as follow.

- a) **Clinical data:** most common type of health information – signs, symptoms, diagnoses, impressions, treatments, and outcome of the care process.
- b) **Epidemiological data:** used to describe health related issues – such as disease trends and events, used to inform the public and to generate action.
- c) **Demographics data:** In the health care sector, demographic information can include personally identifiable information such as name, date of birth, address, and account or medical record numbers, and descriptive information such as race, gender, income level, educational status, nativity, immigration status, and housing status
- d) **Reference data:** collected and maintained by health institutions for use in the system, including formulary for pharmacists, care-plan for nurses, protocols, clinical alerts and reminders.
- e) **Individual data**

Information that identifies an individual and their health conditions and services is often protected by privacy laws at the state and federal level and is called protected health information (PHI). Technological innovations have made accurately collecting, storing and sharing this type of data easier than ever. While individuals have some access to their individual information, often there is a fee for medical records requests.

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Personal devices that automatically track blood pressure, heartbeat, sleep, and physical activity levels, along with programs that can store information about doctor visits, prescriptions and other health information has created an explosion of granular health data that exists outside of the health care system and the associated protections.

f) Provider data

Health care providers typically collect Protected Health Information to help identify and track services and outcomes of treatment offered to individuals. This data may be privacy-protected, but often can be de-identified, aggregated, and shared to respond to population-level health trends. .

g) Medication prescriptions and adherence data

Information on prescribed medications including drug name, dosage, if the prescription was filled and picked up by the patient, and compliance with prescribed medications over time

1.2. Characteristics of health statistics

Health statistics are used to understand risk factors for communities, track and monitor diseases, see the impact of policy changes, and assess the quality and safety of health care.

Health statistics are a form of evidence, or facts that can support a conclusion. Evidence-informed policy-making, "an approach to policy decisions that is intended to ensure that decision making is well-informed by the best available research evidence¹," and evidence-based medicine (EBM), or "the conscientious, explicit, judicious and reasonable use of modern, best evidence in making decisions about the care of individual patients"² are essential to informing how best to provide health care and promote population health.

Not all evidence is, or should be, equally convincing in the support of a conclusion. Evidence varies in quality and whether it is applicable to a given situation. It is therefore essential that health researchers and policy makers understand how to assess evidence in a systematic way, including how to access transparent, high quality health statistics and information.

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Health statistics measure four types of information. The types are commonly referred to as the four Cs: Correlates, Conditions, Care, and Costs.

Correlates: See how to measure the risk factors and protective factors that impact our health.

Conditions: Learn to assess how often and how badly diseases impact a community.

Care: Dig into how health care is delivered to the communities that need it, to treat disease and illness.

Costs: Get more information on what health care costs, and why.

● Characteristics of statistical data

In order that numerical descriptions may be called statistics they must possess the following characteristics:

- i) They must be in aggregates – This means that statistics are 'number of facts.' A single fact, even though numerically stated, cannot be called statistics.
- ii) They must be affected to a marked extent by a multiplicity of causes. This means that statistics are aggregates of such facts only as grow out of a 'variety of circumstances'. Thus the explosion of outbreak is attributable to a number of factors, eg. Human factors, parasite factors, mosquito and environmental factors. All these factors acting jointly determine the severity of the outbreak and it is very difficult to assess the individual contribution of any one of these factors.
- iii) They must be enumerated or estimated according to a reasonable standard of accuracy – Statistics must be enumerated or estimated according to reasonable standards of accuracy. This means that if aggregates of numerical facts are to be called 'statistics' they must be reasonably accurate. This is necessary because statistical data are to serve as a basis for statistical investigations. If the basis happens to be incorrect the results are bound to be misleading.
- iv) They must have been collected in a systematic manner for a predetermined purpose. Numerical data can be called statistics only if they have been compiled in a properly planned manner and for a purpose about which the enumerator had a definite idea. Facts collected in an unsystematic manner and without a complete awareness of the object, will be confusing and cannot be made the basis of valid conclusions.

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v) They must be placed in relation to each other. That is, they must be comparable. Numerical facts may be placed in relation to each other either in point of time, space or condition. The phrase, 'placed in relation to each other' suggests that the facts should be comparable.

● Rationale of studying statistics

Statistics pervades a way of organizing information on a wider and more formal basis than relying on the exchange of anecdotes and personal experience

More and more things are now measured quantitatively in medicine and public health
There is a great deal of intrinsic (inherent) variation in most biological processes
Public health and medicine are becoming increasingly quantitative.

As technology progresses, the physician encounters more and more quantitative rather than descriptive information.

In one sense, statistics is the language of assembling and handling quantitative material. Even if one's concern is only with the results of other people's manipulation and assemblage of data, it is important to achieve some understanding of this language in order to interpret their results properly. The planning, conduct, and interpretation of much of medical research are becoming increasingly reliant on statistical technology. For example it answers such the following questions.

Is this new drug or procedure better than the one commonly in use? How much better? What, if any, are the risks of side effects associated with its use?
In testing a new drug how many patients must be treated, and in what manner, in order to demonstrate its worth? What is the normal variation in some clinical measurement? How reliable and valid is the measurement? What is the magnitude and effect of laboratory and technical error? How does one interpret abnormal values?

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Statistics pervades the medical literature. As a consequence of the increasingly quantitative nature of public health and medicine and its reliance on statistical methodology, the medical literature is replete with reports in which statistical techniques are used extensively.

"It is the interpretation of data in the presence of such variability that lays at the heart of statistics."

● Limitations of statistics:

It deals with only those subjects of inquiry that are capable of being quantitatively measured and numerically expressed.

1. It deals on aggregates of facts and no importance is attached to individual items—suited only if their group characteristics are desired to be studied.
2. Statistical data are only approximately and not mathematically correct.

I.3. Scales of measurement

Any aspect of an individual that is measured and take any value for different individuals or cases, like blood pressure, or records, like age, sex is called a **variable**.

It is helpful to divide variables into different types, as different statistical methods are applicable to each. The main division is into qualitative (or categorical) or quantitative (or numerical variables).

Qualitative variable: a variable or characteristic which cannot be measured in quantitative form but can only be identified by name or categories, for instance place of birth, ethnic group, type of drug, stages of breast cancer (I, II, III, or IV), degree of pain (minimal, moderate, severe or unbearable).

Quantitative variable: A quantitative variable is one that can be measured and expressed numerically and they can be of two types (discrete or continuous). The values of a discrete variable are usually whole numbers, such as the number of episodes of diarrhoea in the first five years of life. A continuous variable is a measurement on a continuous scale.

Examples include weight, height, blood pressure, age, etc.

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Although these types of variables could be broadly divided into categorical (qualitative) and quantitative, it has been a common practice to see four basic types of data (scales of measurement).

Nominal data:- Data that represent categories or names. There is no implied order to the categories of nominal data. In these types of data, individuals are simply placed in the proper category or group, and the number in each category is counted. Each item must fit into exactly one category. The simplest data consist of unordered, dichotomous, or "either - or" types of observations, i.e., either the patient lives or the patient dies, either he has some particular attribute or he does not.

Some other examples of nominal data:

Eye colour - brown, black, etc.

Religion - Christianity, Islam, Hinduism, etc.

Sex - male, female

Ordinal Data:- have order among the response classifications (categories). The spaces or intervals between the categories are not necessarily equal.

Interval Data:- In interval data the intervals between values are the same. For example, in the Fahrenheit temperature scale, the difference between 70 degrees and 71 degrees is the same as the difference between 32 and 33 degrees. But the scale is not a RATIO Scale. 40 degrees Fahrenheit is not twice as much as 20 degrees Fahrenheit.

Ratio Data:- The data values in ratio data do have meaningful ratios, for example, age is a ratio data, someone who is 40 is twice as old as someone who is 20.

Both interval and ratio data involve measurement. Most data analysis techniques that apply to ratio data also apply to interval data. Therefore, in most practical aspects, these types of data (interval and ratio) are grouped under metric data. In some other instances, these type of data are also known as numerical discrete and numerical continuous.

Numerical discrete

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Numerical discrete data occur when the observations are integers that correspond with a count of some sort. Some common examples are: the number of bacteria colonies on a plate, the number of cells within a prescribed area upon microscopic examination, the number of heart beats within a specified time interval, a mother's history of number of births (parity) and pregnancies (gravidity), the number of episodes of illness a patient experiences during some time period, etc.

Numerical continuous

The scale with the greatest degree of quantification is a numerical continuous scale. Each observation theoretically falls somewhere along a continuum. One is not restricted, in principle, to particular values such as the integers of the discrete scale. The restricting factor is the degree of accuracy of the measuring instrument most clinical measurements, such as blood pressure, serum cholesterol level, height, weight, age etc. are on a numerical continuous scale.

I.4. Basic principles of health statistics

- Descriptive Statistics

Concept: The branch of statistics that focuses on collecting, summarizing, and presenting a set of data.

Eg. The average age of citizens who voted for the winning candidate in the last presidential election, the average length of all books about statistics, the variation in the weight of 100 boxes of cereal selected from a factory's production line.

Interpretation: You are most likely to be familiar with this branch of statistics, because many examples arise in everyday life.

Descriptive statistics forms the basis for analysis and discussion in such diverse fields as securities trading, the social sciences, government, the health sciences, and professional sports. A general familiarity and widespread availability of descriptive methods in many calculating devices and business software can often make using this branch of statistics seem deceptively easy

- Inferential Statistics

Concept: The branch of statistics that analyses sample data to draw conclusions about a population.

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Interpretation: When you use inferential statistics, you start with a hypothesis and look to see whether the data are consistent with that hypothesis. Inferential statistical methods can be easily misapplied or misconstrued, and many inferential methods require the use of a calculator or computer.

1.5. Measurement of health

Health status of a community is assessed by the collection, compilation, analysis and interpretation of data on illness (morbidity), death (mortality), disability and utilization of health services. The most basic measure of disease frequency is a simple count of affected individuals. Such information is useful for public health

planners and administrators for proper allocation of health care resources in a particular community. However, to investigate distributions and determinants of disease, it is also necessary to know the size of the source population from which affected individuals were counted.

1.5.1. Ratios, proportions, and rates

● Ratio

A ratio quantifies the magnitude of one occurrence or condition to another. It expresses the relationship between two numbers in the form of $x:y$ or x/y or $x \times k$

Example:

- The ratio of males to females (M:F) in Ethiopia.
- The ratio of male malaria patients to female malaria patients

● Proportion

A proportion quantifies occurrences in relation to the populations in which these occurrences take place. It is a specific type of ratio in which the numerator is included in the denominator and the result is expressed as a percentage.

Example: The proportion of all births that was male

- ✓ Male births $\times 100$ divided to Male + Female births

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✓ **Rate**

Rate is the most important epidemiological tool used for measuring diseases. Rate is a special form of proportion that includes time. It is the measure that most clearly expresses probability or risk of disease in a defined population over a specified period of time, hence, it is considered to be a basic measure of disease occurrence. Accurate

count of all events of interest that occur in a defined population during a specified period is essential for the calculation of rate.

Rate = Number of events in a specific period x k divided to Population at risk of these events in a specified Period

Example: The number of newly diagnosed pneumonia cases in 1999 per 1000 under five children.

1.5.2. Measurements of morbidity

Morbidity rates are rates used to quantify the occurrence of disease.

Measures of morbidity include incidence, period prevalence, and point prevalence rates.

● **Incidence rate**

The incidence of a disease is defined as the number of new cases of a disease that occur during a specified period of time in a population at risk for developing the disease.

Incidence rate = Number of new cases of a disease over a period of time X K

1.6. Basic principles of health survey

A health survey is a tool used to gather information on the behaviour of a specific group of people from a determined area. This kind of survey allows health care experts to understand better how a community acts towards health.

Health surveys are a necessary and helpful instrument for decision-making when crafting a health plan. Health surveys provide specific information about the epidemiological situation, health trends, life habits, and the use of health services from the patients' point of view.

This type of survey allows physicians to locate risk factors in the community around the hospital or health care centres, such as tobacco use, alcohol use, poor diet habits, and lack of physical exercise, which are common health behaviour

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Example: The most important part of a health survey is the correct implementation. Patients need to have a specific time to answer the survey question without intervention during the hospital experience, which usually is when they feel least prepared to answer questions; instead, they should answer them at the end of their visit.

Having the right health survey questions in a survey will allow you to collect valuable data about your respondents' health and well-being and adequately meet your research objectives.

- **How to begin to conduct your survey**

Step 1: Define who will do your survey. The ideal situation is to identify an outside party to interview your community such as a church group, graduate or undergraduate students, United Way, or another community organization. Having an outside group will reduce the “conflict of interest” concern the authorities always use when a survey is conducted by the community itself.

Step 2: Define how you to conduct the interviews.

Step 3: Train your interviewers.

Step 4: Learn how to fill out the questionnaire. It is essential to teach your interviewers how to fill out the questionnaire.

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Self-check	Written test
I	

Part 1- say true or false

1. Concept- The branch of statistics that analyses sample data to draw conclusions about a population. A. True B. False

Part-2. Multiple choice question

1). the process of data collection, organization, Summarization, analysis and reporting is called as

- a. Health care statistics
- b. Statistics
- c. Characteristics
- d. Age

2). Recently Statistics is defined

- a. as the science of uncertainty
- b. a median
- c. a collection of data
- d. a quantity whose value we wish to estimate for the population

3). how statistics can be used in a health care setting include

- a. assisting in decision-making for medical treatment
- b. assisting administrative decision-making
- c. monitoring the incidence of disease and conditions
- d. measuring and reporting quality initiatives and improving performance in clinical or administrative units
- e. All

4). A characteristic that can take on different values in different situations.

- a. Data
- b. Information
- c. Variable
- d. Population

5). When the entire population of a city cannot be studied, a _____ is used to represent the entire population.

- a. Sample
- b. Data
- c. Variable
- d. Population

6). A _____ is an organized way to store data for easy access

- a. Data source
- b. Database
- c. Statistics
- d. Population

PART-3: Short answer

I. Discuss the difference between Ratios, proportions, and rates.

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UNIT TWO: UNDERTAKE DATA COLLECTION

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Types of questionnaires
- Preparing questionnaire
- Pre-testing, modifying and amending questionnaire
- Training on data collection procedures
- Equipment/materials for data collection
- Informing members of community about data collection
- Inviting community leaders on data collection process

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to :

- Identify types of questionnaires are
- Prepared and make questionnaire available
- Pre-tested, modify and amend questionnaire

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- Train personnel on data collection procedures
- Identify the necessary equipment/materials to execute data collection
- Discuss Informing members of community about data collection dates and time
- Invite community leaders to support data collection process

2.1. Introduction to data collection

Data collection is the process of gathering and measuring information on targeted variables in an established system, which then enables one to answer relevant questions and evaluate outcomes. The fundamental concepts of data collection deals with the data collection methods such as observation, interviews, data collection tools and common problems in data collection addressed in the statistical data collection process.

Data collection is a crucial part in the planning and implementation process. If the data collection has been superficial, biased or incomplete, data analysis becomes difficult, and the report will be of poor quality. A formal data collection process is necessary as it ensures that the data gathered are both defined and accurate. This way, subsequent decisions based on arguments embodied in the findings are made using valid data. The process provides both a baseline from which to measure and in certain cases an indication of what to improve.

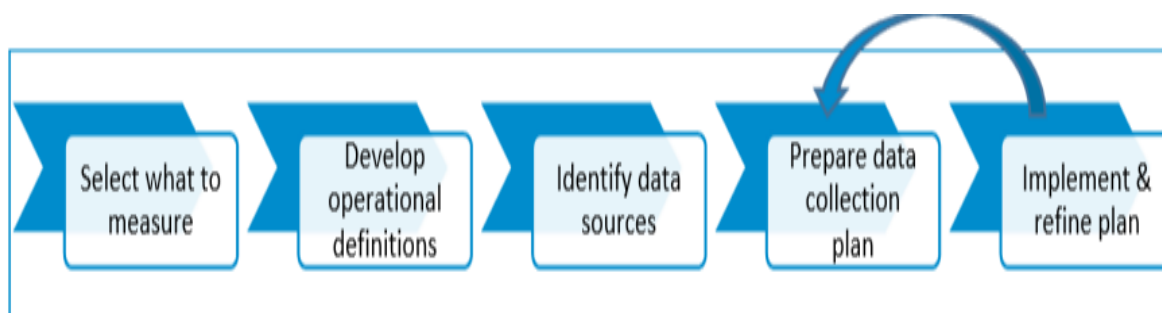


Figure 1. Data collection process.

2.2. Plan for data collection

A data collection plan helps to ensure that data collected during an analysis or improvement project is useful and appropriately collected. Proper data collection should involve a systematic approach to identify the data to be collected, plan how the data will be collected, collect the data and revise when needed.

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2.2.1. Steps of Planning for Data Collection

A. Select what to measure:

In selecting what to measure, focus on the key questions you are trying to answer or the key issues you are trying to resolve.

- What are the established measures of performance for the process?
- How do you know if the process is successful?
- Do you have any service level agreements (SLA's) for the process, and if so, how are those evaluated?
- Ideally, all metrics identified on the project charter would be Included in this plan, as would any supporting metrics for those identified.

B. Develop operational definitions:

Develop a common definition for the metric to be evaluated, being specific about items to be measured and any conditions that need to be applied to the plan. The definition must be agreed upon by everyone involved in the collection of data and should be tested prior to the implementation of the plan.

C. Identify data sources:

Identify the data sources that will be used for the collection of the data or that contain historical performance data. Historical performance data could provide the most insight, if the process has been stable and the operational definitions fit what is stored. Collecting new data can be more accurate for the current state, but requires significant time and possibly causes disruptions to current processing. Make note of where the data will be sourced and if collecting new data, how it will be collected and by whom. If needed, create a Data Collection Form to assist in the collection of data.

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D. Prepare data collection plan:

Document the plan for collecting the data identified using a Data Collection Plan. Identify the following information for each metric: name, operational definition, data source, collection method, and owner.

E. Implement & refine plan:

Execute the plan. Ideally start with a small pilot test of the plan and then review and revise as needed.

2.2.2. Developing data collection tool

First write down a statement of your question. Keep it simple; Pay attention to both quantitative and qualitative data; Schedule time to organize data; discuss the data with- critical friends; and seek technical assistance.

2.3. Questionnaires

Questionnaires are also forms in which set of questions is used; Very often they are several pages and can contain tables, plain questions and spaces where respondents or people being asked questions are filling in their responses. (This is considered gathering primary data). The use of questionnaires is the most common method of obtaining a structured set of data and is frequently used in surveys and other research designs.

2.3.1. Types and classification of questionnaire

- **Questionnaires may be classified as:**

A. Structured/standardized questionnaire:

When those definite, concrete and preordained questions with additional questions are limited to clarification of inadequate response or to elicit more detailed responses

B. Unstructured questionnaire:

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When the respondent is given the opportunity to answer in his/her own terms and frame of reference (often generates qualitative data such as opinions, themes, and feelings).

● Types of questionnaires

Developing questions for a questionnaire can be difficult and time consuming. Care must be taken in developing the questions to be asked. Should questions be open-ended or closed ended?

A. Open-ended questions

Open-ended questions permit free responses that should be recorded in the respondent's own words. The respondent is not given any possible answers to choose from. Such questions are useful to obtain information on:

- Facts with which the researcher is not very familiar
- Opinions, attitudes, and suggestions of informants
- Sensitive issues.

For example:-

- Can you describe exactly what the traditional birth attendant did when your labour started?
- What do you think are the reasons for a high drop-out rate of village health committee members
- What would you do if you noticed that your daughter (school girl) had a sexual relationship with a teacher?

B. Closed ended Questions

Closed questions offer a list of possible options or answers from which the respondents must choose. When designing closed questions one should try to:

- ✓ Offer a list of options that are exhaustive and mutually exclusive
- ✓ Keep the number of options as few as possible. Closed questions are useful if the range of possible responses is known.

2.3.2. Requirements of questionnaires

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- Open format questions that are without a predetermined set of responses.
- Closed format questions that take the form of a multiple-choice question
- Writing the Questionnaire, points to be considered when writing
- Clarity (question has the same meaning for all respondents)
- Phrasing (short and simple sentences, only one piece of information at a time, avoid negatives if possible, ask precise questions, in line with respondent level of knowledge...)
- Sensitive question: avoid questions that could be embarrassing to respondents.

2.3.3. Questionnaire pilot testing

- The major challenge in questionnaire design is to make it clear to all respondents.
- In-order to identify and solve the confusing points, we need to pre-test the questionnaire.
- During the pilot trial: the questionnaire participants should be randomly selected from the study population.

2.4. Training personnel on data collection

Supervisors, team leaders, measurer and interviewers should receive different training, tailored to their roles in the data collection. One extra day of training on mobile technology is highly recommended for those team members who will be responsible for mobile data collection. During the extra training day the following must be covered:

● Training on smart phone/tablet based data collection

- Use of the Smart phone in general.
- The questionnaires, including enough time to practice by going through, filling in and familiarizing themselves with the questionnaires on the phones
- The team leader or another highly competent team member is responsible for handling the phones and administering the questionnaires. One way to simplify the data collection process when all SENS modules are included in the survey is to have the

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team leader conducting the individual questionnaires on one phone, and another interviewer conducting the household questionnaires on a separate phone.

- The questionnaires are filled out one question at a time. Each question has its own screen, and the user can swipe from Question 1 to Question 2 to Question 3, etc., typing in responses as they are offered. Data is saved directly on the phone with a file name that easily identifies the respondent and the household.
- In addition to entering all measurements and interview answers into the Smartphone's, the survey teams should also record all anthropometric and hemoglobin measurements taken on children and women on a paper form. This serves as a back-up in case electronic data is accidentally erased.
- During data collection the phones should be in flight mode and not connected to any network. This will ensure the phone battery to last for the duration of a day's data collection. External USB batteries are available if needed. However, every night the survey coordinator needs to remember to recharge all the phones.
- In some settings you might be interested in collecting GPS coordinates during data collection, and since the phones have integrated GPS this can be turned on and explored when desired.

● **Training the interviewers on manual data collection**

Here Are Some of the Major Topics That Should Be Included In Interviewer Training

- ✓ **Describe the entire study:** Interviewers need to know more than simply how to conduct the interview itself. They should learn about the background for the study, previous work that has been done, and why the study is important.
- ✓ **State who is sponsor of research:** Interviewers need to know who they are working for. They and their respondents have a right to know not just what agency or company is conducting the research, but also, who is paying for the research.
- ✓ **Teach enough about survey research:** While you seldom have the time to teach a full course on survey research methods, the interviewers need to know enough that they respect the survey method and are motivated. Sometimes it may not be apparent

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why a question or set of questions was asked in a particular way. The interviewers will need to understand the rationale for how the instrument was constructed.

- ✓ **Explain the sampling logic and process:** Naive interviewers may not understand why sampling is so important. They may wonder why you go through all the difficulties of selecting the sample so carefully. You will have to explain that sampling is the basis for the conclusions that will be reached and for the degree to which your study will be useful.
- ✓ **Explain interviewer bias:** Interviewers need to know the many ways that they can inadvertently bias the results. And, they need to understand why it is important that they not bias the study. This is especially a problem when you are investigating political or moral issues on which people have strongly held convictions. While the interviewer may think they are doing well for society by slanting results in favour of what they believe, they need to recognize that doing so could jeopardize the entire study in the eyes of others.
- ✓ **Walk through‘ the Interview:** When you first introduce the interview, it’s a good idea to walk through the entire protocol so the interviewers can get an idea of the various parts or phases and how they interrelate.
- ✓ **Reading maps:** It’s astonishing how many adults don’t know how to follow directions on a map. In personal interviews, the interviewer may need to locate respondents who are spread over a wide geographic area. And, they often have to navigate by night (respondents tend to be most available in evening hours) in neighbor hoods they’re not familiar with. Teaching basic map reading skills and confirming that the interviewers can follow maps is essential.
- ✓ **Identifying households:** In many studies it is impossible in advance to say whether every sample household meets the sampling requirements for the study. In your study, you may want to interview only people who live in single family homes. It may be impossible to distinguish town houses and apartment buildings in your sampling frame. The interviewer must know how to identify the appropriate target household.
- ✓ **Identify respondents:** Just as with households, many studies require respondents who meet specific criteria. The interviewer may have to ask a series of filtering questions before determining whether the respondent meets the sampling needs.

- ✓ **Rehearse interview:** You should probably have several rehearsal sessions with the interviewer team. You might even videotape rehearsal interviews to discuss how the trainees responded in difficult situations. The interviewers should be very familiar with the entire interview before ever facing a respondent.
- ✓ **Explain scheduling:** The interviewers have to understand the demands being made on their schedules and why these are important to the study. In some studies it will be imperative to conduct the entire set of interviews within a certain time period. In most studies, it's important to have the interviewers available when it's convenient for the respondents, not necessarily the interviewer.
- ✓ **Interviewer's Kit:** It's important that interviewers have all of the materials they need to do a professional job. Usually, you will want to assemble an interviewer kit that can be easily carried and includes all of the important materials such as
 - A professional-looking notebook (this might even have the logo of the company or organization conducting the interviews);
 - maps;
 - Sufficient copies of the survey instrument;
 - Official identification (preferable a picture ID);
 - A cover letter from the Principal Investigator or Sponsor; and
 - A phone number the respondent can call to verify the interviewer's authenticity.

2.5. Necessary equipment/material for data collection

What very important in the preparation for data collection is preparing information materials and tools for data collectors and area supervisors. Data collectors will need to bring the following tools and information with them on each day of data collection:

- A list of data collection teams and contact information
- Their area supervisor's contact details, including a mobile phone number to call in case of difficulty in the field
- A schedule of visits to survey sites

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- The contact details of the sites to be visited
- Details of back-up facilities to be visited if scheduled visits are not possible

2.6. Informing member of community about data collection

Openness, transparency, and choice promote trust among data users, data sources, individuals, and communities. If data users are not open and transparent or if they do not offer choices to individuals and communities when required or appropriate, this can create unwelcome surprises, destroy trust, and may even reduce the ability to use health data to improve health in the future. Community engagement supports openness, transparency, and choice. For example, community leaders, neighbors, or advisory boards can serve as conduits for notice to community members.

Communities can also provide information to data users about how community members view the data use, the level of disclosure, and the range of choices necessary to maintain the community's trust, as depicted in the following diagram. Notice and consent are at the heart of openness, transparency, and choice. Community engagement alone may not, however, be enough to ensure openness, transparency, and choice in cases where individuals' preferences are not the same as the interests of the community.

To maintain trust, data users must be open about expectations of data use. **Notice** and **consent** are at the heart of openness, transparency, and choice.

- **Notice** is information provided to the community about data use.
- **Consent** is the process of getting permission from a community or individual to use data.

Notice:- Data users should provide individuals and communities with notice about:

- What information is being collected?
- Goals and potential benefits of data use

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- Risks of data use Communities and individuals whose data will be used should be able to ask questions about, comment on, or object to data use.
- Data users may also need to give sources of data, such as health care providers, public health agencies, or researchers, the same type of information.

A. Individual notice

Individual notice may be needed when those whose data are being used are identifiable, for example, by name or home address, and when the risk of compromising privacy or confidentiality or stigmatizing an individual or small group is high.

B. Community Notice

In some cases, notice is given to the community, not individuals. Different methods may be used to give notice to a community, including:

- Community meetings or town halls
- Booths at community events
- Flyers or notices posted at libraries, community centres, or government offices
- Websites or Web-based advertising
- Media stories or advertisements
- Meetings with community leaders In cases where data about small groups of individuals are being used, more targeted notice may be needed.

2.7. Inviting community leaders to support data collection process

Data users have an ethical, and sometimes legal, obligation to promote community and individual engagement and participation in projects that use personally identifiable, de-identified, or aggregated data and when data use could stigmatize individuals, small groups, or communities. When data are used without appropriately engaging communities and individuals in data use decisions, trust may erode. Negative consequences of a breach of trust can have subsequent radiating effects, as shown in many case studies. Communities

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can be effectively engaged at every phase of the data life cycle. Engagement can be a way to protect the rights of individuals, small groups, and communities. Engagement can also help researchers or others in using data to improve health.

2.7.1. Mechanisms for engaging community members

Data users can engage community members in a number of ways. When determining how to engage the community, data users should think about which types of engagement would provide legitimacy for the data effort. In a politically polarized community, for example, elected officials may not be seen as representing the interests of all voters.

A. Community Leaders

Community leaders can sometimes serve as representatives for a community as a whole. Leaders may include elected officials, leaders of community groups, leaders of religious or spiritual organizations, or even informal leaders. Use caution when using community leaders as representatives of the community, as they may not accurately represent the community's view as a whole, and they may not understand the concerns of subgroups or individuals within the community.

B. Focus Groups

Focus groups provide another way to engage communities, and are a good way to find out how individuals feel about an issue. Like engagement through community leaders, focus groups can miss issues that matter to subgroups if members of subgroups are not among the focus group members.

C. Community Advisory Boards

Community advisory boards are a commonly used form of community engagement. To be effective, advisory boards should represent a range of interests and subgroups within a community. One issue that must be addressed in forming community advisory boards is how members will be chosen, and whether members will be leaders of community groups, or community members who are not leaders. Some data repositories have specific requirements about characteristics of representatives who serve on advisory boards.

D. Community Surveys

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Community surveys can be completed on-line, on paper, or in personal interviews. They can help data users to gather and analyse information from many people as a form of community engagement. While a community survey can get input from more individuals, the scope of results may be limited because the scope of information is defined by the questions asked and by the characteristics of the individuals who choose to complete the survey.

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Self check-2	Written test
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PART 1: say true or false

- 1) The goal of all data collection is to capture quality evidence
- 2) A data collection plan helps to ensure that data collected during an analysis or improvement project is useful and appropriately collected
- 3) A formal data collection process is not necessary in health care operation necessary
- 4) Identifying data sources is not parts of data collection process
- 5) In developing data collection plan it is important to keep statement of your question as simple as possible
- 6) Forms in which set of questions is used called as questionnaires
- 7) The use of questionnaires is not the most common method of obtaining a structured set of data and is frequently used in surveys and other research designs.
- 8) Unstructured questionnaires are standardized one
- 9) When designing closed questions one should try to Offer a list of options that are exhaustive and mutually exclusive
- 10) The major challenge in questionnaire design is to make it clear to all respondents

PART 2: Multiple choice questions

- 1) What very important in the preparation for data collection is
 - a. preparing information for data collectors
 - b. preparing materials for data collectors
 - c. preparing tools for data collectors
 - d. all

- 2) data collectors need to bring the following tools and information with them on each day of data collection
 - a. schedule of visit to data collection site
 - b. a lists of data collection teams and contact information
 - c. their supervisors contact
 - d. details of the data collection sites
 - e. all
- 3) If data users are not open and transparent or if they do not offer choices to individuals and communities when required or appropriate, this can create
 - a. welcome surprises
 - b. destroy trust
 - c. may even reduce the ability to use health data to improve health in the future
 - d. difficulties of finalizing data collection
- 4) ____ can serve as conduits for notice to community members about data collection process
 - a. Data user
 - b. community leaders
 - c. neighbours
 - d. advisory boards

PART-3: Describe the Necessary equipment/material which is used for data collection?

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UNIT THREE: COMPILE, INTERPRET AND UTILIZE HEALTH DATA

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Collect health data
- Analyse health data
- Maintaining health data base system.
- Diagrammatic presentation of data
- Maintaining steps of confidentiality according to prescribed procedures.
- Collecting and updating vital events
- Preparing and utilizing data

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to :

- Collect necessary health data as per organizational guideline
- Collect and classify or sort out information on the basis of a clear understanding of the purpose for maintaining the database system.

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- Describe diagrammatic presentation of data
- Follow steps to maintain information confidentiality according to prescribed procedures.
- continuously and consistently collect and update vital events timely in accordance with organization procedures and guidelines
- Prepared and utilize data according to prescribed procedures and guidelines

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3.1. Introduction to Health data collection

Health is influenced by a wide variety of determinants, from an individual's social condition and environment to the health care services they receive. While social and environmental factors are powerful determinants of health, health care data provides specific and measurable insights into community and population health interventions. Data is collected about both health conditions and related factors (health data) and services provided (health care data).

Collecting data in the health care delivery system can be quite challenging. There are many sources of data (disease indexes, register data, surveillance data, performance indicators, etc.) that make the data collection process time consuming. Data collection techniques allow us to systematically collect data about our objects of study (people, objects and phenomena) and about the setting in which they occur. The best way to collect the data that needs to be organized or reported is to use the best method available. Some of those methods are listed here below:

- ❖ Observation and measurement
- ❖ Face-to-face and self-administered interviews (questionnaires or surveys)
- ❖ Postal or mail methods and telephone interviews
- ❖ Focus group discussions (FGD)
- ❖ Use of Documents

The most appropriate method might be a form, a questionnaire or a survey. We will discuss the tools and methods here below as each of them require adequate pre-planning and design before the actual data is collected.

3.2. selection of the method of data collection

is also based on practical considerations, such as:

- i) The need for personnel, skills, equipment, etc. In relation to what is available and the urgency with which results are needed
- ii) The acceptability of the procedures to the subject. The absence of inconvenience, unpleasantness, or untoward consequences
- iii) The probability that the method will provide a good coverage

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This means the method that will supply the required information about all or almost all members of the population or sample. If many people will not know the answer to the question, the question is not an appropriate one. The investigator's familiarity with a study procedure may be a valid consideration. It comes as no particular surprise to discover that a scientist formulates problems in a way which requires for their solution just those techniques in which he himself is especially skilled.

3.3. Data organization

Data organization, in broad terms, refers to the method of classifying and organizing data sets to make them more useful. Some IT experts apply this primarily to physical records, although some types of data organization can also be applied to digital records.

There are many ways that IT professionals work on the principle of data organization. Many of these are classified under the more general heading of "data management."

For example, re-ordering or analysing the arrangement of data items in a physical record is part of data organization.

3.4. . Data analysis

Analysis of data is a process of inspecting, cleaning, transforming, and modeling data with the goal of discovering useful information, suggesting conclusions, and supporting decision making. Data analysis is a process, within which several phases can be distinguished.

Processing of Data Refers to concentrating, recasting and dealing with data in such a way that they become as amenable to analysis as possible.

The purpose of Data Analysis is to answer the questions and to help and determine the trends and relationships among the variables.

3.4.1. Steps in Data Analysis

Before Data Collection, the investigator should accomplish the following:

- Determine the method of data analysis
- Determine how to process the data
- Prepare dummy tables
- Process the data

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- Prepare tables and graphs
- Analyse and interpret findings
- Consult again the statistician
- Prepare for editing
- Prepare for presentation

3.4.2. Types of Data analysis

I. Descriptive Analysis: Refers to the description of the data from a particular sample; Hence the conclusion must refer only to the sample. In other words, these summarize the data and describe sample characteristics. Descriptive Statistics: Are numerical values obtained from the sample that gives meaning to the data collected.

II. Inferential type of data Analysis: The use of statistical tests, either to test for significant relationships among variables or to find statistical support for the hypotheses is inferential analysis. Inferential Statistics: Are numerical values that enable the researcher to draw conclusion about a population based on the characteristics of a population sample. This is based on the laws of probability.

3.5. Data interpretation, presentation and utilization

3.5.1. Interpretation of Data

After analysis of data and the appropriate statistical procedure, the next part is to present the interpretation of the data, which is the final step of data analysis process. The three areas:

- I. Summary of Findings
- II. Conclusions
- III. Recommendations

3.5.2. Data Presentation

There are various methods of data presentation

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- I. **Textual Methods of data presentation:** The data are presented in the form of texts, phrases or paragraphs. It is common among newspaper reports depicting specifically the salient or important findings.
- II. **Graphic display of health data:** Frequency distributions and are usually illustrated graphically by plotting various types of graphs
- III. **A tabular method:** A table is an organized set of data elements (values) using a model of vertical columns (which are identified by their name) and horizontal rows, the cell being the unit where a row and column intersect. A table has a specified number of columns, but can have any number of rows. Each row is identified by the values appearing in a particular column subset which has been identified as a unique key index.

● **Constructing a table should require some common issues**

- All tables should have a clear title and clear headings for all rows and columns.
- All tables should have a separate row and a separate column for totals to enable you to check if your totals are the same for all variables and to make further analysis easier.
- All tables related to a certain objective should be numbered and kept together so the work can be easily organized and the writing of the final report will be simplified.

3.6. Data confidentiality

Data confidentiality is one of the fundamental principles in terms of security. This principle refers protecting information from disclosure to unauthorized parties. When a file is created by a certain user who becomes its owner, for example, the owner can control who has read access to the file if file data confidentiality is desired.

3.7. Health data utilization

In a health care setting, you may not have a choice about which type of data you use depending on the task at hand. Primary data has the advantage of being original, reliable and accurate as it is gathered by you as the researcher so you know first hand that it is correct. It is also current and timely. However, it is also costly to obtain you must allocate time and resources to conduct a survey,

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interviews or focus groups. you may have to travel for the interviews and/or have expenses for mailing surveys, phone calls, etc. Another disadvantage of using primary data is that the research can be biased or prejudiced during the gathering and interpretation of data. This will be discussed later in this module.

Using secondary data is relatively inexpensive and this type of data is usually readily available having been collected for various purposes. Some disadvantages of secondary data, however, are that the data may not be complete or may be lacking a piece of information that is important for your report preparation. If that occurs, you may have to merge more than one database or initiate more data collection. There are usually no costs associated with secondary data unless an external database must be purchased.

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Self-check-3	Written test
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PART-I: Say true or false

1. Collecting data in the health care delivery system can be quite challenging
2. The selection of the method of data collection is not based on practical considerations
3. A process of inspecting, cleaning, transforming, and modeling data with the goal of discovering useful information, suggesting conclusions, and supporting decision making is called data analysis
4. Description of the data from a particular sample is called as descriptive analysis
5. The use of statistical tests, either to test for significant relationships among variables or to find statistical support for the hypotheses is inferential analysis.
6. The final step of data analysis process is presenting the interpretation of data.
7. Graphical displays are grouped under the method of data interpretation.
8. In health data utilization using primary data is relatively inexpensive and this type of data is usually readily available having been collected for various purposes.

Part-2: short answer

1. Write Steps of Data Analysis.

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UNIT FOUR: PREPARE AND SUBMIT REPORTS

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Preparing reports using standard reporting formats
- Report dissemination
- Communicating Updates and reportable diseases
- Preparing and utilizing data

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to :

- Prepare reports using standard reporting formats
- Disseminate reports to responsible bodies
- Communicate updates and reportable diseases to concerned bodies according to prescribed procedures and guidelines.

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4.1. Recording and reporting

4.1.1. Introduction

The reformed HMIS reporting process at health facility level starts with entering the data in to report form from respective registers and tallies of services and administrative functions/departments exist in that facility (health center, hospital etc). After filling the report form data quality is checked and self assessment is done at facility level and report is submitted to the next higher level.

The process of recording and reporting at the Woreda health office level starts with receiving, collecting and aggregating (compiling) curative and preventive service report from all participating facilities (district hospital, health centre, health post, clinics etc) owned by public (governmental) and private for non-profit (NGO) and private for profit. The Woreda office adds its own administrative and technical functions data. Conducts self assessment and performance review of the catchment, and sends the report to zonal health department.

4.1.2. Purpose of Recording and reporting

All the information recorded during the encounter between Health Workers (HWs) and the family will create the basic information at the grass root level. This will be supplemented by information captured in the profiling formats, service and disease tally sheets, and additional administrative and personnel records. These standardized family health information recording formats are developed according to international standards and best practices, and through consultation with technical programs and care providers. Following is the list of basic formats/instruments used in the record keeping process at health post/community level:

4.2. Reporting formats

4.2.1. Resident profiling formats

- demographic profile
- resource mapping
- household environmental sanitation profile
- basic health indicators format

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4.2.2. Family/household health information recording instruments

- a. Family folder
- b. Health card
- c. Integrated Maternal and Child Care card
- d. Master Family Index (MFI)
- e. Field Book

4.2.3. Tallies

- a. Service delivery tally
- b. Disease information tally
- c. Tracer drug availability tally
- d. Family planning method dispensed count

4.3. Reporting times

- a. Quarterly service delivery reports
- b. Quarterly disease reports
- c. Annual reports

4.4. Health management information system/HMIS/

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Health Management Information System (HMIS): Are the systematic collection, aggregation, analysis, presentation and utilization of health and health related data for evidence based decisions for health workers, managers, policy makers and others.

4.2.1. Purpose of HMIS

Routine collection and aggregation of quality health information

Availing accurate, timely and complete data

Provide specific information support to health decision making process

Strengthening the use of locally generated data for evidence based decision making

4.3. Family Folder

Family Folder is a tool or package designed to be used for data collection and documentation to meet the necessary information needs for providing family-focused promotive, preventive and environmental health services at community level. Complementing the Family Folder is a simple HMIS record keeping and reporting procedure that feeds community level health information. Family Folder is a family-centered tool designed to manage and monitor the work in educating households and delivering integrated package of promotive, preventive and basic curative health service to families.

The Family Folder is a pouch provided to each family. Information on household identification, data on family members and household characteristics in terms of environmental sanitation (Latrine, Hand washing facility, Waste disposal, and Drinking water source) and malaria prevention (LLITN) is recorded on the cover side of the family Folder. Health Cards and Integrated Antenatal, Delivery, Postnatal and Newborn Card are kept inside the Family Folder. Every member of the family who is ≥ 5 years of age is issued a Health Card; for those < 5 years, their records are kept in their mother's Health Card till they reach the age of 5 years. The Health Cards, blue coloured for male members and yellow coloured for female members, is used for recording information about individual household members on:

- Follow up and home based care and support of HIV/AIDS, tuberculosis, and other diseases
- Referral -Family planning services - Immunization services

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-Growth monitoring

- Orphan support (if the individual is an orphan) The Integrated Maternal and Child Care Card is issued to every woman when she becomes pregnant; it is a longitudinal record used to document the pre-pregnancy status, pregnancy follow up, delivery, post delivery care of the mother with immunization and growth monitoring of the child.

4.4. Report preparation

Most HMIS data are generated at health facility level. Facilities produce, check and use data, then send it to the higher level administrative health office (usually Woreda Health Office). The administrative health office aggregates the data it receives from the facilities under its administration, adds its own administrative service data, uses to monitor its own performance and forwards the HMIS report to the next level.

The administrative level that receives data from facilities aggregates the data by facility type and ownership. This type of aggregation of data is maintained throughout the reporting chain so that even at the federal MOH, it is possible to disaggregate data by facility type and ownership.

The HMIS reporting formats collect and transfer the data required to calculate the indicators used in performance monitoring. The data are gathered from Family/household health information records, using tally sheets, and entered into the reporting formats. The quarterly and annual reporting formats for each level, along with the definition for each data item reported, and the registered items and tally source for each data item.

Reports flow into health institution through HMIS in-charge, who disseminates compiled information to responsible officer. These officers review and may provide feedback or additional processing. At the facility, HMIS reports cover a single month, according to the Ethiopian calendar. Monthly results, along with quarterly totals, are forwarded onwards each quarter. Annual reports cover the Ethiopian Fiscal Year (EFY), which begins in Hamle (July of Gregorian calendar) and ends in Sene (June of Gregorian calendar) of the next year.

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Self Check-I	Written test
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PART-I: Say true or false.

1. Diseases information tally is a reporting format
2. The primary purpose of HMIS is routine collection and aggregation of quality health information
3. Complementing the Family Folder is a simple HMIS record keeping and reporting procedure that feeds community level health information.
4. Every member of the family who is ≥ 5 years of age is issued a Health Card
5. Reports flow into health institution through HMIS in-charge

UNIT FIVE: TAKE INTERVENTION MEASURES ACCORDINGLY

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Discussion with key stakeholders regarding the health problems
- Identifying materials throughout the consultation process
- Providing feedback
- Making contributions to the health problem of the community Collecting information and data for better intervention

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to :

- Discuss with key stakeholders regarding the health problems
- Briefly materials throughout the consultation process are provided to identify and clarify issues of interest/concern to stakeholders and own organization
- providee feedback to the team leader or work team on the results of the consultation process
- Facilitate making positive contributions to activities that develop an understanding of the factors contributing to the health problem of the community
- Collect further information and data when needed for better interventions

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5.1. Discussion with key stakeholders regarding the health problems

Discussing with and involving local people and other stakeholders have a great amount of experience and insight into what works for health organization and the community, what does not work for them, and why. So they contribute to the success of any health intervention. Involving stake holders in planning can increase their commitment to the programme and it can help them to develop appropriate skills and knowledge to identify and solve the problems on their own. Involving stakeholders helps to increase the resources available for the programme, promotes the community self-help and self-reliance, and improves trust and partnership between the community and health workers. It is also a way to bring about ‘social learning’ for both health workers and local people. Therefore, if you involve the local community in a programme which is developed for them, you will find they will gain from these benefits including mapping and utilizing the available resources.

5.2. Feedback

Feedback can create a culture of open communication and continuous improvement. The only constant is change — and that’s certainly never been more true than in today’s healthcare landscape. The best strategy to stay relevant and drive continuous improvement is to build a culture of open communication amongst staff of all levels, where any idea that might benefit the practice is discussed. Openly sharing and analysing any feedback on front office and provider performance is one of the best ways to create the psychological safety that’s inherent in the highest performing teams. Once this trust is established amongst team mates, constructive dialogues can take place that uncover ways the practice’s performance can be improved for the benefit of patients.

5.3. Making contributions to the health problem of the community

Community collaboration requires long-term commitment on the part of the engaging organization and its partners. To earn public trust and the trust of your partners:

- Be clear. People want direction.
- Be concise. Too much information is a barrier to understanding.

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- Be correct. Check facts. Update frequently.

Public health interventions are population-based if they consider all levels of practice. A population-based approach considers intervening at all possible levels of practice. Interventions may be directed at the entire population within a community, the systems that affect the health of those populations, and/or the individuals and families within those populations known to be at risk.

☐ Systems-focused population-based practice: Changes organizations, policies, laws, and power structures. The focus is not directly on individuals and communities but on the systems that impact health. Community-focused population-based practice: Changes community norms, attitudes, awareness, practices, and behaviour. This practice level is directed at entire populations within the community or occasionally toward target groups within those populations. Community-focused practice is measured in terms of what proportion of the population actually changes.

☐ Individual/family-focused population-based practice: Changes knowledge, attitudes, beliefs, practices, and behaviour of individuals and families. This practice level is directed at individuals, alone or as part of a family, class, or group. Individuals receive services because they are identified as belonging to a population at risk.

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Self-check -5

PART 1: Say true or false

1. Feedback can create a culture of open communication and continuous improvement.

PART 2: Short answer

1. Describe the importance of discussing with stake holders within health organization and the community.

2. Explain the roles and contribution service providers and stakeholders to the health problem of the community.

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