Ethiopian TVET-System

Health Extension Service

Level III

Module Title: -	**Collecting, Maintaining and Utilizing Community Health Data**
TTLM Code:	**HLT HES3 M03 TTLM 0919V1**

This module includes the following Learning Guides

LG09. Plan and prepare the necessary resources for data collection
LG10: Collect, compile, interpret and utilize necessary health data
LG11: Prepare and submit reports
LG12: Take intervention measures accordingly

Instruction Sheet-1	LG09. Plan and prepare the necessary resources for data collection

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

- Definition of terms
- Plan and prepare for data collection

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 questionnaire
- Pretest, modify and amend questionnaire
- Train necessary personnel on data collection procedures
- Identify the necessary equipment/materials to execute data collection
- Inform Members of community about data collection dates and time
- Invite community leaders to support data collection process

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3 and Sheet 4,---” **in page ---, ---, --- and ---** respectively.
4. Accomplish the “Self-check 1, Self-check t 2, Self-check 3 and Self-check 4” ,---” **in page ---, ---, --- and ---** respectively
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 ” **in page ---.**
6. Do the “LAP test” **in page – ---**

Information Sheet-1	Definitions of terms

1.1. Definition of 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. Take our previous example, the number 42, when we realize that it is the temperature reading of a patient in degree Celsius, we have some information about the status of the patient's health. By the way, this patient's temperature 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:

1.2. Types of health care data

1 Clinical data – most common type of health information – signs, symptoms, diagnoses, impressions, treatments, and outcome of the care process.

2 Epidemiological data – used to describe health related issues – such as disease trends and events, used to inform the public and to generate action.

3 Demographic data – statistical information about a population – age, place of residence, gender, and so on.

4 Financial data – data about payments, salaries, wages, and other money related aspects of care and treatment.

5 Research data – collected as part of care and used in research for generating knowledge about health related areas, such as in clinical trials.

6 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.

7 Coded data – data that have been translated into standard nomenclature of classification so that they can be aggregated, analyzed, and compared .

1.3. Importance of Data

a. Importance of Data management and record-keeping:

They form the essential basis of monitoring, implementation and evaluation. They safeguard against violations of rights. Process and outcomes of diversion and alternatives must be clearly documented to ensure transparency, accountability and follow-up where necessary. Systematization and clear documentation of policies and procedures are essential to draw clear lessons from programmes and facilitate scaling-up or replication. Quality data collection for diversion and alternatives programmes can help to stimulate / improve the collection of reliable statistical data for the child justice system as a whole.

b. Importance for Monitoring purpose:

Ongoing monitoring is essential to ensure the efficient and effective running of a project or programme. It ensures progress towards goals. It is necessary to ensure that a project or programme is held accountable to its beneficiaries and donors (including tax payers if funded from public sources). It helps to identify problems from an early stage and intervene in a timely manner to resolve them which can result in time and cost savings. If done well it can contribute positively to team morale and foster an atmosphere of transparency and professionalism. It can build public and political support for a programme and answer stakeholders' questions. Periodic evaluations cannot take the place of ongoing monitoring, although records kept from monitoring processes can and should feed into evaluations.

Self-Check -1	**True false question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Data and information are always the same
2. Facts like 'today is Sunday', 'the patient's blood pressure is 125/70mmHg' or 'Aspirin is a NSAID' are health information
3. Data alone enables a decision to be taken about the patient.
4. Data that describe health related issues – such as disease trends and events, used to inform the public and to generate action is called as Clinical data
5. monitoring and evaluation activities cannot be undertaken with out data

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: ___________________________ Date: _________________

Short Answer Questions

1. ___
2. ___
3. ___
4. ___
5. ___

Information Sheet-2	Plan for data collection

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.

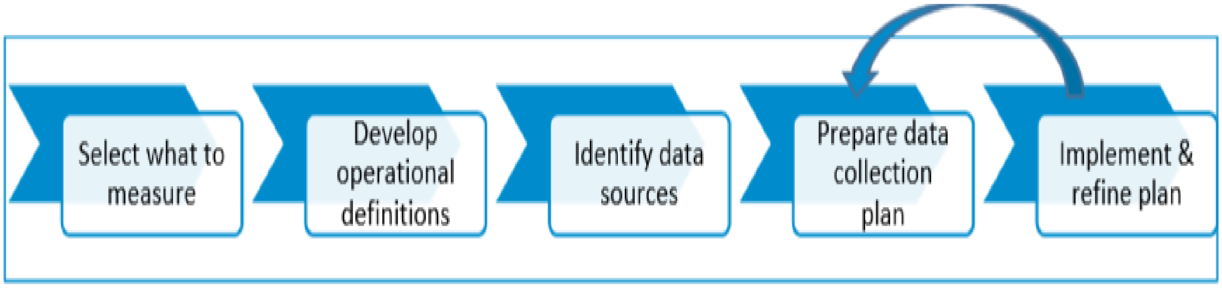


Figure 1.Data collection process.

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.

2.3. 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 up on 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.

d. Prepare data collection plan:

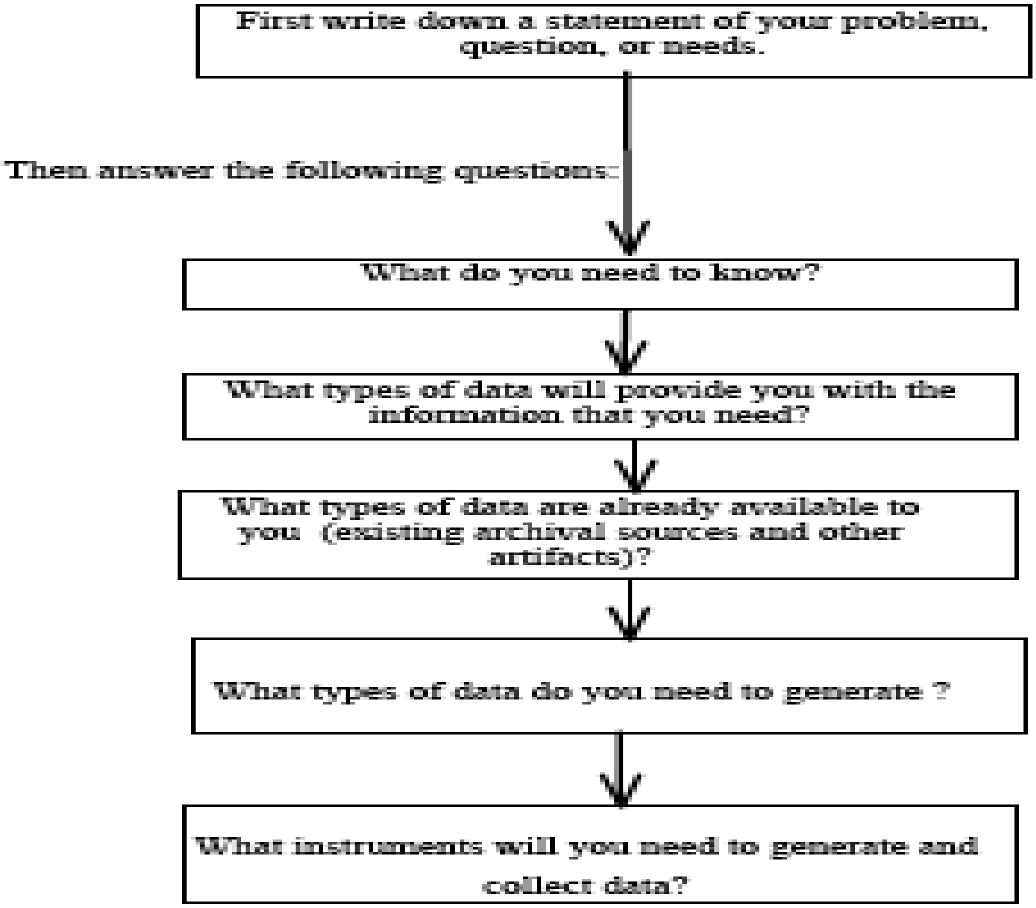
Document the plan for collecting the data identified using a Data Collection Plan. Identify the following information for each metric: name, operational definition, data source, collection method, and owner.

e. Implement & refine plan:

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

2.4. Developing data collection plan

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.



First write down a statement of your problem, question, or needs.

Then answer the following questions:

What do you need to know?

What types of data will provide you with the information that you need?

What types of data are already available to you (existing archival sources and other artifacts)?

What types of data do you need to generate ?

What instruments will you need to generate and collect data?

Figure 2 showing Steps of planning data collection

2.5. Questionnaire as a data collection tool

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 in 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.

2.5.1. Questionnaires may be classified as:

i. 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

ii. Unstructured questionnaire:

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

2.6. Types of Questions

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 labor 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.

2.7. Requirements of questionnaires

- 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.

2.8. 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.

Self-Check -2	**True false question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. The goal for all data collection is to capture quality evidence
2. A data collection plan helps to ensure that data collected during an analysis or im provement 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

***Note:* Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: ___________________________ Date: ________________

Information Sheet-3	**Preparation for data collection**

3.1. Training personnel on data collect

Supervisors, team leaders, measurers 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:

a. TRAINING ON SMARTPHONE/TABLET BASED DATA COLLECTION

- Use of the Smartphone 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 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.

https://youtu.be/v-6xXTTZZjY

b. 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 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 favor 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 neighborhoods 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 townhouses 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

1. A 'professional-looking' notebook (this might even have the logo of the company or organization conducting the interviews);
2. maps;
3. Sufficient copies of the survey instrument;
4. Official identification (preferable a picture ID);
5. A cover letter from the Principal Investigator or Sponsor; and
6. A phone number the respondent can call to verify the interviewer's authenticity.

3.2. Necessary equipment/material for data collection

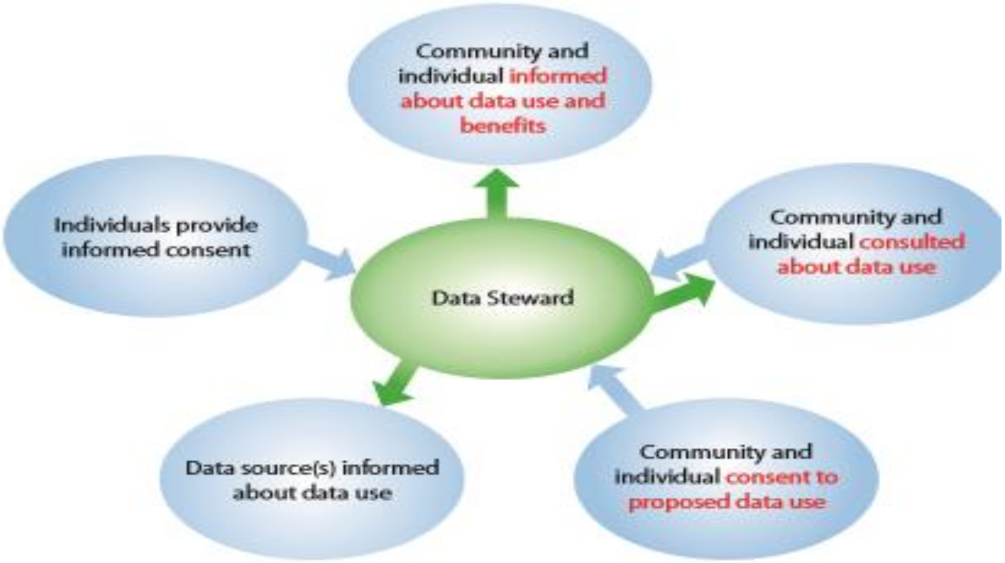
What very important in the preparation for data collection is preparing information materials and tools for data collectors and area supervisors. Data collectors will need to bring the following tools and information with them on each day of data collection:

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

3.3. 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
- 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.

3.3.1. 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.

3.3.2. 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 centers, 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.

3.4. 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 can be effectively engaged at every phase of the data lifecycle. 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.

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

Community surveys can be completed online, on paper, or in personal interviews. They can help data users to gather and analyze 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.

Self-Check -3	**Multiple Choice Question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

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. neighbors
   d. advisory boards
5. Communities can be effectively engaged at every phase of the data lifecycle and their engagement can be a way to protect
   a. The rights of individuals
   b. The rights of small groups, and communities
   c. The rights of data collectors
   d. The rights of data user
   e. A and B only are answers
6. ____ are a good way to find out how individuals feel about an issue during community engagement in data collection process
   a. Community leaders
   b. Focus Groups
   c. Community Advisory Boards
   d. Administrators of the community
   e. Community surveys

***Note:* Satisfactory rating - 6 points** **Unsatisfactory - below 5 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: ___________________________ Date: ________________

Instruction Sheet-2	**LG10. Collect, compile, interpret and utilize necessary health**

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

- Basic statistical concepts and procedures
- Types of health data
- Health data collection
    - ✓ Data collection
    - ✓ Data organization
    - ✓ Data analysis
    - ✓ Data interpretation, presentation and utilization
- Vital event and surveillance
    - ✓ Introduction to vital events and surveillance
    - ✓ Data collection on vital events and surveillance
    - ✓ Data confidentiality

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
- Classify Information collected or sorted out on the basis of a clear understanding of the purpose for maintaining the database system.
- Follow steps to maintain confidentiality according to prescribed procedures are taken.
- Collect and update timely vital events continuously and consistently in accordance with organization procedures and guidelines
- prepare and utilize data according to prescribed procedures and guidelines

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3 and Sheet 4,---” **in page ---, ---, --- and ---** respectively.
4. Accomplish the “Self-check 1, Self-check t 2, Self-check 3 and Self-check 4” ,---” **in page ---, ---, --- and ---** respectively
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 ” **in page ---.**
6. Do the “LAP test” **in page – ---**

Information Sheet-1	Basic statistical concepts and procedures

1.1. Introduction Basic statistical concepts and procedures

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 quintiles. 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.

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 centers, 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..

There are some additional definitions that will be helpful before additional topics are discussed:

Variable: - a characteristic that can take on different values in different situations.

Data: - is a set of facts expressed in quantitative form usually obtained from a measurement, totals or from counting.

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 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

Self-Check -1	**Multiple choice question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

6. The process of data collection, organization, Summarization, analysis and reporting is called as
   a. Health care statistics
   b. Statistics
   c. Characteristics
   d. Age
7. 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
8. 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
9. A characteristic that can take on different values in different situations.
   a. Data
   b. Information
   c. Variable
   d. Population
10. 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
11. A _____is an organized way to store data for easy access
   a. Data source
   b. Database
   c. Statistics
   d. Population

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Score = ___________

Rating: ____________

Answer Sheet

Name: _________________________

Date: _______________

Information Sheet-2	Types of health data

2.1. Types of health data

Data, the basic unit in statistics, are also classified as quantitative or qualitative based on its measurability.

a. **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.

b. **Qualitative Data** cannot be expressed as a number. Data that represent nominal scales such as gender, socioeconomic 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.

2.2. COMMON TYPES OF HEALTH CARE DATA

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).

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.

1. INDIVIDUAL DATA

Information that identifies an individual and their health conditions and services is often protected by HIPAA 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.

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.

2. 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.

3. DEMOGRAPHICS

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.

4. DIAGNOSES

A description of the health status of an individual, typically used to describe a variation from normal (i.e. “healthy”) to a presence of disease, infection, or injury, and often includes a prognosis or information on the severity of the condition.

Procedures: Procedures describe the medical interventions or services a medical professional provides to a patient (as opposed to what a patient might do on doctor’s orders).

Screening tests, laboratory information, and radiology data: This data can include the types of tests ordered, dates of service, lab and other test results, and pictures such as ultrasound or x-ray images.

5. 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

Self-Check -2	**True False Question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Based measurability data are classified as quantitative or qualitative only
2. Qualitative data can be expressed as a number
3. numbers of patients with a specific disease is an example of quantitative data
4. health data and health care data are the same
5. Information that identifies an individual and their health conditions and services are called as individual data
6. 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 can be an example of demographic data.
7. Radiology data are an example of diagnosis data

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: ____________________________ Date: _________________

Short Answer Questions

1. _________
2. _________
3. _________
4. _________
5. _________
6. _________
7. _________

Information Sheet-3	Health data collection

3.1. Introduction to Health data collection

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:

a) Observation and measurement

b) Face-to-face and self-administered interviews (questionnaires or surveys)

c) Postal or mail methods and telephone interviews

d) Focus group discussions (FGD)

e) 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. The 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 subjects

The absence of inconvenience, unpleasantness, or untoward consequences

III. The probability that the method will provide a good coverage

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.

3.4. 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 analyzing the arrangement of data items in a physical record is part of data organization.

3.5. 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.

- 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
    - ✓ Prepare tables and graphs
    - ✓ Analyze and interpret findings
    - ✓ Consult again the statistician
    - ✓ Prepare for editing
    - ✓ Prepare for presentation
- Types of Data analysis

I. Descriptive Analysis

II. Inferential 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.

3.6. Data interpretation, presentation and utilization

3.6.1. 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

3.6.2. Data Presentation

There are various methods of data presentation

I. Textual
II. Graphical Displays
III. Tabular

I. **Textual Methods of data presentation:** The data are presented in the form of texts, phrases or paragraphs. It is common among news paper 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.

3.7. 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 firsthand 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, 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.

Self-Check -3	**True False Question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

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.

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: ____________________________ Date: _________________

Short Answer Questions

8. _________
9. _________
10. _________
11. _________
12. _________
13. _________
14. _________
15. _________

Information Sheet-4	Vital event and surveillance

4.1. Introduction to vital events and surveillance

The vital statistics are a critical national information resource for understanding public health and examining such key indicators (vital events) as fertility, mortality, and causes of death, and the factors associated with them. Vital statistics begin as individual, geographically focused vital events that are registered or certified after their occurrence. Vital events in their basic content include the measurement of births and deaths as one of the longest-standing data collection.

Historically focused on communicable diseases, the scope of modern health surveillance extends to a broader range of health conditions such as injuries, occupational health and safety, environmental exposures, birth defects, addictions, chronic diseases, mental health and health behaviors. Until the 1950s, surveillance referred to the close observation of persons exposed to a communicable disease, in order to detect early symptoms of the disease and take measures to isolate the individual to control the disease in the population. This is now referred to as medical surveillance, to distinguish it from public health surveillance. An example of medical surveillance is the effort to detect early symptoms and to isolate individuals with tuberculosis.

Currently the term public health surveillance defined as the systematic and continuous collection, analysis, and interpretation of data, closely integrated with the timely and coherent dissemination of the results and assessment to those who have the right to know so that action can be taken. It is often distinguished from monitoring by the notion that surveillance is continuous and ongoing, whereas monitoring tends to be more intermittent or episodic

Surveillance is one of the six **core functions** of public health

1. Health Protection
2. Health Promotion
3. Disease and Injury Prevention
4. Population Health Assessment
5. Surveillance
6. Emergency Preparedness and Response

Model of the Cycle of Surveillance

The surveillance process has seven fundamental steps or components, each one of which is integral to a fully functioning system.

The following image illustrates the component steps and the cyclical nature of the surveillance process: data is collected, integrated, analyzed and interpreted, developed into surveillance products, and disseminated to allow informed public health action. Additionally, the system itself is evaluated and results fed back into the cycle.

4.2. Data collection on vital events and surveillance

Data collection on vital events and surveillance refer to the data collected concerning the progression of human life, from birth through death. This data is often used to calculate population related data for municipalities, states, nations or regions of the world. Vital statistics are also collected on an individual level, in which case they are often used to gauge the well-being of the person for whom the data has been collected.

Ratio: A ratio quantifies the magnitude of one occurrence or condition in relation to another. Eg) Sex ratio

Proportion: - is a type of ratio which quantifies occurrences in relation to the population in which these occurrences take place. I.e., the numerator is also included in the denominator.

Example: The proportion of malaria cases among inhabitants of a certain locality.

Rate: A rate is a proportion with a time element, i.e., in which occurrences are quantified over a period of time. The term rate appropriately refers to the ratio of demographic events to the population at risk in a specified period.

Measures of Mortality (Crude Death Rate (CDR)): is defined as total number of deaths due to all causes occurring in a defined area during a defined period per 1000 midyear population in the same area during the same period.

4.3. 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.

Self-Check -4	**True False Question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Vital events in their basic content include the measurement of births and deaths as one of the longest-standing data collection
2. The scopes of public health surveillance is greater than that of vital event registration
3. The close observation of persons exposed to a communicable disease, in order to detect early symptoms of the disease and take measures to isolate the individual to control the disease in the population is called as medical surveillance
4. surveillance tends to be more intermittent or episodic than monitoring
5. Data collection on vital events and surveillance refer to the data collected concerning the progression of human life, from birth through death
6. This principle refers protecting information from disclosure to unauthorized parties is called as data confidentiality

***Note:* Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: ___________________________

Date: ________________

Short Answer Questions

1. _________
2. _________
3. _________
4. _________
5. _________
6. _________

Operation Sheet-1	**Techniques of Collecting data that needs to be entered into the health database system**

Techniques of collecting data that needs to be entered into SPSS software

Step 1- collect data by using given questionnaire

Step 2- Define your variable on spss

Step 3- enter your first case

Step 4- continue filling out variables

Step 5- finish filling out your cases

Step 6- save your data on spss databases

Operation Sheet-2	Steps of Collecting vital events and surveillance data

Techniques for Collecting vital events and surveillance data

Step 1- select a vital events and surveillance data capturing form

Step 2- identify dataset of the given vital event

Step 3- enter dataset of the given vital event

Step 4- save/submit for the required body

Operation Sheet-3	**Techniques of Compiling, interpreting and utilizing data**

Techniques for preparing referral

Step 1 define your questions

Step 2- set clear measurement priorities

Step 3- collect data

Step 4- analyze your data by creating pivot table in ms excel

Step 5- interprete your result by defending against any objection

Step 6- identify the status of the performance and the next job

LAP Test	Practical Demonstration

Name: ______________________________ Date: ________________

Time started: ________________________ Time finished: ________________

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within --- hour.

Task1. Collect data that needs to be entered into the health database system

Task2. Collect vital events and surveillance da ta

Task3. Compile, interpret and utilize data

Instruction Sheet-3	LG11. Prepare and submit reports

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

- Recording and reporting
  - ✓ Health management information system/HMIS/
  - ✓ Family Folder
  - ✓ Report preparation

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
- submit reports to health center and/ or woreda health office
- Communicate updates and reportable diseases to the Woreda health office or health center according to prescribed procedures and guidelines.

Learning Instructions:

7. Read the specific objectives of this Learning Guide.
8. Follow the instructions described below 3 to 6.
9. Read the information written in the information "Sheet 1, Sheet 2, Sheet 3 and Sheet 4,---" **in page ---, ---, --- and ---** respectively.
10. Accomplish the "Self-check 1, Self-check t 2, Self-check 3 and Self-check 4" ,---" **in page ---, ---, --- and ---** respectively
11. If you earned a satisfactory evaluation from the "Self-check" proceed to "Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 " **in page ---.**
12. Do the "LAP test" **in page – ---**

Information Sheet-1	Recording and reporting

1.1. Introduction to recording and reporting

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 center, health post, clinics etc) owned by public (governmental) and private for nonprofit (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

1.2. Purpose of Recording and reporting

All the information recorded during the encounter between Health Extension Workers (HEWs) and the family will create the basic information at the grass root level. This will be supplemented by information captured in kebele 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:

1. **Kebele profiling formats**
   a. Kebele demographic profile
   b. Kebele resource mapping
   c. Kebele household environmental sanitation profile
   d. Kebele basic health indicators format

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

3. Tallies
   a. Service delivery tally
   b. Disease information tally
   c. Tracer drug availability tally

d. Family planning method dispensed count

4. Reporting formats

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

1.2. Health management information system/HMIS/

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.

1.2.1. 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

1.3.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 for the HEW to manage and monitor her 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. Status of HEP packages training and implementation are recorded on the back side of the 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 colored for male members and yellow colored 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

-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.

1.4. 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 WorHO). 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.

Self-Check -1	**True False Question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

8. All the information recorded during the encounter between Health Extension Workers (HEWs) and the family will create the basic information at the grass root level.
9. Diseases information tally is a reporting format
10. The primary purpose of HMIS is routine collection and aggregation of quality health information
11. Complementing the Family Folder is a simple HMIS record keeping and reporting procedure that feeds community level health information.

12. Every member of the family who is ≥5 years of age is issued a Health Card
13. Reports flow into health institution through HMIS in-charge

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Score = ___________

Rating: ____________

Answer Sheet

Name: ___________________________ Date: _________________

Short Answer Questions

16. _________
17. _________
18. _________
19. _________
20. _________
21. _________

Operation Sheet-1	steps of Preparing and submitting reports

Steps of Preparing and submitting standard reports on DHIS2

Step 1- start DHIS2 sofware

Step 2- go to the reports app

Step 3- click standard report

Step 4- click add new

Step 5- name your new report

Step 6 - select the period organizational unit

Step 7- submit, view and dawn load the report as excel file

Operation Sheet-2	Techniques Communicating with clients and colleagues

Techniques for using computer software

Step 1- install your first program

Step 2- launch some pre-installed application/microsoft office

Step 3- create office excel file

Step 4- inser some data on ms excel

Step 5- perform common calculation on ms excel

Step 6- create tables and figures on excel

LAP Test	Practical Demonstration

Name: ______________________________ Date: ________________

Time started: ________________________ Time finished: ________________

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within --- hour.

Task1. Prepare and submit report

Task2. Communicate with clients and colleagues

Instruction Sheet-4	**LG12. Take intervention measures accordingly**

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

- Key stakeholders
- Identifying health problems
- Consultation process
- Feed back

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 –**

- Make discussions with key stakeholders regarding the health problems
- provide briefing materials throughout the consultation process to identify and clarify issues of interest/concern to stakeholders and own organization
- provide feedback to the team leader or work team on the results of the consultation process
- are make 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

Learning Instructions:

6. Read the specific objectives of this Learning Guide.
7. Follow the instructions described below 3 to 6.
8. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3 and Sheet 4,---” **in page ---, ---, --- and ---** respectively.
9. Accomplish the “Self-check 1, Self-check t 2, Self-check 3 and Self-check 4” ,---” **in page ---, ---, --- and ---** respectively
10. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 ” **in page ---.**
11. Do the “LAP test” **in page – ---**

Information Sheet-1	Key stakeholders in health care

1.1. Introducing the Key Stakeholders:

Key stake holders in health care are Patients, Providers, Payors, and Policymakers (the Four P’s) and the roles they play in relation to each other (see Figure 1).

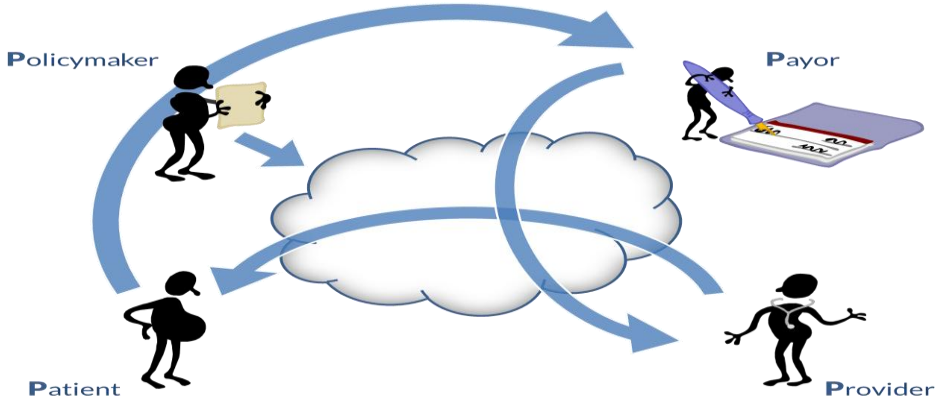


Figure 1. The stakeholders: patients, providers, payors, and policymakers

1. **Policymakers**. Policymakers establish the framework within which health care is provided to the country’s citizens. In this book, “policymaker” is a synonym for “ministry of health” or whatever jurisdictional entity is responsible for the health of the population. The policymakers aggregate data from patients, providers, and payors to develop population-level metrics that inform their health and health economic policies. In this context, policies answer the crucial questions:
    - Who is eligible to receive care?
    - What care services are provided; how; where; by whom?
    - How are services paid for?
    - Are the services being delivered well? Are they accessible?
    - Are the needs of vulnerable or marginalized populations adequately served?
    - What health care concerns do we need to plan for next?
2. **Patients**. All of us—at one time or another—are patients. Patients are typically citizens, and voters, and sometimes taxpayers. Policymakers have a fiduciary duty to this population, and the country’s policy framework is established to benefit patients. Patients receive care services from providers and are the beneficiary customers of the payors. Patients also may want to access information about their care via an electronic device (e.g., personal computer, mobile phone).
3. **Providers**. Providers operationalize care delivery within the policy framework. They provide health services to patients and maintain health information about them. The providers coordinate patient care with other providers as care team

members. Many providers are independent businesses that must manage their own operations and finances.

4. **Payors**. Payors operationalize the financial elements of the policy framework. Payors enroll patients as beneficiaries. They procure care services from the providers on behalf of their patient beneficiaries. They also must take on the actuarial task of ensuring the financial sustainability of the care program. They report to policymakers.

Self-Check -1	**True False Question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

14. Patient is not one key stakeholders in health care
15. Policymakers establish the framework within which health care is provided to the country's citizens
16. Providers operationalize care delivery within the policy framework
17. Payors operationalize the financial elements of the policy framework

***Note:* Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: ___________________________ Date: _______________

Short Answer Questions

22. _________
23. _________
24. _________
25. _________

Information Sheet-2	Identifying health problems

2.1. Introduction to identifying community health problems

Identifying and solving health problems in communities are very important to reduce or eliminate illness and disease. It is therefore very important at the outset to identify major health problems that exist in the target communities. These can be determined from the already established priorities and goals of the local health agency as well as from what community members feel are their needs for health services.

One way to organize this information is to develop a table listing, on one side, the conditions of poor health that exist in the community or region and, on the other side, specific primary health care services that should be provided to promote good health and eliminate these inadequate conditions.

2.2. Necessary information that should be collected to identify community health problems

1. Information about local community needs

- What are the local health problems and their causes?
- What other problems affect people's well-being?
- What do people feel are their most important problems and needs?
- What are the local beliefs, customs, and habits that affect health?

2. Information about social factors

- What are the main family and social structures in the community?
- Who are the leaders of the community, i.e., men, women, youth?
- What traditional forms of healing and problem solving exist?
- What kinds of relationships do people in the community have with each other?
- Who has power over other people, and who owns resources?
- What kinds of foods do people in the community traditionally eat?

3. Information about community resources

- Which people in the community have special skills, such as leaders, healers, and teachers?
- What natural resources exist in the area, for example land, crops, sources of food, sources of fuel and water?
- How do people earn a living?

Self-Check -2	True False Question

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Identifying and solving health problems in communities are very important to reduce or eliminate illness and disease
2. communities local beliefs, customs, and habits that affect health are information not necessary in health problem identification
3. in community problem identification, What do people feel are their most important problems and needs
4. women or youth cannot be a leader of the community that can give us information about social factors
5. collecting information about community resource is not necessary to identify communities health problems

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: ___________________________ Date: _______________

Short Answer Questions

26. ________
27. ________
28. ________
29. ________

Information Sheet-3	Consultation process

3.1. Introduction to Consultation process

The process of consultation is an extremely important concept in the context of managing an organization. Consultation is a process by which the management of the organization aims to better understand the needs, wants and expectations of stakeholders, so that value can be created. Consultation is an active process in which organization management opens formal and informal communication channels between the organization and its stakeholders.

3.2. Formal and Informal communication channels for stakeholder consultation

These formal and informal communication channels might include:

- **Open meetings** e.g. stakeholders are invited to come to an open meeting or a series of meetings
- **Surveys** e.g. stakeholders are invited to complete a survey (paper or online type)
- **Focus group** e.g. a select cross-section of stakeholders, small in number, are invited to attend a meeting or series of meetings
- **Invitation to send a written response** e.g. stakeholders are invited to submit comments in writing on a proposal or plan
- **Informal meetings** e.g. organization management might mingle with people at an event a canvass certain ideas and see what response they get

3.3. Purposes of consultation

The purpose of consultation is three-fold:

1. To invite stakeholders to provide advice to the management of the organization about their needs, wants and expectations. In other words, tell the organization what value it wants and how it can provide this value.
2. To invite stakeholders to comment on plans those have been created by organization management to provide this value requested by stakeholders.
3. To quell any criticism that organization management have not taken account of, or are not listening to the needs of stakeholders in developing strategic and operational plans.

3.4. Problems of planning without having consultation process

There is a widespread view that if a plan is conceived without proper consultation with stakeholders then it has far less chance of successful implementation. There is a clear need for anyone responsible for the formulation of a plan to consult with all persons who will be affected by the plan. For example, a budget for any area of organization operation should not be set without consultation with people who work in that area of operation. Likewise, management should not construct a plan for a new health program without consultation with people who likely are program users.

Setting an Operational Plan without consultation disadvantages the organization because:

- A lack of consultation fails to take advantage of all available knowledge and expertise
- A lack of consultation makes people feel left out and creates negativity toward the emerging plan.

Self-Check -3	**True False Question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. A process by which the management of the organization aims to better understand the needs, wants and expectations of stakeholders is called consultation
2. Consultation process include formal and informal communication channel
3. Invitation to send a written response for stakeholders cannot be included under consultation process channel
4. Informal meetings with a people at an event cannot be included under consultation process channel
5. Stakeholders tell the organization what value it wants and how it can provide this value through consultation process
6. A lack of consultation makes people feel left out and creates negativity toward the emerging plan

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: _________________________ Date: _______________

Information Sheet-4	**Feed back**

a. Introduction to Feed back

Feedback in health care can be defined as "any summary of clinical performance of health care over a specified period of time aimed at providing information to health professionals to allow them to assess and adjust their performance". In practical terms, health professionals, working either in a team or individually, receive feedback on their performance by reflecting on data derived from their routine practice. Audit and feedback are intended to enhance professional performance and thereby improve the quality of health care and patient safety. Although it seems intuitive that health professionals would be prompted to modify their clinical practice after receiving feedback showing that it was inconsistent with that of their peers or accepted guidelines, this has not been demonstrated consistently.

b. Using Feedback

Feedback can be delivered in different ways, categorized in terms of the recipients, formats, sources, frequency, duration and content. Audit and feedback mechanisms can be used alone or linked to other interventions

Different types of audit and feedback mechanisms can be used, including: different levels of responsibility and involvement; mandatory or voluntary approaches; approaches initiated and/or led by health professionals/professional organizations or by health authorities; different ways of monitoring or auditing practice; different recipients (e.g. individual or group); different sources of feedback (e.g. supervisor, senior colleague, professional standards review organization, representative of the employer or the purchaser, investigators); different feedback formats (e.g. verbal or written); different frequencies, durations and content (e.g. information about patients, such as blood pressure or test results, adherence to standards or guidelines, peer comparisons, or information about costs, or numbers of prescriptions or tests ordered).

Feedback of individual or group-level data can be supplemented with information about where individuals are and/or specific recommendations for changes to practice. Audit and feedback can be linked to economic incentives or to reimbursement schemes, e.g. result-based financing or pay for performance schemes. Audit and feedback may be a governance or regulatory arrangement, or used in accreditation or organizational assessments. Performance and outcome data can be made public.

c. Audit and feedback as an instrument to improve quality and safety of health care

Audit and feedback, as a system for improving both the quality and safety of health care, can be applied in many different ways.

Firstly, the aspects of performance that are being audited may vary, depending on the interests of those in charge of the audit, and the available information. An audit may, for instance, deal with prescriptions for specific health problems, test ordering, preventive tasks, communication skills or compliance with disease-specific clinical guidelines.

Secondly, an audit can be based on routinely available data from electronic patient records or medical registries, or on data that are collected by the health professionals specifically for that purpose, as a kind of survey.

Other kinds of audit are based on video observations, direct observations, or structured observations done by peers or by "simulated patients".

Feedback can differ in terms of the recipients (individual or group), formats (verbal or written), sources (supervisor, senior colleague, professional standards review organization, representative of the employer or the purchaser, investigators), frequency, duration and content (information about patients, such as blood pressure or test results, adherence to standards or guidelines, peer comparisons, or information about costs, numbers of prescriptions or tests ordered). Audit and feedback mechanisms can be used alone or can be linked with other interventions.

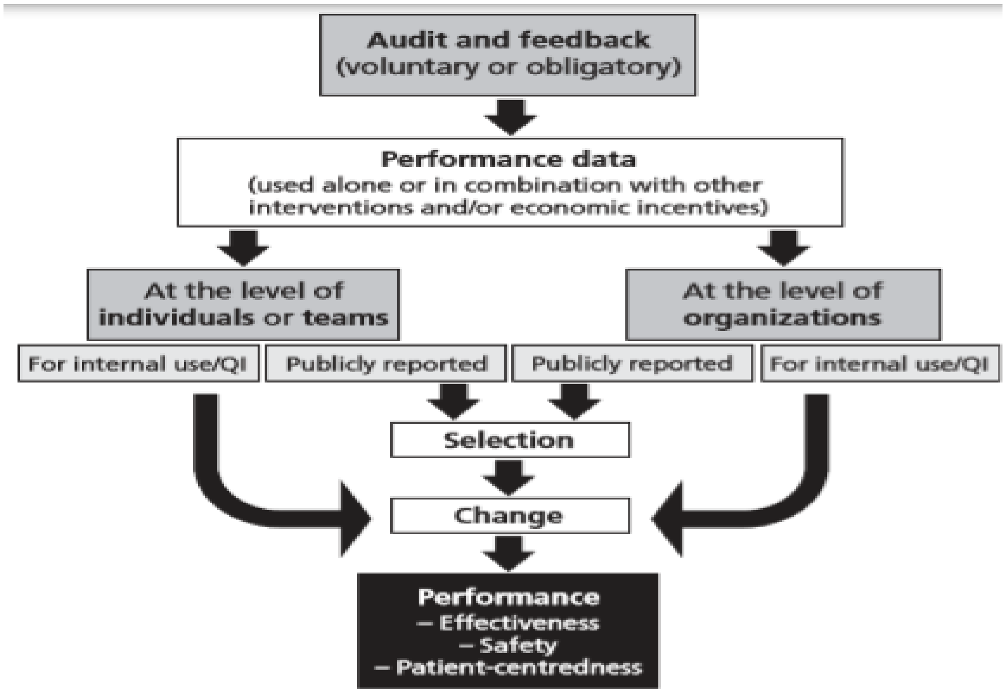


Fig. 1 illustrates different ways of organizing audit and feedback, and describes how the system might work.

Self-Check -4	**True False Question**

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. In practical terms, health professionals, working either in a team or individually, receive feedback on their performance by reflecting on data derived from their routine practice
2. Feedback format can be only written
3. Feedback of individual or group-level data can be supplemented with information about where individuals are and/or specific recommendations for changes to practice.
4. The aspects of performance that are being audited may vary, depending on the interests of those in charge of the audit, and the available information

***Note:* Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

Answer Sheet

Score = ___________

Rating: ____________

Name: _________________________ Date: _______________

Short Answer Questions

1. ________
2. ________
3. ________
4. ________

Reference

1. https://www.who.int/diabetes/actionnow/consult/en/
2. Signe A *etal*, Using audit and feedback to health professionals to improve the quality and safety of health care https://www.google.com/search?client=firefox-b-d&q=feedback+in+health+care
3. https://apps.who.int/medicinedocs/en/d/Jh2940e/2.3.html