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# Training Module for Community Animal Health Workers in Somalia

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Developed by Dr. Tobias Ounga & Dr. Martin Nyamweya



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## Abbreviations and Acronyms

CAHWs	Community based Animal Health Workers
VSF	Veterinaires sans Frontieres
PSF	Pharmaciens sans Frontieres
CBPP	Contagious Bovine Pleuro-Pneumonia
CCPP	Contagious Caprine Pleuro-Pneumonia
PPR	Pestes des Petits Ruminants

# Foreword

The Training Module for Community Animal Health Workers in Somalia is a guide that outlines topics that are relevant for training of CAHWs on basic veterinary clinical skills. During its development, the guide was subjected to field testing on two actual events in Dollow and Hulugho for CAHWs from Gedo and Lower Juba regions of southern Somalia. It is intended to be used by facilitators to prepare for training events as well as during training delivery. The guide only gives relevant topics, objectives for topics, suitable methodology, estimated timing, materials and content outline. Much attempt has been made to adapt the content to the context of Somalia. It should be noted that participatory principles should be adhered to, and thus the guide provides for flexibility in actual delivery of training. The methodologies given are merely specified as suitable hence may be adjusted to suite the training environment and mood of participants. It is advisable that the modules are delivered as separate training events, taking into account that targeted participants are adults who may be involved in other socio-economic activities. The guide also recommends a list of references that are useful for preparation and delivery of training. It is hoped that this guide will be found helpful by facilitators on training events for CAHWs.

Dr. Tobias Ounga,

Dr. Martin Nyamweya

# Introduction

The keeping of livestock forms a main livelihood for pastoral communities of Somalia. However, conflicts, insecurity and recurrent cycles of droughts have continued to disrupt availability of animal health services to these communities. These expose the pastoral communities to great vulnerabilities of livestock diseases. During the past few years, interventions by development agencies have introduced Community Animal Health Workers (CAHWs) delivery system to avail veterinary clinical services to pastoral communities. The CAHWs are members of community, are actively involved in livestock keeping and live within the communities. To become CAHWs, such members of the community undergo training on basic veterinary clinical skills and business management. The Training Module for Community Animal Health Workers in Somalia is a guide to assist facilitators in preparation and delivery of training of prospective CAHWS on basic veterinary clinical skills. It is comprised of three modules, I, II and III, each giving the relevant topics, objectives for topics, suitable methodology, estimated timing, materials and content outline. The aim of module I is to enable trainees to make diagnosis and undertake treatment of disease problem, keep treatment records, and assist in control and prevention; the aim of module II is to enable trainees to understand concepts of business skills and disease surveillance and reporting; while the aim of module III is to enable trainees to understand concepts of business skills and disease surveillance and reporting.

# Module I: Herd Health and Livestock Production

The aim of module I is to enable trainees to make diagnosis and undertake treatment of disease problem, keep treatment records, and assist in control and prevention.

## **Topic: The Role of Community Animal Health Workers, Experience sharing, Lessons Learnt**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). List the roles of CAHWs.
- ii). Outline activities which they are expected to undertake after training.
- iii). Outline possible challenges that they may encounter in their work as CAHWs and how the challenges may be tackled.

### **Suitable Methodology**

Open plenary discussion.

**Duration:** 2 hours.

### **Materials**

News prints, flip charts and felt pens.

### **Content**

The roles of CAHWs. What is the experience of participants on animal health? What lessons had participants learnt on animal health.

## **Topic: Healthy Animals and Unhealthy Animals**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). List features of a healthy animal.
- ii). List features of a sick animal.
- iii). Describe the meaning of disease.
- iv). Outline the differences between the healthy and the sick animal.

### **Suitable Methodology**

Group discussions and practical demonstration with pictures and charts of drawings.

**Duration:** 2 ½ hours.

**Materials**

Pictures and/or drawings of animals in good health, pictures of sick animals, practical session with healthy and sick animals.

**Content**

Appearance and behaviors of a healthy (normal) animal, the healthy appearance and behaviors of various animal species, general signs of sickness in animals, the appearance and behaviors of various animal species during sickness, Definition of the term disease.

**Topic: Body Organs and Functions****Objectives**

At the end of the topic, the trainee should be able to:-

- i). List and identify the basic anatomical structures of cattle, shoats, camel and poultry.
- ii). Outline the main functions of, and interactions between, the basic anatomical structures of cattle, shoats, camel and poultry.
- iii). Outline the characteristics (changes in function as well as appearance) of the anatomical structures during disease.

**Suitable Methodology**

Group discussions using pictures and charts of drawings; practical demonstrations with live and sick animals; post-mortem practical.

**Duration:** 3 ½ hours.

**Materials**

Drawings of anatomical parts of animals, live animals, post-mortem carcasses.

**Content**

External parts of the male bovine, female bovine, goat/sheep, camel and poultry. Functions of the external parts – eye, ear, nose, mouth, limbs, skin and hair. Basic structure and functions of the digestive system, circulatory system, urinary system, reproductive system, nervous system and the immune system.

**Topic: Diseases of Livestock****Objectives**

At the end of the topic, the trainee should be able to:-

- i). List significant diseases of livestock in Somalia.
- ii). List and describe the main clinical signs of significant diseases of livestock in Somalia.
- iii). Outline the diseases of significance in their localities.

**Suitable Methodology**

Open plenary discussion in which trainees are asked to list diseases then group discussions in which trainees are divided into groups and asked to a) draw animals presenting with particular diseases. Outcomes of group work are then discussed with all trainees together and additions made. Divide participants into their localities and ask each to select diseases common in their areas.

**Duration:** 4 hours.

**Materials**

News prints, flip charts and felt pens.

**Content**

Common and significant diseases in Somalia, the clinical signs in affected animal species.

**Topic: Causes of Diseases****Objectives**

At the end of the topic, the trainee should be able to:-

- i). The main groups of organisms that cause diseases.
- ii). List examples of diseases caused by each group.
- iii). List disease causes that are non-living.

**Suitable Methodology**

Open plenary discussion in which trainees are asked to list what causes diseases in their areas, the groups are then outlined and related to how they cause diseases.

**Duration:** 2 hours.

**Materials**

News prints, flip charts and felt pens.

**Content**

Groups of organisms that cause diseases. Non-living causes of diseases.

## **Topic: Transmission Prevention, and Control of Diseases**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). List various modes of transmission of diseases.
- ii). Explain how various control and prevention are employed for the various causes and modes of transmission.

### **Suitable Methodology**

Structured lectures, guided discussions, illustrations and practical.

**Duration:** 2 ½ hours.

### **Materials**

News prints, flip charts, felt pens, pictures, drawings, samples of parasites e.g ticks, tsetsefly.

### **Content**

Methods of disease of transmission, biological agents and transmitting vectors, how the diseases can be prevented and controlled based on cause and mode of transmission.

## **Topic: Restraint of Animals**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Explain reasons for restraint of animals.
- ii). List methods of restraint of animals.
- iii). Demonstrate methods of restraint of animals.

### **Suitable Methodology**

Practical demonstration on live animals.

**Duration:** 1 ½ hours.

### **Materials**

Live animal (preferably cattle), restraint ropes, crutch, other equipment for diagnosis (stethoscope and thermometer).

### **Content**

Reasons for restraint of animals, Use of ropes in restraining and animals, use of the crutch, tethering, casting by use of ropes, halter, muzzling, other methods – use of chemicals (sedatives, tranquilizers). Remember to explain methods for various species of animals.

## **Topic: Clinical Examination, Diagnosis and post mortem**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Outline objectives of clinical examinations, diagnosis and post-mortem examinations.
- ii). Outline the process/procedure for making clinical examinations, diagnosis and post-mortem examinations.
- iii). Conduct clinical examinations, diagnosis and post-mortem examinations on an animal.

### **Suitable Methodology**

Practical demonstrations, structured lecture.

**Duration:** 4 ½ hours.

### **Materials**

Animals for clinical examinations, diagnosis and post-mortem examinations, post-mortem kit, facility for physical restraint depending on animal used for demonstration (crutch) other equipment for diagnosis (stethoscope and thermometer).

### **Content**

Objectives of clinical examinations, diagnosis and post-mortem examinations. Procedure and steps for clinical examinations, diagnosis and post-mortem examinations; Note down details of the animal (including owner and location), obtaining information on history of condition and management; observation from a distance without touching; close examination involving touching such as feeling pulse, respiration, temperature, digestive movements, testing for pain and feeling for swellings. Further diagnosis involve taking of samples, laboratory testing and post-mortem examination. Mention reasons for going to subsequent levels.

## **Topic: Introduction to veterinary Drugs**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Describe traditional methods of treatment used in the local area.
- ii). Give an overview of how drugs work.
- iii). List the drugs used in modern veterinary treatments, with reference to Somalia.
- iv). Explain in brief, "why modern medicines?"
- v). Outline movement of drugs on the body.

**Suitable Methodology**

Open discussion coupled with structured lecture.

**Duration:** 1 ½ hours.

**Materials**

Samples of drugs.

**Content**

Local traditional methods of treatment, how drugs work – by killing ‘germs’ and parasites or by changing the operations of the body. Give a listing of drugs (modern) for diseases of importance in Somalia. “Why modern medicines?” – have been tested, are more purified and are simplified for easy use (administration, handling, packaging, storage life and other factors). Briefly mention the origin of medicines (herbs, biological extracts, synthesized chemicals). Briefly discuss where, following administration, the drugs in the body goes to, including elimination.

**Topic: Drugs and Dosages****Objectives**

At the end of the topic, the trainee should be able to:-

- i). Outline how drugs are classified in terms of physical form, route of administration, diseases agent acted upon, spectrum of drugs and what long acting drug is.
- ii). Describe modern treatment options used in Somalia in terms of medicine, uses of medicine, routes of administration and dosage rates.

**Suitable Methodology**

Practical demonstration using various drugs, equipment and live animal(s). Summary of topic by structured lecture and discussion.

**Duration:** 4 ½ hours.

**Materials**

Samples of drugs, syringes, needles, restraint equipment and live animal(s).

**Content**

List the drugs used in modern veterinary treatments, classification of drugs and their administration, specific drugs, their uses, administration, dosage, and withholding periods. Naming of drugs; generic name, brand name. It should be mentioned that some diseases, particularly viral diseases, are not curable and only supportive therapy and good care may be done.

## **Topic: Rationale Use of Drugs**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Distinguish between bad ethical use of drugs and good ethical use.
- ii). Outline the consequences of bad ethical use of drugs.

### **Suitable Methodology**

Open discussion, cases studies.

**Duration:** 1 ½ hours.

### **Materials**

Samples of drugs.

### **Content**

As trained professionals, CAHWs should adhere to correct code of ethics while handling and using drugs. What do bad ethics entail? – intentional under-dosage, use of wrong drugs such as human drugs for animal treatment, dilution of drugs, use of expired drugs and failure to observe cleanliness/asepsis.

## **Topic: Handling of Drugs**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Describe measures for storage and transportation of drugs.
- ii). Outline the consequences of poor handling of drugs.
- iii). Outline necessary actions to institute on specific undesired consequences.

### **Suitable Methodology**

Practical demonstration using various drugs and structured lecture and discussion. A role play may fit, such as about a child poisoned after medicine is placed into soda bottle, losses following spillages or broken bottles.

**Duration:** 2 hours.

### **Materials**

Samples of drugs.

### **Content**

Consequences of poor handling of drugs and actions to be instituted; expiry, breakages, spillages, accidental ingestion by children, contamination of drugs and deterioration e.g due to

sunlight and/or heat. Measures for proper transportation and storage of drugs; purchase only from reliable drug suppliers (mention the main sources for the area and recommended retail prices. When pricing is so cheap, may imply poor drug), ensure you confirm not expired by reading label, confirm normal color and viscosity and packaging while receiving and before use, observe storage instructions, proper packaging, keep in cool dark and dry place(s), aseptic withdrawal of drugs from bottles. Expired drugs must be discarded, Spillages should be cleaned immediately, Never use bottles intended for human food, keep out of reach of children e.g cupboards or high shelves, incase of poisoning to human institute first aid only when sure and contact medical help immediately, for reconstitution or dilutions use sterilized water e.g can boil. How to discard drugs that are not needed (expired, damaged, excess drugs). Adhere to good ethics and conducts on use of drugs.

## **Topic: Importance of Record Keeping**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Outline reasons for keeping of records.
- ii). Consequences of not keeping records and of poor record keeping.

### **Suitable Methodology**

Open discussions, case studies, role play about some bad consequence of poor records or lack of record.

**Duration:** 2 ½ hours.

### **Materials**

News prints, flip charts and felt pens.

### **Content**

Reasons for keeping of records, consequences of poor and lack of records.

## **Topic: Record Keeping, an Introduction**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). List and describe relevant details to be recorded for treatment and drug usage.
- ii). Prepare records for disease treatment and drug usage.
- iii). Outline other records important in clinical work.

### **Suitable Methodology**

Guided discussions, exercise and practical demonstrations with charts.

**Duration:** 1 ½ hours.

**Materials**

News prints, flip charts, felt pens and samples of records.

**Content**

Records for treatments and drug usage. Other records that are of importance in clinical work.

## Module II: Disease Reporting, Vaccinations and Surgical Procedures

The aim of module II is to enable trainees to understand the need to vaccinate livestock for control and prevention of diseases and perform basic surgical procedures.

### **Topic: Record Keeping for Disease Outbreaks**

#### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). List and describe relevant details to be recorded for disease outbreaks.
- ii). Prepare records for disease outbreaks.

#### **Suitable Methodology**

Guided discussions, exercise and practical demonstrations with charts.

**Duration:** 1 ½ hours.

#### **Materials**

News prints, flip charts, felt pens and samples of records.

#### **Content**

Records for disease outbreaks.

### **Topic: Notifiable Diseases, Reporting and diseases affecting trade**

#### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). List the notifiable diseases of Somalia and other diseases affecting livestock trade.
- ii). Describe the procedure for reporting notifiable diseases and where to report.

#### **Suitable Methodology**

Guided lecture, brainstorming and open discussions.

**Duration:** 2 hours.

#### **Materials**

News prints, flip charts and felt pens.

#### **Content**

List the notifiable diseases of Somalia. Describe the procedure for reporting notifiable diseases and where to report.

## **Topic: Diseases Reporting**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Outline reasons for reporting of diseases.
- ii). Prepare disease reports.

### **Suitable Methodology**

Guided discussions, exercise and practical demonstrations with charts.

**Duration:** 2 ½ hours.

### **Materials**

News prints, flip charts and felt pens.

### **Content**

Reasons for disease reporting. Structure and content of disease reports.

## **Topic: Sample Collection**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). List types of samples used in disease diagnosis.
- ii). Describe the procedures for collection and submission of the samples for analysis.
- iii). Demonstrate the process of collection of the samples.

### **Suitable Methodology**

Practical demonstration on live animal and guided discussions.

**Duration:** 3 ½ hours.

### **Materials**

Live animal, restraint facilities and various material and equipments for sample collection (syringes, needles, glass slides, sterile swabs, scalpel blades, vacutainer sets).

### **Content**

List of samples necessary in diagnosis. Procedures for sample collection and handling.

## **Topic: Drugs care and limitations of veterinary drugs**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Outline the practices for good care of drugs.
- ii). Consequences of poor care of drugs.
- iii). List the limitations of use of drugs.

### **Suitable Methodology**

Proper care of drugs ensures safety of users, children and other non-professionals, proper storage and transportation, and proper reconstitution.

**Duration:** 2 ½ hours.

### **Materials**

News prints, flip charts, felt pens and samples of drugs.

### **Content**

Proper care of drugs ensures safety of users, children and other non-professionals, proper storage and transportation, and proper reconstitution. Drugs will only work under specific underlying conditions - correct diagnosis, correct choice of drug, correct dosage, right route of administration, non-expired drug and right phase in disease. The effectiveness of drugs are considered to be limited to these factors.

## **Topic: Vaccinations**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Explain what vaccination is, and the purpose.
- ii). List the various types of vaccines, and their administration.
- iii). Outline an appropriate vaccination regime for various livestock species of Somalia.

### **Suitable Methodology**

Practical demonstration of various vaccines and routes of administration and structured lecture on what vaccines are. Vaccination regime for various livestock of Somalia.

**Duration:** 3 ½ hours.

### **Materials**

Samples of vaccines, syringes (including automatic syringe) and needles for administration.

## **Content**

What is vaccination and why is it done? List of vaccines for diseases common in Somalia; Foot and Mouth Disease, Contagious Bovine Pleuro-Pneumonia (CBPP), Contagious Caprine Pleuro-Pneumonia (CCPP), Blackquarter, Anthrax, Pestes des Petits Ruminants (PPR), Rabies, Hemorrhagic Septicemia, Vaccines for poultry. Routes of administration.

## **Topic: Vaccine Handling and Reconstitution**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Explain reasons for proper handling of vaccines.
- ii). Describe transportation and storage of vaccines.
- iii). Describe procedures for reconstitution of important vaccines.

### **Suitable Methodology**

Practical demonstration on equipment, facilities for vaccine transportation, and storage. Structured lecture and demonstration on vaccine reconstitution.

**Duration:** 2 ½ hours.

### **Materials**

News prints, flip charts and felt pens. Samples of vaccines, syringes (including automatic syringe) and needles for administration.

## **Content**

Measures for vaccine transport and storage. Possible spoilage of vaccines. Vaccine reconstitution.

## **Topic: Cold Chain**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Explain the meaning of cold chain.
- ii). Explain the reasons for using cold chain.
- iii). The cold chain system (i.e the path).
- iv). Describe equipments used in cold chain and how to decide which ones to use.

### **Suitable Methodology**

Structured lecture, practical demonstration.

**Duration:** 1 ½ hours.

**Materials**

News prints, flip charts, felt pens, cold chain equipment.

**Content**

What is a cold chain? Why is cold chain necessary, the cold chain system and steps in the cold chain system, types of cold chain equipment, how to decide on the type and amount of cold chain equipment that one needs.

**Topic: Introduction to Surgical Instruments****Objectives**

At the end of the topic, the trainee should be able to:-

- i). Identify scalpel blades, clinical thermometer, disbudding iron, dehorning wire, hoof knife, hoof trimmer, burdizzo, and thumb forceps.
- ii). Explain what the equipment are used for.
- iii). Demonstrate how they are used.

**Suitable Methodology**

Demonstrations and practical exercises.

**Duration:** 2 hours.

**Materials**

Scalpel blades, clinical thermometer, disbudding iron, dehorning wire, hoof knife, hoof trimmer, burdizzo, and thumb forceps.

**Content**

Surgical equipments and their use.

**Topic: Handling of Surgical Instruments****Objectives**

At the end of the topic, the trainee should be able to:-

- i). Explain appropriate process of handling of the equipment between uses.
- ii). Explain important maintenance procedures for surgical equipment.

**Suitable Methodology**

Demonstrations and practical exercises.

**Duration:** 2 ½ hours.

**Materials**

Scalpel blades, clinical thermometer, disbudding iron, dehorning wire, hoof knife, hoof trimmer, burdizzo, and thumb forceps.

**Content**

Cleaning and storage of surgical equipment (sterilization and asepsis to be emphasized). Important maintenances procedures for surgical equipment.

**Topic: Basic Surgical Procedures****Objectives**

At the end of the topic, the trainee should be able to:-

- i). Demonstrate proper procedures in de-horning, ear notching, closed castration, wound care, hoof trimming, care for abscess, care of fractures, care of dislocations and control of bleeding.
- ii). Explain when de-horning, castration and hoof trimming are an indication.

**Suitable Methodology**

Practical demonstrations, illustrations and structured lectures.

**Duration:** 7 ½ hours.

**Materials**

Disbudding iron, scalpel blades, dehorning wire, hoof knife, hoof trimmer, burdizzo, syringes, swabs, bandages and drugs.

**Content**

Procedures in de-horning, ear notching, closed castration, wound care, hoof trimming, care for abscess, care of fractures, care of dislocations and control of bleeding. When de-horning, castration and hoof trimming are an indicated.

## Module III: Handling of Drugs, Disease Reporting and Business Skills

The aim of module III is to enable trainees to understand concepts of business skills and disease surveillance and reporting.

### **Topic: Record Keeping**

#### **Objectives**

Under module III, the delivery of this session should be a review of similar topic in module I but with more reference on field experiences of the trainees about the topic.

#### **Suitable Methodology**

Open discussion, case studies and illustrations.

**Duration:** 3 ½ hours.

#### **Materials**

Samples of records, records previously submitted by CAHWs.

#### **Content**

Real situation experiences, then review key areas of weaknesses of trainees. Include discussion on problems encountered in field about record keeping and how these should be avoided.

### **Topic: Handling of Veterinary Drugs**

#### **Objectives**

The delivery of this session should be a review of similar topic in module I but with more reference on field experiences of the trainees about the topic.

#### **Suitable Methodology**

Open discussion.

**Duration:** 2 ½ hours.

#### **Materials**

Samples of drugs.

#### **Content**

Real situation experiences, then review key areas of weaknesses of trainees.

## **Topic: Sourcing and Identification of quality Drugs**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Outline sources of high quality drugs and recommended retail prices.
- ii). Establish appropriate costing for drugs and/or service delivery.

### **Suitable Methodology**

Open discussion.

**Duration:** 1 ½ hours.

### **Materials**

Samples of drugs.

### **Content**

Sources of drugs, high quality drugs versus poor quality drugs, what to look for, characteristics of unreliable sources, and the consequences of using poor quality drugs.

## **Topic: Inappropriate application of Drugs**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). List forms of inappropriate application of drugs.
- ii). Outline the consequences of inappropriate application of drugs.

### **Suitable Methodology**

Practical demonstration using various drugs and structured lecture and discussion. A role play may fit, about quarrels after animals are poisoned by over-dosing, wrong route of administration; treatment failure due to wrong diagnosis, expired drug and under-dosing.

**Duration:** 4 ½ hours.

### **Materials**

Samples of drugs.

### **Content**

What does inappropriate application of drugs entail? – Under dosage, over dosage, wrong diagnosis, wrong medicine, wrong route of administration and use of expired medicine. Consequences of inappropriate use include; persistence of disease, poisoning of animal, creation of drug resistance and wastage of resources (time, drug). It should be mentioned that treatment may fail to respond when disease has progressed in animal for long.

## **Topic: Business Management**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Outline the significance of business skills.
- ii). Outline and explain how to use important documents of businesses.
- iii). Outline how to prepare important businesses records.
- iv). Explain how to calculate profits and losses.
- v). Explain how to cost goods and services in business.

### **Suitable Methodology**

Problem codes, role plays, exercises, illustrations, structured lecture.

**Duration:** 6 hours.

### **Materials**

Business documents.

### **Content**

Why business skills? Documents used in business transactions, records in business, profit and loss calculations, costing, cash flow, credit management, stock management, marketing, business ethics, basic requirements for starting business.

## **Topic: Cost recovery**

### **Objectives**

At the end of the topic, the trainee should be able to:-

- i). Explain why the delivery of animal health service should be economical both to the livestock owner as well as to the CAHW; None of them should make losses.
- ii). Explain where the costs of service(s) offered by a CAHW should come from.
- iii). List elements of costs incurred during service delivery and explain how to cost services delivered.
- iv). Calculate profits and losses in service delivery.
- v). Outline appropriate dialogue for discussing costing with livestock owner for specific animal health services.
- vi). List various forms of support for animal health services.

### **Suitable Methodology**

Structured lecture, exercises, illustrations and role plays.

**Duration:** 1 ½ hours.

**Materials**

News prints, flip charts and felt pens. Samples of drugs, note books.

**Content**

Explain why the delivery of animal health service should be economical both to the livestock owner as well as to the CAHW; None of them should make losses. Elements of costs of service(s) offered by a CAHW should come from. Computation of final costs that is charged to the livestock owner. Calculation of profits and losses in service delivery. How to hold a dialogue with livestock owner for discussion of costing for specific animal health service (s). Various forms of support for animal health services (Subsidized, Cost-recovery, Commercial).

**Topic: Disease surveillance and Monitoring****Objectives**

At the end of the topic, the trainee should be able to:-

- i). Explain the meaning of disease surveillance and its importance.
- ii). Outline the roles of CAHWs in disease surveillance.
- iii). Outline the main activities in disease surveillance.
- iv). Describe reporting procedures in cases of disease outbreaks.
- v). Produce surveillance reports.

**Suitable Methodology**

Group discussions, exercises and case studies.

**Duration:** 6 hours.

**Materials**

Diagnostic equipment and surveillance reporting forms.

**Content**

What is disease surveillance? Why is it important? Roles of CAHWs in disease surveillance. Activities in disease surveillance. Reporting procedures during disease outbreaks. Reporting formats.

**Topic: Disease Reporting****Objectives**

Review similar topic as in module I but with more reference on field experiences of the trainees.

**Suitable Methodology**

Open discussion, case studies.

**Duration:** 6 hours.

**Materials**

Samples of reports previously done by CAHWS.

**Content**

Real situation experiences, then review key areas of weaknesses of trainees.

**Recommended References**

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- 3) Jules N. Pretty, Irene Guijt, John Thompson and Ian Scoones, 1995. A trainers Guide for Participatory Learning and Action. International Institute for Environment and Development, London.
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# ANNEXES

## Annex I: Typical Timetable for the Module

### Module I

	1 <sup>st</sup> Session		2 <sup>nd</sup> Session		3 <sup>rd</sup> Session
Day 1	Introductions, Climate Setting, Expectations, Fears, Logistics, Conduct	B	Introduce the role of CAHWs/Experiences/ Lessons learnt	L	Healthy Animal and Unhealthy Animals
Day 2	Body organs and functions		Body organs and functions (post mortem)		Local diseases of Livestock (Listing, Ranking, Economical importance)
Day 3	Local diseases of Livestock (Clinical signs)	R	Causes of Diseases	U	Transmission, prevention and control of diseases
Day 4	Restraint and clinical examination	E	Diagnosis and post-mortem examinations	N	Diagnosis and post-mortem examinations
Day 5	Introduction to veterinary drugs		Drugs and dosages		Drugs and dosages (practical)
Day 6	Rationale use of drugs	A	Handling of drugs	C	Importance of record keeping
Day 7	Record keeping	K	Evaluation, Closing Remarks	H	Logistics and departure

## Module II

	1 <sup>st</sup> Session		2 <sup>nd</sup> Session		3 <sup>rd</sup> Session
Day 1	Introductions, Climate Setting, Expectations, Fears, Logistics, Conduct	B	Sharing CAHWs experiences	L	Lessons Learnt
Day 2	Record Keeping		Notifiable Diseases		Disease reporting
Day 3	Sample collection	R	Sample collection	U	Drugs (Care and limitations of veterinary drugs)
Day 4	Vaccinations	E	Vaccinations	N	Vaccine handling and reconstitution
Day 5	Cold chain		Introduction to surgical instruments		Handling surgical instruments
Day 6	Basic surgical procedures	A	Basic surgical procedures (practical)	C	Basic surgical procedures (practical)
Day 7	Basic surgical procedures (practical)	K	Evaluation, Closing Remarks	H	Logistics and departure

Module III

	1 <sup>st</sup> Session		2 <sup>nd</sup> Session		3 <sup>rd</sup> Session
Day 1	Introductions, Climate Setting, Expectations, Fears, Logistics, Conduct	B	Sharing CAHWs experiences	L	Lessons Learnt
Day 2	Record Keeping		Record Keeping		Handling of veterinary drugs
Day 3	Sourcing & identification of quality drugs	R	Inappropriate application of drugs	U	Inappropriate application of drugs
Day 4	Business Management	E	Business Management	N	Business Management
Day 5	Cost Recovery		Disease surveillance and monitoring		Disease surveillance and monitoring
Day 6	Disease surveillance and monitoring	A	Disease reporting	C	Disease reporting
Day 7	Disease reporting	K	Evaluation, Closing Remarks	H	Logistics and departure