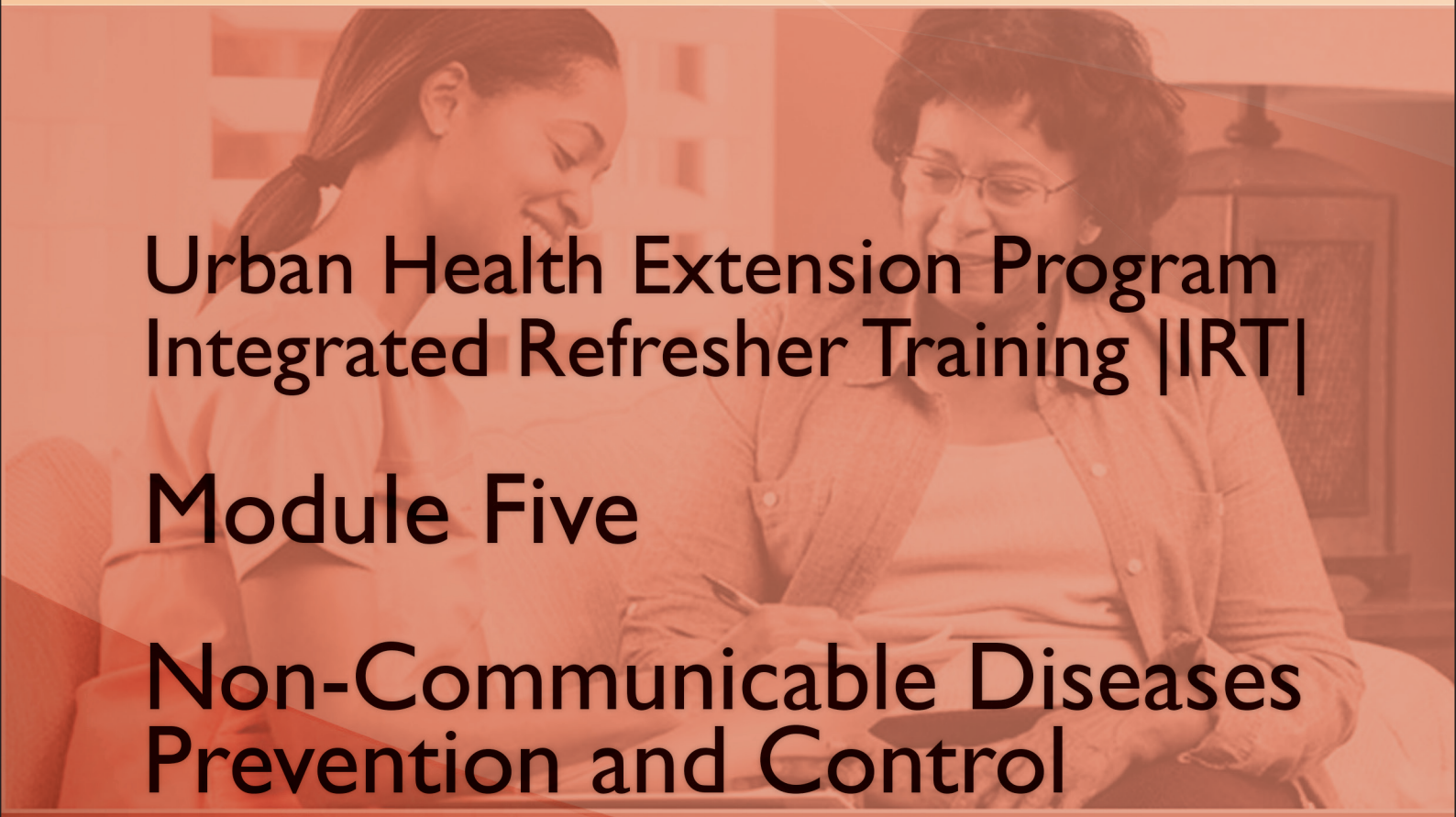
Federal Ministry of Health



Urban Health Extension Program Integrated Refresher Training |IRT|

Module Five

Non-Communicable Diseases Prevention and Control

• Facilitator's Guide

February 2017

Federal Ministry of Health

Urban Health Extension Program

Integrated Refresher Training

Module Five

Non-Communicable Diseases Prevention and Control

Facilitator`s Guide

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Acknowledgement

The preparation and finalization of the integrated refresher training modules for Urban Health Extension Professionals (UHE-ps) has been made possible through a series of consultative meetings and workshops. During this process, the valuable contributions of our partners and program stakeholders have been crucial. This module is meant for UHE-ps in order to improve their attitude, skill and knowledge, which in turn help them provide quality health services to their clients. Therefore, the Federal Ministry of Health (FMOH) acknowledges all organizations for their contributions in the preparation, fine-tuning and finalization of this document.

FMOH is grateful to all partners involved and in particular USAIDJSI/SEUHP, JHU CCP, World Vision, Challenge TB, UNICEF, for the technical support provided to develop this Integrated Refresher Training(IRT) module in a harmonized approach.

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FMOH acknowledges JSI-SEUHP for providing financial support to organize a series of workshops and consultative meetings as well as to print the final version of all training modules.

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Federal Ministry of Health

Abbreviation

AIDS	acquired immune deficiency syndrome
ASK	attitude, skill and knowledge
BMI	body mass index
CVD	cardiovascular disease
DM	diabetes mellitus
EO	enabling objective
GDM	gestational diabetes mellitus
JHU	John Hopkins University
JSI	John Snow Incorporate
IRT	integrated refresher training
HC	Health Center
HCT	HIV counseling and testing
HEPHSD	Health Extension and Primary Health Service Directorate
Ht	Height
HIV	human immunodeficiency virus
MH	mental health
NCD	non-communicable disease
PO	per os (by mouth)
SEUHP	Strengthening Ethiopia`s Urban Health Program
STI	sexually transmitted infection
TB	tuberculosis
TOT	training of trainers
Vs	versus
WHO	World Health Organization
Wt	Weight
UHE-P	Urban Health Extension professional
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development

Introduction

Urban Health Extension Program was introduced in Ethiopia in 2009, based on lessons learnt from successful implementation of the health extension program in rural areas. The program is designed with the aim of ensuring health equity by creating demand for essential health services through the provision of health information and basic health services at household level, school and youth centers and improving access to health services through referral to health facilities. Subsequent evaluations conducted on the program implementation have shown that, Urban HEP has contributed for increased health service awareness and utilization among urban dwellers. However, there was a wide disparity in implementation of the program and its achievements among cities. Low competency of Urban Health Extension Professionals (UHE-ps) and lack of integrated and continuous training has contributed for the discrepancy in implementation of the program.

Hence, a training need assessment was conducted to identify the competency gaps of UHE-ps when providing basic services. Therefore, considering the type of competencies that the UHE-ps need to have and identified competency gaps, six modules have been identified and developed based on Competency Based Training approach to provide in-service integrated refresher trainings. In addition, the modules were pre-tested and further refined. These modules are: -

Module 1: Social and Behavioral Change and Communication

It encompasses the health communication component to improve the knowledge and skill of UHE-ps to conduct effective health communication and improve UHE-ps attitudes affecting their performance in provision of health communication activities.

Module 2: Reproductive, Maternal, Neonatal, Child Health and Nutrition

The overall purpose of this module is to improve the attitude, knowledge and skills of UHE-ps to carry out quality family planning, maternal, neonatal, child health and nutrition services as well as enhance the UHE-ps understanding of attitudes affecting their performance in provision of family planning, maternal, neonatal, child health and nutrition services.

Module 3: Water, Hygiene and Sanitation

The overall purpose of this module is to improve the knowledge and skills of UHE-ps to carry out quality Water, Sanitation and Hygiene services as well as enhances the UHE-ps understanding of attitudes affecting their performance in provision of Water, Sanitation and Hygiene services.

Module 4: Major Communicable Diseases Prevention and Control

This module prepares Urban Health Extension professionals (UHE-ps) to provide TB/HIV and malaria-related services including reaching vulnerable populations with key TB/HIV prevention messages, HIV/STI counseling and testing (HCT), TB case detection, TB and HIV/AIDS care and support, referrals to services and malaria prevention and control in malarias areas.

Module 5: Non Communicable Diseases Prevention and Control and Mental Health

The Purpose of the module is to enable the participant s (UHEPs) explore and use their Attitude, Skill and knowledge to improve their performances in terms of providing quality health services related to major NCDs and mental health

Module 6: Basic First Aid

The purpose of this module is to improve the knowledge, attitude and skill of UHE-ps to provide quality first aid service and injury management. The module will also consist of transferring information regarding first aid and injury management to household and communities. This module also includes pre hospital cares.

Module Syllabus

Module description: This four-day training module contains theoretical and practical lessons to give trainees the knowledge, attitudes, and skills pertaining to non-communicable diseases (NCDs) (cardiovascular diseases, diabetes mellitus, cancer, mental health, and eye health including cataract, refractive error, and glaucoma).

Module goal: Equip the participants with improved knowledge, attitudes, and skills needed to screen, counsel, refer, and follow up NCDs at household, youth center, and school levels.

Learning objectives: By the end of this module, participants will be able to:

- Promote healthy lifestyle in the household, school, and community at large.
- Screen, identify, refer, and follow up of major non-communicable diseases.
- Create awareness of the benefits of early detection and treatment of breast cancer.
- Create awareness, promote, identify, and follow up of mental health.
- Increase awareness of benefits at community and household levels to seek early diagnosis and treatment of common eye health problems and refer them.

Training methods

- Brainstorming
- Group work/ discussion
- Small group work/ discussion
- Pair discussion
- Mini lecture
- Presentation
- card sorting
- Demonstration
- "Agree" or "disagree" exercise
- Illustration
- Case study
- Role play

Training materials and equipment

Training materials

- NCD, emergency care, and mental health blended learning module for Urban Health Extension Program (UHEP).
- National comprehensive guideline for clinical and programmatic management of major NCDs.
- UHEP Integrated Refresher Training (IRT) facilitator guide.
- UHEPIRT participant guide.

- UHEP implementation manual(revised).

Training Equipments:

- LCD projector (Optional)
- Flip charts,
- Markers,
- Laptop computer,
- Plaster,
- Colored paper,
- WHO cardiovascular risk assessment charts,
- Video
- Video tape.

Participant selection criteria: Those who work on the UHEP with position of UHE-ps and UHEP supervisors/coordinator

Module assessment: Assessment of the module (pre-test, post-test, and practical and continuous assessments) should be based on attainment of the learning outcomes with reference to the performance criteria indicated in the course objectives.

Time allocated: 4 days

Optimum class size

- Participants: 25–30 trainees per class
- Trainer: two trainers per class and with environmental health background and who have taken TOT

Module outline

Time in minutes	Unit and sessions	Training methods
80	Climate setting and Pre test	
140	Unit 1. Introduction to NCD	
30	Session 1.Basics of NCDs	
110	Session 2. NCD risk factors and healthy lifestyle	
420	Unit 2. Major NCDs	
300	Session 1. Hypertension	
120	Session 2. Diabetes mellitus	
210	Unit 3: Cancer	
50	Session 1: Introduction	
30	Session 2: Risk factors for cancer	
100	Session 3: Breast cancer	
30	Session 4. Palliative care for patients who have advanced cancer	
350	Unit 4. Mental Health	
170	Session 1. Common mental illnesses and risk factors	
180	Session 2.The role of UHE-ps in prevention, control, referral, and follow-up of mental illness,	
360	Unit 5: Eye health	
60	Session 1. Introduction to eye health	
120	Session 2. Cataracts	
90	Session 3. Glaucoma	
90	Session 4. Refractive error	
60	Post test and closing	

Module Schedule

Day and Time			Activity
Day 1	Morning	8:30 am – 9:50am	pre-test and introduction to the module
		9:50 am– 10:20 am	Unit 1: Introduction to NCD; Session1. Basics of NCD
		10: 20 am – 10:45 am	Tea break
		10:45 am – 12:35 am	Session 2: NCD risk factors and healthy life style
		12: 35 pm – 1:30 Pm	Lunch
	Afternoon	1:30pm- 4:00pm	Unit 2: Major NCDs Session 1; hypertension
		4:30 pm – 5:15 pm	Hypertension continues
		5:15 pm- 5:30 pm	Day 1 evaluation
Day 2	Morning	8: 00 am- 8:30am	Day 1 recap and brief discussion on the assignment
		8: 30 am- 10:15am	Hypertension continues
		10:15am- 10:30 am	Tea break
		10.30 am – 12:30 pm	Session 2: Diabetes mellitus
	Afternoon	12: 30 pm – 1.30 pm	Lunch
		1:30 pm – 2:20 pm	Unit 3: Cancer Session 1; introduction
		2:20 pm – 2:50 pm	Session 2; risk factors for cancer
		2:50 pm – 4:30 pm	Session 3; breast cancer
		4:30 pm – 4:45 pm	Tea break
		4:45 pm – 5:15 pm	Session 3. Breast cancer
		5:15 pm- 5:30 pm	Day 2: evaluation
Day 3	Morning	8: 15 am- 8:45am	Day 1 recap and brief discussion on the assignment
		8:45am- 9:15am	Session 4: Palliative care for patients who have advanced cancer
		9:15am – 10:00 am	Unit 4: mental Health Session 1; Common mental illnesses and risk factors
		10:00 am –10:15am	Tea break
		10.15 am –12:25pm	Common mental illnesses and risk factors continues
		12:25pm- 1:30pm	Lunch
	Afternoon	1:30pm –4:30pm	Session 2; The role of UHE-p in prevention, control, referral, and follow-up of mental illness
		4:30 pm – 4:45 pm	Tea break

Day and Time			Activity
		4:45 pm – 5:15 pm	Unit 4: Eye health Session 1: introduction
		5:15 pm- 5:30 pm	Day 3: evaluation
	Morning	8.00 am – 8:30 am	Day 1 recap and brief discussion on the assignment
Day 4		8:30 am – 9:00 am	Session 1: introduction continues
		9:00 am – 10:30 am	Session 2; cataract
		10:30 am – 10: 45am	Tea break
		10: 45 am – 11:15 am	Session 2; cataract continues
		11:15 am – 12:.45 pm	Session 3. Glaucoma
	Afternoon	12:45 pm – 2: 00pm	Lunch
		2:00 pm – 3:30 pm	Session 4; refractive error
		03:30 pm – 03:45 pm	Tea break
		3:45 pm –5:00 pm	Post-test and conclusion

Module Units:

Unit 1. Introduction to NCDs

- **Session 1. Basics of NCDs**
- **Session 2. NCD risk factors and healthy life style**

Unit 2. Major NCDs

- **Session 1.Hypertension**
- **Session 2.Diabetes mellitus**

Unit 3. Cancer

- **Session 1.Introduction**
- **Session 2.Risk factors for cancer**
- **Session 3.Breast cancer**
- **Session 4.Palliative care for patients who have advanced cancer**

Unit 4. Mental Health

- **Session 1.Common mental illness and risk factors**
- **Session 2.The role of UHE-p in prevention, control, referral, and follow up of mental illness**

Unit 5. Eye Health

- **Session 1.Introduction to eye health**
- **Session 2.Cataracts**
- **Session 3.Glaucoma**
- **Session 4.Refractive error**

References

Appendices

- **Appendix 1: Pre/Post Test**
- **Appendix 2: Daily Course Evaluation Form**
- **Appendix 3: End-course Evaluation Form**

Pre-test, (40 min)

Before starting the module the facilitator has to administer the pre-test. Therefore, he/she needs to have the print-out of pre-test questions and make sure that all participants have taken the test.

At the end of the day, the facilitator needs to provide the participants with "take-home -assignments as required

UNIT 1. INTRODUCTION TO NCDs

Unit description: This unit is developed to enhance trainees` competency to help them understand the common features and interventions of NCDs and how to promote healthy life style

Unit objective: To provide the participant with the knowledge, attitude and skills needed to explain common NCDs , assess related risks and promote positive life styles.

Unit specific objectives: By the end of this training unit, participants will be able to:

- Describe common NCDs and their public health importance.
- Demonstrate improved skills how to assess NCD related risks and promote healthy lifestyle

Time 140 min (2 hr and 20 min)

Session 1. Basics of NCD

Session objective: By end of this training session, the participant will be able to describe common NCDs and their public health importance.

Time: 30 minutes

Enabling Objectives : By the end of the sub sessions participants will be able to:

- Recognize the magnitude of NCDs
- Define NCDs
- List common NCDs of public health importance

Enabling objective 1: Recognize the magnitude of NCDs

Training method: <Mini lecture (5 minutes)

Show the Power Point presentation on the burden of NCDs.

Facilitator's note:

Cardiovascular diseases, diabetes, obstructive lung disease and cancers are the leading causes of ill health and death worldwide, accounting for more than 60% of all deaths.

Mental illnesses are responsible for high levels of mortality and disability, accounting for 8.8% of the deaths and 16.6% of the total burden of disease in low- and middle-income countries.

Globally, uncorrected refractive errors are the main cause of moderate and severe visual impairment. Cataracts are the leading cause of blindness in middle- and low-income countries. **Enabling objective 2:** Define NCDs

Training method: Brainstorm (10 minutes)
Ask participants to define non-communicable diseases.

Facilitator's note: NCDs are diseases and medical conditions that are non-infectious and non-transmissible among people.

Enabling objective 3: List common NCDs of public health importance

Training methods: Brainstorm (10 minutes) and mini lecture(5 minutes)

Ask participants to list common non-communicable diseases of public health importance.

Show PowerPoint presentation on burden of NCDs.

Facilitator's note: Cardiovascular diseases, diabetes, obstructive lung disease, and cancers are increasing globally. Mental health conditions are also responsible for high levels of mortality and disability. According to WHO estimates, 285 million people were visually impaired worldwide in 2014.

SESSION SUMMARY

Ask if there are questions. Summarize the session by asking the group to:

- Explain the burden of non-communicable diseases globally and nationally.
- Define non-communicable diseases.
- List non-communicable diseases of public health importance in Ethiopia.

EVALUATION (Optional)

Participants must be able to describe non-communicable diseases of public health importance. Competency will be measured after the participant correctly completing the assignment sheet and scoring at least 70% on the session test.

Take-home Assignment: Introduction to non-communicable diseases

Instruction: Use the information from the presentations, notes and discussions and reference materials to answer the following questions. Finally, check your answers with those given in an Answer- sheet . Obtain the Answer-sheet from your facilitator.

1. Describe the magnitude of non-communicable diseases globally, in low- and middle- income countries, and in Ethiopia.
2. Define non-communicable diseases.
3. List non-communicable diseases of public health importance in Ethiopia.

Answers

1. Cardiovascular diseases, diabetes, obstructive lung disease, and cancers are on the increase all over the world, but particularly in low- and middle-income countries. Worldwide, they are the leading cause of ill-health and death, accounting for more than 60% of all deaths. According to WHO reports in 2014, 285 million people are estimated to be visually impaired worldwide. 39 million are blind and 246 million have low/poor vision; 82% of people living with blindness are aged 50 and above. Globally, uncorrected refractive errors are the main cause of moderate and severe visual impairment.

Mental illnesses are also responsible for high levels of mortality and disability, accounting for 8.8% of the deaths and 16.6% of the total burden of disease in low- and middle-income countries. The World Health Organization has estimated that 30% of deaths in Ethiopia were due to non-communicable diseases in 2012. About 90% of the world's visually impaired people live in low-income settings. Cataract remains the leading cause of blindness in low- and middle-income countries.

Between 1–2% of the adult Ethiopian population (400,000–800,000 people)is affected by psychosis. A further 10–15% of the adult population (4–6 million people) suffers from depression at some point in their lifetime—approximately 5% (2 million) at any one time. In addition, we estimate that around 5% of the adult population of Ethiopia will suffer from an anxiety illness at some point during their lifetime. Added to this large number is the 3–5% of the adult population who havea serious problem resulting

from excessive use of alcohol or khat.According to the 2005/6 National Survey on Blindness, the leading causes of blindness in Ethiopia are cataract (49.9%) and trachoma (11.5%). Other causes are corneal opacity (7.8%), refractive error (7.8%), and glaucoma (5.2%).

2. Non-communicable diseases (NCDs) are diseases and medical conditions that are non-infectious and non-transmissible. They are of long duration and generally have slow progression. Non-communicable diseases do not result from an acute infectious process, but infectious diseases can be a contributing cause.

3. Cardiovascular diseases, diabetes, chronic obstructive lung diseases, cancers, psychosis, depression, anxiety, substance use (alcohol and khat), cataract, refractive error, and glaucoma.

Session 2. NCD risk factors and healthy life style

Session objective: By end of this training session, the participants will be able to correctly explain the common risk factors related to NCDs, exhibit improved skills on how to assess NCDs and promote healthy lifestyles.

Time: 110 minutes

Enabling Objectives : By end of the sub sessions participants will be able to:

- Describe the common preventable risk factors for NCDs.
- Demonstrate skills of NCDs risk assessment
- Identify and discuss messages to promote healthy lifestyles.
- Exhibit enhanced skills in risk modification and promoting healthy lifestyle

Enabling objective 1: Describe the common preventable risk factors for NCDs.

Training method: Group discussion (10 minutes)

Ask what the risk factors common for all non-communicable diseases are. Writes answers on a flip chart. Discuss the risk factors (make sure all four are discussed).

Facilitator's note: NCDs are linked by four preventable lifestyle related risk factors: tobacco use, unhealthy diet, lack of physical activity, and alcohol use.

Enabling objective 2: Demonstrate skills of NCDs risk assessment

Training methods: Group discussion (10 minutes), demonstration (10 minutes), and guided practice (10 minutes)

- Divide the participants into groups of 3-4 and ask each group to answer the following questions:
  - How do you define screening?
  - What is the importance of assessing risk factors?
  - What do you look for when you are doing a risk factor assessment?
- Provide the definition of screening and discuss the importance of risk factors assessment.
- Distribute handouts with the definition of screening and its importance.
- Distribute the WHO Risk Assessment checklist to each participant
- Explain the contents and demonstrate its use.
- Divide the participants into groups of three and ask them to perform risk factors assessment on

each other.

- Ask two or three groups to demonstrate their work to the plenary. Encourage comments.

Facilitator's note:

Screening refers to the implementation of a simple diagnostic test to determine whether an individual has a given condition or not.

Risk factors assessment must be administered to all clients during home visits, whether they have specific complaints related to NCDs or other conditions.

Risk factors assessment includes anthropometric measurements, diet and nutrition, level of physical activity, smoking status, and alcohol intake.

Enabling objective 3: Identify and discuss messages to promote healthy lifestyles.

Training method: Group discussion (20 minutes)

- Ask the participants the following questions
    - What are the key areas and general strategies to promote good nutrition and dietary practices?
    - What are the benefits of physical activity?
    - What are the harmful effects of tobacco use/smoking across population groups and the benefits of smoking cessation?
- Write the answers on a flipchart and discuss each. Make sure that all are discussed.
- Distribute the handouts with the messages.

Facilitator'snote:

There are three main strategies ways to mitigate NCD-related nutrition problems.

- Aim for ideal body weight.
- Build healthy nutrition-related practices.
- Choose foods wisely.

Low salt, low fat, and increased fiber in the diet decrease risk of developing NCDs.

Regular physical activity promotes physical and psychosocial well-being. It improves the body's function and reduces the severity of other factors that may increase risk for heart disease, such as obesity, hypertension, and high blood levels of sugar, cholesterol, and uric acid.

The minimum recommended amount of physical activity needed to achieve health benefits is 30 minutes per day of *moderate* intensity activity for 5 days or more days a week. When doing *vigorous* intensity activity, 3 or more days a week reaps health benefits.

Physical activity prescriptions for every age group ensure that an activity is safe and fits the need and interest of the individual.

UHE-ps have a significant role in promoting a smoke-free environment and smoking cessation. Simple interventions include:

- ASKING about smoking.
- ADVISING smokers to quit.
- ASSISTING by providing information and referrals to smoking cessation programs.

- ARRANGING follow-up to prevent relapse.

Health risks and social consequences associated with alcohol drinking include its toxic, intoxicating, and dependence-creating properties. Excessive alcohol drinking is also associated with an increased risk of injuries—including traffic—and has been shown to lead to development of chronic diseases.

Enabling objective 4: Exhibit enhanced skills in risk modification and promoting healthy lifestyle

Training method: Role play (40 minutes)

- Divide the participants into six small groups. Two groups will practice on promoting good nutrition and dietary practices; the other two will practice promoting physical activities; and the remaining two will practice avoiding alcohol and smoking.
- Instruct individuals in each group to take turns being a client, a health extension worker, and an observer, using key messages from the participant guide on promoting healthy lifestyles.
- Ask one group from each of the three pairs to present to the plenary. Encourage other participants to give feedback.

Facilitator's note:

Screening refers to the implementation of a simple test that aids in the diagnosis to determine whether an individual has a given condition or not.

Risk factors assessment must be administered to all clients during home visits whether they have specific complaints related to NCDs or other conditions.

Risk factors assessment includes assessing for anthropometric measurements, diet and nutrition, level of physical activity, smoking status, and alcohol intake.

SESSION SUMMARY (10 min)

Ask if there are any outstanding questions. Summarize the session by restating:

- The shared risk factors of major NCDs.
- The benefits of physical activity.
- The harmful effects of tobacco use/smoking across population groups and the benefits of smoking cessation.
- The harmful effects of alcohol use across population groups and the benefits of alcohol avoidance.

EVALUATION

Competency will be measured when the participant correctly complete the assignment sheet, perform the steps outlined in the learning guide and check list, and score at least 70% on the post-test.

Assignment sheet: Healthy lifestyle promotion

Instruction: Use the information from the presentations, notes and discussions and reference materials to answer the following questions. Finally, check your answers with those given in an Answer- sheet . Obtain the Answer-sheet from your facilitator.

1. What are the benefits of risk factor assessment for major NCDs?

2. Briefly describe screening.

3. Mention the areas for risk factors assessment.

4. What information should be collected while performing a smoking status risk assessment?

5. Describe the focus areas of nutritional assessment.

6. What information should be collected when conducting physical activity assessment?

7. What information should be collected in assessing alcohol intake?

Answers:

1. Risk factor assessment is important for the early diagnosis and treatment of NCDs.
2. The primary goal of screening is to detect a disease in its early stages. Screening is disease-specific. It is the presumptive identification of unrecognized disease or defect by the application of tests or other procedures that can be applied rapidly.

Screening is not a diagnostic measure but is a preliminary step to diagnosis. Diagnostic tests and evaluation by a health professional/physician are still needed for definitive diagnosis. Screening may be at the individual level or for groups as in mass screening.

3. The areas for risk factor assessment are:

i. Cigarette smoking

ii. Nutrition/diet

iii. Overweight/obesity

iv. Physical inactivity/sedentary lifestyle

v. Excessive alcohol drinking

4. The following information should be collected for both current and former smokers:
   - Age started smoking
   - Average number of cigarettes per day
   - Quit status
   - If s/he has quit smoking, how long smoke-free?
   - Reasons for smoking
5. Nutrition/diet assessment:

Establish the amount and frequency of eating certain foods that contribute to NCD development by asking:

- What types of vegetables are eaten?
- Which part of the food is eaten, how often fried food is eaten and how often they eat fast food?
- How often are preserved, canned, and instant foods eaten per week? How much salt is used when cooking?
- How often is table sugar used? Frequency of intake of soft drinks, cakes, chocolates, candies, and other sweetened foods?

Compare the reported intake with the prescribed number of servings.

6. Assessment of physical activity includes:

• Type of work (sedentary or not).

• Means of transportation.

• Leisure-time activities.

Compare responses with the minimum amount of physical activity needed to achieve health benefit.

7. Assessing habitual alcohol intake:

- Quantify the amount of drinking.
- Determine specific type of beverage to estimate ethanol.
- Identify situations where person tends to drink excessively.

UNIT 2. MAJOR NCDs (Hypertension and Diabetes mellitus)

Unit Description: This unit is developed to enhance trainees` competency which help them understand the basics of major NCDs (hypertension and diabetes) and how to mitigate problems related to these diseases

Unit objective: Provide the participant with the knowledge, attitude, and skills to screen, counsel, refer and follow up major NCDs at household, youth center, and school levels.

Unit specific objective: By the end of this training unit, participants will be able to:

- create awareness on the risk factors for hypertension, screen and identify cases for hypertension, and facilitate appropriate referral and follow-up for suspect cases.
- be aware of the risk factors of diabetes, and be able to screen and identify diabetes mellitus and facilitate appropriate referral and follow-up of diabetes cases.

Time 420 min (7 hrs)

Session 1.Hypertension

Session objective: After completing this session, the participant will be able to create awareness on the risk factors for hypertension, screen and identify cases for hypertension, and facilitate appropriate referral and follow-up for suspect cases.

Time: 300 min

Enabling objectives: By end of the session, the participants will be able to:

- Define and classify hypertension,
- Identify the common causes/risk factors of hypertension,
- Identify the common signs and symptoms of hypertension,
- Screen, identify, and refer hypertension patients.
- Describe the prevention, control, and treatment modalities of hypertension.
- Counsel patients on treatment compliance and adherence

Enabling objective1: Define and classify hypertension.

Training method: Brainstorm (20 min).

Ask participants to define hypertension. Record responses, clarify, and define hypertension, cardiovascular disease and their simple classification.

Distribute the hand out on cardiovascular diseases and hypertension.

Facilitator's note:

Cardiovascular disease (CVD) or heart disease is any disease or condition that affects or damages the heart or blood vessels.

Hypertension or high blood pressure is when the top number (systolic pressure) in a blood pressure reading is equal to or greater than 140 mm Hg, and the bottom number (diastolic pressure) is equal to or greater than 90 mm Hg. Moreover, the adult BP is:

- Normal if readings are less than 120 mmHg systolic pressure and less than 80 mmHg diastolic pressure.
- Pre- hypertension if readings are 120–139 mmHg systolic pressure and 80–89 mmHg diastolic pressure.
- Hypertension if readings are 140 or higher mmHg systolic pressure and 90 or higher mmHg diastolic pressure.

Hypertension (high blood pressure) is one of the most common cardiovascular conditions in our country. Persistent high blood pressure is one of the risk factors of stroke and heart attack. The latter conditions and rheumatic heart disease are the other common CVDs of public health importance in Ethiopia.

Enabling objective 2: Identify the common causes/risk factors for hypertension.

Training method: Group work followed by plenary discussion (40 minutes)

Divide participants into groups. Ask participants the following questions. Write down their responses on the flip chart.

- What do you think were the risk factors for hypertension?
- Why do we need to look after such risk factors?
- From your experience, what will be your plan to prevent or mitigate those risk factors? And how do you implement you plans?

Conclude the session by asking what they learned.

Facilitator's note:

Four shared behavioral risk factors are responsible for most cardiovascular diseases: These are;

- unhealthy diet (e.g., high salt, fat, and sugar intake);
- physical inactivity leading to obesity;
- alcohol use;
- and tobacco use/ smoking.

Prevention measures for hypertension include;

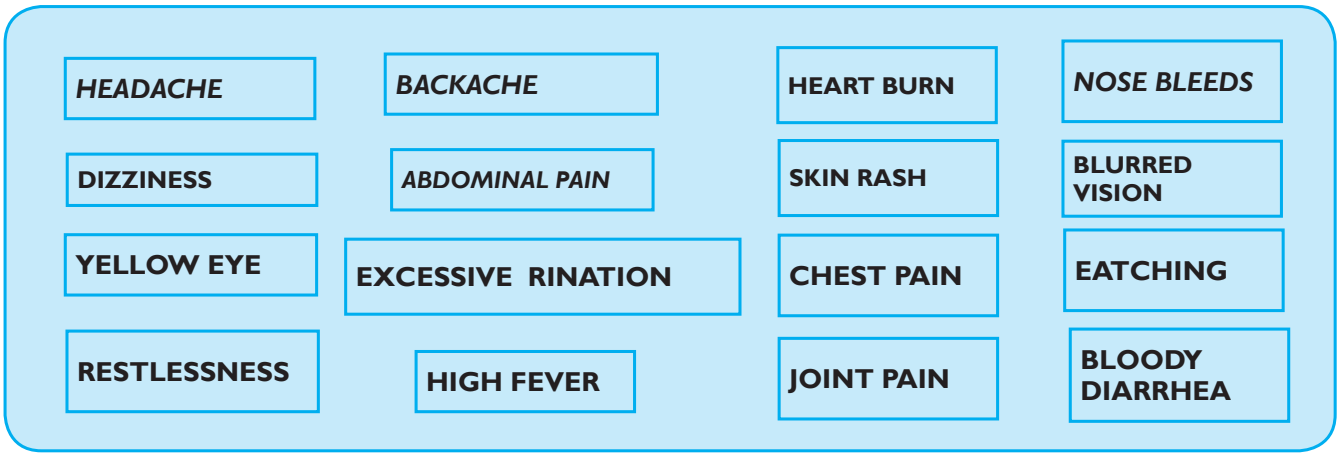
- encouraging people to stop over-eating and to stop/reduce salt, sugar, fatty food especially animal fat, hardened fat, cheese, and whole milk intake;
- stop smoking cigarettes;
- reduce alcohol intake;
- exercise regularly;
- control weight and body mass index;

Enabling objective 3: Identify the common signs and symptoms of hypertension**.**

Training method: Brain storming and card sorting (50 min).

Step 1: Ask participants to list signs and symptoms of hypertension. Write responses on flip chart. Clarify and supplement information as needed. Summarize by (recapping) the signs and symptoms of hypertension.

Step 2: Fix on a wall the following 16 pieces of cards on which symptoms of hypertension and other conditions are written.



Write "HYPERTENSION" and "'NOT HYPERTENSION" on two pieces of paper and post them on opposite sides of a wall.

Invite all participants to stand in the middle of where the above cards are posted.

Ask 16 trainees, one at a time, to move the cards to the appropriate sign ('HYPERTENSION" or "NOT HYPERTENSION").

Make sure that all cards are placed under one of the signs. Ask observers if the cards are correctly placed or not. Ask all to think about the following questions on symptoms of hypertension.

- Why do you need to know those symptoms?
- How do you detect these symptoms?
- Suppose your client developed these symptoms. What would be your course of action?

Finally ask volunteer to recap and conclude the activity.

Facilitator's note

The cards to be placed under "HYPERTENSION" are **headache, dizziness, blurred vision, chest pain, nose bleeds, and restlessness,** because these are known as symptoms of hypertension.

The remaining cards should be placed under "NOT HYPERTENSION."

The others most common symptoms of hypertension include:

tiredness, confusion, nausea or upset stomach, sweating, skin that is flushed and red or pale or white, anxiety or nervousness, palpitations (strong, fast, or obviously irregular heartbeat), ringing or buzzing in ears.

Enabling objective 4: Screen, identify, and refer hypertension patients.

Training methods: case study (30 min), demonstration and guided practice (40 min)

Case study

Divide the participants into four groups of 5–6 people. Give two groups case study 1 and two groups case study 2. Make sure they understand the case study.

Ask each group to discuss the following questions and write their answers on a flipchart:

- What is going on in your case study?
- What do you need to ask the client? Why?

- What do you need to do and how will you do it?

When the time is up, ask each group to present its work to the audience. Refer to check list1as you listen.

After each presentation, ask following questions:

Presenters:

- Why did you need to do such exercises?
- How did you accomplish the necessary activities (observe, ask, do, decide)?
- Which activity was less successful? Why?
- As a UHE-p, how can you improve?
- How are the four steps connected? If you miss the first step (what you need to observe and why), how will the other steps be affected?

Audience:

- What the presenters did well? What did they do less well?
- If you were the presenter what would you have done differently?
- How did they address " ASK" in their exercise?

Based on your checklist and participants' discussion, bring up any missing steps/information and correct any misinformation. Acknowledge everyone's contribution.

Facilitator's note:

Case study 1

A client called the UHE-p and asked for assistance because he had severe occipital headache, dizziness, and blurred vision. It has been almost ten years since he started taking anti- hypertension drugs.

Case study 2

A young man came to UHE-p office to get his blood pressure checked. When he arrived, he was sweating and breathing fast. **Demonstration and guided practice**

Divide the participants into smaller groups (at least five).

Note: a group consists of 3 members, two of the participants pretend to be UHE professionals and one of them will perform the role of a client and will do the demonstration for the audience.

Provide a set of BP apparatus and stethoscope for each group.

Invite all groups(one after another) to demonstrate their skill of taking BP (at least three).

Instruct observers in the plenary to attentively follow the procedure and take note.

After the completion of the demo, ask the demonstrators and the observers the following questions:

Demonstrator (UHE-p) and the client

- What did you do well? How? And what did you miss from the procedure? Why?

- What is your practical experience in sticking to the right procedure?
- Could you say it was right procedure and right reading?
    - If yes, accept them but ask them to exchange their records and check for their similarity. Moreover, look for a third person from the observers to validate the reading.
    - If no, ask the demonstrators, why?
- If all three readings found to be unacceptably different, ask why this happened?

  And, how did you interpret the findings? What do you conclude from these readings? Why?

  Observers

    - What they (the demonstrators) did well? How? And what they didn't do well? Why?
    - Put yourself in place of the demonstrators: how better or how different you did perform the procedure? What is your practical experience in sticking to the right procedure?
    -
    - Suppose all three readings found to be unacceptably different, why did this happen?

Assume that those readings were; 190/120, 110/70 and 140/85 what would be your impression? Why?

Facilitator's note:

Steps on how to take a blood pressure manually

1. Ask the patients to sit up straight with their arms stretched forward. The patient's palms should face up, and the arm in which their blood pressure will be taken should be slightly bent. The upper arm should be level with the heart, and the feet should remain flat on the floor during the process.

2. Make sure that the patient is relaxed and calm before proceeding.

3. Turn the sphygmomanometer's air release valve clockwise to close. Ask patient to roll up his/her sleeve before slipping on the blood pressure cuff. Make sure that the cuff is snug around the patient's upper arm. The bottom ½ inch of the cuff should rest directly above the patient's elbow. Straighten the rubber tubing connected to the cuff before proceeding.

4. Find the patient's pulse by pressing the middle and index finger against the inside crease of the patient's elbow (on cuffed arm). Put stethoscope ear pieces in (your ears) and the bell on the patient's arm directly below the blood pressure cuff. Place the chest piece over the brachial artery to get a strong pulse reading.

5. Pump the rubber bulb until no sound comes through the stethoscope. Continue to inflate the cuff by squeezing and releasing the bulb in a rapid motion.

6. Release the air valve by turning it counterclockwise. The pressure in the cuff will release at a rate of 2–3 millimeters per second.

7. The patient's systolic and diastolic pressure will be taken. The sounds heard through the earpieces will resemble a slight tapping sound. Monitor the reading on the gauge for the patient's systolic pressure. This is the first number needed for a blood pressure reading. Next, wait until the faint sound in the earpiece stops. Check the gauge to get the patients diastolic blood pressure reading.

8. Take the patient's blood pressure once or twice again for accuracy. Wait at least 5 minutes between readings so that blood flow returns to arm.

Enabling objective 5: Describe the prevention, control, and treatment modalities of hypertension.

Training method: Mini lecture (30 min)

Show the PowerPoint on prevention and management of hypertension.

Distribute management of hypertension handout, which includes side effects of commonly prescribed hypertension medications.

Facilitator's note:

The adoption of healthy behaviors can reduce blood pressure and cardiovascular risk and reduce the dose and number of antihypertensive medications required. These behaviors are weight loss/healthy weight maintenance, limiting alcohol consumption, not smoking or using any other tobacco products (e.g., snuff),making healthy dietary choices, and regular physical exercise.

Enabling objective 6:Counsel patients on treatment compliance and adherence

Training method: Role-play (80 min).

Divide the participants in to 4 small groups. Ask them to create a scenario based on their past experiences. Encourage each group to work on their own case and finally to perform their roles.

1. Explain that the purpose of the role play is to counsel patients on treatment adherence.
2. Explain how to use the '5As' (assess, advise, agree, assist, arrange).
3. One participant will take the roll of UHE-p and another a hypertensive patient on treatment.
4. Give observers the role-play checklist so that they can provide feedback after each performance.
5. Conclude by giving participants the handout on hypertension treatment compliance and adherence.

Facilitator's note:

Hypertension is a life-long condition that requires that you take medication on a daily basis unless advised otherwise by a health provider.

The '5 As 'for treatment adherence

Assess

- Review the medication with the patient and ask:
  - Many people have trouble taking their medications. Are you having any?
  - When and how do you take each pill?
  - It is sometimes difficult to take the pills every day and on time.
  - When is it most difficult for you to take the pills? How many have you missed in the last three days?

- Ask about/consider factors that may interfere with adherence.
  - Patient may not trust the health care worker, or have communication difficulties. Try to find out why, and see if there are misunderstandings.
  - Literacy barriers? Try using colors and pictures or symbols.
  - Mental illness, especially depression or alcohol abuse. Refer or counsel to reduce or stop alcohol.

- Patient may not understand the disease and the treatment. Repeat the basic information using visual aids.
- Advice from traditional healers or religious teachings may make the patient unwilling or afraid to accept instructions from a modern health care worker.
- Unstable living conditions, poor social support.
- Difficult access to health facility.
- Barriers associated with side-effects. Refer.

- If poor adherence, determine what the problem is.

Advise

- Reinforce the information on hypertension and the importance of adherence to treatment.
- Give additional information that may help with adherence problem. Dispel any misconceptions the patient may have.

Agree

- Agree on solutions to adherence problems (if present).
- Discuss agreements and request patient's commitment.

Assist

- Provide adherence support. Discuss past adherence barriers and develop strategies to overcome them in the future.
- Reinforce interventions that match the patient's needs and adherence challenges, if present:
  - Remind patient to bring medication with them if they travel.
  - Advise setting a small supply of drugs aside (in car, at work, at a relative's) in case of emergency.
- Make sure the patient has:
  - Plans to link taking medications with daily events such as meals.
  - Devices (phone alarms/reminders) and peer/family/friend to support adherence.

Arrange

- Schedule another home visit.

Checklist for role play on treatment adherence

Name of participant _____Name of observer _____

Did the UHE-p:	Yes	No	Remark
Assess			
Review drugs with the patient?			
Ask about important factors that may interfere with adherence?			
If poor adherence, determine the problem?			

Advise Reinforce the information on hypertension and the importance of adherence to treatment? Give additional information to help with adherence? Correct misconceptions?			
Agree Find solutions to adherence problems (if present)? Discuss agreement and ascertain patient commitment?			
Assist Provide adherence support? Reinforce interventions that match patient's needs and adherence problems? Ensure that patient has plan to link taking medications with daily events such as meals; device; and support for adherence?			
Arrange Schedule another home visit?			

SESSION SUMMARY (10 min)

Ask if there are any outstanding questions. Then summarize by restating the following key areas.

1. Classification of hypertension.
2. Risk factors of hypertension.
3. Ways to prevent hypertension.

EVALUATION

Participants should be able to perform risk assessment and screening for hypertension. Competency will be measured when the participant correctly completing the assignment sheet, performing the steps outlined in the learning guide and check list, and scoring at least 70% on the post-test.

Take-home assignment: Hypertension

Instruction: Use the information from the presentations, notes and discussions and reference materials to answer the following questions. Finally, check your answers with those given in an Answer- sheet . Obtain the Answer-sheet from your facilitator.

1. How do you define CVDs and hypertension?
2. What are the behavioral risk factors responsible for most cardiovascular diseases?
3. What are the most common symptoms of hypertension?
4. What healthy lifestyle choices help reduce blood pressure and cardiovascular risk?

Answers:

1. A CVD or heart disease is any disease or condition that affects or damages the heart or blood vessels.

2. Four shared behavioral risk factors are responsible for most cardiovascular diseases: unhealthy diet (e.g., high salt, fat, and sugar intake); physical inactivity leading to obesity; alcohol use; and tobacco use.

3. The most common symptoms of hypertension include tiredness, confusion, nausea or upset stomach, vision problems/trouble seeing, nosebleeds, more than normal sweating, skin that is flushed and red or pale or white, anxiety or nervousness, palpitations (strong, fast, or obviously irregular heartbeat), ringing or buzzing in ears, inability to get an erection, headache, and dizziness.

4. The adoption of healthy behaviors can reduce blood pressure and cardiovascular risk and reduce the dose and number of antihypertensive medications required. These behaviors are weight loss/healthy weight maintenance, limiting alcohol consumption, not smoking or using any other tobacco products (e.g., snuff),making healthy dietary choices, and regular physical exercise.

Session 2. Diabetes mellitus

Session Objective: After completing this session, participants will be aware of the risk factors of diabetes, and be able to screen and identify diabetes mellitus and facilitate appropriate referral and follow-up of diabetes cases.

Time: 120 minutes

Enabling objectives: By end of this session the participants will be able to:

- Classify diabetes mellitus
- Identify common risk factors of diabetes
- Identify the common signs and symptoms of diabetes mellitus
- Screen, detect, and refer diabetes cases.

Enabling objective 1: Classify diabetes mellitus

Training method: Group work (10 min)

Ask the participants to discuss and write the classification of diabetes with the person next to them. Invite individuals to reflect on what they discussed; write all their responses on the flipchart.

Give chance to all participants to express their opinion (but not repeat what other have already stated) .

Conclude by asking what the most important work-related learning point from this activity was, and why.

Facilitator's note:

There are several types of diabetes, but types 1 and 2 are the most common. Worldwide, about 90% of people with diabetes have type 2 and about 10% have type 1. Gestational diabetes accounts for very small numbers of cases.

Enabling objective 2: Identify common risk factors of diabetes

Training method: Role play (30 min)

Assign roles to participants who will do a role play as you do it on the preceding day

Remind them that the purpose of the role play is to learn how to identify the risk factors for diabetes mellitus.

Instruct the groups to perform the role play based on the information in the case study 1 below (Ato

Chane`s case study) and their own experience with diabetes clients.

Allocate time for practicing the role play. When the time is up, invite all groups to present their work. Upon completion of each performance, debrief by ask the presenters (UHE-p and the client) and observers the following questions:

Questions for the UHE-p

- How did you communicate with your client? What did you do well and what was your challenges?
- What did you want to achieve, and were you able to achieve it?
- While interacting with your client, how did you manage to demonstrate your enabling attitudes?
- Were you able to apply your diabetes understanding and screening skills affectively?
- Were you able to help your client overcome his/her worries?
- If you were given a chance to do this exercise again, what if anything would you do differently?

Questions for the client

- Did the UHE-p help you understand your situation? How did you feel about your health after you have had discussion with the UHE-p? Did the UHE-P give you advise on how you might improve your health?
- If you had played the role of UHE-p, what, if anything would you have done differently?

Questions for the observers

- What did the UHE-p do well in this interaction? Did s/he display enabling attitudes? Did the UHE-p help the client understand the situation/health problem and offer possible solutions?
- If you had played the UHE-p role, what, if anything would you have done differently, and why?

In conclusion, ask the person who played the role of the UHE-p:

- What part of the feedback was helpful? Would you use it to improve your performance if you had another chance?

Facilitator's note:

Use the Checklist to follow the steps and contents of the role play.

It is important to understand the circumstances that make it more likely that diabetes will develop. Knowing these risk factors will help you make a diagnosis, especially of type2 diabetes, and introduce treatment at an early stage.

Enabling objective 3: Identify the common signs and symptoms of diabetes mellitus.

Training method: Pair discussion (10 min)

Ask participants to discuss and write down the symptoms of diabetes in pairs.

Invite individuals to give answers; write all responses on a flipchart. Give all trainees the opportunity to respond but not to repeat what others have already said.

Ask the group why it's important to know these symptoms and how to detect them.

Ask them how what they learned in this session will help them in their work.

Facilitator's note

A person who has untreated diabetes is likely to complain of feeling thirsty all the time, drinking a lot of water and passing large amounts of urine, and/or weight loss. Some patients describe a feeling of emptiness in the stomach, wanting to eat frequently, and tiredness.

People who have diabetes may report episodes of feeling faint, dizzy, or even losing consciousness. This can happen if the blood glucose levels fall too low to support normal brain function.

Enabling objective 4: Screen, detect, and refer diabetes cases.

Training methods: Demonstrations, small group exercise, case study.

BMI chart demo (10minutes)

Post a table of weight and height on the wall.

category	Chane	Gebru	Dana	Yeshi
Wt (Kg)	93.20	93.20	93.20	50.00
Ht (m)	1.52	1.75	1.88	1.75
BMI				

Directions: Find your weight in kilograms(or pounds) along the top of the table and your height in meters (or ft and inches) along the left hand side. Your BMI is the value at the point in the table where they interest NB: The chart does not apply to athletes,children,pregnant or lactating women.

Wt (Kg)	45.5	47.5	50.0	52.3	54.5	57.0	59.1	61.4	63.6	65.9	68.2	70.5	72.7	75.0	77.3	79.5	81.8	84.1	86.4	88.6	90.9	93.2	95.5
Ht (m)																							
1.52	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
1.55	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	36	37	38	39
1.57	18	19	20	21	22	22	23	24	25	26	27	28	29	30	31	32	33	33	34	35	36	37	38
1.60	17	18	19	20	21	22	23	24	24	25	26	27	28	29	30	31	32	32	33	34	35	36	37
1.63	17	18	18	19	20	21	22	23	24	24	25	26	27	28	29	30	31	31	32	33	34	35	36
1.65	16	17	18	19	20	20	21	22	23	24	25	25	26	27	28	29	30	30	31	32	33	34	35
1.68	16	17	17	18	19	20	21	21	22	23	24	25	25	26	27	28	29	29	30	31	32	33	34
1.70	15	16	17	18	18	19	20	21	22	22	23	24	25	26	27	28	29	29	29	30	31	32	33
1.73	15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	32
1.75	14	15	16	17	17	18	19	20	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31
1.78	14	15	15	16	17	18	18	19	20	20	21	22	23	23	24	25	25	26	27	28	28	29	30
1.80	14	14	15	16	16	17	18	18	19	20	21	21	22	23	23	24	25	25	26	27	28	28	29
1.83	13	14	14	15	16	17	17	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27	28
1.85	13	13	14	15	15	16	17	17	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27
1.88	12	13	14	14	15	16	16	17	18	18	19	19	20	21	21	22	23	23	24	25	25	26	27
1.91	12	13	13	14	15	15	16	16	17	18	18	19	20	20	21	21	22	23	23	24	25	25	26
1.93	12	12	13	14	14	15	15	16	17	17	18	18	19	20	20	21	22	22	23	23	24	25	25

underweight (BMI <18.5) Healthy weight (BMI 18.5-24.9)

over weight (BMI 25.0-29.9) obese (BMI 30.0-39.9) extremely obese (BMI 40 or above)

Body Mass Index (BMI) Chart (Source: The Open University, 2006, *living with Diabetes, Figure 4.9)*

Step 1:

Initially, Show participants how to calculate BMI and how to use the BMI chart.

BMI can be calculated using the following formula:

BMI = weight (kg)/[height (m)]^2

Instruct the participate to form buzz groups and ask the groups to calculate the BMI of the above mentioned persons (Chane, gebru, Dana and Yeshi) and indicate the corresponding result on the BMI chart as well as to interpret the findings as classified below.

BMI < 18.5 = underweight

BMI 18.5–24.9 = healthy weight

BMI 25.0–29.9 = overweight

BMI 30–39.9 = obese

BMI 40 or greater = extremely obese

Conclude by asking the larger group:

- How did you calculate?
- Why do we need to do such calculation?
- What did the value indicate?

Step 2

Divide the participants into groups of three or four.

Instruct them to read the cases study of Ato Chane and Weizero Yeshi and answer the questions that follow the cases.

Case study 1:

Ato Chane, 38, comes to your office to get condoms. You see that he is obese and you worry that he is at risk of diabetes. You talk about the risks of being obese and he allows you to measure him. He weighs 93 kg and is 1.53m in height.

Questions:

- What is Chane's BMI?
- What does his BMI result mean? How do you explain it to him?
- As a UHE-p, what will you do help to Ato Chane?

Case study 2:

WeizeroYeshi,32, worries about getting diabetes mellitus. Although she exercises on occasion, she is gaining weight. Weizero Yeshi expresses her worry to Sister Zemenay when she visits Yeshi's home. Zemenay tells Yeshi to come to her office in three days. At the appointment, Zemany takes anthropometric measurement and findsYeshi's weight is 50 kg and height is 1.75m.

Questions

- What is Yeshi's BMI?
- What does her BMI result mean? How do you explain it to her?
- If you were Sister Zemenay, how would you help WeizeroYeshi?

In conclusion, discuss the following questions with the entire class:

- What did you learn from these cases?
- What interventions would you plan for these cases and how would you implement them?
- If you use BMI to assess risk for diabetes in your catchment population, which groups should you exclude? Why?
- Which groups of people in your community are most at risk for diabetes? Why?

Step 3

Glucometer and urine dipstick (40 min) demo.

Identify four volunteers for this demonstration: three for measurement of blood glucose and one for the demonstration of urine glucose. Demonstrate first; then ask volunteers to do so.

Steps for glucometer use:

1. Obtain a glucometer and test strips.
2. Read the materials and directions that come with your meter.
3. Determine where you insert your test strip and where the readout will be.
4. Test the glucometer before using it:

Most glucometers include a way to test to make sure they are reading correctly. This could be in the form of a premade test strip or a liquid you place on a test strip. These are inserted into the machine and the reading should be within acceptable limits.

5. Wash the area from which you are going to draw blood.
6. Place alcohol on a cotton ball.
7. Place a test strip into the slot provided on the glucometer.
8. Swab the area you are going to use to draw your sample from with the cotton ball.
9. Wait for the readout on the diabetic glucometer to tell you to put the drop of blood on the strip.

The readout may actually say "place sample on strip," or it may give you a symbol, such as an icon that looks like a droplet of liquid.

10. Use the lancet provided with the diabetic glucose meter and prick the area for the sample.
11. Place a drop of blood on the test strip.
12. Wait for results.

The meter will begin to count down in seconds once the sample hits the strip and the meter detects it. For newer meters it will be 5 seconds, older meters could be 10–30 seconds. The meter will sound a tone, or beep, when it has a reading for you.

13. Read and record your results. Some diabetic glucose meters will store the readings for you in their onboard memory. With others, you will have to write your results down. Make sure you note the day, time and the reading.

Follow these steps to test urine glucose:

1. Explain how to store the test strips: Protect the strips from moisture and excessive heat and light but do not refrigerate. Replace the top on the storage container immediately after removing a strip.
2. Completely immerse the reagent area of the strip in fresh urine for 1–2 seconds and remove.
3. Gently tap the edge of the strip against the side of the urine container to remove excess urine.
4. Compare the test area closely with a colour chart exactly 30 seconds after dipping the strip in the urine. Hold the strip close to the color chart and match carefully.

The results are expressed as either negative or varying degrees of positive, indicating different amounts of glucose present.

Ask volunteers to repeat the procedure.

Facilitator's note:

Obesity is the number one contributing cause of diabetes today and it complicates the care of diabetes, which can make treatment with medications less effective. Being overweight and having diabetes will also increase the risk for diabetes related complications such as kidney failure, blindness and heart disease.

Being overweight is a risk factor for developing type 2 diabetes. However, simply weighing someone may not accurately determine if they are overweight.

Explain how it is possible for one person who weighs 80 kg to be obese, and another person who also weighs 80 kg to be a healthy weight.

The key point is their difference in height. One may be taller and assessed as average weight for their height, where as the other is assessed as obese because they are much shorter.

The relationship between weight and height is determined by calculating the person`s body mass index (BMI). Your BMI is defined by your weight in meters.

Enabling objective 5: Describe the prevention, control, and treatment modalities of diabetes mellitus.

Training method: Mini lecture (10 min)

The facilitator leads an inter-active lecture on the prevention and management of diabetes.

Finally, provide a hand out on prevention and management of diabetes.

Facilitator's note:

The management of diabetes entails: 1) diabetes education; 2) proper nutrition; 3) physical activity;

4) weight control; 5) cessation of smoking; 6) Cessation of alcohol intake, and; 7) adherence to diabetes drugs intake.

People with diabetes and their families need to know that diabetes is serious chronic disease that has no cure, but can be controlled; diabetes complications are preventable; regular medical check-ups are very important.

The cornerstones of diabetic treatment include: 1) individualized education and counseling;2)what foods, how much, and how often to eat; 3)how to exercise and the precautions (a light snack before and after the exercise); 4) how and when to take medications.

Stress the value of physical activity and exercises in the prevention, control, and management of diabetes.

Good nutrition is a key pillar of prevention, control and management of diabetes. Diabetics need to eat a healthy, balanced diet with food components from all the food groups.

Medication and management of diabetes mellitus: People living with type 1 disease need insulin for the management of their diabetes. People living with type 2 diabetes should be mainly managed with oral drugs. Insulin can be used when oral drugs are ineffective.

Adherence to diabetes management is very important in maintaining blood sugar levels and preventing diabetic complications.

Insulin is the mainstay of therapy for patients with type 1 DM and should be promptly initiated as a life-long treatment.

Metformin is the first-line oral anti-diabetic agent in patients with type 2 diabetes who are not controlled by lifestyle management only and who do not have contraindications like renal insufficiency, advanced liver disease, hypoxia or drug intolerance.

Metformin dose: 500 mg, PO daily (after the evening meal); side effects: anorexia, nausea, vomiting, abdominal discomfort and diarrhea; contraindications: Chronic kidney disease (Creatinine >1.5 for males and Creatinine >1.4 for females), advanced hepatic disease, and heavy alcoholism).

SESSION SUMMARY (10min)

Ask for any outstanding questions. Then summarize the session by revisiting the following key areas.

1. Classification of diabetes
2. Risk factors of diabetes
3. Common symptoms and signs of diabetes
4. Prevention and management of diabetes

EVALUATION

The participant will be able to perform risk assessment and screening for diabetes and demonstrate skills on blood glucose measurement and urine sugar determination. Competency will be measured when the participant correctly completing the assignment sheet, performing the steps outlined in the learning guide and check list and scoring at least 70% on the post-test.

Take-home Assignment: diabetes mellitus

Instruction: Use the information from the presentations, notes and discussions and reference materials to answer the following questions. Finally, check your answers with those given in an Answer- sheet . Obtain the Answer-sheet from your facilitator.

1. What are the main risk factors of diabetes?
2. How do you prevent diabetes mellitus?
3. What are the common symptoms of diabetes?
4. Describe the management of diabetes.

Answers to the assignment

1. The main risk factors for type2 diabetes are family history of diabetes (geneticfactors), being overweight or obese, fat around the abdomen, physical inactivity, women who delivered a baby weighing > 4kg or diagnosed with GDM previously hypertension > 140/90 mm Hg or on therapy for hypertension, other clinical conditions associated with insulin resistance (e.g. severe obesity),history of CVD

2. A healthy weight will help you lower blood sugar and pressure, improve your blood fats if they are not in a healthy range, and delay or prevent the onset of type 2 Diabetes.

   Physical activity also plays an important part in preventing type 2diabetes. Examples of simple physical activities one can engage in playing with children, walking instead of using a motorbike, working in the garden, cleaning the house, take the stairs instead of the elevator/lift, taking a brisk walk (walk at a fast pace), swimming, dancing, jogging.

   Avoidance of alcohol and tobacco is also important to prevent diabetes. Alcohol and tobacco use increase the risk of type 2 diabetes. Too much alcohol can cause chronic inflammation of the pancreas, which can impair its ability to secrete insulin and ultimately lead to diabetes. Tobacco is equally harmful. Tobacco use can increase blood sugar levels and lead to insulin resistance. And the more you smoke, the greater your risk of diabetes. Those who smoke and have diabetes are also more likely to develop vision problems including eye disease and possible vision loss as well as kidney damage. It increases the chances of developing a long list of other conditions as well.

3. Common Symptoms of diabetes: A person who has untreated diabetes is likely to complain of symptoms like feeling thirsty all the time, drinking a lot of water and passing large amounts of urine, weight loss. Some patients describe a feeling of emptiness in the stomach and wanting to eat frequently, and tiredness. The person may report that at times they have felt faint or dizzy and may even become unconscious. This can happen if the blood glucose levels fall too low to support normal brain function.

4. The management of diabetes entails:
   - Diabetes education
   - Proper nutrition
   - Physical activity
   - Weight control
   - Cessation of smoking
   - Cessation of alcohol intake
   - Adherence to diabetes drugs intake

UNIT 3. CANCERs

Unit description: This unit is developed using competence based training approach to improve trainees` knowledge, attitude and skill that they need to better understand the prevailing risk factors and some common manifestations of cancers and to be able to screen an individual for suspected cancer and refer him/her to the next level health care facilities for early detection and treatment as well as to make regular follow up visits for diagnosed cases and provide the required palliative care to those with advanced cancer.

Unit objective: equip the participants with enhanced knowledge, attitude, and skills to explain the basics of cancer; screen, counsel and refer clients who have suspected for a cancer and provide regular follow ups and home based care to patients with known cancers.

Unit specific objective: By the end of this training unit, participants will be able to:

- explain what a cancer is and the classification of the cancers
- explain and identify common risk factors for a cancer and accustom themselves to risk-reduction strategies for preventing cancers
- explain about the magnitude and risk factors of breast cancer, identify and refer patients with breast cancer.

Time: 210 min

Session 1.Introduction

Session Objective: By the end of this training session, the participant will be able to explain what a cancer is and the classification of the cancers

Time: 50 minutes

Enabling objectives : By end of the sub session the participants will be able to:

- Define cancer and other related terms
- Classify tumors

Enabling objective 1: Define cancer and other related terms

Training methods: Brainstorm (15 min) and mini lecture (5 min)

Ask participants to share their thoughts on cancer by telling personal or stories from their communities. Allow the participants to use commonly used local terms for cancer

Record responses, clarify, and summarize the commonly used terms.

Write the definitions of the following terms: 'genes,' 'tumor,' 'benign tumor', and 'malignant tumor' on a flip chart.

Facilitator's note:

Cancer is the name for diseases that cause the body's cells become abnormal and divide without control. Cancer cells may invade nearby tissues and may spread through the bloodstream and lymphatic system to other parts of the body.

Cancers can develop in any part of the body, but are more common in certain organs than others. For example, the top five organs in which fatal cancers developed worldwide in 2008 were:

- Lungs (1.4 million deaths).
- Stomach (740,000 deaths).
- Liver (700,000 deaths).
- Colon and rectum (610,000 deaths).
- Breast (460,000 deaths).

Genes are structures that determine what type of cells will develop, how they function, and how the cells are arranged, nourished, stimulated, and protected in the body.

Tumors can be either 'benign' or 'malignant' and have a dramatic effect on a person's chances of survival.

Benign tumors are rarely life threatening, though some may grow very large over a long time and eventually interfere with the functioning of a vital organ, such as the liver, heart, or brain.

Malignant tumor is the medical name for a cancer. Some cells in a malignant tumor break away from the original primary mass of cells and spread around the body through the blood stream or lymphatic vessels.

Enabling objective 2: Classify tumors.

Training method: Case studies (25 min)

Break participants into groups of four to five**.** Tell the participants to read and analyze the case studies (***Asnakech and Ketema***) individually.

When everyone in a group has finished reading, answer the three questions (as a group):

1. Do scenarios like this happen in your community?
2. Are the two cases similar or different? How?
3. Which one is cancerous and which one is not?

When all groups have finished, discuss the case studies and each group's answers.

Close by restating the definitions of benign and malignant tumors.

Case studies

Asnakech, a mother of five, was taking a shower when she realized she had a lump on the right side of the breast. She was scared and immediately went to a health facility. A biopsy was taken to the lab for investigation. She became well after a small surgery.

Ketema, a prominent business man, was always told by his friends that he was healthy because layers of skin were forming at the back of his head and he had pot belly, which his community interpreted as a sign of wealth. Ketema never went to hospital until one day he fell ill with malaria. The doctor was shocked to see the mass on his neck. He was screened for having something abnormal and the doctors said it was too late to reverse the situation. Ketema died shortly thereafter.

SESSION SUMMARY (5 min)

Ask for and answer any outstanding questions.

Take- home assignment: Introduction to cancer

Instruction: Use the information from the presentations, notes and discussions and reference materials to answer the following questions. Finally, check your answers with those given in an Answer- sheet . Obtain the Answer-sheet from your facilitator

1. Describe the difference between benign and malignant tumors.
2. Explain the magnitude of different types of cancers

Answers(see Session 1 facilitator note, above)

Session 2. Risk factors for cancer

Session Objective: By end of this session, the participants will be able to explain and identify common risk factors for a cancer and accustom themselves to risk-reduction strategies for preventing cancers

Time:30 minutes

Enabling objectives: By the end of this session the participants will be able to

- Describe the risk factors for cancer.
- Familiar with the risk-reduction strategies to prevent cancers

Enabling objective 1: Describe the risk factors for cancer.

Training method: Discussion (10 min.)

Write the following questions on a flipchart and discuss them one by one in a plenary:

1. From your experiences as a health professional, what are the common risk factors for an individual or community to develop cancers? why?
2. How does your community describe the cancer and persons who have developed a cancer?
3. How do you differentiate between facts and misconceptions about cancer.

Write down the responses on a flipchart

Followed, summarize the risk factors of cancer using the information below.

Facilitator's note:

Cancer is a complex group of diseases with many possible causes. Known causes of cancer include but are not limited to the following: genetic factors; lifestyle factors such as tobacco use, diet, and physical activity; certain types of infections; and environmental exposures to various chemicals and radiation.

A **carcinogen** is a substance or agent that tends to cause cancer.

Genetics and cancer: Some types of cancer run in certain families, but most cancers are not clearly linked to the genes we inherit from our parents.

Tobacco and cancer: Cigarette, cigar, and smokeless tobacco effects people who use them and those around them when they use them. Tobacco has many cancer-inducing substances.

Cancer and alcohol use: Alcohol is a known cause of cancers of the mouth, throat (pharynx), voice box (larynx), esophagus, liver, colon rectum, and breast. Alcohol may also increase the risk of cancer of the pancreas. For each of these cancers, the risk increases with the amount of alcohol consumed.

Unhealthy diet and physical inactivity: Unhealthy diet, physical inactivity, and excess body weight increase risk of cancer.

Sun and UV exposure: There is a link between too much sun exposure and cancer especially, in people who have low levels of melanin in their skin.

Radiation exposure and cancer risk: Certain types of radiation exposure increase cancer risk.

For instance, pregnant women should avoid x-rays because fetuses that are exposed to radiation are vulnerable to defects and cancer.

Other carcinogens: The environmental causes of a cancer may be in our homes, at work, in pollution, and even in some medical tests and treatments. Certain infections are linked to cancer.

As discussed earlier, **Cancer** is occurred when the body's cells become abnormal and divide without control. These abnormal changes are caused by interactions between a person's genetic factors and three categories of external agents: physical carcinogens (e.g., ionizing radiation); chemical carcinogens (e.g., asbestos, components of tobacco smoke, aflatoxins); and biological carcinogens (certain viruses, bacteria, or parasites).

Enabling objective 2: Be familiar with the risk-reduction strategies to prevent cancers

Training method: Small group discussion (15 minutes)

Divide participants in three groups to discuss these question:

- Discuss prevention of cancer at the individual, household, and community levels.
- As a UHE-p, what activities can you do at work to prevent cancer?

After they have discussed this, ask one of the groups to present the results of their discussion to the plenary.

Then, summarize the risk-reduction strategies that help prevent cancers.

Facilitator'snote:

Tobacco control: applies to individual, household, and community

Promotion of healthy diet and physical activity: People can take personal initiatives. Parents can avoid buying junk food and encourage their families to engage in community sports. The community can organize football matches and other athletic events to get community members engaged in physical activities.

Choose foods and drinks in amounts that help you get to and maintain a healthy weight.

- Read food labels to become more aware of portion sizes and calories. Be aware that "low-fat" or "nonfat" does not necessarily mean "low-calorie."
- Eat smaller portions, especially of high-calorie foods.
- Eat vegetables, whole fruits, legumes such as peas and beans, and other low-calorie healthy foods instead of calorie-dense and nutrition-poor foods such as French fries, potato and other chips, ice cream, donuts, and other sweets.
- Limit intake of sugar-sweetened beverages such as soft drinks, sports drinks, and fruit-flavored drinks.
- When away from home, choose food that is low in calories, fat, and added sugar, and avoid eating large portion sizes.

Limit how much processed meat and red meat you eat.

- Limit intake of processed meats such as bacon, sausage, lunch meats, and hot dogs.
- Choose fish, poultry, or beans instead of red meat (beef, pork, and lamb).
- If you eat red meat, choose lean cuts and eat smaller portions.
- Prepare meat, poultry, and fish by baking, broiling, or poaching rather than frying or charbroiling.

Eat at least 2½ cups of vegetables and fruits each day.

- Include vegetables and fruits at every meal and snack.
- Eat a variety of vegetables and fruits each day.
- Emphasize whole fruits and vegetables; choose 100% juice if you drink vegetable or fruit juices.
- Limit use of creamy sauces, dressings, and dips with fruits and vegetables.

Choose whole grains instead of refined grain products.

- Eat whole-grain breads, pasta, and cereals (such as barley and oats) instead of breads, cereals, and pasta made from refined grains. Eat brown instead of white rice.
- Limit intake of refined carbohydrate foods, including pastries, candy, sugar-sweetened breakfast cereals, and other high-sugar foods.
- Control use of alcohol at individual level by avoiding alcohol, at household level by explaining the dangers of alcohol to youth and children, and at community level by ensuring that local businesses do not sell or serve alcohol to children.
- Control environmental exposure to carcinogens at local government and policy levels.

SESSION SUMMARY (5 min)

Ask for and answer outstanding questions.

Summarize the session by revisiting the following key points:

- common risk factors for cancers.
- Strategies to prevent cancer.

Take- home assignment : Risk factors for cancer

Instruction: Use the information from the presentations, notes and discussions and reference materials to answer the following questions. Finally, check your answers with those given in an Answer- sheet . Obtain the Answer-sheet from your facilitator

1. List the risk factors for cancer. Which can be reduced by actions that a person can take for themselves?
2. List cancer risk-reduction strategies.

ANSWERS

1. The following are risk factors for cancer:

- Old age.
    - Cigarette smoking and chewing tobacco or khat.
    - Genetic factors.
    - Environmental risk factors, such as radiation and certain viruses.
    - Exposure to certain industrial chemicals (e.g., insecticides).
    - Lack of exercise.
    - Fatty diet leading to obesity.
    - Excessive alcohol consumption.

Individuals can reduce their cancer risks from all the potential causes in the above list except age, genetic factors, and some environmental risk factors.

2. The following are important cancer risk-reduction strategies:

- Avoid cigarette smoking or chewing tobacco or khat (they increase the risk of cancers of the mouth, throat, lungs, stomach, colon, and bladder).
- Avoid excessive alcohol usage (risk factor for cancers of the mouth, esophagus, stomach, breast, and liver).
- Eat a healthy diet containing plenty of fruits, vegetables, and other high-fiber foods from plant sources like whole grains, peas, and beans (this helps in reducing cancer risks in the whole of the gastrointestinal system).
- Maintain a healthy weight (this reduces the risk of many cancers, including ovary and breast).
- Avoid exposure to industrial chemicals by wearing personal protective clothing (this reduces the risk of lung and skin cancers, among others).
- Avoid exposure to cancer-promoting viruses.

Session three: Breast Cancer

Session Objective: By the end of this session, the participant will be able to explain about the magnitude and risk factors of breast cancer, identify and refer patients with breast cancer.

Time: 100 minutes

Enabling Objectives: By the end the sub sessions, the participant will able to:

- Describe the magnitude and trends of breast cancer and mention its risk factors.
- Describe a normal breast, and list down signs and symptoms of breast cancer.
- Demonstrate breast self-examination to detect breast cancer as early as possible.

Enabling objective 1: Describe the magnitude of breast cancer and its risk factors.

Training method: Mini lecture and Group work (20 min)

Give a mini lecture on the brief epidemiology of breast cancer for 5 minutes

Divide participants in groups of three or four. Instruct each group to discuss the risk factors of breast cancer and UHE-ps role for dealing with those risk factors.

Invite two groups to present their work.

Summarize the activity by asking what participants learned from this activity.

Facilitator's note

Breast and cervical cancers are the leading cancers among women in developing countries, with estimated annual new cases of 882,900 and 444,500 respectively. More than 324,300 and 230,400 women die from these cancers every year, respectively.

Breast cancer is the most-frequently diagnosed cancer and the leading cause of cancer death among females worldwide, with an estimated 1.7 million cases and 521,900 deaths in 2012. Breast cancer alone

accounts for 25% of all cancer cases and 15% of all cancer deaths among females. More-developed countries account for about one-half of all breast cancer cases and 38% of deaths.

The most prevalent cancers in Ethiopia among the entire adult population are breast cancer (30.2%), cancer of the cervix (13.4%), and colorectal cancer (5.7%). About two-thirds of annual cancer deaths occur among women.

Causes of breast cancer

The cause of most breast cancer is unknown. Genetic factors are involved in about 2% of cases, and women who are obese and/or eat a high fat diet, or drink a lot of alcohol are more at risk, but there is no clear cause in most cases. However, benign (harmless) lumps in the breast are very common, so you need to reassure women in your community that every change and every lump found in the breasts does not mean they have breast cancer. Only about one in every five women with a breast lump turns out to have cancer. Breasts change with the phases of the menstrual cycle, during which levels of female reproductive hormones (estrogen and progesterone) fluctuate. Sometimes these changes result in temporary lumps in the breast. Some women develop small painless lumps just before their menstrual period, which disappear after a few days. Sometimes a small tender cyst develops (a collection of fluid in the breast), which also disappears after a few days. If a lump felt in the breast remains for two weeks, it is wise to get it checked by a health professional.

Risk factors for breast cancer

The primary risk factors for breast cancer are being female and older age. Other risk factors include: genetics, lack of childbearing or lack of breastfeeding, higher levels of certain hormones, certain dietary patterns, and obesity. The risk factors for breast cancer can be summarized as below:

Modifiable

Lifestyle factors:

- Drinking alcohol
- Lack of exercise
- Poor diet (especially high fat diets)
- Obesity
- Smoking
- Estrogen exposure
- Radiation

Non-modifiable risk factors

- Age- risk increases above 40
- Race
- Gender
- Individual or family history of breast cancer

Smoking tobacco appears to increase the risk of breast cancer, with the greater the amount smoked and the earlier in life that smoking began, the higher the risk. A lack of physical activity has been linked to ~10% of cases. Sitting regularly for prolonged periods is associated with higher mortality from breast cancer.

A number of dietary factors have been linked to the risk of breast cancer. Dietary factors that increase risk include a high fat diet, high alcohol intake, and obesity-related high cholesterol levels.

Other risk factors include bearing children after age 40 or not giving birth at all.

Enabling objective 2: Describe a normal breast and list signs and symptoms of breast cancer.

Training methods: Mini lecture (5 min) and brainstorm (15 minutes)

Give a mini lecture on the normal breast and illustrate using the figure below.

Ask the group to state the signs and symptoms of breast cancer. Write responses on the flip chart

Explain the most common signs and symptoms.

Summarize by asking about the experience and role of UHE-ps in detecting symptoms.

Facilitator's note:

1. The normal breast

The breasts of a woman are made of fat, supportive (connective) tissue, and tissues with glands called lobes. These lobes produce milk. They are connected to the nipple by a network of ducts.

Most women's breasts are slightly different from each other. They change throughout a woman's life and often feel different at different times in the month because of hormonal changes. Just before periods they may feel lumpy. They may feel softer, smaller, and laxer as a woman ages (see figure 1).

Under the skin, an area of breast tissue extends into the armpit (axilla). This is called the tail of the breast. The armpits also contain a collection of lymph nodes, which are part of the lymphatic system. There are also lymph nodes just beside the breastbone and behind the collarbones. These drain the breast tissues and are affected in breast diseases and inflammatory conditions. A network of tiny lymphatic tubes connects the lymph nodes. Lymph flows through the lymphatic system.

2. Symptoms of breast cancer

Breast cancer is a malignant tumor that starts in the cells of the breast. A malignant tumor is capable of invading surrounding tissues or metastasizing (spreading) to distant areas of the body. The disease occurs almost entirely in women, but men can get it, too.

The immune system normally seeks cancer cells and cells with damaged DNA and destroys them. Breast cancer may be a result of failure of such an effective immune defense and surveillance.

Breast cancer can have a number of symptoms but usually shows as (Figure 3):

- Lump or thickening in the breast tissue.
- Deformity, ulcers, and discharge from the nipple.
- Skin changes.
- Redness.
- Nipple crusting.

Enabling objective 3: Demonstrate screening for breast cancer and self-examination to detect breast cancer as early as possible.

Training methods: Group discussion (15 min), video demonstration (30 min), and illustration (10 min)

Step 1

Divide participants in four groups.

Instruct them to discuss methods of breast cancer detection and the steps of breast self-examination.

Step 2

Tell participants that they will watch a video demonstration on breast self-examination.

Ask if participants have any questions before you start the breast self-examination video.

Show and follow instructions indicated in the video.

Make sure that participants are clear about steps indicated in video. If they are not, rewind and review portions in question.

Step 3

Post the illustrations (Fig 1 and 2) on a wall and invite the participants to get around and see the illustrations. explain about the illustrations (normal Vs abnormal and how to do breast self examination)

Finally, instruct the participants to practice self breast examination in private when they go home

To conclude the activity, ask the following questions.

- What new things did you learn from the video and illustrations?
- Why do you need to learn this?
- As a professional, how do you apply your learning to your routine activities?

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Facilitator's note

Methods of breast cancer detections

- Monthly breast self-exam.
- Clinical exam by nurse or doctor.
- Mammography.
- Ultrasound.

Screening refers to any method of examining an apparently healthy person to see if s/he has early signs of a particular disease. Most diseases benefit from early treatment. Women can screen themselves for breast cancer. Advise women in your community to examine their breasts once every week, using the method of breast self- examination illustrated below.

Refer women who find a breast lump to the HC to seek the required further diagnosis and treatment as early as possible

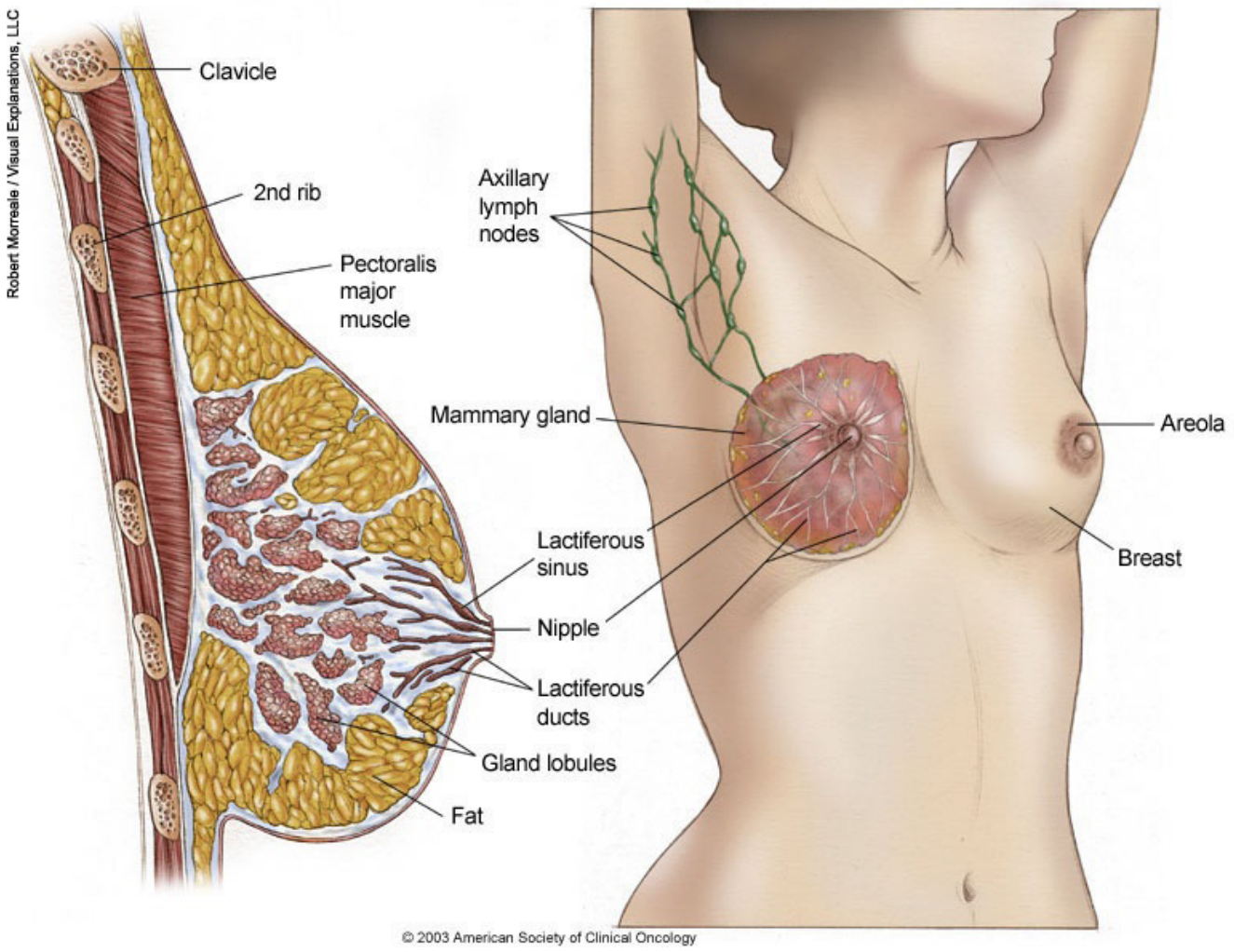


Figure 1: the normal breast

This picture shows the lobes and ducts inside the breast. It also shows the lymph nodes near the breast.

1. Breast self-examination

Steps in breast self-examination
The following steps relate to the diagrams in Figure 2 and should be conducted in this order.
(a) View the breasts with arms down at your sides. One breast is normally a little larger than the other, but do they appear about the same size and shape? Is the outline of each breast rounded and smooth,or are there any creases or dimples?
(b) Look at your breasts for the same signs as in (a), but this time with your arms raised and your hands holding each other behind your head.
(c) Repeat the visual inspection with your hands on your hips.
(d) Raise your right hand above your head; with all four fingertips of your left hand, gently press the whole of your right breast, moving your fingers to the next area and using small circular movements. Feel for any lumps or thickened tissue. Repeat with the left breast and right hand.
(e)Hold your right nipple between the thumb and first finger of your left hand; gently roll the nipple, feeling for any lumps or tenderness. Repeat with the left breast.
(f)Lie down and stretch your left arm upwards and behind your head. Use small circular pressures with the fingertips of your right hand to examine the whole breast. Repeat with the right breast and left hand.

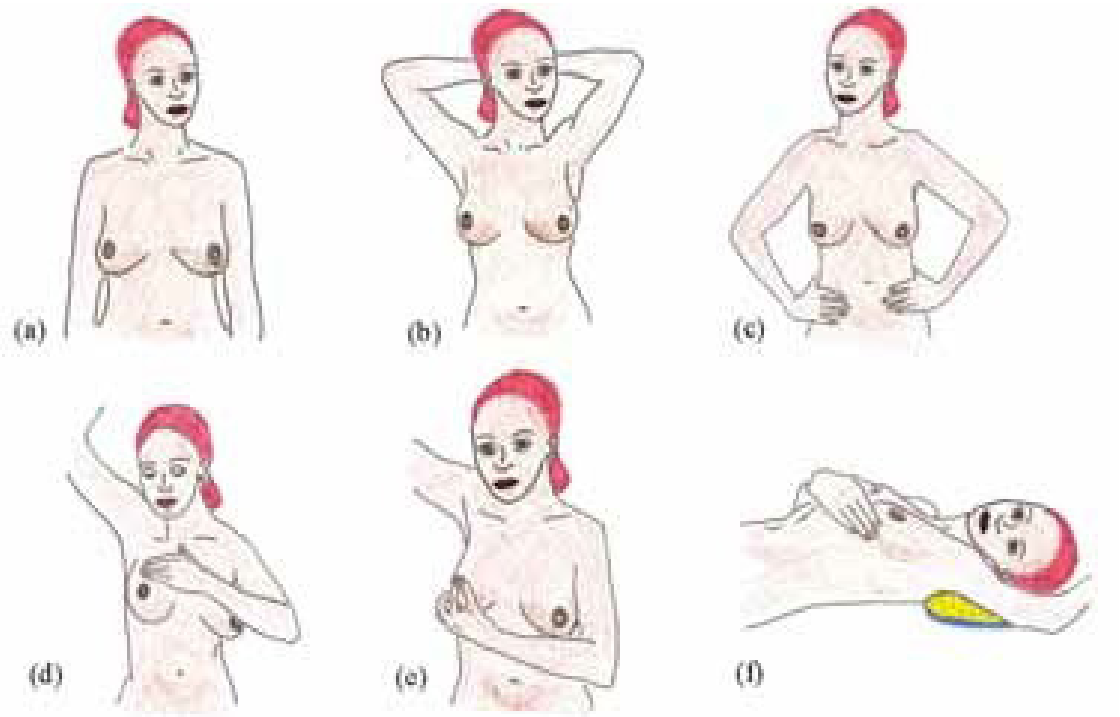


Fig 2 self breast screening

The steps of breast self-examination: steps (a)–(c) are done facing a mirror. Step (f) is done in lying position.

If a woman feels an unusual lump or any palpable mass in the breast, or sees a change in the appearance of the breast, she should go to the nearest health center for further assessment and specialist treatment. These types of changes in the appearance or 'feel' of the breast should alert a woman to seek medical help (Fig 3).

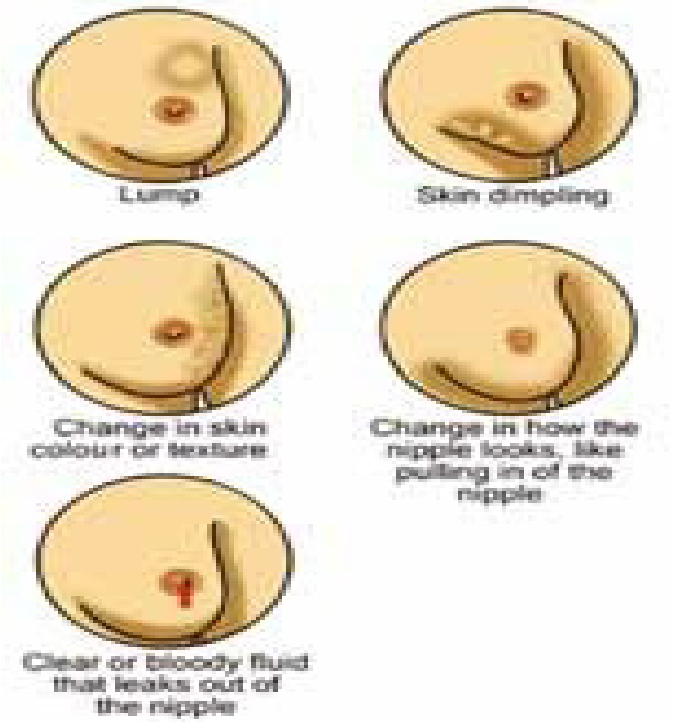


Fig 3 Abnormal breasts

2. Clinical breast examinations

- Performed by doctor or trained nurse practitioner.
- Annually for women over 40.
- At least every 3 years for women between 20 and 40.
- More frequent examination for high-risk patients (see Unit 3, session 3, EO 1- Facilitator`s note).

3. Prevention of breast cancer

Because no one knows exactly what causes it, there are no SURE ways to prevent breast cancer. However, the following illustrations may help to reduce your risk (Figure 4):

Fig 4: illustrations to prevent breast cancer

SESSION SUMMARY (5 min)

Ask for and answer any outstanding questions. Summarize the session by reviewing the following:

- Risk factors for breast cancer and how to prevent breast cancer.
- The importance of breast self-examination.

EVALUATION

Participants are expected to describe the manifestations and risks of breast cancer and how to do self breast examination. Competency will be measured when the participant correctly completing the assignment sheet, performing the steps outlined in the learning guide and check list and scoring at least 70% on the post-test.

Take- home assignment : Breast cancer

Instruction: Use the information from the presentations, notes and discussions and reference materials to answer the following questions. Finally, check your answers with those given in an Answer- sheet . Obtain the Answer-sheet from your facilitator

1. What are the risk factors for breast cancer?
2. List methods used to detect breast cancer.

Once you have completed this sheet, compare your answers with those found in the hand outs and make any necessary corrections.

Answers See Unit 3, Session 3, EO 1- Facilitator`s note ( Causes of risk factors for breast cancer) and EO 3- Facilitator`s note (Screening for breast cancer)

Session 4: Palliative care for patients who have advanced cancer

Session objective: By end of the session, the participants would be able to explain the basics of palliative care

Enabling objectives: By end of the sub-sessions the participants will be able to:

- Define palliative care and its aim.
- Describe the main features of palliative care

Enabling objective 1 : Define palliative care and its aim (15 min)

Enabling objective 2: describe the main features of palliative care (10 min)

Training methods: Interactive discussion and mini lecture (25 min)

Ask the participants to discuss the definition of palliative care, its aim and features in plenary

Give a mini lecture using the flipchart you developed on the definition, aim, and features of palliative care.

Facilitator's note:

Palliative care is given to a person who has advanced cancer (or any other chronic life-threatening condition).

The aim of palliative care is to improve the quality of life of the sick individual and his/her family in the period before the death, and to help the family cope with the bereavement after the death.

Palliative care involves prevention and relief of suffering, pain, and other physical problems, and attention to psychosocial and spiritual issues. It focuses on helping a person enjoy what remains of his/her and managing symptoms such as pain and nausea. It also helps relatives to cope with overwhelming feelings related to losing a loved one.

Palliative care strives to keep a patient in his/her own home for as long as possible, and to involve people in the community who can comfort the patient and family members.

SESSION SUMMARY (5 min)

Ask if there are outstanding questions. Invite some one from the trainees to summarize the session by recapping the following points:

- The definition of palliative care and its key features

UNIT 4: MENTAL HEALTH

Unit description: This unit is developed using competence based training approach to help the participants improve their attitude, skill and knowledge in terms of understanding mental health (MH) problems, identifying risk factors and providing referral services for those who have developed mental illness

Unit Objective: equip the participants with improved attitude, skill and knowledge to explain about the features and manifestation of common mental illnesses, identify the associated risk factors and how to prevent the illness at household and community levels.

Unit specific Objectives: By end of the session, the participants will be able to:

- explain about the main features and manifestations of mental illnesses and to identify the common risk factors for developing the illnesses.
- explain about their roles in providing mental health services and be aware of their own attitude whether or not it affects their routine activities while caring for mentally ill patients.

Time: 350 min

Session 1: Common mental illnesses and the risk factors

Session Objective: By end of the session, the participants will be able to confidently explain about the main features and manifestations of mental illnesses and to identify the common risk factors for developing the illnesses.

Enabling objectives: By the end of the sub-sessions, the participants will be able to:

- Describe the basic features of common mental illnesses and their signs and symptoms.
- Identify the risk factors of common mental illness using the social ecology model.

Time: 170 minutes

Enabling objective 1: Describe the basic features of common mental illnesses and their signs and symptoms.

Training methods: Group work (30 min) and interactive discussion (40 min)

Divide participants in groups of four.

Ask each group to list down common mental illnesses including sign and symptoms

Ask each group to present its work

Initiate an interactive discussion.

Facilitator's note:

See the following table for Features and common manifestations of major Mental Illnesses

Table 1, Features and common manifestations of major Mental Illnesses

Priority Mental Health Disorders (WHO)	
Psychosis	This is the collective name for a group of serious disorders Characterized by changes in behavior (for example poor self-care, restlessness), strange thoughts or beliefs (for example believing that others wish to do the individual harm) and related dispositions.
Mania	A form of severe mental illness in which a person is excessively happy or irritable (experiences extreme mood swings), appears over-active and sleeps poorly. People with mania have poor reasoning skills (they have difficulty understanding what is good and what is bad), and display excessive self-confidence
Depression	This is the most common priority disorder and is Characterized by excessive sadness, loss of interest, lack of energy and related symptoms
Suicide	This refers to the intention a lending of one's own life.
Abuse of alcohol and other substances	This refers to excessive use of the substances to the detriment of one's health.
Dementia	This condition is more common in older people and is characterized by memory problems and broader problems with thinking and understanding
Epilepsy	This is a chronic or long standing condition caused by Abnormal electrical conductions in the brain. In its most obvious form, it is characterized by episodic loss of consciousness and repetitive jerky movements of the body

Enabling objective 2: Identify the risk factors of common mental illness using the social ecology model.

Training methods: Mini lecture (10 min), group work (80 min).

Explain the social ecology model and its importance.

Divide participants into four groups and ask them to discuss the following questions and write down the answers:

- From your experience, which social ecology factors at different levels affect an individual to develop mental illness
- what can you do about those factors?

Write down their response on a flipchart. Once they exhaust discussing all the factors, instruct the participants to insert those factors in to socio ecological model (individual, social, and environmental factors) using the following matrix, table **2**).

Invite two groups to present their work.

During the presentation, ask participants how each factor is interlinked (e.g, How is **substance abuse in the individual factor** associated with **family conflict in the social factors**?)

Initiate discussion by asking

As a professional which factors can you mitigate ? how? If in case, you are not able to overcome some problems / factors by your own what would you aim to do? how?

Summarize the session by presenting the social-ecological model.

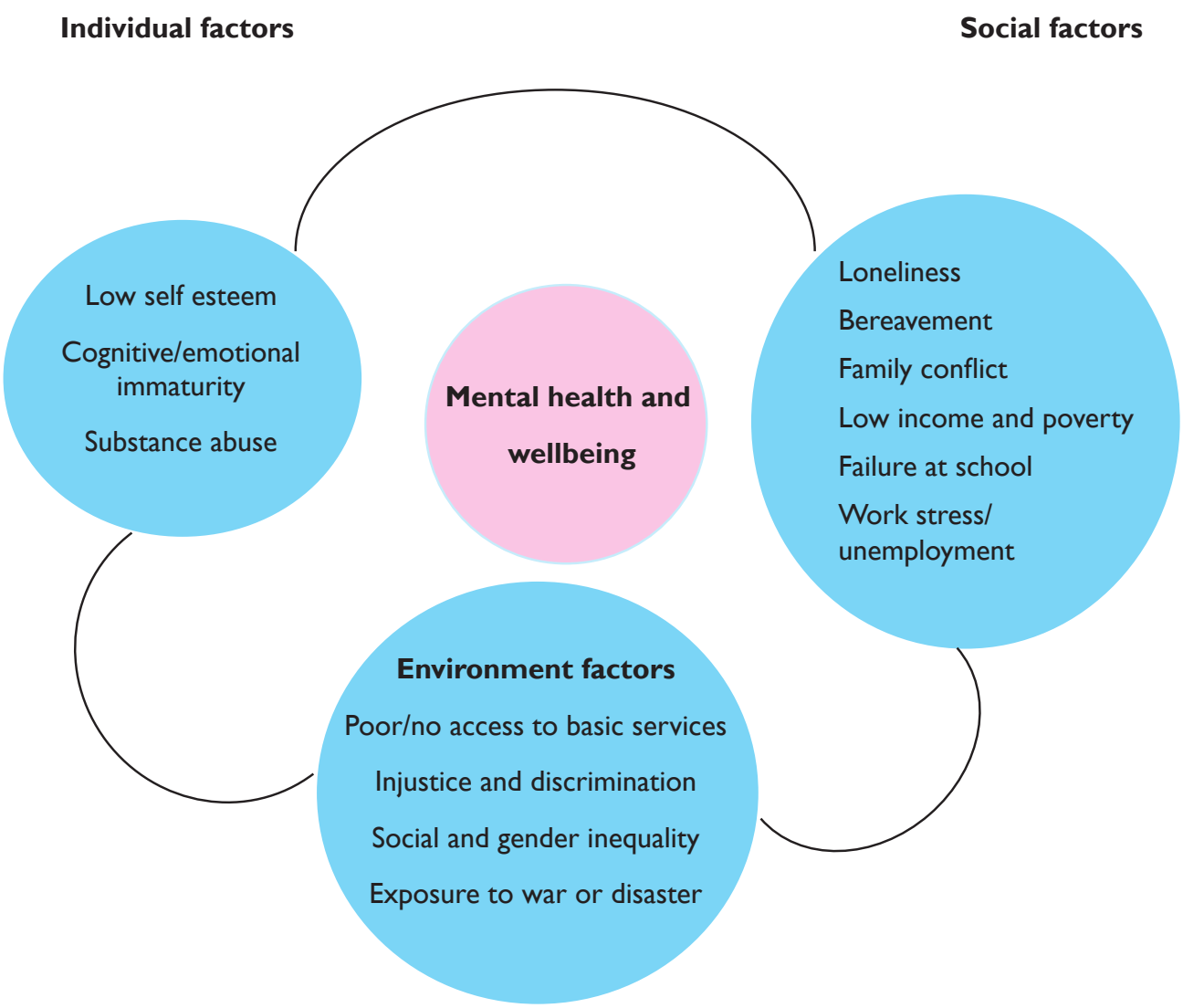
SESSION SUMMARY (10 min)

Ask questions and explain any concept that is not clear.

Table 2: Matrix: social ecological factors for mental illnesses

Level	Main factors
Individual	
Social	
Environmental	

Figure 5. The Social Ecology Model for Mental Illness



Session 2: The role of UHE-ps in the prevention, control, referral, and follow up of mental illness

Session Objective: By end of the session, the participants will be able to explain about their roles in providing mental health services and be aware of their own attitude whether or not it affects their routine activities while caring for mentally ill patients.

Enabling objectives: By the end of the sub-sessions, the participants will be able to:

- Identify their role in preventing and control mental illnesses and referring patients with mental health problems
- Understand how their attitude affects their performance and quality of services they are providing to their clients

Time: 180 min

Enabling objective 1: Identify their role in preventing and control mental illnesses and referring patients with mental health problems

Training method: Role play (90 min)

Divide participants into groups of 10–15 individuals each.

The first group will assess risk of mental illness in a family; the second will perform awareness raising activities for a difficult community in the town.

Assign roles on the day before the role-play. In group one, participants pretend the roles of the patient, his family/attendants, the health care provider (UHE-ps), and the observers. In group two, the roles will be assigned to the participants to act as community members, a health promoter (UHE-p), and the observers.

All participants should base their role on their own experiences. After the groups have practiced, reconvene the plenary for performances. Ask observers to take notes using the observer check list.

After each presentation, debrief by asking those who played each role to respond to the following questions:

Household (first group)

- How helpful was the interaction that you had with the health professional and why?
- Did the UHE-p help you understand what was being discussed?
- Did the UHE-p help you feel comfortable to talk openly about mental health issues?
- What did the UHE-p do to help you overcome negative feelings or fears about mental health?
- Did the intervention solve your problem? What did she do to help solve the problem?
- If you met this UHE-p again, what would want her to do differently? Why?

Community (second group)

- Did the UHE-p help you understand mental health?
- Did s/hedo anything to help you accept the information?
- Did the UHE-p involve and make you participate? What did/didn't you accept? Why?
- If you were the UHE-p, would you have presented the role differently? How? Would your suggested changes improve job performance?
- If you met this heath professional again, what would you want her to do differently? Why?

Next, debrief the actors who work as UHE-ps: Ask them to reflect on how they managed their attitudes, skills, and knowledge to communicate with their audiences, identify and solve problems. How did you communicate with you audiences and were there any barriers?

- How did you address the family's concerns about mental health?
- How did you address their misconceptions about mental health?
- Did you demonstrate enabling attitudes? Did you exhibit understanding about mental health issues?
- In your interaction with the family how did you identify and address the problems?

If you were given a chance to repeat this, what would you change and why?

Facilitator's note:

Mental health risk assessment: role play checklist			
Structure	**Examples of what UHE-p might say**	**Yes**	**No**
Rapport building	Use simple and understandable language; explain the purpose and advantage of this conversation; and explain and assure confidentiality.		
Exploring risks	***Risk of suicide:*** ask about any mental conditions that increases risk of suicide. ***Risk of self-neglect***: ask if the person is eating and drinking enough; proper dressing and protect oneself from dangers (accidents, bad weather, etc.). ***Risk of violence:*** ask about history of violence, what triggers the person, and whether these incidents of violence have been related to use of substances such as alcohol and khat. ***Risk to children and other dependents:*** ask children and other dependents (e.g., elderly or sick people) who live with someone who has a serious mental illness what it's like to live with this person; i.e., are there frequent conflicts, assaults, times when they feel particularly threatened; and if the person is receiving the appropriate treatment. ***Risk of abuse:*** ask if the person is being stigmatized, insulted, or even physically abused because of his/her condition.		
Provision of referral service	Explain objectives and use of referral. Identify and locate appropriate referral point and explain its services. Record information in referral registration book and issue referral slip.		
Conclusion	Schedule and agree on follow up visit		
Cross-cutting issues	Demonstrate use of effective communication skills and enabling attitudes. Use of problem solving skills.		

Awareness-raising dialogue about community mental health: role play checklist			
Structure	**Examples of what the UHE-p might say**	**Yes**	**No**
Introduce the topic	Use simple and understandable language; explain the purpose and advantage of this session; and discuss the common responsibility to prevent mental illness.		
Find out what people know	Is mental illness a problem in your community? What causes of mental illnesses do you know about?		
Explain why mental illness is important	Mental illness is common and causes a lot of suffering. Anybody can be affected by mental illness during his/her life. Mental illness prevents a person from living a full life. People who are mentally ill are more likely to have poor health and shorter life spans.		
Explain the different types of mental illness	Priority mental disorders		
Explain how people can reduce their risk of developing mental illness (primary prevention)	Items of primary prevention		
Explain why it is important to identify people with mental illness (secondary prevention)	Mental illness can be treated in a health facility, just like physical illness. The earlier that treatment is started, the quicker and more fully a person can recover.		
Discuss treatments for mental illness(tertiary prevention)	People with mental illness need to continue their medication, even if they also have traditional treatments. Some traditional remedies, like beating, are harmful. In addition to medication, people who are mentally ill need care and support from people around them. If aperson is properly treated s/he doesn't need to be chained at home.		
Explain the negative effects of stigma, discrimination, and abuse (secondary and tertiary prevention)	Stigma/discrimination exacerbates mental illness and preventspeople from getting treatment and family and social care, and encourages isolation.		
Explain how the community can help (secondary and tertiary prevention)	Encourage people who are mentally ill to go to a health facility and take medication. Befriend a person who has mental illness and include him/herin community life. Support the family of the mentally ill person.		

Enabling objective 2: Understand how their attitude affects their performance and quality of services they are providing to their clients

Training method: Agree/disagree exercise (80 min).

Post cards written with words of "**agree**" and "**disagree**" on either side of the wall.

Read the statements below one at a time. Each participant should decide independently if s/he agrees with the statement and stand under the corresponding sign.

Ask at least two participants who disagreed to explain their reason. Do the same for two people who agreed.

After hearing the reasoning of their peers, give others permission to change their answer if they want; be sure to ask those who have changed their mind to say why.

Discuss each statement until all questions have been answered.

When all questions have been discussed, ask for two volunteers to say what they learned from this session and if they will do anything differently as a result.

Facilitator's note:

Agree/disagree questions

1. Prevention doesn't work. It is impossible to prevent mental illnesses.

Discussion points: Prevention of mental, emotional, and behavioral disorders focuses on addressing known risk factors such as exposure to trauma and substance abuse, which can increase the chances that children, youth, and young adults will develop mental illness.

2. I can't do anything for a person with a mental illness.

Discussion points: Friends, loved ones, and health professionals can make a big difference. You can help people by:

- Reaching out and letting them know you are available.
- Helping them access mental health services.
- Learning and sharing the facts about mental health, especially if you hear something that isn't true.
- Treating them with respect—just as you would anyone else.
- Refusing to define them by their diagnosis or using labels such as "crazy."

3. People with mental illness are violent and unpredictable.

Discussion points: The vast majority of people with mental illness are no more likely to be violent than anyone else. Most people who have mental illness are not violent and only 3%–5% of violent acts are attributed to individuals living with a serious mental illness. In fact, people with severe mental illnesses are over 10 times more likely to be victims of violent crime than the general population. You probably know someone with a mental illness and don't even realize it, because many people who have mental illness are active and productive members of our communities.

4. Bad parenting is the major cause of mental illnesses in children.

Discussion points: No single factor can cause mental illnesses. Mental illnesses are complicated conditions that arise from a combination of genetics, biology, environment, and life experiences. However, family members and loved ones do have a big role in support and recovery.

5. Mental disorders are important risk factors for other diseases and unintentional and intentional injury.

Discussion points: Many studies show that mental illness increases the risk of becoming ill from other diseases such as HIV, cardiovascular disease, and diabetes.

6. Everyone gets depressed as they grow older. It's just part of the aging process.

Discussion points: Depression is never an inevitable part of aging. Older adults may have a greater risk of depression because they experience so many changes in roles and social networks. If an older adult experiences depression, s/he needs the same support as anyone else.

7. Once people develop mental illnesses, they will never recover fully.

Discussion points: Studies show that most people with mental illnesses get better, and many recover completely. Recovery refers to the process in which people are able to live, work, learn, and participate fully in their communities. For some individuals, recovery is the ability to live a fulfilling and productive life. For others, recovery implies the reduction or complete remission of symptoms. Science has shown that having hope plays an integral role in an individual's recovery.

8. Stigma and discrimination against patients and families prevent people from seeking mental health care.

Discussion points: Misunderstanding and stigma about mental illness are widespread. Despite the existence of effective treatments for mental disorders, there is a belief that they are untreatable or that people who have mental disorders are difficult, unintelligent, or incapable of making decisions. These misconceptions can lead to abuse, rejection, and isolation and prevent people from getting health care or support.

SESSION SUMMARY (10 min)

Ask questions and explain any concepts that are not clear.

UNIT 5. EYE HEALTH

Unit description: This unit is developed using competence based training approach to help the trainees improve their knowledge, attitude and skill on how to describe eye health and diseases in general and screen clients for early detection and treatment of common eye problems such as cataract, glaucoma and refractive error.

Unit objective: Equip the participants with enhanced attitude, skill and knowledge to define common eye problems and to screen, counsel and refer clients who have major eye problems.

Unit specific objectives: At the end of this unit, participants will be able to:

- Describe the characteristics of a normal eye, and the magnitude and impact of eye health problems in the country
- List down the causes, sign and symptoms of cataract, identify cataract cases in a household and the community and describe how to prevent and control the disease.
- Identify the types of glaucoma and detect its warning sign before damaging the sight.
- Understand a basic concept of refractive errors and how to take a vision test, screen school children for refractive errors, and refer them to a nearby health facility.

Time: 360 min

Session 1: Introduction to eye health

Session objective: At the end of the session, participants will be able to describe the characteristics of a normal eye, and the magnitude and impact of eye health problems in the country

Time: 60 minutes

Enabling objectives: By the end of the session, participants will be able to:

- Describe the physical appearance of a normal eye
- Discuss the global and national burden of eye health problems.
- Understand the economic effects of blindness and low vision on the country.

Enabling objective 1: Describe the physical appearance of a normal eye.

Training methods: Plenary discussion and drawing exercise (15 min).

Ask participants what the characteristics of a healthy eye are. Write responses on a flip chart.

Give each participant two blank papers and marker. Instruct them to draw a normal eye on one and an abnormal eye on the other.

Post normal eye pictures on one side of the wall and abnormal on the other.

Show the characteristics and physical appearance of the normal eye (which you have prepared in advance of the class, on a flipchart) and tell the participants to compare their responses with yours. Refer to facilitator's notes below) and summarize.

Facilitator's note:

Characteristics of the normal eye include:

- Eyelid opens and closes properly.
- No lumps on lid.
- Lashes do not turn in.
- Colored part of the eye should be smooth and shiny, and have no white marks or broken blood vessels.
- The white of the eye should be white, except for a few visible blood vessels. It should not be red.

Enabling objective 2: Discuss the global and national burden of eye health problems.

Training method: Discussion (15 min)

Ask participants about the burden of eye health problems in Ethiopia.

Ask about causes of blindness and/or low vision in Ethiopia.

Before summarizing the session, ask participants what role the UHE-ps can have in preventing those causes.

Facilitator's note:

According to WHO reports in 2014, 285 million people are estimated to be visually impaired worldwide: 39 million are blind and 246 million have low vision. About 90% of the world's visually impaired live in low-income settings. 82% of people who live with blindness are age 50 and above.

Globally, uncorrected refractive errors are the main cause of moderate and severe visual impairment.

Cataract remains the leading cause of blindness in middle- and low-income countries. According to global estimates, the number of people who are visually impaired from infectious diseases has reduced in the last 20 years. About 65% of all people who are visually impaired are age 50 and older. This age group comprises about 20% of the world's population. With an increasing elderly population in many countries, more people will be at risk of visual impairment due to chronic eye diseases and aging.

An estimated 19 million children are visually impaired. Of these, 12 million children are visually impaired due to refractive errors, a condition that is easily diagnosed and corrected. 1.4 million are irreversibly blind for the rest of their lives and need visual rehabilitation interventions for full psychological and personal development.

In Ethiopia, according to the 2005/6 National Survey on Blindness, Low Vision, and Trachoma, the prevalence of blindness was 1.6% and low vision 3.7%, which represents one of the highest prevalence rates in the world. This survey showed that the leading causes of blindness in Ethiopia are cataracts(49.9%) and trachoma (11.5%). Other causes included corneal opacity (7.8%);refractive error (7.8%); and glaucoma (5.2%). The major causes of visual impairment are cataract (42.3%);refractive errors (33.4%); and trachoma 7.7%. However, 80% of all visual impairment can be prevented or cured.

Blind people need to be referred to an eye care provider to check if anything can be done to restore their sight.

People who are incurably blind need rehabilitation services to help them to live well. They need to be part of the community.

Enabling objective 3: Understand the economic effects of blindness and low vision on the country.

Training methods: Group discussion and blindfold exercise (25 min)

Instruct participants to discuss in pairs socioeconomic and psychological effects of blindness.

Instruct the pairs to step outside the training room and take being blindfolded and told to renter room and find his/her chairs (without seeing).

After everyone has been blindfolded and tried to find their seats, ask participants how they felt when they were blindfolded. Then have a group discussion about the socioeconomic and psychological effects of blindness.

Summarize the activity using the notes below.

Facilitator's note:

Negative effects of blindness/low vision include:

Economic: Unable to meet basics need, absenteeism from work, decreased income.

Social: Decreased school performance, increased accident (e.g., car).

Psychological: Depression, loneliness, anxiety, suicidal thoughts, and dependence.

SESSION SUMMARY (5 min)

Ask for and answer any outstanding questions. Summarize this session by reviewing the following key points:

- The physical characteristics of the normal eye.
- The global and national burden of eye health problems.
- The socioeconomic and psychological effects of blindness and low vision.

Evaluation

Competency will be measured by the participant answering all the assignment questions and scoring at least 70% on the post-test.

Take-home assignment: Introduction to eye health

Instruction: Use the information from the presentations, notes and discussions and reference materials to answer the following questions. Finally, check your answers with those given in an Answer- sheet . Obtain the Answer-sheet from your facilitator

1. List the leading causes of blindness in Ethiopia.
2. Describe the negative effects of blindness and poor vision.

Answers: refer to session facilitator notes above.

Session 2: Cataracts

Session objective: At the end of the session, participants will be able to List down the causes, sign and symptoms of cataract, identify cataract cases in a household and the community and describe how to prevent and control the disease.

Time: 120 min

Enabling objectives: At the end of the sub sessions, participants will be able to:

- Describe the risk factors and clinical manifestation of cataracts
- Identify the role of UHE-ps in cataract prevention and control.

Enabling objective 1: Describe the risk factors and clinical manifestation of cataracts

Training methods: Group work and plenary presentations (30 min)

Start the session by asking the participants the following questions in plenary (write these questions on the flip chart):

- What is a cataract?

  Divide participants in to four groups. Assign two groups to work on the risk factors and the other two on the clinical manifestations of cataract.

Ask one group from each topic to present responses to the plenary. Encourage questions and comments.

Summarize the activity by asking the participants what they have learned from this activity and how it will help them practice differently in the future.

Facilitator's note:

Cataract refers to the opacity of the lens, but in early stages this does not mean that the eye is blind.

Types of cataract include:

- **Age-related.** As the name suggests, this type of cataract develops as a result of aging.
- **Congenital.** Babies are sometimes born with cataracts as a result of an infection, injury, or poor development before they were born, or they may develop during childhood.
- **Secondary.** These develop as a result of other medical conditions, like diabetes, or exposure to toxic substances, certain drugs (such as corticosteroids or diuretics), ultraviolet light, or radiation.
- **Traumatic.** These form after injury to the eye.

At early stages the following symptoms occur:

Dazzling: when the opacity is central, vision deteriorates in bright light due to papillary constriction. In dim light vision improves.

Multiple images: patient sees one or more blurred image in addition to the actual image.

Halo: rainbow ring around white lights caused by opacities in the lens, which split the light into the colors of the spectrum.

Signs of cataract

With diffuse illumination, the normal lens looks black. When the lens is cataractous, some of the light entering the eye is reflected, especially from the front surface.

Generally there is a gradual and progressive loss of vision. When the cataract is mature, there is only perception of light or total blindness.

Enabling objective 2: Identify the role of UHE-ps in cataract prevention and control.

Training method: Role play (80 min)

Divide participants in groups of three or four based on the number of participants. Each group will select a person to act as UHE-p and one to act as a client. The rest will observe.

Tell participants that the purpose of the role play is to help UHE-ps identify cataracts and counsel clients on how to prevent and control cataract. They can use the following case studies to organize their role.

After they have read and rehearsed the role play, invite one group to perform. Observers should comment and give constructive feedback.

Ask the larger group if anyone has experienced a situation like his/her in their work and if so how s/he managed it.

Case study 1:

Weizero Alemitu is 40 years old. Sister Zemenay, a UHE-p, usually helps her implement health extension program packages. Weizero Alemitu started to complain blurred vision, difficulty seeing in bright light, inability to see distant objects, and difficulty reading. She told Sister Zemenay that she's never had eye health problems.

Case study 2:

Ato Kebede is a diabetic patient Sister Desta's catchment area. Every two weeks, Sister Desta visits AtoKebede's house to counsel him on lifestyle modification. During the previous session, she did not mention his risk of cataracts. This time, she decides to counsel him on the probability of acquiring cataract and ways that he might prevent it.

Facilitator's note:

Since the exact cause of cataracts is uncertain, there is no proven method for preventing them.

The following, however, can prevent the cataracts from progressing:

- Check newborns for congenital cataract.
- Encourage regular eye checkups in health facility, especially people who are older than 50 and diabetic patients.
- Going to a health facility immediately after an injury in or near the eye.

SESSION SUMMARY (10 min)

Ask questions and then close the session by playing "hot potato" to summarize key learning points:

Ask participants to stand in a circle around you. Give a ball to one of the participants. The ball represents a potato. Close your eyes and start saying "faster and faster." The potato is "warmer and warmer"—"it is hot!" As you say these words, participants are passing to the next person in the circle. When you say the word "hot", the person who has the ball will say something that s/he learned from the role play in particular and about eye health in general. Then s/he goes in the middle and replaces you to continue the game, and so on.

Take- home assignment: Cataract

Instruction: Use the information from the presentations, notes and discussions and reference materials to answer the following questions. Finally, check your answers with those given in an Answer- sheet .

Obtain the Answer-sheet from your facilitator

1. What are the causes and types of eye injury?
2. What supportive care will you provide in case of eye injury?

Answers to assignment sheet

1. The causes and types of eye injury include:

Chemical injury (splash)

A splash in the eye by anything other than clean water can be dangerous. Some substances sting when they get into the eye but are harmless(e.g., lemon juice, salty water). Others can cause serious damage (e.g., cleaning fluids, agricultural chemicals). Acids cause more damage to the delicate structures of the eye than most other chemicals.

Scratch by a foreign body

Any foreign body (e.g., a speck of dust or dirt) that gets into contact with the eye can scratch the cornea or sclera. This can be painful and will cause the eye to 'water' as a way of flushing the particle from the eye. If the scratch is not deep it should heal quickly. However, a deep scratch can cause impaired vision if it leaves a scar on the cornea.

Penetration by sharp objects

Penetration of the cornea (or rarely the sclera) can happen if sharp objects enter and penetrate the eyeball. This causes intense pain, redness, excessive weeping of tears, and can lead to permanent sight problems. The object causing the injury may be fragments of wood, metal, or stone. Such accidents often happen at work and in fights.

Blunt (non-penetrating) injury

The eye can be injured by a blow in a fight or a fall, without any penetration in the eye structure externally. The surface of the eye looks very red due to bleeding of tiny capillaries in the sclera. The eye may swell and vision may be affected, but usually swelling will go down and the blood will be absorbed into the body over several days or weeks.

Injury to the eyelids

You may come across someone who has a cut on the eyelids following a blow or sharp injury. There may also be swelling without a cut over the eyelids.

First aid supportive care eye injuries

Getting the chemicals, dirt, or other foreign body out of the eye quickly protects it from further damage. If you are treating someone with a chemical splash injury, or dust in the eyes, simply rinse the eye with plenty of clean water.

Foreign bodies that are not attached to the eye or do not penetrate the eyeball can be removed with the edge of a clean piece of cloth.

If the foreign body is difficult to remove because it is attached to the eye, or if there is penetration or injury to the eyeball, cover the eye with clean cloth and transfer the person to a nearby health center.

Session 3. Glaucoma

Session Objective: By the end of the session, the participants will be able to identify the types of glaucoma and detect its warning sign before damaging the sight.

Time: 90 minutes

Enabling objectives: By the end of the sub sessions**,** the participants will be able to

- Identify the types of glaucoma and detect its warning sign before damaging the sight
- Describe the role of UHE-ps in preventing glaucoma

Enabling objective 1: Identify the types of glaucoma and detect its warning sign before damaging the sight

Training method: Group work (30 min)

Divide participants into four groups. Give each group a flip chart and marker and instruct them to discuss and write down glaucoma risk factors and prevention strategies.

Ask two groups to present and others to comment. Add any information that the group misses.

Facilitator's note:

The exact causes of optic nerve damage from glaucoma are not fully understood, but involve mechanical compression and/or decreased blood flow of the optic nerve. Although high eye pressure sometimes leads to glaucoma, many people who have normal eye pressure can also develop glaucoma.

Early detection and treatment by your ophthalmologist are the keys to preventing optic nerve damage and vision loss from glaucoma.

Enabling objective 2: Describe the role of UHE-ps in preventing glaucoma.

Training method: Role play (50 min)

Ask the participants to stay in the same group that you have organized in the previous role-play. Each group should read the case study carefully and assign a person to pretend the role of a client; the other one to act as a professional (UHE-p) and the rest to observe.

Case study

Ato Belachew is 45 years of old and lives in Woliso. He had complained of blurred vision and itching in his eye for the last two months. He used traditional medicines to alleviate the pain and blurring, but recently he has complained of difficulty focusing on both distant and near objects. He also developed double vision and excess tearing. Sister Aster, a UHE-p, met Ato Belachew while making home visits, and he told her his complaint. If you were Sister Aster, how would you counsel AtoBelachew?

Note: Ato Belachew hates going to the health facility because, based on past experience, he believes that health professionals have poor ethics.

Invite one or two groups to present their role play to the plenary. Ask the person/s who played the UHE-p the following questions:

- How did help your client?
- What was/were the most challenging issue during interaction with your client? How did you manage it?
- If you were given a chance to repeat this exercise, what would you do differently? Why?

Ask the person/s who played clients the following questions:

- What did the UHE-p do to address your concern?
- Did the UHE-p help you make decisions about your situation?
- Did the provider miss anything that she should have helped you with? What?

Ask the observers the following questions:

- How did the UHE-p help the client access health service?
- How would you have done it differently?

Facilitator's note:

Unfortunately, most cases of glaucoma do not occur with readily noticeable symptoms to warn of the irreversible optic nerve damage being done. However, the presence of the following indicates that a person needs a thorough examination by an eye doctor:

- Unusual trouble adjusting to dark rooms.
- Difficulty focusing on near or distant objects.
- Squinting or blinking due to unusual sensitivity to light or glare.
- Change in color of iris.
- Red-rimmed, encrusted, or swollen lids.
- Recurrent pain in or around eyes.
- Double vision.
- Dark spot at the center of viewing.
- Lines and edges appear distorted or wavy.
- Excess tearing or "watery eyes."
- Dry eyes with itching or burning.
- Seeing spots, ghost-like images.

The following may indicate serious problems that require emergency medical attention:

- Sudden loss of vision in one eye.
- Sudden hazy or blurred vision.
- Flashes of light or black spots.
- Halos or rainbows around light.

The symptoms listed above may not necessarily mean that you have glaucoma. However, if you experience one or more of these symptoms, contact your eye doctor for a complete exam.

Who is at risk for glaucoma?

High eye pressure alone does not mean that a person has glaucoma, but it is an important risk factor. An ophthalmologist will use it to determine your risk for developing the disease.

Important risk factors:

- Age.
- Elevated eye pressure.

- African ancestry.
- Thin cornea.
- Family history of glaucoma.
- Nearsightedness.
- Past injuries to the eyes.
- Steroid use.
- A history of severe anemia or shock.

Individuals who have diabetes and hypertension may have an increased risk of developing open-angle glaucoma.

SESSION SUMMARY (10 min)

Ask two participants to summarize the session by saying which new ideas/learning points they acquire.

Session 4. Refractive error

Session Objective: By the end of this unit, participants will be able to understand a basic concept of refractive errors and how to take a vision test, screen school children for refractive errors, and refer them to a nearby health facility.

Time: 90 minutes

Enabling objectives: By the end of the sub sessions, participants will be able to:

- Understand the basic concept of refractive errors.
- screen school children for refractive error and refer them to a health facility.

Enabling objective 1: Understand the basic concept of refractive errors.

Training methods: Brainstorm (10 minutes) and pair discussion (30 min).

Write the following questions on the flip chart and ask the group to answer them in pairs:

- What is refractive error?
- What is its cause?
- What are its symptoms?

After a few minutes, ask a different pair to answer each question. Write the responses on the flip chart. Use the facilitator notes to correct and add any information that they miss.

Facilitator's note:

- In refractive errors, light rays entering the eye are not focused on the retina, causing blurred vision.
- Normally, the cornea and lens bend (refract) incoming light rays to focus them on the retina. When there is a refractive error, the cornea and lens cannot focus light rays on the retina. Refractive errors can be corrected by eyeglasses, contact lenses, or surgery.

Major symptoms of refractive error:

- Blurred vision.

- Difficulty reading or seeing up close.
- Crossing of the eyes in children (exotropia).
- Headache.
- Double vision.
- Cloudy vision.

Enabling objective 2: Screen and identify school children for refractive error and refer them to a health facility.

Training method: Case study (45 min).

Divide participants in groups of four. Groups 1 and 2 will read and discuss case study 1 and groups 3 and 4 case study 2.

Questions

1. What screening criteria should Sister Mahlet use to identify Biniyam's problem?
2. What should his teacher and family do to help Biniyam?
3. What do you understand from case study 2?
4. What can Sr Birke do for Almaz`s 9 years old child? why

Case study 1

Sister Mahlet, a UHE-p, meets Biniyam's teacher while conducting school health programs at an elementary school in her catchment area. The teacher invites Sister Mahlet to her class room to provide personal hygiene education. While delivering the health education session, Sister Mahletsees that Biniyam, age seven, sits in the back of the room and looks very lonely. When she invites him to come to the front, he refuses. After class, the teacher tells Sister Mahlet that Biniyam had been a clever student but then started to withdraw from the class and his school performance has declined.

Case study 2

Wizero Almaz has three children, ages 5, 9, and 12. Her nine-year-old child has unusual headache, blurred vision, and excessive tearing in his eyes. Recently, he's refused to attend school and his performance reduced radically. His interest in playing with friends also decreased significantly. Almaz took him to a nearby clinic and got eye ointment that he applied for seven days, but with no improvement. Almaz met Sister Birke, is a UHE-p, and told her about her son's problems.

Questions

1. What might Sister Birke do?
2. What questions should she ask the mother and the child?

3. Have you experienced such cases in your working? If yes, what was the case and what did you do?

Ask one group from each of the two subsets to present their answers. Encourage others to comment and ask questions. Summarize by asking participants what they learned from this session.

Facilitator's note:

Screening refers to the implementation of a simple test that helps determine whether an individual has a given condition.

The **primary goal** of screening is to detect a disease in its early stages. Screening is disease-specific. It is the presumptive identification of unrecognized disease or defect by the application of tests or other procedures that can be applied rapidly.

It is not a diagnostic measure but a preliminary step to diagnosis. Diagnostic tests and evaluation by a health professional/physician are needed for definitive diagnosis. Screening can be on an individual or in groups (mass screenings).

Basic questions for UHE-ps to screen people for refractive error:

- Is there a reduction in vision? Which eye?
- When did the symptoms start? How? Sudden or gradual?
- Does the patient use spectacles?

  –Near

  –Far
- Is there blurring or diplopic (double vision)?
- Is there ocular (eye) pain?

  –Character of pain

  – Time

  – Relation to other symptoms and conditions (near vision, nausea, vomiting, reduction of vision, blurring, etc.)

- Is there any headache?
  - Location(where in head)?
  - Extent of pain
  - When does it get worse?
  - Is it related to vision?
- Tearing
  - When did it start?
  - Is it constant? When does it stop, if ever?
  - Is it related to redness?
- Discharge
  - Lash matting

  - Color of discharge
    - Green
    - Yellow
    - White
- Photophobia (fear of light)
- Trauma
  - General trauma
  - Direct trauma to the eye
  - Trauma to periocular tissues or the head.
  - Foreign bodies, chemical burns (acid, alkali)
  - Reduction of vision related to the trauma.
- Previous eye disease
  - Eye surgery
  - Systemic disease related to the eye (hypertension, diabetes mellitus)

SESSION SUMMARY (5 m)

Ask if any there are any outstanding questions. Summarize the session by reviewing the following key points:

- Clinical manifestations of refractory error.
- Basic screening questions.

References

- Non-Communicable Diseases, Emergency Care and Mental Health; Part 1 Chronic diseases and emergencies; Blended Learning Module for the Health Extension Program; Federal Democratic Republic of Ethiopia Ministry of Health.
- Non-Communicable Diseases, Emergency Care and Mental Health; Part 2 Mental illness; Blended Learning Module for the Health Extension Program; Federal Democratic Republic of Ethiopia Ministry of Health.

Post-test, course evaluation, and closing (60 min)

When you have finished the module, ask if participants have any questions, answer them, and administer the post-test.

Distribute the daily course evaluation (this should be done at the end of every training day).

After you collect the completed post-test and evaluation forms, hand the session to the organizers.

APPENDICES

Appendix 1: Pre-/post-test

Code_____

Instructions: Choose the best answer.

1. Which of the following is a false statement according to WHO's 2014 report?
   A. Cardiovascular diseases, diabetes, obstructive lung disease and cancers are on the increase all over the world except in low- and middle-income countries.
   B. Non-communicable diseases are the leading cause of ill-health and death, accounting for more than 60% of all deaths.
   C. Worldwide, 285 million people are estimated to be visually impaired.
   D. Mental health conditions account for 8.8% of the deaths and 16.6% of the total burden of disease in low- and middle income countries.
2. Which of the following is *not* an area for risk factor assessment?
   A. Cigarette smoking
   B. Nutrition/diet
   C. Overweight/obesity
   D. Physical inactivity/sedentary lifestyle
   E. None of the above
3. Which of the following is a normal blood pressure?
   A. Diastolic 70 mmHg
   B. Systolic 140 mmHg
   C. Diastolic 90 mmHg
   D. All are normal
4. Which of the following is *not* a risk factor for hypertension?
   A. Low cholesterol
   B. Diabetes mellitus
   C. Kidney disease
   D. High BMI
   E. All are risk factors
5. Which of the following is *not* a risk factor for diabetes mellitus?
   A. Family history of diabetes
   B. Hypertension
   C. High BMI
   D. Gestational diabetes mellitus

E. All are risk factors

6. Which of the following is *not* among the top five organs in which fatal cancers develop?
   A. Lungs
   B. Stomach
   C. Liver
   D. Breast
   E. Cervical
7. Which of the following is a secondary prevention strategy for cancer?
   A. Health promotion
   B. Early diagnosis and treatment
   C. Prevention of exposure
   D. Prevention of disease
   E. None
8. Which of the following is *not* a **modifiable** risk factor for breast cancer:
   A. Radiation exposure
   B. Estrogen exposure
   C. Smoking
   D. Family history of breast cancer
   E. Obesity
9. Which pair of risk factors for mental illness in the social ecological model is correct?
   A. Loneliness – individual factor
   B. Low self-esteem – individual factor
   C. Poor access to basic services – social factor
   D. Low income and poverty – environmental factor
10. Which is not a correct combination for prevention of mental illness?
   A. Explain how people can reduce their risk of developing mental illness – primary prevention.
   B. Explain why it is important to identify people with mental illness – secondary prevention
   C. Discuss the treatments for mental illness – tertiary prevention
   D. All of the above are correct combinations

Answers to pre-/post-test

1.A, 2.E, 3.A, 4.A, 5.E, 6.E, 7.B, 8.D, 9.B, 10.D

Appendix 2: A check-list for daily evaluation

- **How useful is this training to help you reflect on your current knowledge and experience to identify how you can improve what you do in your work?**

Very useful **Useful** **Partially useful** **Not useful**

- **How useful is this training to help you identify how to re-orient your attitudes to better do your job?**

Very useful **Useful** **Partially useful** **Not useful**

- **How useful is this training to help you identify and analyse broader social factors that may affect different clients and groups you are meant to reach?**

Very useful **Useful** **Partially useful** **Not useful**

- **How useful is this training to help you expand knowledge and identify how to use it with different clients and groups you are meant to train?**

Very useful **Useful** **Partially useful** **Not useful**

- **How useful is this training to help you improve your skills to apply CBT approach in providing services to your clients?**

Very useful **useful** **Partially useful** **Not useful**

- **How relevant are the methods in addressing ASK and ELC?**

Very relevant **relevant** **Partially relevant** **Not relevant**

- **other comment** _____
  _____
  _____
  _____
  _____

Appendix 3: A check-list for end-course evaluation

- **How useful is this training to help you reflect on your current knowledge and experience to identify how you can improve what you do in your work?**

Very useful **Useful** **Partially useful** **Not useful**

- **How useful is this training to help you identify how to re-orient your attitudes to better do your job?**

Very useful **Useful** **Partially useful** **Not useful**

- **How useful is this training to help you identify and analyse broader social factors that may affect different clients and groups you are meant to reach?**

Very useful **Useful** **Partially useful** **Not useful**

- **How useful is this training to help you expand knowledge and identify how to use it with different clients and groups you are meant to train?**

Very useful **Useful** **Partially useful** **Not useful**

- **How useful is this training to help you improve your skills to apply CBT approach in providing services to your clients?**

Very useful **useful** **Partially useful** **Not useful**

- **How relevant are the methods in addressing ASK and ELC?**

Very relevant **relevant** **Partially relevant** **Not relevant**

- **other comment** _____
  _____
  _____
  _____
  _____

Non-Communicable Diseases Prevention and Control

Facilitator's Guide