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MINISTRY OF HEALTH - ETHIOPIA

**FEDERAL MINISTRY  
OF HEALTH OF ETHIOPIA**  
DISEASES PREVENTION AND CONTROL  
LEAD EXECUTIVE OFFICE



***TRAINING ON BREAST CANCER SCREENING,  
EARLY DETECTION AND REFERRAL FOR PRIMARY  
LEVEL HEALTH WORKERS IN ETHIOPIA***

*Facilitator Guide*



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## Foreword

The Government of Ethiopia is resolved to ensure that our people are healthy and productive as this is the cornerstone of the socio-economic development and achievement of our vision of reaching middle-income status by 2035. Ethiopia faces a double burden of communicable and non-communicable diseases, we therefore continue to invest in high impact, evidence-based services to improve the health and wellbeing of our people by creating resilient and people-centered health systems.

In Ethiopia, breast cancer is the leading type of cancer with 16,133 new cases in 2020 and an age standardized incidence rate of 41.5/100,000. While, rare in males accounting for less than 1% of all breast cancer cases, it is now the leading cause of cancer morbidity among adult women in our country, accounting for one third of all cancer cases in women and one in five of all cancers. A key objective of our National Cancer Control Plan and National Strategic Plan for the Prevention and Control of major Noncommunicable Diseases (2020 – 2025) is to expand access to breast cancer awareness, early detection, treatment and palliative care in order to reverse the growing numbers of people suffering from the disease and to reduce the current mortality rate by 25% by the year 2025, in alignment with the World Health Organization, Global Breast Cancer Initiative.

The training material is aimed at building health professional's competency on breast cancer awareness creation, screening and early detection, prompt referral and linkage with quality care of breast cancer. Thus the main topics in this manual are organized based on the epidemiology of breast cancer and the disease burden; understanding normal breast ; knowledge and skill on clinical breast examination; benign breast abnormality and malignant breast abnormality; introduction to management of breast cancer; palliative care for breast cancer and health promotion and education for breast cancer early detection. The main emphases in this course are to enhance knowledge and skill of health workers at primary level to promote breast cancer early detection, conduct quality clinical breast examination, prompt referral and linkage to diagnostic and care centers.

This is a 5-days course designed to offer a skills-based training to equip health workers with optimal competency to provide good quality screening of breast cancer through clinical breast examination.

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Federal Ministry of Health of Ethiopia



## Approval Statement of the Ministry of Health

The Federal Ministry of health of Ethiopia has been working towards standardization and institutionalization of In-Service Trainings (IST) at a national level. As part of this initiative, the ministry developed a national in-service training directive and implementation guide for the health sector. The directive requires all in-service training materials fulfill the standards set in the implementation guide to ensure the quality of in-service training materials. Accordingly, the ministry reviews and approves existing training materials based on the IST standardization checklist annexed on the IST implementation guide.

As part of the national IST quality control process, this training material on breast cancer screening, early detection and referral has been reviewed and revised based on the standardization checklist and approved by the ministry.

Assegid Samuel Cheru  
Lead Executive Officer  
Human Resource for Health Development Lead Executive Office  
Federal Ministry of Health of Ethiopia



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## Acronyms

AACR	Addis Ababa City Cancer Registry
AAU	Addis Ababa University
AJCC	American Joint Commission on Cancer
BCa	Breast Carcinoma
BCAM	Breast Cancer Awareness Month
BCC	Behavioral Change Communication
BCS	Breast-Conserving Surgery
BHAC	Breast Health Awareness Campaign
BSE	Breast Self-Examination
CBE	Clinical Breast Examination
CHEW	Community Health Extension Worker
CHS	College of Health Science
CHV	Community Health Volunteer
CME	Continuous Medical Education
CNB	Core needle biopsy
COE	Center of Excellence
CxCa	Cervix Carcinoma
DHIS2	District health information system
EDP	Early Detection Program
EKC	Else Kröner Center for Cancer Care
EMR	Electronic Medical Records
ER	Estrogen Receptor
FMOH	Federal Ministry of Health
FNA	Fine Needle Aspiration
FNAC	Fine Needle Aspiration Cytology
GBCI	Global Breast Cancer Initiative
GDP	Gross Domestic Product
HCW	Health Care Worker
HF	Health Facility
HIS	Health Information System
HIV	Human Immunodeficiency Virus
IDC	Invasive Ductal Carcinoma
IEC	Information Education and Communication
IHC	Immuno-Histochemistry
MDT	Multi-Disciplinary Team
MOH	Ministry of Health
MOU	Memorandum of Understanding
MRI	Magnetic Resonance Imaging
NCCN	National Comprehensive Cancer Network
NCCP	National Cancer Control Plan
NCD	Non-Communicable Diseases
TWG	National Breast Cancer Technical Working Group





## Introduction to the training manual

Breast cancer, with 99% of cases occurring in women, is the most commonly diagnosed cancer worldwide, with 2.3 million new cases reported in 2022. It is also the fifth leading cause of cancer-related deaths, accounting for 6.9% of global mortality. In Ethiopia, breast cancer has become a growing burden, surpassing other types of cancer. In 2022, there were 16,904 new cases, comprising one-third of all cancer cases in women and one in five of all cancers. The age-standardized incidence rate in Ethiopia is 41.5 per 100,000.

The majority of breast cancer cases in Sub-Saharan Africa, including Ethiopia, are diagnosed at advanced stages (60–75%), leading to poor outcomes. This is primarily due to low public awareness and inadequate early healthcare-seeking practices. The lack of clinical competency of HCWs at healthcare facilities is another contributing factor for delayed diagnosis.

Effective breast cancer management involves screening, early detection programs, and prompt treatment. This approach is more effective and cost-efficient, resulting in fewer complications, and significantly improving patient outcomes and quality of life. While mammographic screening is the global gold standard for reducing breast cancer mortality, it requires significant infrastructure and coordination. Therefore, the World Health Organization (WHO) recommends clinical breast examination (CBE) as a viable alternative. Measures to raise awareness of breast health should be implemented in conjunction with CBE, particularly among the target age group. Fast-track referral and diagnosis protocols should be implemented for suspicious cases to identify breast cancers as small as 1cm. Acquiring CBE skills is crucial for achieving Ethiopia's strategic objective of detecting more than 60% of breast cancers at stages I and II by 2030.

The primary healthcare (PHC) level of the country's healthcare delivery system presents a unique opportunity to train frontline healthcare workers in essential CBE skills. Drawing from the experiences and success of the national cervical cancer screening and treatment program, a national breast cancer guideline and implementation plan are developed to guide breast cancer prevention, early detection, referral, and comprehensive management, including palliative care.

The overall objective of this course is to improve the competency of primary healthcare professionals in providing high-quality, culturally appropriate health education and counseling services, identifying danger symptoms/signs, conducting clinical assessments of the breasts, performing accurate clinical breast examinations (CBE), and distinguishing between benign conditions and suspected cases of breast cancer. Additionally, the course provides a comprehensive overview of breast cancer diagnostic (investigation) methods, treatment principles, the integration of palliative care, the significance of timely referral linkages, and the importance of monitoring and evaluation.

## 1. Core Competencies

The following are the core competency of this training manual:

- Provide high-quality, culturally appropriate health education, and counseling services
- Identification of danger symptoms/signs of breast cancer
- Perform proper CBE
- Differentiate benign and suspected breast cancer cases clinically
- Analyze the principles of overview of breast cancer diagnosis, treatment and integration of palliative care
- Identify cases requiring timely referral to the next level of care
- Performance monitoring and evaluation

## 2. Course Syllabus

### Course Description:

The 5 days training is designed to equip participants with the knowledge, skills, and attitude required to conduct breast cancer screening, early detection, and perform proper CBE at the PHC level.

### Course Goals:

To enhance knowledge and skills of health care providers at PHC levels in breast cancer screening, early detection, and treatment.

### Participant learning Objectives:

At the end of the training, participants will be able to:

- Provide high-quality, culturally appropriate health education and counseling services
- Describe the normal breast anatomy
- Identify the danger symptoms/signs of breast cancer
- Perform proper clinical breast assessment, including CBE
- Differentiate benign and suspicious breast cancer using clinical evaluation
- Describe the magnitude of breast cancer burden and the importance of screening, detection, and timely treatment
- Describe principles of breast cancer diagnosis and treatment options
- Demonstrate the importance of integrating palliative care into breast



- cancer care
- Practice timely referral of suspected breast cancer cases to the next level of care
- Describe record keeping and data management for breast cancer screening, early detection and referral.

### Training Methods:

- Illustrated lectures and group discussions
- Group exercise
- Individual reflection
- Case studies
- Role plays
- Simulated practice with anatomic models
- Practical attachment and evaluation of patients at health facilities
- Video clips
- Simulations for clinical decision-making
- Guided clinical activities (providing care and performing procedures)

### Training Materials:

- National BC participant manual
- National BC facilitator guide
- National BC guidelines
- Power point slide
- Flipchart
- Markers
- Laptop computer
- CD-ROM
- Projection screen
- Masking tape
- Breast models (simulators)
- CBE (practical attachment to health facilities)
- Checklist for CBE
- Video of CBE

### Participant Selection Criteria:

- Practicing and interested clinicians work in breast care (doctors, health officers, midwives, and nurses)
- There should be consistent institutional support and recommendations from



- the facilities
- Letter of agreement to stay in that health facilities at least 12 months after training

### **Trainer's selection criteria:**

Training of trainers (TOTs) should be conducted to develop a national and regional pool of trainers that will help in cascading the program. A qualified trainer must be a proficient general surgeon or clinical oncologist and have completed this training successfully. The TOT course and/or the trainer shall acquire the following skills and core competencies:

- Completed MoH-approved, competency-based TOT in breast cancer screening and/or Competent service provider who is actively working in the area of breast cancer screening services
- Good experience in performing CBE and managing breast abnormalities for which they will be a trainer
- Good facilitation skills
- Coordinates training in collaboration with other staff and relevant stakeholders
- Document and report training proceedings

### **Method of evaluation**

#### **Participant Evaluation:**

1. Formative
  - Pre- and post-course Knowledge Questionnaires
2. End-course evaluation
  - Post-test Questionnaires
3. Course
  - Daily evaluation
  - End-of-course evaluation



### Certification criteria

Knowledge: The trainee has to score  $\geq 80\%$

Skills: the trainees are expected to perform the following

Procedure	Observe (specify the number)	Perform under supervision (specify the number)
Proper history taking	10	10
Perform CBE	20	20
Provide culturally appropriate health education and counseling	5 sessions	5 sessions
Proper documentation	5	5

### 3. Course Duration

The training needs 5 days of both classroom-based and practical sessions using simulators and attachment in health facilities on real patients.

#### 1. Suggested Course Composition

- Up to 20 health professionals with mixed qualifications (doctors, health officers, midwives, and/or nurses)
- Four clinical trainers (two general surgeons and/or two oncologists)
- Four practice settings (five trainees per group)

#### 2. Training venue

- An accredited CPD provider will provide the training
- This training will have continuing educational unit (15 CEUs)

### 4. Pre-training Instruction

- Participant registration (30 minutes)
- Opening speech (15 minutes)
- Facilitator and participant's introduction (30minutes)
- Pre-test (20 minutes)



Facilitator Guide

Activity	Time	The procedure and guide of the activities to be carried out	Resource
1 Participant registration	30 minutes	<ul style="list-style-type: none"> <li>Facilitate participants to take their seat in the registration area</li> </ul>	
Opening speech	15 minutes	Invite the guest of the day to deliver an opening speech	
Facilitator and participant's introduction (Allowing participants to introduce themselves)	15 minutes	Encourage trainees to introduce themselves including their name, the institution they come from, their job proposition and what they expect from the training	Power point, Flip charts, pen, white board pen, LCD projector and laptop, video display
Introduce the course goal	2 minutes	Make a brief description by PowerPoint presentation	LCD projector and laptop , video display
Introduce the course objectives	2 minutes	Make a brief description by Power Point presentation	
Review training agenda	2 minutes	Make a brief description by Power Point presentation	
Set ground rules	4 minutes	<p>Facilitate the development of ground rule so that the training is streamlined and the duration is productive</p> <p>Let the ground rule inclusive of these issues</p> <p>Daily evaluation</p> <p>Energizer/Motivator</p> <p>Time keeper</p> <p>Re-cap session</p> <p>Listen to raised issues</p> <p>Observer of cases to be carried out</p> <p>Facilitate the selection and implementation of these on a daily basis</p>	Flip charts, pen, white and Marker
Address logistics issues	5 minutes	<ul style="list-style-type: none"> <li>let the training coordinator explain the duration of time to trainees</li> <li>Describe to the participants who and how issues that need to be addressed during the stay</li> </ul>	
Provide pre-test	30 Minutes	<p>Let the participant to attempt the prepared pretest.</p> <p>Post the result with code on the board</p>	It is designed to be used to make a request for After deactivation, assemble and correct and paste the resulting results on the code board



## 5. Course Schedule

Date	Time	Activity
Day 1: Monday	8:30-9:00 AM	Registration
	9:00-9:10 AM	Opening speech
	9:10-9:30 AM	Facilitator and participant's introduction
	9:30- 9:45 AM	Overview of the course and review of course materials
	9:45-10:00 AM	Identify participant's expectations and set ground rules
	10:00-10:30 AM	Pretest
	10:30-10:45 AM	Health break
	10:45 AM -12:15 PM	Chapter 1: The Normal Breast <ul style="list-style-type: none"> <li>1. Normal breast appearances</li> <li>2. Normal breast anatomies</li> <li>3. Worrying breast changes</li> </ul>
	12:15-12:30 AM	Summary of Chapter 1
	12:30-2:00 PM	Lunch
	2:00-3:30 PM	Chapter 2: Breast Examination <ul style="list-style-type: none"> <li>1. History taking for breast complaint</li> </ul>
	3:30-3:45 PM	2. Clinical breast examination
	3:45-4:45 PM	2. Clinical breast examination (continued)
	4:45-5:00 PM	3. Summary of clinical breast evaluation of common breast problems and check list for examination
	5:00-5:30 PM	Review of the day's activities and plan for next day
	8:30-8:45 AM	Recap of the previous day
	8:45-9:45 AM	Chapter 3: Benign Breast Anomaly <ul style="list-style-type: none"> <li>1. Benign Changes of the Breast- General description</li> <li>2. Palpable Breast Mass: <ul style="list-style-type: none"> <li>I. Fibroadenoma</li> <li>II. Breast cyst</li> </ul> </li> </ul>





Day 2: Tuesday	9:45-10:15 AM	3.Painful Breast (Mastalgia) 4. Nipple discharge
	10:15: 10:30 AM	Session Summary
	10:30-10:45 AM	Health Break
	11:45 AM-12:30 PM	Chapter 4: Cancer of the Breast 1. Describe the global and Ethiopian burden of breast cancer 2. List the key distinctions between noninvasive (in situ) and invasive breast cancer
	12:30-2:00 PM	Lunch
	2:00-2:45 PM	3. Identify the different subtypes of invasive breast cancer 4. Describe the clinical manifestations of breast cancer
	2:45-3:30 PM	Session Summary
	3:30-3:45 PM	Health break
	3:45-4:45 PM	Chapter 5: Management of Breast Cancer 1. Surgical treatments for breast cancer 2. Chemotherapy 3. Hormonal and Other targeted therapies
	4:45-5:15 PM	4. Radiotherapy for breast cancer 5. Surveillance for Breast Cancer
	5:15-5:30 PM	Session Summary
Day 3: Wednesday	8:30-8:45 AM	Recap of previous day
	8:45-9:45 AM	Chapter 6: Palliative Care 1. Definition of palliative care 2. Pain Management
	9:45-10:15 AM	3. Dyspnea 4. Fatigue
	10:15: 10:30 AM	Health Break
	10:30-11:30 AM	5. Delirium and confusion
	11:30 AM-12:20 PM	6. Existential Suffering
	12:20-12:30 PM	Session Summary
	12:30-2:00 PM	Lunch



	2:00-3:30 PM	Chapter 7: Health Promotion and Education 1. Patient pathways - causes of delay in breast cancer early detection 2. Risk factors for breast cancer
	3:30-3:45 PM	Health break
	3:45-4:45 PM	Chapter 8: Monitoring and Evaluation
	4:45-5:00 PM	Session Summary
	5:00-5:30 PM	Preparation for practical attachment
Day 4: Thursday	AM	Hospital Practical Attachment
	PM	Hospital Practical Attachment
Day 5 Friday	8:30AM-12:30PM	Hospital Practical Attachment
	12:30-2:00 PM	Lunch
	2:00-2:30 PM	Post Test
	2:30-3:30PM	Action plan
	3:30-3:45 PM	Health break
	3:45 -4:45 PM	Presentation of action plan by participants
	4:45 -5:00 PM	Course evaluation
	5:00 -5:30 PM	Certification and closing ceremony



## Chapter 1: The Normal Breast

**Duration:** 170 minutes

### Chapter description:

This chapter discusses on the normal breast including normal appearances, anatomy and changes that can occur during development, pregnancy, lactation and stage of involution of breasts. This chapter is meant to be used by trainees in conjunction with national guideline for early detection of breast cancer.

### Chapter objective:

By the end of this chapter participants will be able to describe the appearance and anatomy of normal breast and normal developmental changes from birth to elderly. of normal breast and normal developmental changes from birth to elderly.

### Learning objectives:

By the end of this chapter participants are expected to:

- Describe the appearance of normal breast
- Describe the anatomy and physiology of normal breast
- Describe developmental changes that happen to the breast after birth, during puberty, pregnancy, lactation and at elderly

### Summary Session Plan:

No.	Title/Topic	Time	Activity	Method of delivery	#PPT	Resource
1	Case Studies	20	Participants read out case studies loudly (one by one) from projected ppts. Then the facilitator collects responses from participants and discuss answers.	Discussion and feedback	3	Flip charts,
2	Normal breast appearances	50	Facilitator start the session by brainstorming on normal breast appearances	Brainstorming, illustrated lecture, group discussion	5	



			followed by illustrated lectures with graphics. Flip charts can also be used to describe normal breast			pen, white board pen, LCD projector and laptop
3	Normal breast anatomies	50	Facilitator start the session by brainstorming on normal breast appearances followed by illustrated lectures with graphics. Flip charts can also be used to describe normal breast anatomy	Brainstorming, illustrated lecture, group discussion	5	
4	Changes in the breast which may be worrying	50	Facilitator start the session by brainstorming on changes in the breast which may be worrying followed by illustrated lectures with graphics. Flip charts can also be used to describe normal breast anatomy	Brainstorming, illustrated lecture, group discussion	5	
5	Chapter summary	20	Facilitator summarizes the chapter	Summary presentation	2	



### Learning Objectives:

No.	Activity	Time	Instructions
1	Case Studies	20	Participants read out case studies loudly (one by one) from projected ppts. Then the facilitator collects responses from participants and discuss answers.
2	Normal breast appearances	50	Facilitator start the session by brainstorming on normal breast appearances followed by illustrated lectures with graphics. Flip charts can also be used to describe normal breast
3	Normal breast anatomies	50	Facilitator start the session by brainstorming on normal breast anatomies followed by illustrated lectures with graphics. Flip charts can also be used to describe normal breast anatomy
4	Changes in the breast which may be worrying	50	Facilitator start the session by brainstorming on changes in the breast which may be worrying followed by illustrated lectures with graphics. Flip charts can also be used to describe normal breast anatomy



### Activity 1:

**Instruction:** read out case studies loudly (one by one) from projected PPTs, and discuss the answers.

**Case study 1:** A worried mother brings her 11-year-old daughter to a clinic complaining that she has noticed a hard lump behind her one nipple. There is nothing abnormal to be felt on the other side. The mother wants to know whether the child's breast is normal, as she has had breast cancer.

1. Should the mother be concerned that her daughter has a lump under one nipple?
2. Is it normal to get a breast lump on one side only?
3. Does it mean she will always have one breast bigger than the other?
4. Would you be more worried if the daughter's breast lump was painful?

**Case study 2:** A woman of 22 years of age complains of painful breasts every month before her period. She has also noticed a few lumps in both breasts. She has always had inverted nipples.

1. Is it common to have painful breasts?
2. Would you be worried about her inverted nipples?
3. What is the commonest cause of multiple breast lumps in a young woman?
4. What is ANDI?
5. At what age do fibroadenomas usually occur?

**Case study 3:** A woman of 25 years presents 3 months after the birth of her baby. She did not breastfeed. Her complaint is that her breasts have become softer and have changed shape.

1. What normal changes take place in a woman's breasts early in pregnancy?
2. What breast changes can be expected after pregnancy and breastfeeding?
3. Can these changes be prevented if the mother chooses not to breastfeed?
4. What further breast changes are likely to occur as she becomes older?

Time: 20 minutes



### Case study answers:

**Case study 1:** A worried mother brings her 11-year-old daughter to a clinic complaining that she has noticed a hard lump behind her one nipple. There is nothing abnormal to be felt on the other side. The mother wants to know whether the child's breast is normal, as she has had breast cancer.

1. Should the mother be concerned that her daughter has a lump under one nipple?  
No. A lump under the nipple of a girl aged 11 years is an early sign of puberty.

2. Is it normal to get a breast lump on one side only?  
Yes. Asymmetrical breast development is very common.

3. Does it mean she will always have one breast bigger than the other?  
No. Further breast development should be normal. However, many adult women have one breast slightly larger than the other.

4. Would you be more worried if the daughter's breast lump was painful?  
No. Normal breast tissue can be painful.

**Case study 2:** A woman of 22 years of age complains of painful breasts every month before her period. She has also noticed a few lumps in both her breasts. She has always had inverted nipples.

1. Is it common to have painful breasts?  
Painful or tender breasts (mastalgia) is a common complaint in the days before a menstrual period. These symptoms usually disappear once the period begins.

2. Would you be worried about her inverted nipples?  
No, as they have been present since puberty.

3. What is the commonest cause of multiple breast lumps in a young woman?  
Fibroadenomas. This condition is an example of ANDI.

4. What is ANDI?  
Aberrations of normal development and involution. These are common breast changes seen in normal women. They are important as they may cause clinical concern for both the woman and the clinical staff.

5. At what age do fibroadenomas usually occur?  
Usually between 15 and 25 years of age.

**Case study 3:** A woman of 25 years presents 3 months after the birth of her baby. She did not breastfeed. Her complaint is that her breasts have become softer and have changed shape.

1. What normal changes take place in a woman's breasts early in pregnancy?  
The breasts enlarge and become tender. These may be the earliest symptoms of pregnancy. Due to high levels of sex hormones the lobes increase in size while the nipple and areola become darker.
2. What breast changes can be expected after pregnancy and breastfeeding?  
The breasts return to their normal size unless the woman has gained weight. They will become softer and tend to droop.
3. Can these changes be prevented if the mother chooses not to breastfeed?  
No, as these normal changes will occur even if the woman has not breastfed.
4. What further breast changes are likely to occur as she becomes older?  
After the age of 35 years the breast tissue starts to shrink (involute) as the lobes start to become wasted. However, the size of the breasts may increase due to increased fat.





## Chapter 2: Clinical Breast Assessment

**Duration:** 180 minutes

### Chapter description:

This chapter discusses on clinical evaluation of breasts with careful history and thorough clinical examination to identify any abnormal findings. The chapter will be used by trainees in conjunction with national guideline for early detection of breast cancer.

### Chapter objective:

By the end of this chapter participants are expected to describe how to take careful history and able to list important questions about breast complaints and able to do thorough clinical examination of breasts.

### Enabling objectives:

By the end of this chapter participants are expected to;

- Describe how to take careful history of patient with breast complaint
- Demonstrate thorough clinical breast examination
- Demonstrate breast self-examination

### Summary Session Plan:

No.	Activity	Method of delivery	Time	#PPT	Resource
1	Case Studies	Reading, question and answer, plenary discussion	20	3 slides (1 per case)	Flip charts, pen, white board pen, LCD projector and computer, video display
2	History taking for breast complaint	Illustrated lecture, role play, group discussion	60	5	
3	Clinical breast examination	Illustrated lecture, video show, demonstration, group discussion	60	10	
	Breast self-examination	Illustrated lecture, video show, demonstration	30	5	
4	Chapter summary	Facilitator summarizes the chapter	20	5	



### Learning Objectives:

No.	Activity	Time	Instructions
1	Case Studies	20	Participants read out each case study loudly (from projected ppts. Then the facilitator collects responses from participants and discuss answers.
2	History taking for breast complaint	60	Facilitator start the session by (triggering question and Answer) on history taking for breast complaint followed by illustrated lectures with graphics. Participants will pair up to role play history taking technique. Facilitator will look for key features in the role play and guide group discussion.
3	Clinical breast examination	60	Facilitator start the session by (Triggering question and Answer) on clinical breast examination followed by illustrated lectures with graphics. A video on CBE featured to show the technique. Facilitator will demonstrate CBE and ask each participant to practice.
4	Summary of clinical breast evaluation of common breast problems and check list for examination	20	use the case studies and check list for examination. Then facilitate group discussion



**Activity 2:**

**Case study 1:** A 55-year-old woman presents with a painless lump in her breast. She feels the lump is new. On examination, she has a hard mass in the upper outer quadrant of the breast.

1. With regard to the risk of breast cancer, what are the 3 most important facts given in the history?
2. Does breast cancer only occur in females?
3. Why is her age important?
4. What are the next most important questions to ask?
5. What specific factors are important to look for in the examination?
6. What should you feel for on palpation?

**Case study 2:** A young woman of 23 years visits her general practitioner with an upper respiratory infection. While taking a history she mentions that her father's mother had breast cancer.

1. Why is a family history of breast cancer important?
2. Is a history of breast cancer on the father's side of the family important?
3. Is it likely that she has breast cancer?
4. Why is the age at which the family member presented with breast cancer important?
5. What other cancer in the family will increase the risk of breast cancer?

**Case study 3:** A 40-year-old woman presents with a bloody nipple discharge from one breast. She is very embarrassed and asks if she can keep her T-shirt on during the examination. The general practitioner, who is in a hurry, agrees and examines her breasts with her lying down. Her armpits are not examined. He only then asks about the discharge but not about her past or family history.

1. What is the problem with the way the history was taken?
2. Can you examine a woman's breast without her undressing?
3. In what position should the woman be in when her breasts are examined?
4. How should the armpits (axillae) be examined?
5. What other lymph nodes should be palpated for?
6. Where else should be examined?



**Answers to the case studies:**

**Case study 1:** A 55-year-old woman presents with a painless lump in her breast. She feels the lump is new. On examination, she has a hard mass in the upper outer quadrant of the breast.

1. With regard to the risk of breast cancer, what are the 2 most important facts given in the history?

The patient is female, and 55 years of age

2. Does breast cancer only occur in females?

Breast cancer almost always occurs in females. However, breast cancer can occur in males and this should not be missed.

3. Why is her age important?

Because the risk of a breast lump being malignant increases with age. The risk at 55 years is between 1 in 23 and 1 in 50.

4. What are the next most important questions to ask?

- When did she have her last period if she is premenopausal?
- Is the lump painful?
- How long has the lump been there?
- Has it changed since it was first noticed?
- Any family history of breast cancer?

5. What specific factors are important to look for in the examination?

- Any area of overlying skin that appears to be attached to underlying tissue
- Inversion of the nipple
- Skin changes such as peau d'orange

6. What should you feel for on palpation?

- Size and location (quadrant) of the lump
- The firmness of the lump: soft, firm or hard
- The mobility of the lump: is the lump fixed to skin or muscle or does it seem to move freely?
- Are the lymph nodes palpable in the armpit on that side?

7. What further investigations would you do for this patient?

- Breast imaging (U/S, MG)
- Pathology ( FNA, Biopsy)



### Answers to the case studies:

**Case study 2:** A young woman of 23 years visits her general practitioner with an upper respiratory tract infection. While taking a history she mentions that her father's mother had breast cancer.

1. Why is a family history of breast cancer important?  
Because breast cancer is more common in some families. It shows an increased risk of breast cancer more than the general population.
2. Is a history of breast cancer on the father's side of the family important?  
Yes. A family history of breast cancer is important on both the mother's and father's side of the family.
3. Is it likely that she has breast cancer?  
The case should be evaluated and followed up.
4. Why is the age at which the family member presented with breast cancer important?

Because the younger the woman was when breast cancer was diagnosed the higher is the risk to other family members. If there are women in the family who develop breast cancer at less than 40 years, the risk is further increased. It determines the age at which the other female family members should start breast screening.

5. What other cancer in the family will increase the risk of breast cancer? Ovarian and prostate cancer.

**Case study 3:** A young woman presents with a nipple discharge from one breast. She is very embarrassed and asks if she can keep her T-shirt on during the examination. The general practitioner, who is in a hurry, agrees and examines her breasts with her lying down. Her armpits are not examined. He only then asks about the discharge but not about her past or family history.

1. What is the problem with the way the history was taken?  
Always start with the history before beginning the examination. Always take a present, past and family history. He should have asked whether she was pregnant as this could be the cause of the nipple discharge. Never rush breast examination before taking proper history.
2. Can you examine a woman's breast without her undressing?  
No, as breast examination is incomplete without undressing above the waist. He needed to assess whether the discharge was from one or multiple sites on her nipple. She need only undress to the waist.
3. In what position should the woman be in when her breasts are examined?
4. First sitting up with her arms at her sides and then held above her head. Following this she should be examined with her hands pressing against her hips and finally examined lying down with her arms extended above her head.
5. How should the armpits (axillae) be examined?  
Get the woman to relax her muscles by asking her to extend her arms and rest them on your shoulders while you examine her armpits. Feel in the two armpits (axillae) at the same time as this allows you to compare the two sides. You should feel along the inside wall and towards the front (anterior) for lymph nodes.
6. Why should her armpits be examined?  
Because it is part of the full breast examinations. It is important to feel for enlarged lymph nodes.



## Chapter 3: Benign Breast Abnormality

**Duration:** 260 min

### Chapter Description:

This chapter explores benign breast changes that arise from a variety of clinical conditions, including inflammation, infections, and physiological changes associated with pregnancy. It discusses different types of proliferative and non-proliferative breast abnormalities, highlighting how these can lead to symptoms such as lumps, discharge, and pain. A significant emphasis is placed on the critical need to differentiate these benign conditions from breast cancer. The chapter aims to equip trainees with the essential knowledge and skills necessary for accurately distinguishing between benign breast abnormalities and malignant conditions, thereby enhancing clinical assessment and patient management.

### Chapter Objective:

By the end of this chapter participants will be able differentiate different types of benign breast abnormalities

### Enabling objective:

- Explain symptoms of benign breast disease
- List the causes of Benign breast lump
- Outline the causes painful breasts
- Describe the cause of nipple discharge
- Demonstrate how to differentiate different types of BBC from Breast cancer



## Summary Session plan:

No.	Activity	Method of delivery	Time	#PPT	Resource
1	Case Studies	Reading, question and answer, plenary discussion	30	3 slides (1 per case)	Flip charts, pen, white board pen, LCD projector and laptop, video display
2	Benign Changes of the Breast- General description	Brainstorming, lectures, role play, group discussion	60	5	
3	Palpable Breast Mass: i. Fibroadenoma ii. Breast cyst	Brainstorming, lectures, role play, group discussion	60	5	
4	Painful Breast (Mastalgia)	Brainstorming, lectures, role play, group discussion	30	5	
5	Nipple discharge	Brainstorming, lectures, role play, group discussion	30	5	
6	Breast infection	Brainstorming, lectures, role play, group discussion	30	5	
7	Chapter Summary	Facilitator summarizes the chapter	20	5	





## Learning Objectives:

No.	Activity	Time	Activity
1	Case Studies	30	Participants read out case studies loudly (one by one) from projected ppts. Then the facilitator collects responses from participants and discuss answers.
2	Benign Changes of the Breast- General description	60	Facilitator start the session with brainstorming followed by general descriptive lecture. Videos used to describe changes of breast
3	Palpable Breast Mass: iii. Fibroadenoma iv. Breast cyst	60	Facilitator start the session with brainstorming followed by general descriptive lecture.
4	Painful Breast (Mastalgia)	30	Facilitator start the session by brainstorming on painful breast and nipple discharges followed by illustrated lectures with graphics. A video on nipple discharge featured. Role play to demonstrate painful breast ( a group of 4 to 5).
5	Nipple discharge	30	Facilitator start the session by brainstorming on painful breast and nipple discharges followed by illustrated lectures with graphics. A video on nipple discharge featured.
6	Breast infection	30	Facilitator start the session by brainstorming on painful breast and nipple discharges followed by illustrated lectures with graphics. A video on nipple discharge featured.



### Activity 3:

#### Case studies with key answers:

**Case Study 1:** Breast lump; A 21-year-old woman present to the clinic with a breast lump. On examination it is 2 by 2 cm mobile mass.

##### Questions

- A. What is the most likely cause?  
The most likely cause breast lump in this age group is fibroadenoma
- B. How do you evaluate this patient?  
History should include the duration, associated pain, skin change and family history of breast cancer. Examination includes characterization of mass which include size, mobility, and border and associated skin change. Examination of axillae should be done for possible lymphadenopathy.
- C. What investigation do you order?  
Ultrasound to characterize the mass and confirm the diagnosis is the appropriate modality of imaging
- D. When is biopsy required?  
Biopsy in this age group is indicated only when there
  - strong family history of breast cancer
  - skin change
  - axillary lymphadenopathy
  - Ultrasound finding suspicious of malignant lesion
- E. Ultrasound examination revealed well defined mass with sharp border suggestive of fibroadenoma. How do you treat this patient?  
The management of small fibroadenoma is reassurance. In some patient the presence of breast lump causes psychological distress. In such case surgical removal is advised.
- F. Will the approach be different if the age at presentation was 45 year?  
In older patient biopsy confirmation is always recommended to exclude malignant lesion



### Case studies with key answer

**Case Study 2:** Breast pain; A 42-year-old lady worried about recent onset of breast pain; she has no palpable breast lump. She has no family history of breast cancer.

#### Questions

- A. What further question do you ask?  
The first question is always relation to menstrual cycle to differentiate cyclic vs. noncyclic pain. Is it localized or diffuse? Characterization of the pain in relation to chest wall conditions
- B. What are the types of breast pain?  
The two types of breast pain are cyclic and non-cyclic breast pain. Cyclic breast pain typically increases menstrual period and gets better afterwards. Non-cyclic occurs at any time and not related to menstrual period. It also important to note that some pain is caused by chest wall problems
- C. What investigation do you request?  
The patient age is 42 and requires annual screening mammography of both breasts
- D. How do you treat this lady?  
After mammography reassuring the patient depending on the type of pain is important. It is good to inform that that most breast pain has no obvious cause. In some patient pain improve with use of appropriate size bra. Simple analgesic like Ibuprofen controls the pain in most patients.



## Chapter 4: Cancer of the Breast

**Duration:** 140 minutes

### Chapter Description:

This chapter provides a comprehensive overview of breast cancer, a critical public health concern globally and in Ethiopia. It explores the magnitude of the problem, different types of breast cancer, clinical presentations, and diagnostic imaging techniques.

### Chapter Objective:

At the end of this chapter the participants' will be able to describe breast cancer

### Enabling Objectives:

- Describe the global and Ethiopia burden of breast cancer
- Identify the different subtypes of breast cancer.

### Summary session plan:

No.	Activity	Method of delivery	Time	#PPT	Resource
1	Case study	Reading, question and answer, plenary discussion	30	5	Flip charts, pen, white board pen, LCD projector and computer , video display
2	Introduction	Brainstorming, lectures, group discussion	30	5	
3	Breast Cancer	Brainstorming, lectures, group discussion	60	5	
4	Chapter Summary	Facilitator summarizes the chapter	20	5	



## Enabling Objectives:

No.	Activity	Time	Activity
1	Case study	30	Participants read out case studies loudly (one by one) from projected ppts. Then the facilitator collects responses from participants and discuss answers.
2	Introduction	30	Facilitator start the session with brainstorming on global and local burden of breast cancer
3	Breast Cancer	30	Facilitator start the session with defining breast cancer
4	Chapter Summary	30	Facilitator summarizes the chapter



## Activity 5

### Instruction:

Read the following two case studies one by one and discuss the three questions that follow in small groups.

**Case Study 1:** A 45-year-old woman with no significant family history presents with a painless lump in her left breast. A core needle biopsy reveals a cluster of abnormal cells lining a milk duct. These cells show signs of uncontrolled growth but lack invasion into surrounding breast tissue.

**Case Study 2:** A 62-year-old woman with a strong family history of breast cancer notices a dimpling in the skin of her right breast. A surgical biopsy reveals a mass of malignant cells within breast tissue. The tumor cells have infiltrated beyond the basement membrane of the milk ducts.

1. Is this Invasive or non-Invasive cancer?
2. What specific details in the pathology description were most helpful in making your decision?
3. What are some recommended next steps for this patient?
4. Which signs and symptoms from Lists A and B are potentially indicative of breast cancer? Explain your reasoning for each selection
  - A. List A: breast lump, nipple retraction, skin changes, bloody discharge
  - B. List B: breast pain, premenstrual breast tenderness, itchy nipples

Time:30 minute



## Chapter 5: Management of Breast Cancer

**Duration:** 50 min

### Chapter Objective:

This chapter provides trainees with an understanding of breast cancer treatment modalities, focusing on the differentiation between early and advanced stages, various treatment options, the role of multidisciplinary teams, and palliative care options for advanced-stage patients.

### Enabling Objectives:

By the end of this chapter participants will be able to:

- Differentiate between early and advanced stages of breast cancers
- Mention treatment options of breast cancer both for early and advanced stages of breast cancers
- Explain the role of multidisciplinary team discussion (MDTs) for breast cancer treatments

### Summary Session Plan:

No.	Activity	Method of delivery	Time	#PPT	Resource
1	Surgical treatments for breast cancer	Brainstorming, lectures, group discussion	10	1	Flip charts, pen, white board pen, LCD projector and computer, video display
2	Chemotherapy	Brainstorming, lectures, group discussion	10	1	
3	Hormonal and Other targeted therapies	Brainstorming, lectures, group discussion	5	1	
4	Radiotherapy for breast cancer	Brainstorming, lectures, group discussion	5	1	
5	Surveillance for Breast Cancer	Brainstorming, lectures, group discussion	5	1	
6	Breast cancer in special population	Brainstorming, lectures, group discussion	5	1	
7	Chapter summary	Facilitator summarizes the chapter	10	1	





### Enabling Objective:

No.	Activity	Time	Activity
1	Surgical treatments for breast cancer	10	Facilitator start the session with brainstorming on surgical treatments for breast cancer followed by general descriptive lecture.
2	Chemotherapy	10	Facilitator start the session with brainstorming on chemotherapy for breast cancer followed by general descriptive lecture.
3	Hormonal and Other targeted therapies	5	Facilitator start the session with brainstorming on hormonal and other targeted therapies for breast cancer followed by general descriptive lecture.
4	Radiotherapy for breast cancer	5	Facilitator start the session with brainstorming on radiotherapy for breast cancer followed by general descriptive lecture.
5	Surveillance for Breast Cancer	5	Facilitator start the session with brainstorming on surveillance for breast cancer followed by general descriptive lecture.
6	Breast cancer in special population	5	Facilitator present on breast cancer in special population
7	Chapter summary	10	Facilitator summarizes the chapter



## CHAPTER 6: Palliative Care in Breast cancer

**Duration:** 90 min

### Chapter Description:

This chapter aims to equip trainees with a comprehensive understanding of palliative care, specifically for breast cancer patients, including its definition, components, and evaluation of common physical symptoms. Trainees will also learn about psychosocial support in palliative care and gain insights into end-of-life care, including issues related to delirium, confusion, and coma

### Chapter Objective:

At the end of this chapter participants will be able to discuss palliative cares for breast cancer patients.

### Enabling objective:

- Describe concept of palliative care
- Explain the evaluation of common physical symptoms
- List components of palliative care
- Mention what psychosocial support is in palliative care
- Discuss about end-of-life care, delirium, confusion and coma

### Summary Session Plan:

No.	Activity	Method of delivery	Time	#PPT	Resource
1	Definition of palliative care	Brainstorming, lectures, group discussion	20	5	Flip charts, pen, white board pen, LCD projector and computer , video display
2	Pain Management	Brainstorming, lectures, group discussion	20	5	
3	Dyspnea	Brainstorming, lectures, group discussion	10	5	
4	Fatigue	Brainstorming, lectures, group discussion	10	5	
5	Delirium and confusion	Brainstorming, lectures, group discussion	10	5	
6	Existential Suffering	Brainstorming, lectures, group discussion	10		
7	Chapter summary	Facilitator summarizes the chapter	10		



### Enabling Objective:

No.	Activity	Time	Activity
1	Definition of palliative care	20	Facilitator start the session with brainstorming definition of palliative care followed by general descriptive lecture.
2	Pain Management	20	Facilitator start the session with brainstorming definition of pain management followed by general descriptive lecture
3	Dyspnea	10	Facilitator start the session with brainstorming definition of dysnea followed by general descriptive lecture
4	Fatigue	10	Facilitator start the session with brainstorming definition of fatigue followed by general descriptive lecture
5	Delirium and confusion	10	Facilitator start the session with brainstorming definition of delirium and confusion followed by general descriptive lecture
6	Existential suffering	10	Facilitator start the session with brainstorming definition of delirium and confusion followed by general descriptive lecture



## Chapter 7: Health Promotion and Education for Early Detection

**Duration:** 100 min

### Chapter Description:

This chapter describes the importance of health promotion in the context of breast cancer early detection as well as explains culturally sensitive health education thus to empower women timely to seek and receive health care and enable early detection of breast cancer. In addition, the chapter explains risk factors for breast cancer, first causes of delay in breast cancer care, and the need for health promotion.

### Chapter Objective:

At the end of this chapter, the participant will be able to:

- Describe the importance of health promotion in the context of breast cancer early detection as well as be able to deliver culturally sensitive health education at multiple settings.

### Enabling objective:

By the end of this chapter, participants will be able to:

- Identify the main causes of delay in the patient pathways
- List risk factors for breast cancer
- Describes health promotion in context of early detection
- Describe various setups and methods for health education



### Summary Session Plan:

No.	Activity	Method of delivery	Time	#PPT	Resource
1	Patient pathways - causes of delay in breast cancer early detection	Brainstorming, lectures, group discussion	20	5	Flip charts, pen, white board pen, LCD projector and laptop , video display
2	Risk factors for breast cancer	Brainstorming, lectures, group discussion	20	5	
3	Health promotion for breast cancer early detection	Brainstorming, lectures, group discussion	20	5	
4	Setups of health education	Brainstorming, lectures, group discussion	20	5	
5	Chapter summary	Facilitator summarizes the chapter	20	5	



### Enabling Objectives:

1	Patient pathways - causes of delay in breast cancer early detection	20	Facilitator start the session with brainstorming patient pathways - causes of delay in breast cancer early detection followed by general descriptive lecture and discussion. Ask to revise in small groups delays in the patient pathways in breast cancer focus on the first delay and brainstorm to the larger group in association with health promotion and early detection.
2	Risk factors for breast cancer	20	Facilitator start the session with brainstorming risk factors for breast cancer followed by general descriptive lecture and discussion
3	Health promotion for breast cancer early detection	20	Facilitator start the session with brainstorming Health promotion for breast cancer early detection followed by general descriptive lecture and discussion
4	Setups of health education	20	Facilitator start the session with brainstorming Setups of health education followed by general descriptive lecture and discussion
5	Summary	20	Facilitator present a summarized points from the entire presentation



## Chapter 8: Monitoring and Evaluation

**Duration:** 60 min

### Chapter description:

This chapter focuses on the monitoring and evaluation of breast cancer management through an effective Health Information System (HIS). It outlines the processes for routine data collection and reporting at facility, woreda, zone, and regional levels, emphasizing the roles of various coordinators in ensuring the timely delivery of early detection and treatment services. The chapter also establishes performance targets aimed at reducing breast cancer incidence and describes the implementation tools and key indicators used to assess program effectiveness. Overall, it provides a comprehensive framework for improving breast cancer care through systematic oversight and data-driven decision-making.

### Chapter Objective:

At the end of this chapter participants will be able to describe breast cancer early detection referral monitoring and evaluation tools.

### Enabling objective:

- Describe concept of breast cancer monitoring and evaluation within HIS
- Explain the role and responsibilities of various health system levels
- Mention performance targets aimed at reducing breast cancer incidence
- Describes the implementation tools and key indicators used to assess program effectiveness



## Summary Session Plan:

No.	Activity	Method of delivery	Time	#PPT	Resource
1	Introduction	Brainstorming, lectures, group discussion	10	3	Flip charts, pen, white board pen, LCD projector and computer, video display
2	Health Information System at Facility Level	Brainstorming, lectures, group discussion	10	3	
3	Target Setting	Brainstorming, lectures, group discussion	10	1	
4	Implementation and Monitoring Tools	Brainstorming, lectures, group discussion	10	1	
5	Eligibility assessment, triage and referral linkage	Brainstorming, lectures, group discussion	10	2	
6	Breast cancer early detection and treatment register	Brainstorming, lectures, group discussion	10	2	
7	Breast cancer early detection and treatment service reporting form	Facilitator summarizes the chapter	10	2	
8	National program indicators		20	2	
9	Chapter summary		10	1	





## Enabling Objectives:

1	Introduction	10	Facilitator start the session with a brief introduction to monitoring and evaluation concept and importance in program implementation.
2	Health Information System at Facility Level	10	Facilitator start the session with brainstorming on Health Information System at Facility Level
3	Target Setting	10	Facilitator start the session with brainstorming on how to set targets
4	Implementation and Monitoring Tools	10	Facilitator start the session Implementation and Monitoring Tools
5	Eligibility assessment, triage and referral linkage	10	Facilitator start the session with brainstorming on eligibility assessment, triage and referral linkage
6	Breast cancer early detection and treatment register	10	Facilitator start the session with introduction to Breast cancer early detection and treatment register
7	Breast cancer early detection and treatment service reporting form	10	Facilitator start the session with introduction to Breast cancer early detection and treatment service reporting form
8	National program indicators	20	Facilitator introduce and elaborate National program indicators with practical examples
9	Chapter summary	10	Facilitator present a summarized points from the entire presentation



## Appendices: Learning Support Materials

### Appendix A: Eligibility criteria

#### I. Eligibility Criteria

1. Is the age of the client above 30 years?  
Yes ☐ No ☐
2. Does the client have a family history of BCa?  
Yes ☐ No ☐
3. Has the client been screened for BCa in the past year?  
Yes ☐ No ☐
4. Has the client been treated for BCa in the past year?  
Yes ☐ No ☐

- II. Is the client eligible for BCa screening?
- Yes ☐ No ☐

NB:

- If the answer is, Yes for Q# 1 and No for Q# 2, 3 &4. The client would be eligible for screening on this visit.
- All eligible clients for BCa early detection and management to be linked to cancer screening unit (preferably through escorted linkage).

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## Appendix B.1: Breast cancer early detection intake form

Part I: Sociodemographic profile			
S/N	Question	Response	Skip
101	Date of visit	_____ (GC)	
102	Age of the woman	_____ (years)	
103	Marital Status	1. Married 2. Single 3. Divorced 4. Widowed	
104	Region/city of current residence		
105	Woreda	_____ (sub city & woreda no.)	
106	Phone number	_____	
Part II: Risk factors for breast cancer			
201	Family history of breast cancer	1. Yes 2. No <span style="color: blue;">→</span>	203
202	If yes to question #201, which family relative?	1. First degree 2. Second degree 3. Third degree 4. Others _____	
203	History of oral contraceptive use (OCP)	1. Yes 2. No <span style="color: blue;">→</span>	204
204	If yes to question #203, for how many years/months?	_____ (years/months)	
205	Age at menarche (first menses/period)	_____ (years)	
206	Age at first delivery (Delivery after 28 weeks gestation regardless of outcome (in years))	_____ (years)	
207	Parity (Number of births after 28 weeks' gestation regardless of outcome)	_____	
208	Number of abortion (Loss of pregnancy before 28 weeks gestation)	_____	
209	Average duration of breastfeeding	_____ (months)	
210	Age of menopause	_____ (years)	
211	Drinking alcohol	1. Yes 2. No	
212	Smoking cigarette	1. Yes 2. No	
213	Regular exercise	1. Yes 2. No	
214	Co-morbidity	1. DM 2. HTN 3. HIV 4. Others _____	
215	Previous breast Surgery	1. Yes 2. No	If yes 216 and 217
216	Type of surgery	Specify _____	
217	Date and result of surgery	___ / ___ / ___ (dd/mm/yy) result specify _____	



Part III: Presenting symptoms					
Symptoms				Duration	
301	Asymptomatic				
302	Which side is affected 1. Right 2. Left 3. Bilateral				
303	Breast lump				
304	Breast pain				
305	Nipple discharge				
306	Ulceration				
307	Axillary swelling				
308	Weight loss (specify in kg)				
309	Who discovered the above symptoms 1. Self 2. Spouse 3. Health care provider				
310	Symptoms Suggestive of metastatic disease 1. Cough 2. Abdominal swelling 3. Jaundice 4. Mental status change 5. Bone pain(mention the site) _____ 6. Others(specify)_____				
311	Other Complaints (specify)				
Part IV: Physical examination					
401	Height	_____ (meters)			
402	Weight	_____ (kgs)			
403	Blood pressure	_____ (mmHg)			
404	Breast symmetry	1. Symmetric 2. Asymmetric			
405	Right breast inspection	fullness	1. Yes 2. No		Depict on breast figure
		Abnormal discoloration	1. Yes 2. No		
		Venous distention	1. Yes 2. No		
		Rashes	1. Yes 2. No		
		Visible lump	1. Yes 2. No		
		Retraction	1. Yes		



			2. No		
		Edema	1. Yes 2. No		
		Axillary mass	1. Yes 2. No		
		Scaly nipple	1. Yes 2. No		
406	Left breast inspection	fullness	3. Yes 4. No		Depict on breast figure
		Abnormal discoloration	3. Yes 4. No		
		Venous distention	3. Yes 4. No		
		Rashes	3. Yes 4. No		
		Visible lump	3. Yes 4. No		
		Retraction	3. Yes 4. No		
		Edema	3. Yes 4. No		
		Axillary mass	3. Yes 4. No		
		Scaly nipple	3. Yes 4. No		
407	Right breast palpation	Asymmetric thickening	1. Yes 2. No		Depict on breast figure
		Axillary LAP	1. Yes 2. No		
		Supra/infraclavicular LAP	1. Yes 2. No		
		Mass	1. Yes 2. No		
		Size (longest dimension)	_____ (cm)		
		Consistency	1. Soft 2. Firm 3. Cystic 4. Hard		
		Tender	1. Yes 2. No		
		Mobility	1. Mobile 2. Restricted 3. Fixed		
408	Left breast palpation	Asymmetric thickening	3. Yes 4. No		Depict on breast figure
		Axillary LAP	3. Yes 4. No		
		Supra/infraclavicular LAP	3. Yes 4. No		



		<table border="1"> <tr> <td>Mass</td><td>3. Yes 4. No</td></tr> <tr> <td>Size (longest dimension)</td><td>_____ (cm)</td></tr> <tr> <td>Consistency</td><td>5. Soft 6. Firm 7. Cystic 8. Hard</td></tr> <tr> <td>Tender</td><td>3. Yes 4. No</td></tr> <tr> <td>Mobility</td><td>4. Mobile 5. Restricted 6. Fixed</td></tr> </table>	Mass	3. Yes 4. No	Size (longest dimension)	_____ (cm)	Consistency	5. Soft 6. Firm 7. Cystic 8. Hard	Tender	3. Yes 4. No	Mobility	4. Mobile 5. Restricted 6. Fixed	
Mass	3. Yes 4. No												
Size (longest dimension)	_____ (cm)												
Consistency	5. Soft 6. Firm 7. Cystic 8. Hard												
Tender	3. Yes 4. No												
Mobility	4. Mobile 5. Restricted 6. Fixed												
409	Other systems findings												
Part IV: Diagnosis data													
501	Abnormality detected during PE	1. Yes 2. No <span style="color: blue;">—————→</span>	503										
502	Clinical suspicion	1. Fat necrosis 2. Fibroadenoma 3. Mastitis 4. Breast cancer 5. Colloid tumor 6. Breast cyst 7. Others _____											
503	Plan/recommendation (multiple response possible)-could be at referral	1. US 2. Mammography 3. FNA cytology 4. Follow-up at 6 months 5. Follow-up at 1 year 6. Minor surgery 7. Others _____											
504	Reason if 'follow-up at 6 months' in 503.	_____											



## Appendix B.2: Breast cancer screening intake form (at secondary and tertiary level)

Part I: Diagnosis data			
101	US diagnosis	1. Suspected Fibroadenoma 2. Cyst 3. Ductal ectasia 4. Others _____	
102	BIARBS category of US	_____	
103	Chest x-ray: Metastasis	1. Yes 2. No	
104	Abdominal US: Metastasis	1. Yes 2. No	
105	FNAC finding	1. Malignant 2. Benign 3. Uncertain	
106	If malignant in #409	1. In situ carcinoma 2. Cancer 3. Phyllodes 4. Other	
107	If benign in #409	_____	
108	Mammography diagnosis	1. Asymmetric breast tissue 2. Microcalcification (needs histology) 3. Asymmetric density 4. Architectural distortion 5. Adenopathy 6. Others _____	
109	Mammography BIRADS category	_____	
Part II: Histopathology/pathology staging			
201	Tumor size	_____	
202	Tumor type	_____	
203	Tumor grade	_____	
204	Total number of lymph nodes	_____	
205	Number of positive lymph nodes	_____	
206	TNM and group stage		
Part III: Treatment Procedure			
301	Surgery	1. Yes 2. No	
302	Surgical procedure	1. Lumpectomy 2. Lumpectomy with axillary dissection 3. Breast conserving surgery 4. Simple mastectomy 5. Total mastectomy 6. Modified radical mastectomy 7. Others _____	
303	Radiotherapy	1. Yes 2. No	
304	If yes to #303	1. All breast with regional node	




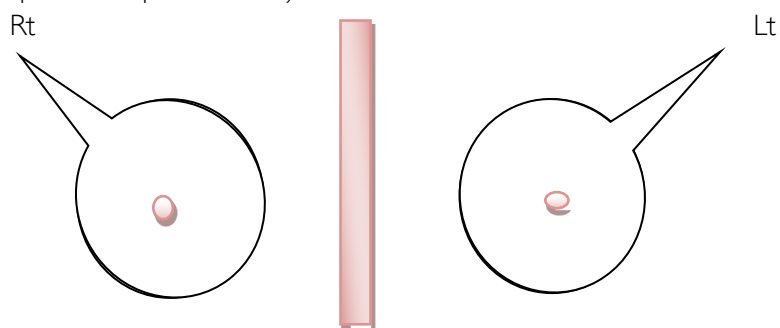
		2. Chest wall with regional node 3. Others _____	
305	If yes #303-dose in Gy and fractionation	Specify	
306	Chemotherapy	1. Yes 2. No	
307	If yes to #306	1. Adjuvant 2. Neoadjuvant 3. Palliative 4. Others _____	
308	If yes to #306	Name Cycle Dose	
309	Hormonal therapy	1. Yes 2. No	
310	If yes to 309	Name Dose Duration	
Part IV: Follow-up and referral			
401	Referred to other facility	1. Yes 2. No 	403
402	Reason for referral	1. US 2. Further investigation and management 3. Others _____	
403	Any further comment	_____	

Figure: LGS (use the pictorial representation)







Part V: Evaluation of breast Cancer Patients After Completion all the Planned Treatments						
Vital status: Alive_____ Dead (date of death)_____						
Complaints (with grade 1-4 if applicable)		Date				
Vomiting						
Diarrhea						
Dysphagia						
Chest pain						
Shortness of breath						
Skin desquamation	Moist					
	Dry					
Symptoms suggestive of recurrence(locoregional/distant)	Breast Lump					
	Axillary lump					
	Bone pain					
	Cough					
	Mental status change					
	Supraclavicular LAP					
Nutritional evaluation						
Psychological evaluation						
Other complaints (specify)						
P/E (Pertinent)						
Investigations (if needed)						
Assessment (using RECIST criteria)						
Plan						
Next appointment						
Evaluator's name and Signature						



## Appendix C: Consent form

የካንሰር ህክምና ለመውሰድ የመስማሚያ ቅጽ

እኔ \_\_\_\_\_ የተባልኩ ግለሰብ

ተገኘብኝ \_\_\_\_\_ ካንሰር

ምክንያት በሃኪሜ የካንሰር (ኬሞቴራፒ፣ የጨረር፣ የቀዶ ህክምና እና የሆርሞን) መውሰድ እንዳለብኝ

ተነግሮኛል። በዚህም ----- ጥቅም ፣ የጎንዮሽ ጉዳት ፣ መደረግ ስለሚገባቸው ጥንቃቄዎችና ስለ

አወሳሰዱ በቂ ገለፃ ከተደረገልኝ በኋላ ለመውሰድ መስማማቴን በፊርማዬ አረጋግጣለሁ።

የታካሚስም \_\_\_\_\_

ቀን \_\_\_\_\_

ፊርማ \_\_\_\_\_

ምስክሮች

ቤተሰብ/ አስታማሚስምናፊርማ

1. \_\_\_\_\_

መድሀኒቱን የሰጠው ጤና ባለሙያስምናፊርማ

1. \_\_\_\_\_



## Appendix D: Appointment Card: FRONT OF THE CARD

Health facility Name: \_\_\_\_\_ Region: \_\_\_\_\_ City/Town: \_\_\_\_\_ (replace with logo)

Date of first visit \_\_\_\_\_

Medical Record Number/UAN: \_\_\_\_\_ / \_\_\_\_\_ -Serial

Full name \_\_\_\_\_

Age: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

## Appendix D: Appointment Card: BACK OF THE CARD

Date of Appointment	Signature of Provider (if seen on the appointment date)

Note: Do not forget to bring the appointment card with you when you visit the facility for follow up. It is important for your health that you come on your appointment date (consider translation to local languages)

[illegible]

1. Name- write name of the client.
2. MRN: Write Medical Record Number.
3. Attendance: Write “√” if the clients attend as per the appointment or “X” if the client did not attend.
4. Action taken: For those who did not attend write “Telephone call” if the missed appointment client is contacted through phone and/or write “Home Visit” if Peer educator/other team members have contacted the missed appointment client using home visit. If he/she is not contacted at all due to lack of address or wrong address, write “Not contacted”.
5. Outcome: Write the outcome of action taken for those clients who did not attend.
  - Return to care
  - Refused to return to care
  - Seen in other HF
  - Died
  - Unknown



## Appendix F: Summary scope of practice for early detection, diagnosis and treatment per health care level

### Primary health care unit (PHCU):

Health Center - There will be no MDT at the health center. The responsible health officer will evaluate and refer the patient to the primary hospital. Consultation can be made with a surgeon or oncologist virtually.

Primary hospital - There will be no MDT at the primary hospital. The responsible health officer can evaluate and order appropriate investigations. With virtual and telephone consultations decisions can be made at the primary hospital level. Patients can be referred when the decision is for major surgical intervention, patient should be sent to a higher hospital where there is a general surgeon. CNB or Incisional/excisional biopsy can be done by a general practitioner with appropriate experience or training. Modified radical mastectomy including axillary dissection can be done by a trained surgeon.

- Pathologist
- Breast care nurse
- Oncology nurse
- Optional (needed on-demand basis): Plastic surgeon, Fertility specialist, Genetics specialist, Physiotherapist, Psychologist/Counselor



## Appendix G: Health Facility Breast Cancer Early Detection & Management Performance Data Reporting & Review Template

Indicators/ Measures	Performance	Achievement # (%)	Remark
# Women aged > 30 years			
# Counselling about BCa early detection and management			
# Eligible for BCa screening			
# CBE done ( total )			
# Breast abnormality detected			
# Referred for diagnostic workups			
# women with definitive BC diagnosis			
# of women diagnosed at stage I and II			
# of women referred for BC treatment			

Identified gaps/challenges and action plans developed for Improvement

Focus Area	Identified Gap	Proposed action item	Responsible person	Timeline

[illegible]

## Appendix I: Pre/Post test Questionnaires

1. A breast consists of:
  - a. The nipple
  - b. The areola and lobes
  - c. Supportive and fatty tissue
  - d. All of the above
2. Which of the following may be a worrying symptom for breast health?
  - a. Breast of different size between the left and right
  - b. An 11-year-old girl has lump under one nipple
  - c. Bloody discharge from one or both nipples
  - d. A growing breast size with pregnancy
3. How is a clinical assessment of the breasts performed?
  - a. Taking a careful history
  - b. Thoroughly examining the breasts
  - c. Conducted in a place where privacy is ensured and by trained health worker
  - d. All of the above
4. The most important question to ask when taking history for breast cancer is:
  - a. Age
  - b. Marital status
  - c. Occupation
  - d. Education
5. If a woman is suspicious for breast cancer, what is the most important action to take at primary health care level:
  - a. Run diagnostic tests in the health center
  - b. Immediately refer the woman to general hospital for confirmatory tests
  - c. Counsel the woman and appoint
  - d. Explain to the woman possible treatment outcomes
6. What are benign breast abnormalities?
  - a. Cancerous changes in the breast
  - b. Are non- cancerous unusual growths
  - c. Are very rare
  - d. Can easily be diagnosed with physical examination
7. The top 3 leading cancer types in Ethiopia are:
  - a. Cervical, breast and colorectal
  - b. Breast, colorectal, and cervical
  - c. Breast, cervical and colorectal
  - d. Colorectal, cervical and breast
8. The most important determinant of treatment outcome for breast cancer is:
  - a. Stage of the disease
  - b. Age of the woman
  - c. Sex
  - d. All
9. The main signs and symptoms of breast cancer include:
  - a. Breast lump





- b. Nipple retraction
  - c. Skin changes and bloody nipple discharge
  - d. All
10. Which of the following statements is incorrect for breast cancer?
- a. The management of breast cancer depends on the stage of the disease.
  - b. Treatment options include surgery, chemotherapy, hormonal therapies, and radiotherapy.
  - c. Breast cancer is rare among men
  - d. Breast cancer cannot occur during pregnancy
11. Which treatment options for breast cancer is currently available only in tertiary hospital?
- a. Chemotherapy
  - b. Surgery
  - c. Hormonal therapy
  - d. Radiation therapy
12. Which of the following statements doesn't describe palliative care accurately?
- Palliative care provides relief from pain and other distressing symptoms
  - Palliative care offers a support system to help patients live as actively as possible until death
  - Palliative care deals only with physical pain
  - Palliative care should be integrated early in the care of the course of illness
13. Which of the following factors cannot contribute to breast cancer treatment delays?
- a. Awareness
  - b. Financial barrier
  - c. Geographic barrier
  - d. None of the above
14. Risk factors for breast cancer have aspects of:
- a. Personal behavior
  - b. Lifestyle
  - c. Environmental exposure and infection
  - d. All of the above
15. Health education for breast cancer can be given at:
- a. Health facilities
  - b. Community settings – community gathering, religious centers, home based
  - c. Schools
  - d. All
16. The method that is not suitable to deliver health education:
- a. Interactive discussion
  - b. Recorded audio, videos



- c. Provision of awareness creations materials: Leaflets, posters, flyers, demonstrations
  - d. None of the above
17. Evidences indicate that the current most pressing challenge with breast cancer is:
- a. Late presentation
  - b. Early presentation
  - c. Lack of data
  - d. Poor access
18. Monitoring and evaluation help in the following:
- a. To track progress
  - b. Program improvement and enhance learning
  - c. Enhance quality of service
  - d. All
19. Health information system can be strengthened:
- a. At national and regional levels
  - b. At each level of health care system
  - c. At woreda level
  - d. At health facility levels
20. The most important purpose of building breast screening and early detection capacity of health workers at primary level is to:
- a. Build health workers' career
  - b. Meet targets of screening in a given population
  - c. To contribute to the reduction of morbidity and mortality from breast cancer
  - d. To increase public awareness

**Answers Key:**

1. D    2. C    3. D    4.A    5. B    6. B    7. C    8. A    9. D    10. D    11. D.  
12.C    13. D    13. D    14. D    15. D    16. D    17. A    18. D    19. B    20. C



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