# Trainer Manual on

# Cancer Prevention and Control

For Primary Health Care Staff





National Cancer Control Programme Ministry of Health 2021



# Trainer Manual on Cancer Prevention and Control for Primary Health Care Staff

National Cancer Control Programme
Ministry of Health
Sri Lanka
2021

Trainer Manual on Cancer Prevention and Control for Primary Health Care Staff

First Edition - 2021

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### **Foreword**



Cancer has become one of the leading public health concerns in Sri Lanka. Annually more than 31,000 new cancer patients are diagnosed with cancer in the country. As the national level focal point, National Cancer Control Programme (NCCP) is currently operating under several strategic directions identified in a five-year strategic plan to minimize the cancer burden in Sri Lanka. Capacity building of the healthcare staff is one of the main strategic directions stated in the 5-year plan.

NCCP took several initiatives to build the capacities of the preventive and curative healthcare staff. Primary care health staff plays a vital role in providing preventive, diagnostic, treatment, and palliative care services related to cancer care in Sri Lanka as first contact health care professionals. NCCP developed guidelines and conducted several training programmes to improve the up-to-date knowledge and skills among primary care physicians in Sri Lanka and currently in the process of developing a distant training programme for them. Similarly, there was a high demand for a structured and uniform training programme to build capacities among other members of primary healthcare staff including nurses, Public Health Midwifes and Public health Inspectors. NCCP, with the partnership of other stakeholders developed a trainer manual to train regional level staff as trainers. It is expected to provide the required training to primary care health care staff through the trained regional level staff. This training programme consists of six modules and each module consists of PowerPoint presentations and video clips. These resources were developed and pre-tested through several stakeholder meetings.

This programme has been designed to provide a comprehensive training on cancer prevention and control covering all key aspects. Special attention has been paid to present the content in a simple and comprehensible way. All resources have been provided in Sinhala, Tamil, and English languages.

The development of these guidelines and resources became a realty due to the hard work of the team of contributors. We hope primary care health staff will get the maximum out of it and contribute their best to reduce the burden of cancer in Sri Lanka.

National Cancer Control Programme appreciates the commitment provided by the contributors of this project. National Cancer Control Programme greatly acknowledge World Health Organization, Sri Lanka for the given partnership.

Dr. Janaki Vidanapathirana, MBBS, MSc, MD (Community Medicine) Director, National Cancer Control Programme

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<sup>\*</sup>NCCP acknowledges the valuable contribution given by the different stakeholders who participated for the workshops to develop this manual.

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### Introduction to the trainer manual

### Why this training programme is required

Recent disease trends in Sri Lanka show that there is an increasing trend in non-communicable diseases. Cancers play a major role among non-communicable diseases. Out of all cancers in Sri Lanka, breast cancer is the commonest cancer among females while oral cancer is the commonest cancer among males. Cervical cancer accounts for third commonest cancer among females. In Sri Lanka facilities are available to cure breast cancer completely if detected in early stages, but treatment is difficult if it is detected late. Cervical and oral cancers can be identified and managed at precancerous stage hence development of invasive cancer can be prevented.

Well Woman Clinics (WWC) throughout the country provided facilities to screen cervical cancers and clinical breast examination for clients attending the clinics. At WWCs women are getting many services including screening for other non-communicable diseases such as Diabetes Mellitus and Hypertension in addition to cancer screening. Though, well woman clinic programme was in-cooperated into the Maternal and Child Health programme in year 1996, the coverage of it remains sub optimal in certain districts. Healthy lifestyle clinic is providing services for both men and women for controlling non-communicable diseases including cancer. Addressing "common modifiable risk factors is a major step in cancer prevention. The male participation for cancer screening and early diagnosis need more attention as the current figures remaining very low.

Therefore, it is a timely need that primary health care workers to be trained on cancer prevention, early detection, and provision of palliative care. Furthermore, Primary health care worker has more opportunities to communicate and create awareness of the community on cancer prevention, early detection and control. In order to carry out these responsibilities, it is imperative for the primary health care worker to have a proper knowledge, skills and confidence in carrying out these activities. Main objective of this training programme is to fulfill this requirement which will ultimately create a healthy community.

### General guideline for all sessions

- Sufficient practical exposure may be provided to all trainees on cancer prevention, early detection and palliation
- The main focus should be on common cancers such as that of oral cavity, breast and uterine cervix
- At the end of training it is expected that all trainees will have a clear understanding of principles of prevention, early detection, management and palliation of cancer and information on the services available in their settings

### Suggestions to conduct sessions.

Introduction to the course and participants

The idea is to make the trainees comfortable to work together. Introduce yourself and make the trainees introduce themselves. Make them familiarize with the objectives of the training course and the course structure.

### Pre-test

The idea of conducting the pretest is to assess the current knowledge and practice of trainees. According to the scores obtained, can be categorized as follows.

<50 - poor knowledge

50-74 - fair knowledge regarding cancer

>75 - good knowledge on cancer

Similar scoring may be used for the post test to assess whether any changes in knowledge after the training.

At the end of each module give adequate time to ask questions to clarify the unclear areas. The aim of this training is to build capacities among primary health care staff on cancer prevention and control. However there may be barriers to carryout given recommendations in a given area due to many reasons. You have keep in mind that there may be wide range of disparities in distribution of health care facilities, human resources and other social determinants of health. Therefore it is advisable to take some time at the end of each module to discuss and make a customized plan to implement these recommendations and activities in the local area.



### Module 1- Introduction to Cancer Prevention and Control

### Learning objectives

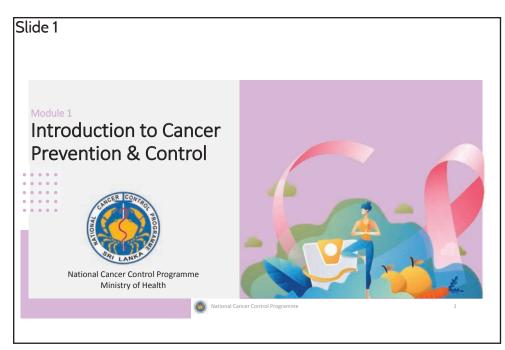
Know the impact of cancer on a population - describe the cancer burden globally and locally

Risk factors for cancer - Differentiate between non-modifiable and modifiable cancer risk factors, List the primary non-modifiable cancer risk factors, List the primary modifiable cancer risk factors

Common cancers in Sri lanka - Identify the most common shared risk factors among priority cancers in

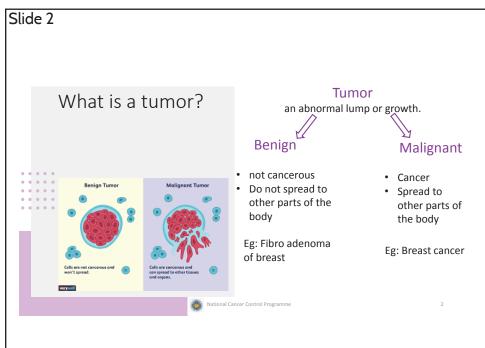
Strategies for cancer prevention, screening and treatments - Differentiate between primary, secondary, and tertiary cancer prevention strategies, Discuss the purpose of a comprehensive cancer control program

This module provides an overview of the cancer situation in Sri Lanka. It provides cancer incidence rates and their trends over the time for the participants. Module one also focuses on the common risk factors of cancer. At the latter part of the module it discuss about the cancer care services available in Sri Lanka which will be very useful for the participants. NCCP recommends conducting pre and posttests to assess the effectiveness of the programme. Sample test questions have been provided with the other resources or can be downloaded from the NCCP website.



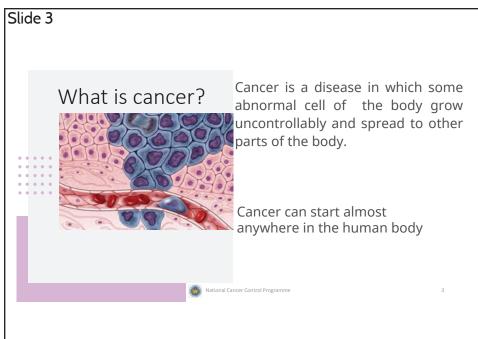
### Introduction to Cancer Prevention & Control

Welcome to the course cancer prevention and control. Introduce yourself as the speaker. This is the 1st Module of the course "introduction to cancer prevention and control". Explain objectives of the module listed above at the beginning of the module 1.



### What is a tumor?

Explain that a lump or a growth can be called as a tumor. It can be benign or malignant. Malignant tumors can spread. But benign tumors do not spread to other parts of the body



### Slide 4 What is the cancer This is an assessment of the spread of the staging? cancer A lower stage (such as a stage 1 or 2):Spread is less A higher stage (such as a stage 3 or 4): spread The stage of the cancer is very important in choosing the best treatment for a person. ational Cancer Control Programme

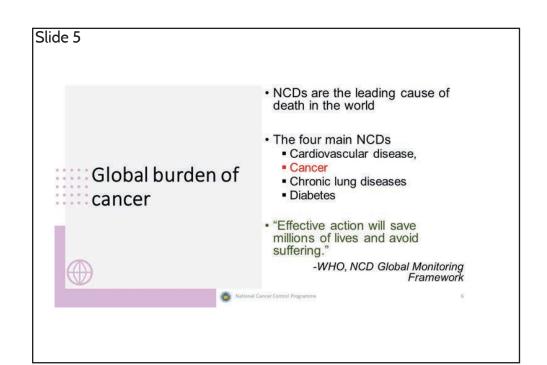
### What is cancer?

Give a simple definition for cancer.

- Body is made up of cells. Most of them divide and grow in a controllable manner.
- When some of the abnormal body cells grow/divide uncontrollably and spread to other parts of the body it can be called as a cancer.
- Cancer can be caused in any living tissue in the body

### What is the cancer staging?

Health staff should have a basic knowledge about the staging of cancers which gives an impression about the spread of the cancer. Lower stages (such as a stage 1 or 2)indicate less spread and usually good prognosis. Higher stages (such as a stage 3 or 4) indicate that the spread is more and usually prognosis is poor. The stage of the cancer is very important in choosing the best treatment for a person.

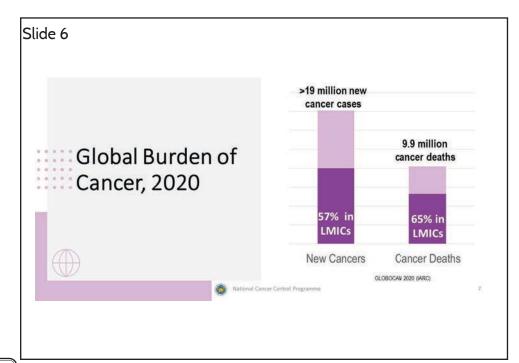


### Global burden of cancer

Cancer makes a significant contribution to NCD burden both globally and locally. Major risk factors for cancer and other common NCDs are shared.

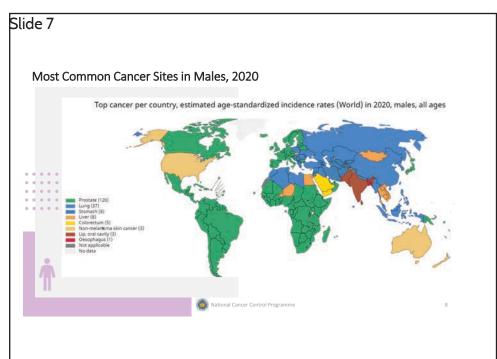
Ask the participants whether they are agreed to categorize cancer as an NCD. There may be participants who are not completely agree due to the HPV & cervical cancer, Hepatitis B & Liver cancer are communicable.

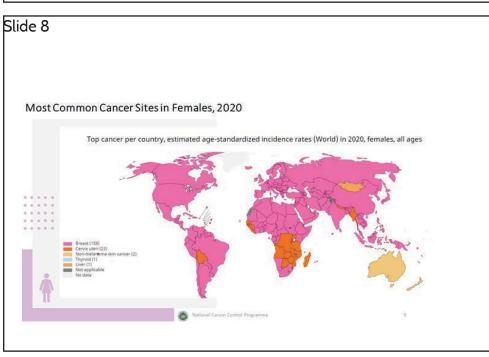
Even in the absence of such participants you must explain that even though those risk factors are communicable cancers themselves are not communicable.



### Global Burden of Cancer, 2020

There were 19.3 million new cancer cases and 10 million cancer deaths in 2020 around the world. Out of them more than 50% of cases and deaths are occurred in low middle-income countries





### Most Common Cancer Sites in Males, 2020

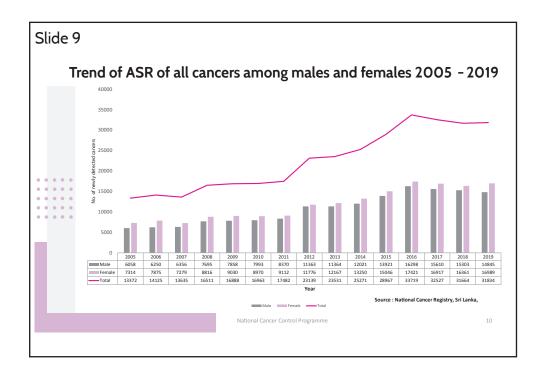
This map shows the commonest male cancer by country. Prostate cancer is the most common cancer among males in many developed countries and in many of the African countries.

Cancers of the lip and oral cavity is the commonest male cancer in South Asian countries including Sri Lanka.

### Most Common Cancer Sites in Females, 2020

This map shows the most common female cancer diagnosed in many countries of the world. It clearly shows breast cancer is the commonest female cancer in many countries including Sri Lanka.

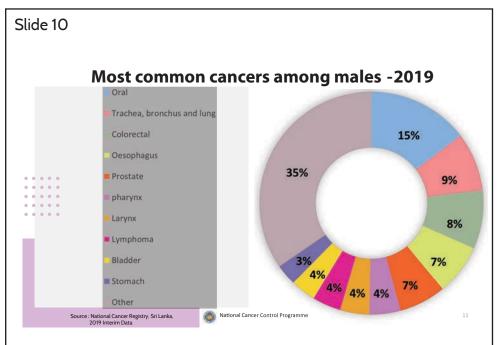
Cervical cancer is the commonly diagnosed female cancer in less developed regions including eastern, middle and western Africa.



### Trend of ASR of all cancers among males and females 2005-2019

The incidence of cancer in Sri Lanka is increasing over the years. Discuss the possible reason for this trend.

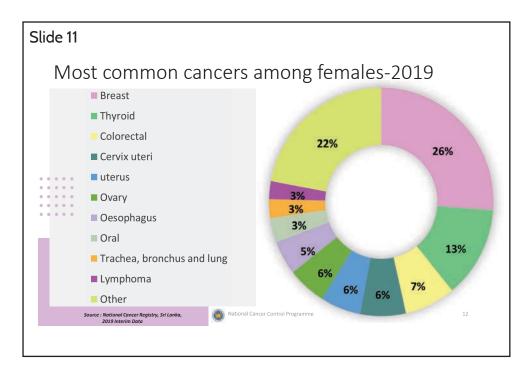
- Aging population
- Improving diagnostic facilities
- Unhealthy lifestyle



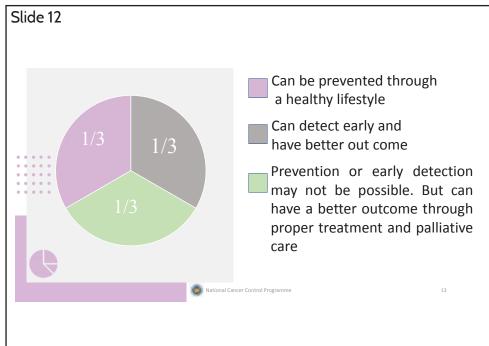
### Most common cancers among males-2019

Before displaying the slide ask the audience to list the most common cancers among males in Sri Lanka. Oral is the most common cancer among males. Cancers in trachea, bronchus and lung is the next.

Highlight that these common cancers among males have direct relationship with unhealthy behaviors like tobacco and alcohol consumption.







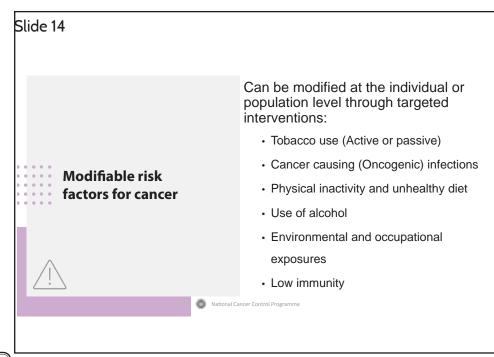
The burden of many cancers can be decreased through effective primary prevention, early detection, treatment, and palliative care.

- WHO estimates that 1/3 of cancers could be prevented by preventive strategies.
- Another 1/3 of cancers can be detected early and treated effectively.
- The remaining 1/3 of cancer may not be able to prevent or detect. But can have a better outcome through proper treatment and palliative care.

### Slide 13 Risk factors that cannot be changed: Age Sex Race and ethnicity Non-modifiable Family history / genetics risk factors for cancer • Can be used to identify high risk groups and screening. National Cancer Control Programme

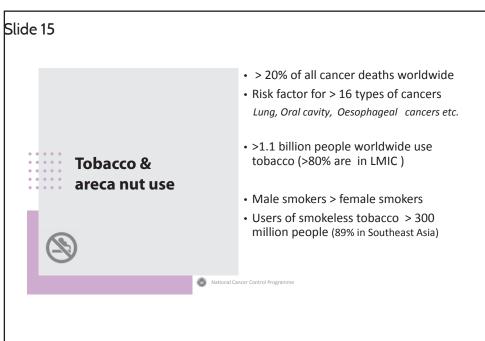
# Non-modifiable risk factors for cancer

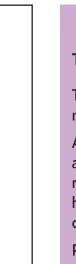
Discuss the modifiable and non-modifiable risk factors in detail. First. explain what are the non - modifiable risk factors. Non-modifiable risk factors are the risk factors that cannot be changed, which include age, sex, race ethnicity and family history (genetic factors). Risk of developing cancers are increases with age and some cancers are restricted to one sex due to anatomical differences. Although many cancers affect both sexes, the risk of some cancers are higher in one sex, for eg: Oral cancer among males and thyroid cancer among females. For the development of certain cancers family history is an important factor eg: Breast, Ovarian and Colorectal cancers. Particularly if the cancer occurred at a younger age family history may be important. Though these risk factors cannot be changed, they are important in determining the age for screening etc.



### Modifiable risk factors for cancer

Next explain what the modifiable risk factors are and ask audience to list them. These factors can be altered and risk reduction of cancer can be done through health interventions.



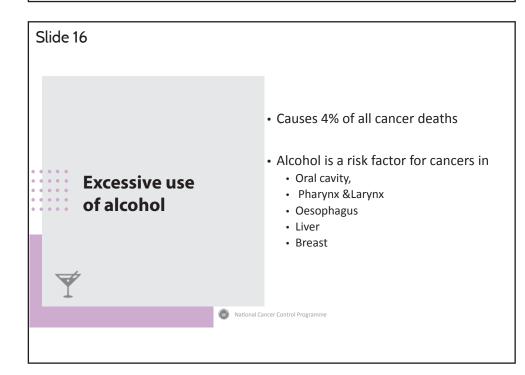


### Tobacco & areca nut use

Tobacco use is most important modifiable risk factor for cancer responsible for > 20% of cancer deaths globally each year.

Among Asian communities' betel quid with smokeless tobacco and areca nut chewing are highly prevalent. Global reports estimate 600 million users, making areca nut chewing the fourth most common habit after tobacco consumption, alcohol intake and caffeine containing beverages.

Prevalence of smoking and other tobacco use is significantly higher among males compared to females.



### Excessive use of alcohol

Excessive use of alcohol is estimated to cause 4% of cancer deaths globally and 5% of cancer deaths in LMIC. Following cancers are associated with alcohol consumption oral cavity, pharynx, larynx, oesophagus, liver and breast.

# Unhealthy diet, excess body weight &

physical inactivity



Slide 17

· Unhealthy diets:

Related to approximate 15% of all cancer deaths

• Excess body weight:

3% of all cancer deaths in LMIC 6% of all cancer deaths in high income countries

· Physical inactivity:

3.2% of all cancer deaths in LMIC 5.5% of all cancer deaths in high income countries

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### Unhealthy diet, excess body weight & physical inactivity

Unhealthy diet: High intake of red meat, processed meat and low intake of fruits and vegetables are associated with development of cancers

Overweight and obesity: emerging evidences indicate that in addition to contribute causation of cancers overweight obesity is associated with increased risk of cancer recurrence and poor survival.

Physical inactivity can increase occurrence of certain cancers including breast and colon caners.

### Slide 18

# **Environmental pollution**



- 1-4% of all cancers globally: Exposure to carcinogens in air, water and soil
- Widespread exposures (e.g. diesel exhaust)
- Specific environmental exposures
   Carcinogenic compounds in the environment

Arsenic - bladder cancer

Asbestos – mesothelioma, lung cancer

Aflatoxin - liver cancer

Radon/Uranium

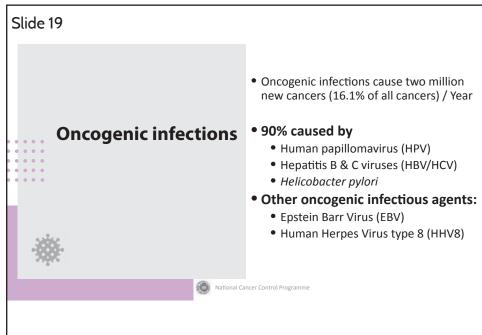
Indoor air pollution – lung cancer Ionizing radiation – lung cancer

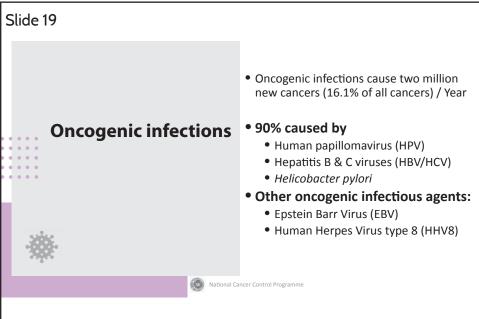
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### **Environmental pollution**

The International Agency for Research on Cancer has classified more than 120 naturally occurring and man-made agents as human carcinogens

- Arsenic can cause bladder cancer, found naturally and contaminated water sources.
- Radon/Uranium (radioactive) damage lung tissue and cause lung cancer. Miners are at higher risk
- Aflatoxin is a toxin produced by Aspergillus flavus a fungus that grows on maize, ground nuts and grains especially in high moisture & high temperature environment. Accumulation of small amount over long period of time can result in hepatocellular carcinoma.
- Indoor air pollution exposure fires & cook stoves burning solid fuels can cause lung cancer



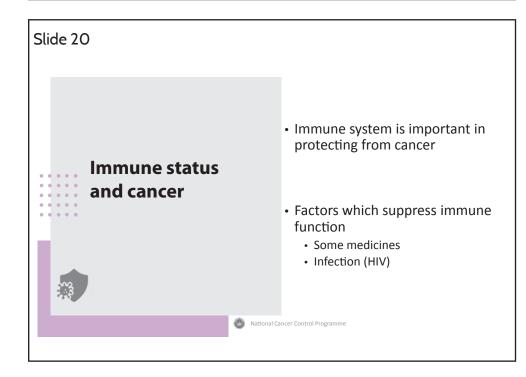


### **Oncogenic infections**

Oncogenic infections are another cause for certain cancers worldwide. About 16.1% or two million new cancer cases globally are due to the persistence of infections with bacteria, viruses or parasites.

About 90% of all infection associated cancers are caused by

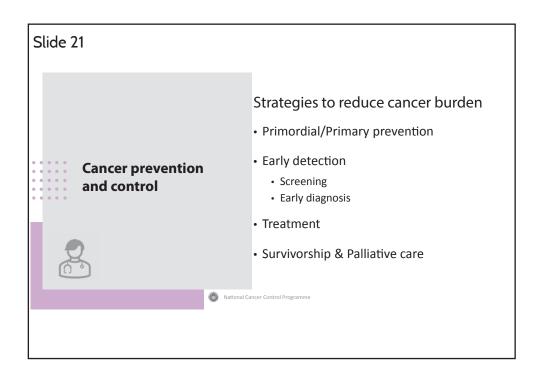
- HPV (Human Papilloma Virus) cervical cancer
- Hepatitis B & C viruses Hepatocellular carcinoma
- Helicobactor pylori stomach cancer The remaining 10% of infection associated cancers are due to Ep stein Barr virus - Hodgkin's lymphoma, Burkitt's lymphoma, and na sopharyngeal carcinoma
- Human Herpes Virus type 8 Kaposi's sarcoma
- Human T-cell Lymphotrophic virus T-cell leukemia/lymphoma
- Schistosoma hemotobium squamous cell cancer of the

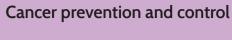


### Immune status and cancer

Immune system can identify and destroy abnormal cells before converting them to cancer cells.

Some medicine and certain infections can suppress immune system, these include corticosteroids. HIV infection etc.





Explain that a cancer control programme of a country should cover several key components.

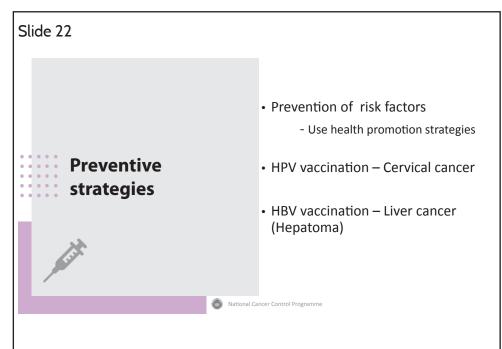
**Primary prevention:** Preventing exposure to agents & conditions that increase risk for cancer

Early detection: Early detection has two main components.

- 1. Screening
- 2. Early diagnosis

Treatment: Includes surgery, radiotherapy, and chemotherapy

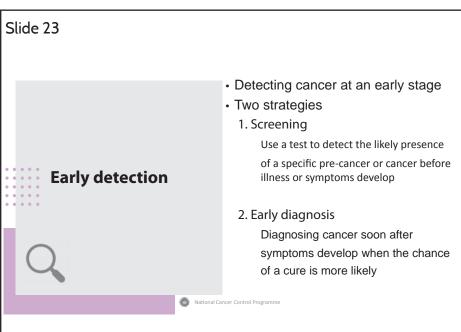
Palliative care and survivorship: This include the services help to improve the quality of life cancer patients and survivors. This will be covered in a separate module

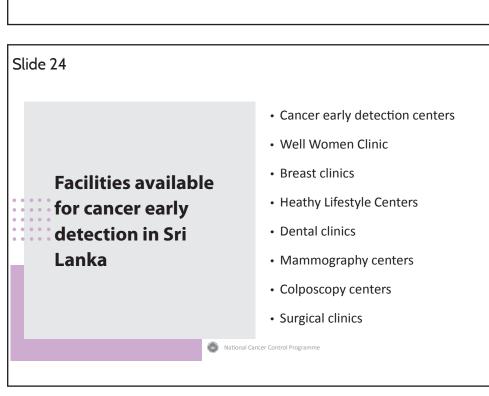


### **Preventive strategies**

Highlight the importance of identification the risk factors and taking necessary steps to minimize them. Health programmes should be conducted at each level targeting to avoid modifiable risk factors. This can be done at different settings including village settings, School settings, occupational settings.

Emphasize the importance of HPV and HBV vaccinations. Remember to ask whether the health care staff participated in the programme has taken the HBV vaccine.





### Early detection

Early detection is a strategy based on detecting cancers in the population at an earlier stage of the disease.

The two primary strategies are

- 1. Early diagnosis
- 2. Screening

Early diagnosis aims to diagnose cancers soon after symptoms develop when the chance of cure is more likely. This could be done at population level by raising awareness of early cancer signs & symptoms and the advantages of seeking cure early.

Screening aims at detecting the likely presence of specific type of precancer or cancer before symptoms appeared. This can be done by improving awareness among target population.

### Facilities available for cancer early detection in Sri Lanka

Discuss the services available for cancer early detection in Sri Lanka and discuss how these facilities are distributed in the regional setting. Outline a plane how the primary care staff can refer the suspected patients to the respective services.

### Slide 25

# Cancer Early Detection Centers in Sri Lanka

Currently functioning centers

- Narahenpita
- Jaffna
- Matara

Upcoming centers

- Ratnapura
- Kurunagala

- Cancer Early Detection Center is a dedicated clinic for cancer early detection
- Clients can visit with or without referral
- Facilities available
  - Clinical examination
    - · Clinical breast examination
    - Oral examination
  - Mammography
  - Pap smear / HPV DNA test
  - Counseling and health education
  - Early referral

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### Cancer Early Detection Centers in Sri Lanka

Highlight that there are dedicated centers for cancer early detection. Explain how these centers are functioning.

- Currently functioning centers
- How people can access to these centers
- Available facilities

Cancer Early Detection Center is a dedicated clinic for cancer early detection. Clients can visit with or without referral

### Facilities available

- Clinical examination
- Clinical breast examination
- Oral examination
- Mammography
- Pap smear / HPV DNA test
- Counseling and health education
- Early referral

### Slide 26

Currently functioning

### **Breast clinics**

NHSL - Colombo Apeksha Hospital

NH - Kandy

TH Karapitiya

PGH Kurunegala

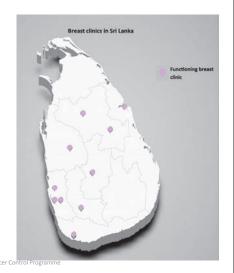
**THRatnapura** 

**THRagama** 

TH Anuradhapura

TH Trincomalee

DGH Polonnaruwa

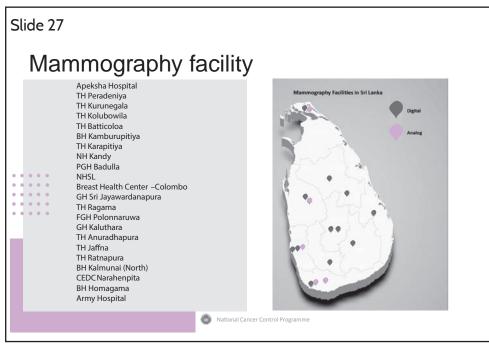


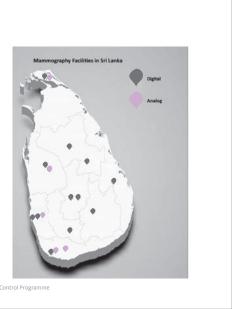
### **Currently functioning Breast clinics**

Breast clinic is dedicated clinic for breast care conducted by an surgeon/ onco-surgeon and trained staff. Primary health care staff can directly send patients to these clinics.

Identify the nearest breast clinic in your area and discuss the following

- Venue
- Clinic dates
- Indications to send patients to breast clinics.





# Slide 28 Distribution of Colposcopy facilities Distribution of **Colposcopy facility** in Sri Lanka

### Mammography facility

Explain that mammography is used for the screening and diagnosis of breast cancer. Highlight that there is no population level mammographic screening programme for Sri Lanka. Identify the nearest mammography facilities in your area. This topic will be discussed in detail in module 2

### Colposcopy facility

Colposcopy is an essential facility for diagnosis and treatment of cervical cancer. Identify the nearest colposcopy facilities in your area

### Slide 29

. . . . .

. . . . .

. . . . .

. . . . .

# Cancer treatment centers in Sri Lanka

Western province

Apeksha Hospital

CNTH

DGH Gampaha

DGH Kalutara

BH Awissawella

Sir John Kothalawala Defence Hospial

### Southern Province

TH Karapitiya

DGH Hambanthota

DGH Matara



### Sabaragamuwa Privince TH Rathnapura

TH Rathnapui DGH Kegalle

### Uva Province

PGH Badulla DGH Monaragala

### Eastern Province

TH Batticaloa DGH Amapara DGH Trincomalee

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Northern Province BH Thellipallei DGH Vavuniya

### North western province

TH Kurunegala DGH Chillaw

### North central Province

TH Anuradhapura DGH Polonnaruwa

### **Central Province**

NH Kandy DGH Nuwaraeliya

### Cancer treatment centers in Sri Lanka

The cancer treatment facilities are currently expanding in the country. Primary care staff should be aware about these facilities Identify the nearest cancer treatment facility in your area



### Module 2: Breast cancer

### Learning objectives

Understand the concepts of screening and early diagnosis methods for breast cancer.

Apply the knowledge gained on risk factors, signs and symptoms of breast cancer for early identification of patients with breast lumps

Conduct the Clinical Breast Examination to identify any suspected breast cancer lesions



Breast cancer is the leading cancer among females. This module covers all important aspects of breast cancer including information on incidence, risk factors, clinical features, and preventive and early detection strategies. Most importantly at the end of this module required guidelines have been provided to train the participants on self and clinical breast examination. NCCP recommends conducting pre and posttests to assess the effectiveness of the programme. Sample test questions have been provided with the other resources or can be downloaded from the NCCP website.



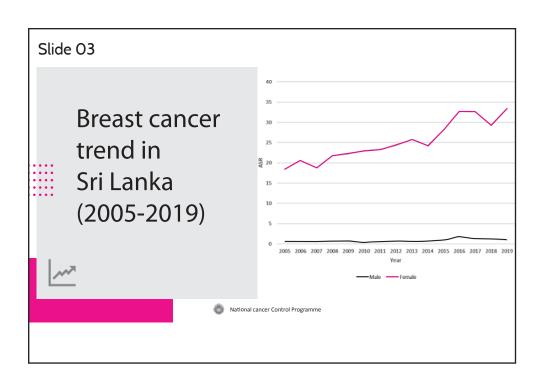
### **Breast cancer**

The second module is on prevention and control of breast cancer.

### Slide 02 Most common cancer among women in the world. • One in every four cancers among Breast cancer • Leading cause of death from cancer burden in women • 2.2 million new cases and 684,996 deaths from breast cancer (2020) · Most common cancer among women in Sri Lanka. • 4651 new cases in 2019 • Prognosis – Good if diagnosed in early stages National cancer Control Programme

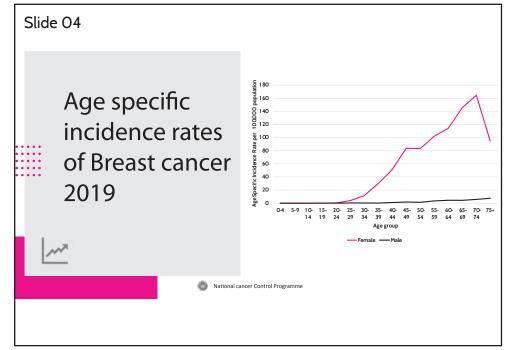
### Breast cancer burden

Breast cancer is the most common cancer globally and is the commonest cause of cancer related deaths among women. Breast cancer accounts for 6.6% of all cancer deaths in the world. The incidence of breast cancer is increasing rapidly in the less developed world due to increase in life expectancy, urbanization, and the adoption of fast-paced lifestyles.



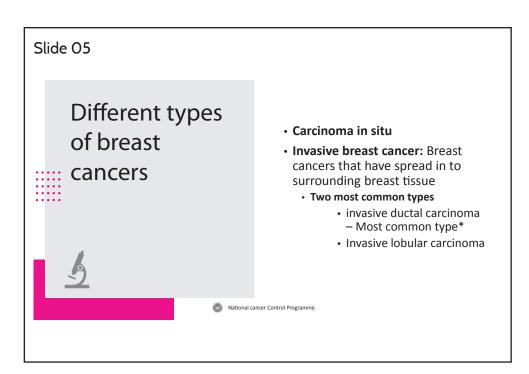
Breast cancer trend in Sri Lanka (2005-2019)

Breast cancer incidence is increasing in Sri Lanka. There were 4651 new breast cancer patients in Sri Lanka



Age specific incidence rates of Breast cancer 2019

The incidence of breast cancer increases with age and comes to a peak around 70years of age.



### Different types of breast cancer

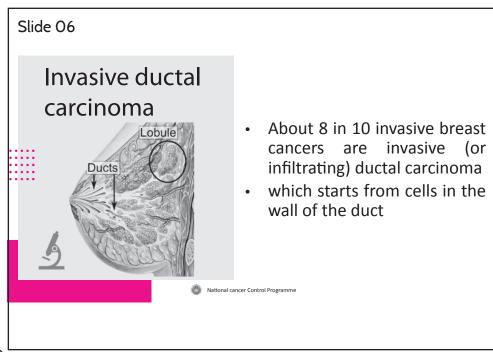
Carcinoma in situ: In this stage of cancer, cancer cells are confined to the place where it has originated. Sometimes these in situ carcinomas never become an invasive cancer during one's lifetime but some progress to invasive cancer.

**Invasive breast cancer:** Breast cancers that have spread in to surrounding breast tissue is called invasive breast cancer

Two most common types

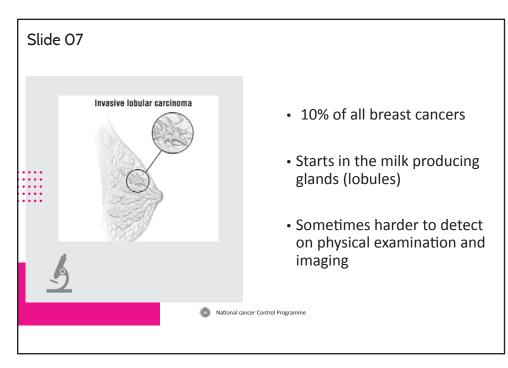
invasive ductal carcinoma - Most common type

Invasive lobular carcinoma



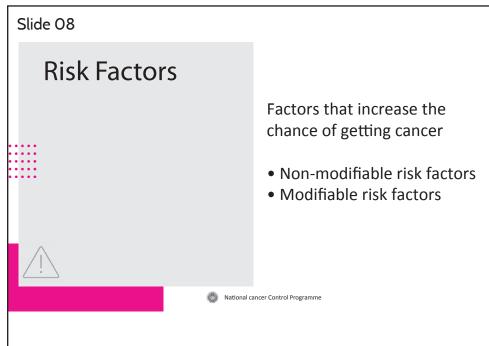
### Invasive (infiltrating) ductal carcinoma

This is the most common type of breast cancer which starts in the cells of the ducts and break through the wall of the duct to spread to the adjacent tissues of the breast. It can spread to other areas of the body through blood and lymphatics.



### Invasive (infiltrating) lobular carcinoma

This cancer starts in the cells of the lobules and similar to invasive lobular carcinoma this also will invade the adjacent tissues and it will spread to distant organs as well



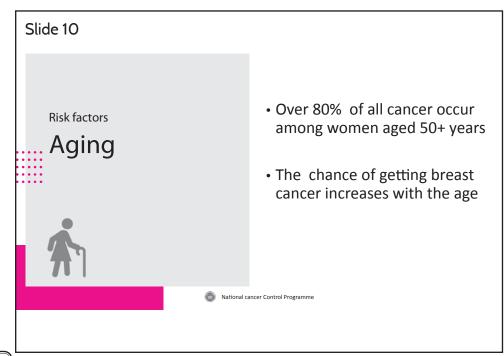
### Risk factors for breast cancer

There is no definite cause for development of breast cancer. However, there are some modifiable and non-modifiable risk factors which may increase the risk of developing breast cancers. Therefore, while minor risk reduction may be achieved with prevention, early diagnosis is the cornerstone for improving breast cancer outcomes and survival.

# Slide 09 Non-modifiable risk factors of breast cancer Female sex Genetic factors Family history of breast cancer Personal history of breast cancer Lifetime exposure to estrogen and progesterone hormones Early menarche (<11yrs) Late menopause (>55 years) Never having children

### Non-modifiable risk factors of breast cancer

The factors which cannot be changed with interventions are called non modifiable risk factors. Ask audience to list the known modifiable risk factors. Increasing age, Female sex, Genetic factors, Family history of breast cancer, Personal history of breast cancer, Lifetime exposure to estrogen and progesterone hormones, Early menarche (<11yrs), Late menopause (>55 years), Never having children.



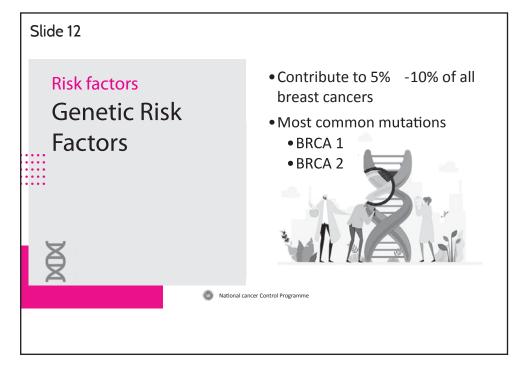
### Aging

Risk of developing breast cancer increases with age. In Sri Lanka, many breast cancer patients are more than 50 years of age at the time of diagnosis.



### Being a female

**Sex** - Being a woman is the main risk factor for developing breast cancer. On the other hand, breast cancer can also occur in men. However, breast cancer is about 100 times more common among women than men. Women have more female hormones namely estrogen and progesterone, which can promote breast cancer cell growth.



### **Genetic Risk Factors**

About 5% to 10% of breast cancer cases are thought to be hereditary, resulting directly from gene defects (called mutations) inherited from a parent.

Most common inherited gene mutations are BRCA1 and BRCA2 mutations. In normal cells, these genes help to prevent cancer by making proteins that keep the cells from growing abnormally. For families with BRCA mutation the risk may be as high as 80%. These cancers tend to occur in younger women and affect both breasts. They also have higher risk of developing ovarian cancer

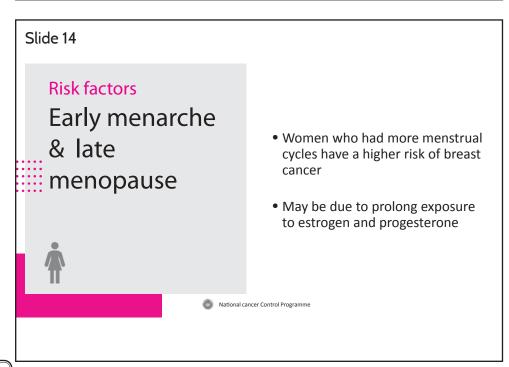
# Risk factors Family history • Maternal side and paternal side have equal risk • Breast cancer of 1st and 2nd degree relatives has higher risk • Having a first degree relative has two-fold risk • Having two first degree relatives has three-fold risk • 85% of women with breast cancer do not have family history

### Family history

Risk of developing breast cancer is higher in women whose close relatives have breast or ovarian cancers. A woman with more than one first degree relative (mother or sister) affected with breast cancer has higher risk compared to having one relative affected. The exact risk is not known, but women with a family history of breast cancer either maternal or paternal side have an increased risk of breast cancer.

### Personal history of breast cancer

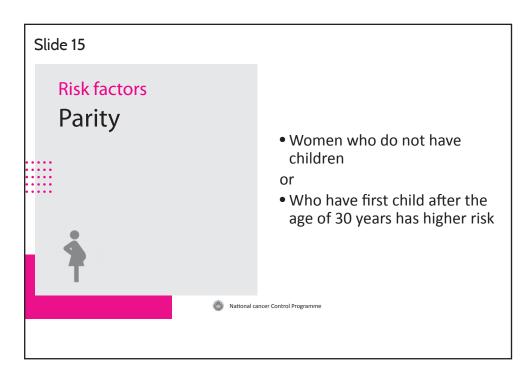
A woman with cancer in one breast has increased risk of developing a new cancer in the other breast or in another part of the same breast. This is different from a recurrence of the first cancer.



### Early menarche & late menopause

Lifetime exposure to estrogen, progesterone hormones

- More menstrual periods
- Early menarche (before age 12) and/or late menopause (after age 55) have a slightly higher risk.



### **Parity**

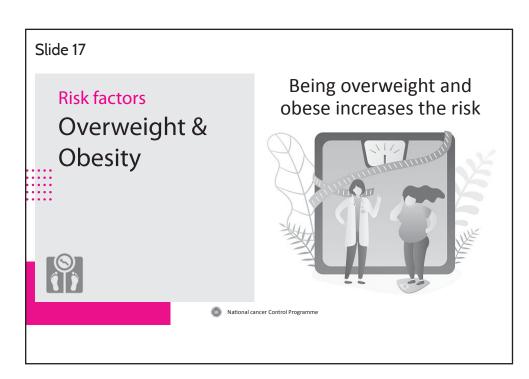
Women who never had children or had their first childbirth after the age of 30 years have a slightly higher risk of developing breast cancer. Women who had many pregnancies and had first childbirth at young age reduces the breast cancer risk. This is probably due to reduction of total lifetime menstrual cycles due to pregnancy



### Modifiable risk factors

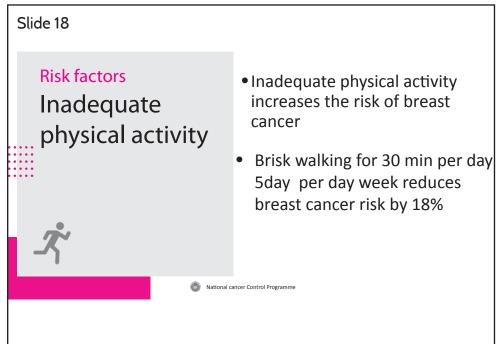
Ask the audience to list the modifiable risk factors

- Overweight and obesity
- Inadequate physical activity
- Unhealthy diet
- Tobacco and alcohol
- Hormone replacement therapy



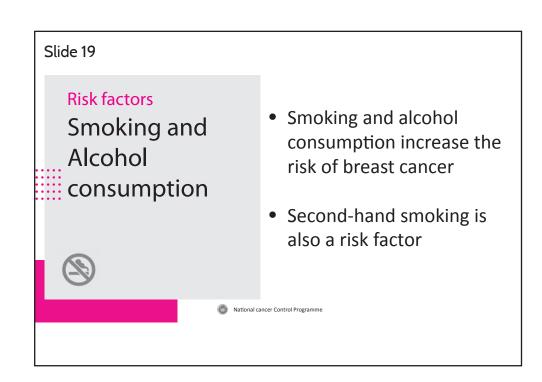
## Risk factors Overweight & Obesity

Overweight and obesity - post-menopausal obesity and overweight increases breast cancer risk



## Inadequate physical activity

Physical inactivity - Physical inactivity is associated with increase breast cancer risk.



## **Smoking and Alcohol consumption**

Excessive alcohol consumption - Consumption of excess amount of alcohol is related to development of many cancers including the breast cancer

Tobacco - Smoking can cause many cancers including breast cancer



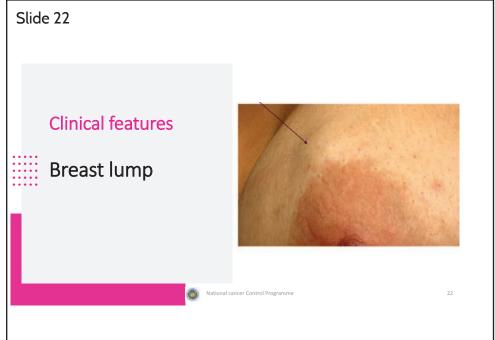
## Hormone replacement therapy

Hormone replacement therapy (HRT) - Use of HRT for long period will increase the risk of breast cancer in women.



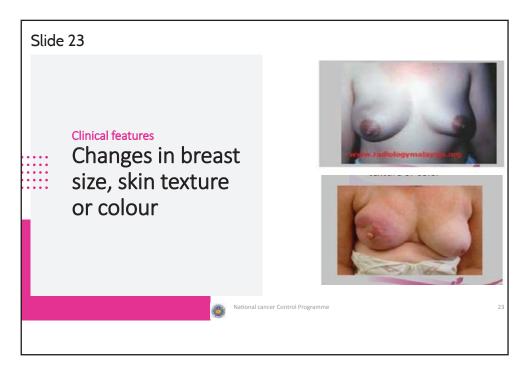
## **Breastfeeding**

Women who breast fed their children are having slightly lower risk of breast cancer compared to women who never breast fed. This protective effect is increases with increasing the duration of breast feeding. This could be partly because breast feeding reduces total number of menstrual cycles.



## **Breast lump**

The signs and symptoms of breast cancer may vary from patient to patient. However, any patient presenting with following clinical features need to be suspicious of having breast cancer until proven otherwise. Breast lump is one of the commonest presentations. If it is hard, fixed, or irregular more favor for breast cancer. Sometimes it may appear as a thickening in the breast or axilla



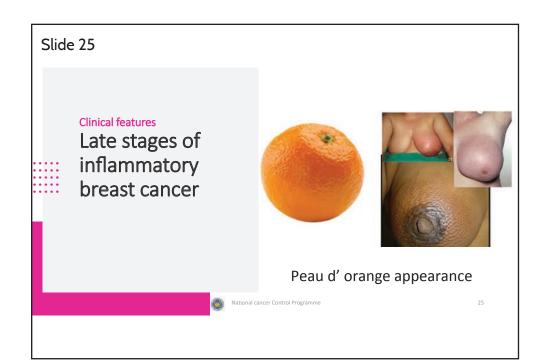
## Changes in breast size, skin texture or colour

Change in the size and/or shape of the breast - Many women may be having slight asymmetry of their breast (eg: Right breast may be larger than left breast etc) this feature is normal unless it is a recent change



## Nipple changes

Nipple discharge is a frequent complain. It can be due to benign or physiological condition. But if the discharge is blood stained or unilateral and form a single duct that should not be neglected.



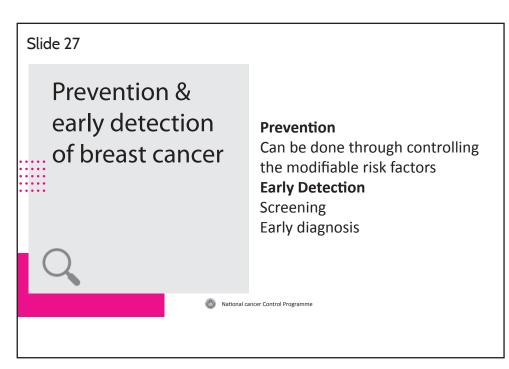
## Late stages of inflammatory breast cancer

Changes of the texture of the skin - this could be either changes in the colour, skin texture or dimpling of the skin of the breast. In inflammatory breast cancer at the later stages skin of the breast is similar to a skin of an orange which is known as Peau d' orange appearance.



## Lump in axilla

Axillary changes - swelling or lumps in the axillae



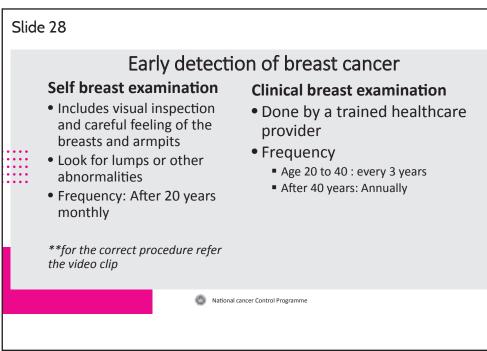
## Prevention of breast cancer

Control and prevention of modifiable risk factors and healthy lifestyle may eventually have an impact in reducing the incidence of breast cancer in the long run.

Screening - is the systematic application of a screening test in presumably asymptomatic population.

## Early diagnosis

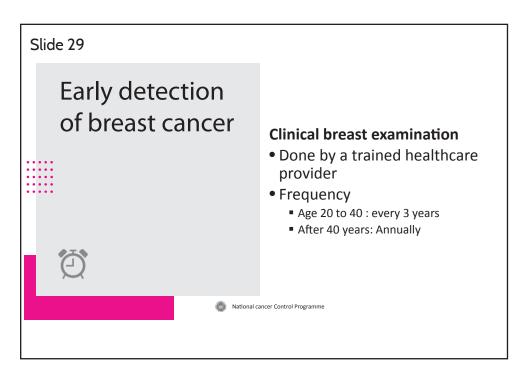
Aim of early diagnosis is to provide timely access to diagnosis and effective treatment. The goal is to identify patients at early stages of cancer and reduce the risk of death from breast cancer.



## Early detection of breast cancer

Self-breast examination

This is to empower the women taking responsibility for their own health. Therefore, breast awareness is recommended to improve the early diagnosis of breast cancer



## Early detection of breast cancer

Clinical breast examination

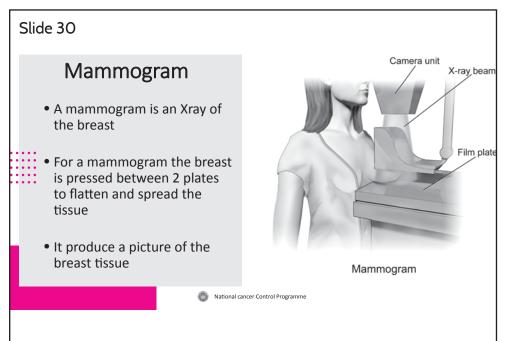
Done by a trained healthcare provider

Frequency

• Age 20 to 40 : every 3 years

• After 40 years: Annually

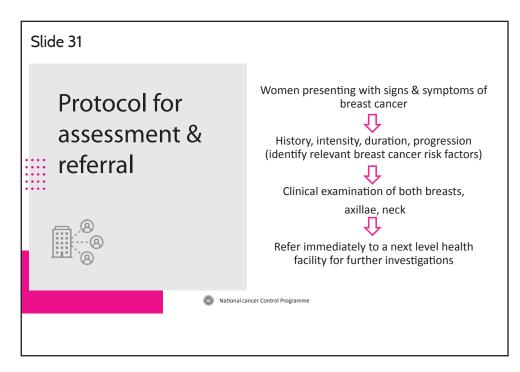
Both these procedures will be covered during the practical session



## Mammogram

Mammographic screening

Population based mammogram screening is carried out in developed countries having high incidence of breast cancers. Sri Lanka being a developing country and having comparatively low incidence of breast cancers is not having population-based screening programme. Mammograms are mainly carried out for diagnostic purposes except for screening mammograms for high risk women. Clinical breast examination is recommended for women on regular basis to identify breast cancers early.



## **Practical session**

- Play the videos provided by NCCP on self-breast examination and clinical breast examination.
- Discuss the important steps with the audience according to the "National Guidelines for Self-breast Examination and Clinical Breast Examination"
- Ask the participants to practice the steps using breast mannequins

## Protocol for assessment & referral

If you come across a woman with signs and symptoms of breast cancer it is mandatory to take a detailed clinical history and carry out thorough examination before referring her for further investigations. If a woman complains that she is having a lump, she needs further investigation even though you are unable to detect any abnormality

## National Guidelines for Self-breast Examination and Clinical Breast **Examination**

## The screening protocol

- Breast self-examination should be conducted once a month by all women starting from 20 years of age.
- Clinical Breast Examination (CBE) is recommended every 3 years for all women from the age of 20 to 40 years. Women aged 40 or over, CBE is recommended annually.
- In women whose relatives had breast or ovarian cancer under the age of 40 years, annual clinical breast examination should be started 5 years before the index case.
- Breast self-examination should be taught and reinforced at every consultation.
- Screening mammography is offered once in 2-3 years for women aged 50 - 69 years. (Can be adopted only when adequate mammography facilities are available throughout the country)

## Self-breast examination

Self-breast examination (SBE) is the inspection and palpation of the breast by the woman herself. The role of the primary health care physician/ staff is to provide necessary information to women and to make them competent in self-breast examination.

## Information that should be provided to the woman:

## Importance of SBE

If breast cancer is detected early, it gives a better outcome. A practice of self- breast examination on a monthly basis is very important for early detection of breast cancers.

## Best time to conduct the SBE

It is better to conduct SBE one week after the beginning of menstruation (During menstruation, some women feel their breasts painful and lumpy). If she is not menstruating, a convenient fixed date should be selected.

## Frequency of carrying out the SBE

This should be carried out once a month by all women over the age of 20 years.

## Required setting to carry out the SBE

This procedure takes little time and can be incorporated into the routine life activity, in any place that is comfortable and would secure the privacy of the woman.

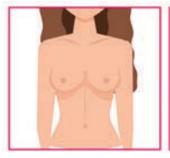
## Steps of self-breast examination:

## Two components:

- 1. Inspection (Preferably in standing position)
- 2. Palpation (Either lying down, sitting, standing)

## Inspection

Stand in front of the mirror exposing the chest up to the waist, look at the breasts through the mirror, while keeping the arms in positions.







1. Arms hanging by the side

2. Hands pressed on the hips 3. Arms raised over the head

Figure I: Positions of Breast inspection

## Note the changes mentioned below:

- Skin changes of the breasts
- Color changes of the breasts

- Change in shape of the breasts
- Orange peel / Peau d'orange appearance of the breast
- Ulceration on the breast
- Late occurrence of breast asymmetry (most women may have asymmetry in normal circumstances. Therefore, a long- standing breast asymmetry is not a sign of a cancer)
- Nipple changes, discharges other than breast milk/ inverted nipple (having inverted nipples from birth is not a sign of a cancer)
- Breast lump, change in the texture, thickening of the breast skin.
- · Lumps in the arm pit or around the neck

## Palpation of the breasts while standing

Palpate the breast using middle three fingers to identify thickened areas and or lumps. Use the palmar surfaces of the fingers (flat surface of the three middle fingers). Palpation of breast can be done in sitting or lying down positions.

On examining right breast, raise the right arm over the head and palpate the right breast using the left hand. While examining the left breast raise the left arm and palpate the left breast using the right hand.







Figure II: Palpation of the breast

Continue palpating the breast in a clockwise direction from outer circle of the breast towards the nipple using three pressure levels.

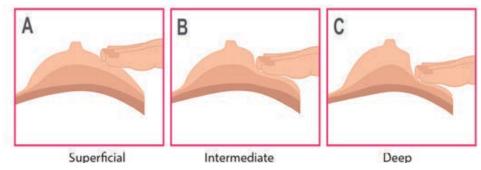


Figure III: Palpation of the breasts in superficial, intermediate and deep pressure levels

Start with applying 'minimal' pressure as indicted (to feel the area just beneath the skin) and then gradually increase the pressure (to feel the tissue deeper within).

At the end of the breast palpation, find out whether there is a nipple discharge by squeezing the areola using thumb and middle finger.



Figure IV: Look for nipple discharge.

Then examine the armpit and look for lumps. Use the same technique to examine the other breast.

## Palpation of breast in lying down position.

To palpate the right breast, keep the right palm beneath the head and palpate the breast using the left hand. For the palpation of left breast, keep the left palm under the head and palpate with the right hand.

If any abnormality is detected during self-breast examination, it is necessary to consult a doctor even though all the changes may not be due to breast cancer.

## Clinical breast examination

Clinical breast examination serves two purposes. It can be used as a screening method for women without any signs and symptoms of breast cancer and as a component of triple assessment in women with signs and symptoms when diagnosing breast cancer. A detailed history and thorough clinical examination provide important information on which, further investigations would be based.

## **Clinical history**

History should be taken from women presenting to the clinic, either with signs and symptoms or without signs and symptoms before doing clinical breast examination. Following are the possible signs and symptoms and information need to be collected.

## Possible signs and symptoms and information to be collected:

| Breast Lump  | Site - Constant and changing Duration- when and how it was noticed. Any new changes since first notice (e.g., getting bigger) Relationship to menstrual cycles or exogenous hormones Associated symptoms  |
|--|---|
| Breast Pain  | <ul> <li>Site- Constant or changing/ unilateral or bilateral.</li> <li>Cyclical or noncyclical</li> <li>Duration - how long and characteristics of pain</li> <li>Any recent change such as intensity, frequency, site of pain</li> <li>Relationship to menstrual cycles or exogenous hormones</li> <li>Associated symptoms</li> </ul> |
| Nipple discharge<br>or any other nipple<br>changes | Duration - when and how first noted (Spontaneous or not)     Any changes since first notice     Bilateral or unilateral     From single duct or multi duct  |

## **Steps of Clinical Breast Examination (CBE)**

CBE should be done in a covered room with good light. A female chaperon should be there if the examiner is a male. Before starting the examination, it is necessary to explain the procedure to the client.

## Inspection

Breasts should be inspected in each of the following positions:

- 1. Arms relaxed at her sides
- 2. Hands placed on the hips and pushing inward (contraction of the Pectoralis Major muscle)
- 3. Arms raised over her head

The breasts should be inspected from the front and from each side. Pay particular attention to:

- Breast size, contour, shape, symmetry
- Skin changes such as erythema, dimpling, tethering or puckering, Peau d' orange, eczematous skin changes, visible lumps.
- Nipple position, inversion, retraction, erythema, eczema, nodules

## **Palpation**

The ability to identify breast lumps by palpation is influenced by the characteristics of the tumour, the surrounding breast tissue, the position of the lesion in the breast, proper positioning of the client and thoroughness of the search, the area covered and use of a consistent pattern of search. During the process of palpation, the client should feel comfortable and need to ask about it.

## Positioning the woman for palpation

For the palpation of the breasts, the woman should be placed in the supine position, placing both arms under her head, which will facilitate palpation of the outer quadrant of a large breast. Use the examiner's other hand to stabilize breast in position.

Perimeter of the breast should be noted during clinical breast examination.

Anatomically, breast tissue extends superiorly from the second rib or clavicle, medially to the lateral border of the sternum, inferiorly to the sixth rib and laterally to the Latissimus Dorsi muscle.

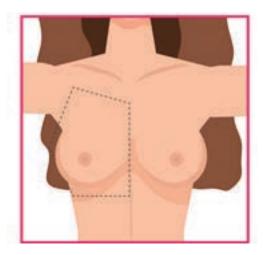


Figure V: Perimeter of the breast

## Palpation technique

The examiner should use the distal phalanges of the middle three fingers to palpate the breast. The entire breast should be palpated using overlapping dime-sized circles. Use three different levels of pressure (superficial, intermediate and deep) at each point to palpate different layers of the breast.

(See Figure III)

There are three typical patterns used to palpate the breast:

- Circular technique
- Radial spoke technique (wedges)
- Vertical strip technique (lines)

Whichever pattern is used for palpation of the breasts, it is important to make sure that the entire perimeter of the breasts are being covered.

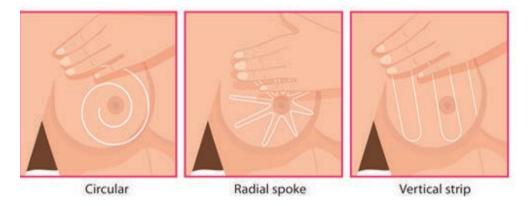


Figure VI: Three patterns of breast palpation

The woman should be asked to squeeze areolar region of the nipple to see whether there is any nipple discharge. (Nipple discharge that occurs only with nipple or breast stimulation is a normal physiological function.)

(See Figure IV)

## **Palpation of Regional Lymph Nodes**

The regional lymph nodes (Supra-clavicular, Infra-clavicular and axillary nodes) should be palpated while woman is in the sitting position.



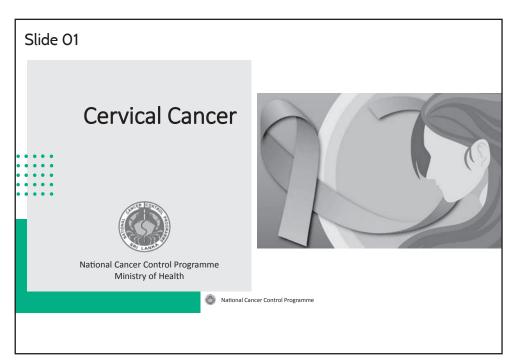
## **Module 3: Cervical Cancer**

## Learning objectives

Understand the concepts of prevention, screening and early diagnosis methods for cervical cancer

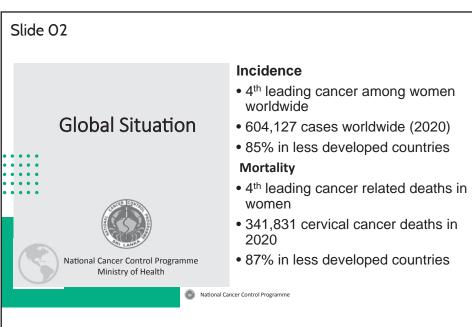
Apply the knowledge gained on risk factors, signs and symptoms of cervical cancer for early identification of patients at risk of developing cervical cancer.

Cervical cancer is a preventable cancer. It can also be detected easily at early stages. The third module covers the important aspects of prevention and control of cervical cancer. NCCP recommends conducting pre and posttests to assess the effectiveness of the programme. Sample test questions have been provided with the other resources or can be downloaded from the NCCP website.



## **Cervical Cancer**

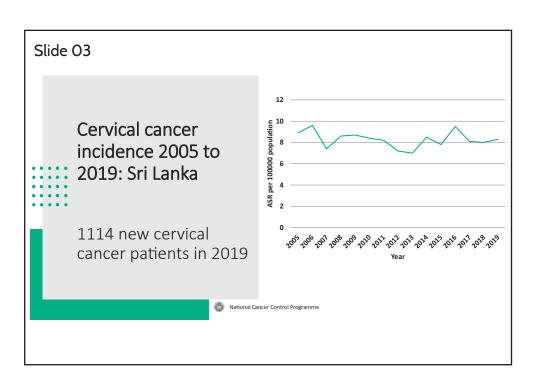
Third module is the prevention and control of cervical cancer



## **Global Situation**

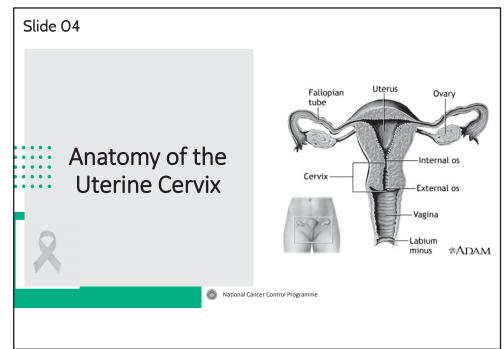
Cervical cancer is the fourth commonest cancer and cancer deaths among women globally.

There were 604,127 cervical cancer patients in the world in 2020. In Sri Lanka cervical cancer is the 4th commonest cancer among women with more than 1000 new patients with invasive cancers seeking treatment annually from government hospitals.



## Cervical cancer incidence 2005 to 2019: Sri Lanka

Cervical cancer incidence increases with the age and comes to a peak around the age of 70 years. Cervical cancer is a most preventable cancer as well as curable if detected at early stages.

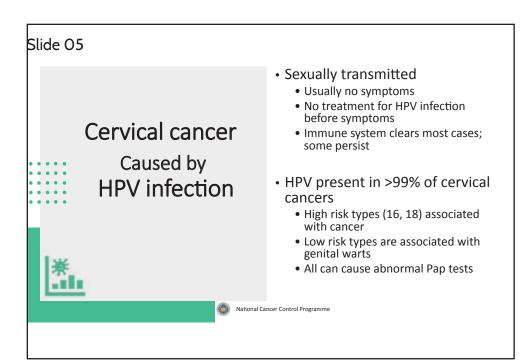


## **Anatomy of the Uterine Cervix**

Cervix is 3-4 cm in length and 2.5 cm in diameter. Varies with age, parity, menstrual and hormonal status.

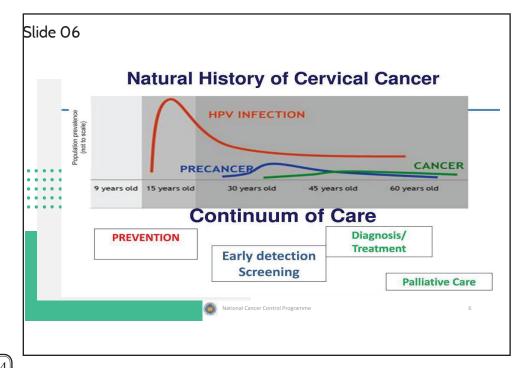
Ectocervix is covered by pink multilayered squamous epithelium and endocervix is lined by single layered columnar epithelium and is red in appearance.

Squamo - columnar junction (SCJ) is the area where 2 epithelia meet.



## Cervical cancer

Human Papilloma virus (HPV) is a sexually transmitted infection. High risk types (16, 18) of HPV associated are the main cause for cervical cancer.



## Natural History of Cervical cancer

In most women the infection clears by the immune system. But in some women specially when there are factors like other STIs, immunosuppression the HPV virus will persist.

When HPV infection persists, it can progress on to CIN (cervical intraepithelial neoplasia) and if not treated to cancer later. At this point discuss the possible strategies for prevention and control of cervical cancer as shown in the diagram.

## Slide 07 Risk factors-HPV infection is the necessary cause of cervical cancer **Factors Favoring Persistence Factors Favoring Infection** High parity • Early commencement of sexual activity Tobacco smoking Multiple sexual partners Immunosuppression Partner's high risk sexual activities Poor socio-economic status • Poor socio-economic status Poor nutritional status • Poor hygiene Prolonged usage of OCP

National Cancer Control Programme

• Immunosuppression – primary or

# Slide 08 Pre-cancerous lesions - Usually asymptomatic Symptoms begin when pre-cancer becomes true invasive cancer Common Symptoms Intermenstrual bleeding / Post menopausal bleeding Post coital bleeding Abnormal vaginal bleeding An unusual vaginal discharge Excessive sero-purulent discharge National Cancer Control Programme

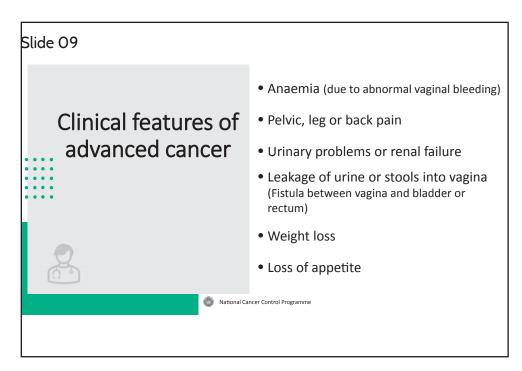
## Risk factors

There are risk factors which increases the risk of acquiring HPV infection while some other risk factors favor persistence of HPV infection. However, there are risk factors which are common to both acquiring and persistence of infection. Such as

- Immunosuppression
- Poor socio- economic status and poor nutrition

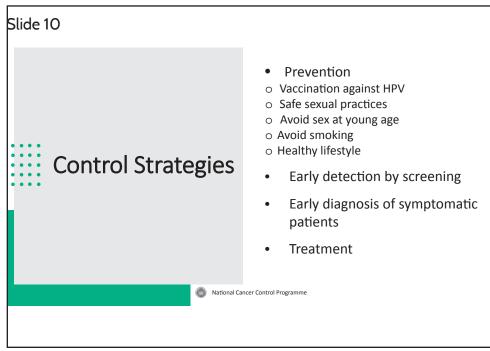
## Clinical features

Usually there are no signs or symptoms while women having HPV infection, pre- cancerous lesions and sometimes during the early invasive cancer. At the time patient presenting with symptoms and signs cancer may have spread. However, it is worth referring patients with symptoms and signs as early as possible.



## Clinical features of advanced cancer

Late stage cervical cancer can have clinical features such as Anaemia (due to abnormal vaginal bleeding) Pelvic, leg or back pain, Urinary problems or renal failure Leakage of urine or stools into vagina (Fistula between vagina and bladder or rectum), weight loss, loss of appetite.



## **Control Strategies**

Prevention: Cervical cancer can be prevented by several ways.

Primary prevention of Cervical cancer

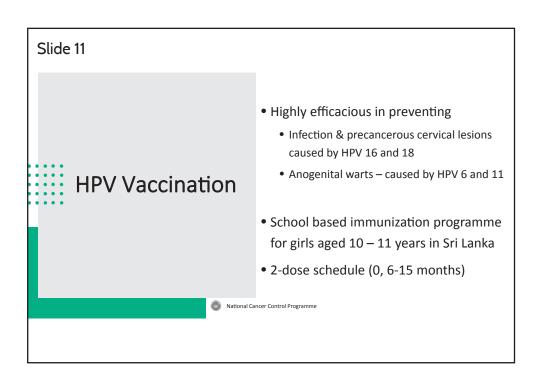
Essentially on healthy lifestyles

- Safe sexual practices avoid sex at young age.
- Avoid smoking smokers have 3 times higher risk of cervical cancer than non-smokers.
- Healthy lifestyle enhances the immune system.
- Vaccination against HPV

Early detection by screening: Through well women clinics

Early diagnosis of symptomatic patients

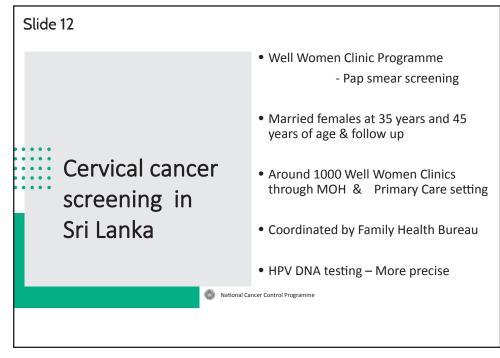
Treatment; Initiating early and required treatment and follow up is very important



## **HPV** vaccination

School based immunization programme for girls aged 10 - 11 years.

Quadrivalent vaccine is given to protect against viral types 16, 18, 6 & 11. 2 doses are given at O and 6 months.

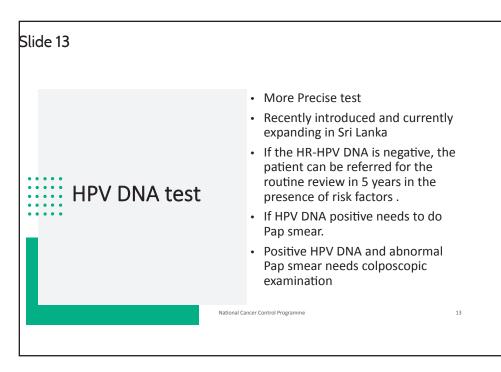


## Cervical cancer screening in Sri Lanka

Screening - Cytology screening (Pap test) is the oldest and most widespread cancer screening technique. Organized cytology screening programs have led to effective reduction in the incidence and mortality from cervical cancer in many developed countries.

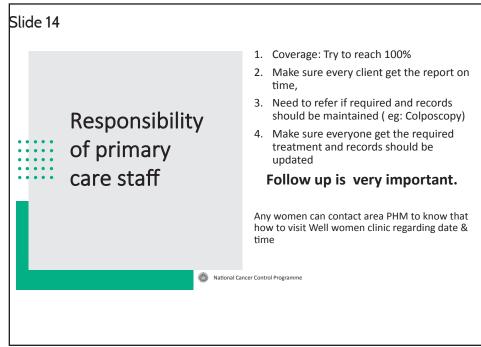
HPV DNA tests to detect the presence of viral markers for the high-risk HPV types.

 It tests for HPV infection instead of cancer, which means that a negative HPV test indicates a low probability for the patient to develop cervical cancer within 5-10 years



## **HPV DNA test**

HPV DNA has higher sensitivity and specificity and it was recently introduced to Sri Lanka. Currently expanding throughout the country. If the HR-HPV DNA is negative, the patient can be referred for the routine review in 5 years in the presence of risk factors. If HPV DNA positive needs to do Pap smear. Positive HPV DNA and abnormal Pap smear needs colposcopic examination.



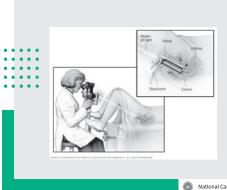
## Responsibility of primary care staff

Discuss the responsibilities of primary care staff for prevention and control of cervical cancer

- Coverage: Try to reach 100% WWC coverage 35 and 45 year age cohorts.
- · Make sure every client gets the report on time,
- Need to refer if required and records should be maintained (eg: Colposcopy)
- Make sure everyone gets the required treatment and records should be updated
- · Follow up is very important to achieve a better outcome.

Stress that any women can contact area PHM to know that how to visit Well women clinic regarding date & time Explain that WHO has declared targets to achieve cervical cancer elimination target.

## Slide 15



Colposcopy

- Depending on PAP smear report some need to be referred for colposcopy
- Colposcopy is done by consultant gynecologists in Sri Lanka
- Colposcopy is performed to
  - Further investigate the cervical lesions
  - Treat some minor conditions

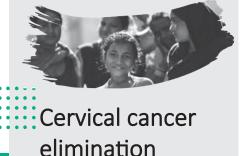
National Cancer Control Programme

## Colposcopy

Provide a brief description on colposcopy.

Depending on PAP smear report some need to be referred for colposcopy. Colposcopy is done by consultant gynecologists in Sri Lanka. Colposcopy is performed to investigate the cervical lesions further and to treat some minor conditions.

## Slide 16



strategy

WHO launched the Global Strategy to Accelerate the Elimination of Cervical Cancer

National Cancer Control Programme

## Cervical cancer elimination strategy-2020

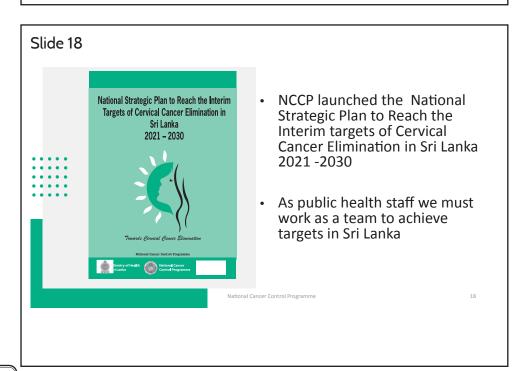
First time ever, the world has committed to eliminate a cancer. That is cervical cancer. This is a long process which includes several land marks. First one is the 90-70-90 interim targets in 2030.

## Interim targets of cervical cancer elimination to achieved by 2030 - 90% of girls fully vaccinated with the HPV vaccine by the age of 15 - 70% of women screened\* by the age of 35, and again by the age of 45 (\* Should be a quality test) - 90% of women identified with cervical disease receive treatment

## Interim targets of cervical cancer elimination to achieved by 2030

We have to work together to achieve its interitem targets by 2030. This will be the first step.

- 90% of girls fully vaccinated with the HPV vaccine by the age of 15
- 70% of women screened by the age of 35, and again by the age of 45
- 90% of women identified with cervical disease receive treatment



NCCP launched the National Strategic Plan to Reach the Interim targets of Cervical Cancer Elimination in Sri Lanka 2021 -2030. This will be the road map to achieve the targets of global initiative. You can find it in NCCP official web site (www.nccp.gov.lk). As public health staff we must work as a team to achieve targets in Sri Lanka

## Sri Lankan guideline of classification for cervical cytology was adapted from the Bethesda system (8)

## Categories included in Modified Bethesda classification adapted for Sri Lanka

- 1. Negative for Intraepithelial Lesion or Malignancy (NILM)
- 2. Low grade Squamous Intraepithelial Lesion (LSIL)
- 3. High grade Squamous Intraepithelial Lesion (HSIL)
- 4. Atypical Squamous Cells of Undetermined Significance (ASCUS)
  - Atypical Squamous Cells of Undetermined Significance Low grade (ASCUS - Low grade)
  - Atypical Squamous Cells of Undetermined Significance High grade (ASCUS - High grade)
- 5. Glandular cell atypia
- 6. Benign endometrial cells in a woman > 40 years
- 7. Squamous or Glandular malignancy

<sup>\*\*</sup>Although the this calcification is not included in the presentation the trainer should have a clear understanding about this.

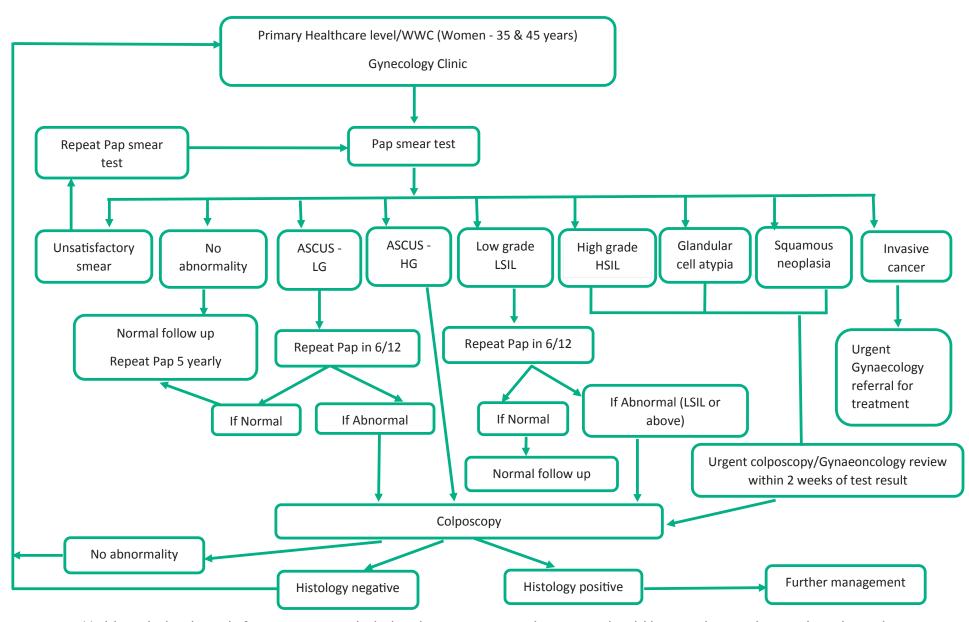
## Sri Lankan guideline of classification for cervical cytology was adapted from the Bethesda system (8)

| Cytological classification<br>(Modified Bethesda<br>System adapted to Sri<br>Lanka) | Histological classification (used for diagnosis)            | Recommendation   |
|---|---|--|
| Normal  | Normal  | Routine re-screening (5 yearly)  If inflammatory – treat and follow up   |
| ASCUS – Low grade   | Atypia  | Medical officer at primary health care level to follow up and repeat smear in 6 months   |
| ASCUS – High grade  |   | Refer for colposcopy If colposcopy biopsy is positive, treat as for HSIL   |
| LSIL  | CIN 1 (including flat condylomata)                          | If HPV DNA is not available, repeat smear in 6 months If second smear also LSIL or above → refer to a gynaecologist for colposcopy If HPV DNA is available, triage → If HPV DNA positive + LSIL → refer for colposcopy |
| HSIL  | CIN 2 / CIN 3   | Refer for colposcopy   |
| Glandular cell atypia   |   | Refer for colposcopy   |
| Invasive carcinoma  | Invasive carcinoma<br>(Squamous or Glandular<br>malignancy) | Urgent referral to a Tertiary Cancer Center (For gynaecologist opinion)  |

<sup>\*\*</sup>Although the this calcification is not included in the presentation the trainer should have a clear understanding about this.

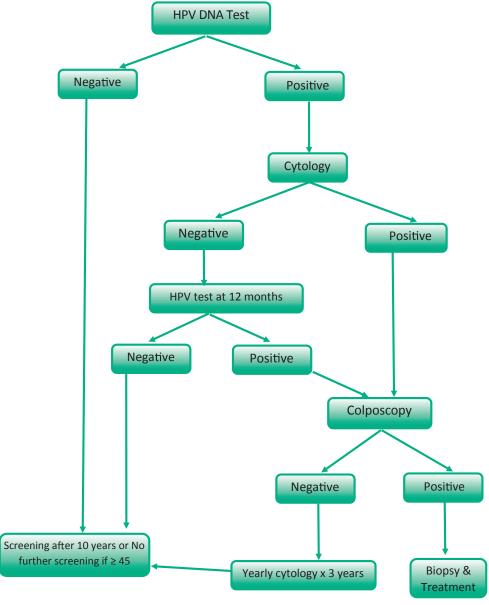
## Algorithm for Pap smear test

Source: National Cancer Control Programme



<sup>\*\*</sup>Although the this calcification is not included in the presentation the trainer should have a clear understanding about this.

## Algorithm for HPV DNA Test Source: Family Health Bureau



<sup>\*\*</sup>Although the this calcification is not included in the presentation the trainer should have a clear understanding about this.



## Module 4: Colorectal, Oesophegeal, Thyroid, Prostate and lung cancers

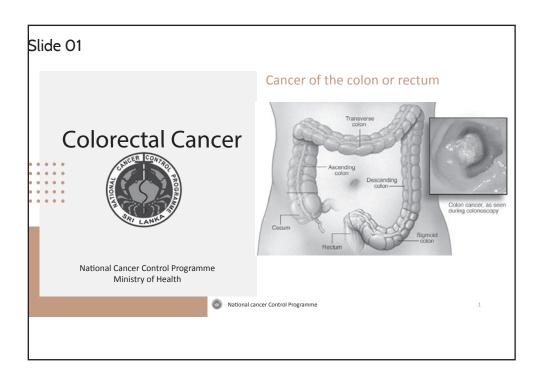
## Learning objectives

Know the burden of Colorectal, Oesophegeal, Thyroid ,Prostate and Lung cancers

List the risk factors and clinical featurs of each cancer

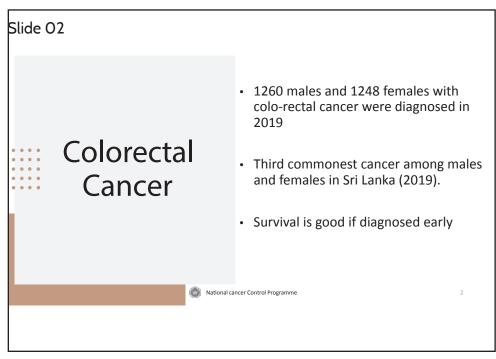
Know the prevention and control strategies of each cancer

This module will focus on colorectal, oesophegeal, thyroid, prostate, and lung cancers. At the end of this module, the audience should be aware about the disease burden, risk factors and control strategies of these cancers. NCCP recommends conducting pre and posttests to assess the effectiveness of the programme. Sample test questions have been provided with the other resources or can be downloaded from the NCCP website.



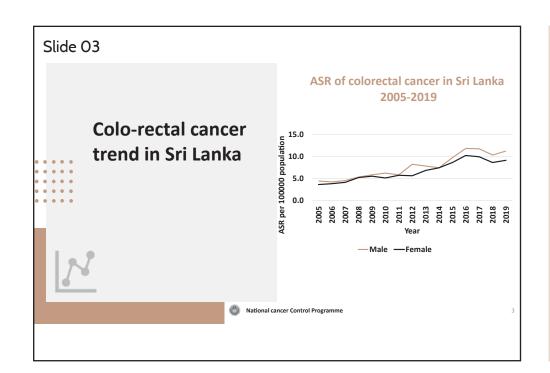
## **Colorectal Cancer**

Colorectal cancer includes the cancers in large intestine and rectum.



## **Colorectal Cancer**

Among males it is the 3rd commonest cancer while among women it is the 3rd commonest cancer. In 2019, there were 1257 males and 1248 females with Colo-rectal cancer in Sri Lanka



## Colo-rectal cancer trend in Sri Lanka

Colo-rectal cancer incidence is increasing gradually among both males and females in Sri Lanka

## Slide 04 Non modifiable **Modifiable Risk factors Risk factors** · Personal history of Low fiber diet colorectal cancer or polyp Alcohol consumption Tobacco smoking Inflammatory intestinal conditions Red meet Consumption of processed Inherited syndromes meat Overweight / Obesity · Family history of colon sedentary lifestyle cancer Radiation · Old age Diabetes

## Risk factors for colorectal cancer

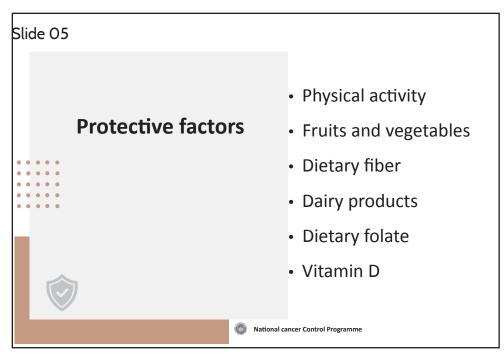
Ask the audience to list the known risk factors

## Non modifiable

Personal history of colorectal cancer or polyp, Inflammatory intestinal conditions, Inherited syndromes, Family history of colon cancer, old age

## Modifiable

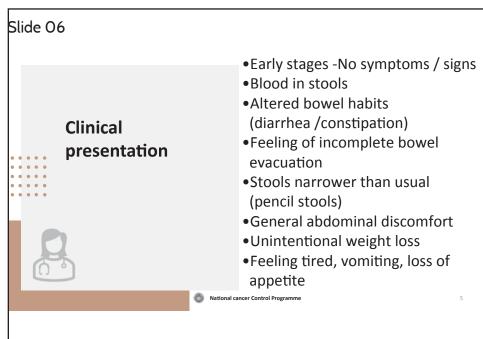
Low fiber diet, processed meat, sedentary lifestyle, diabetes, obesity, smoking, alcohol, radiation.



## **Protective factors**

There are some factors which reduces the risk of colorectal cancer. Ask the audience to list the known protective factors

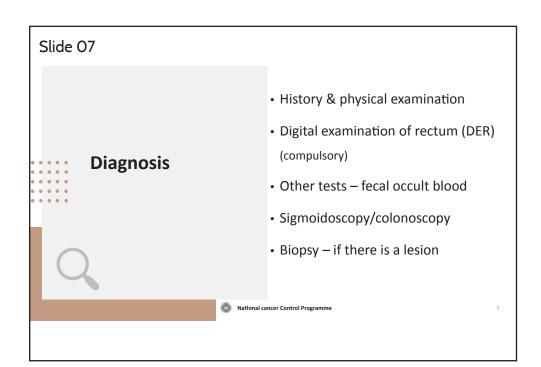
- Physical activity
- Fruits and vegetables
- Dietary fiber
- Dairy products
- Dietary folate
- Vitamin D



## Clinical presentation

Explain that patients can be asymptomatic during the early stages of cancer. However, it is very important to be aware about the signs and symptoms to diagnose early.

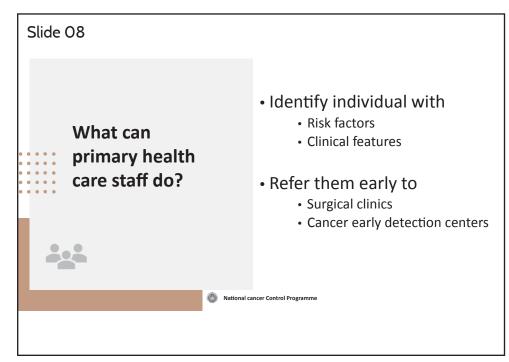
Blood in stools/Altered bowel habits (diarrhea/constipation)/Feeling that the bowel doesn't empty completely / change in consistency of stools/Persistent abdominal discomfort/cramps/pain vomiting/loss of appetite/Unexplained weight loss/Weakness/fatigue



## **Diagnosis**

Give a simple description on methods available for diagnosis

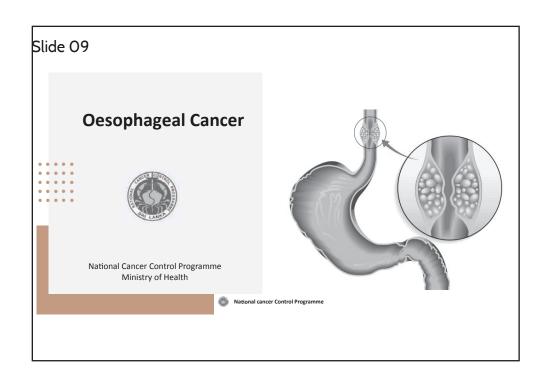
- History & physical examination
- Digital examination of rectum (DER) (compulsory)
- · Other tests fecal occult blood
- Sigmoidoscopy/colonoscopy
- Biopsy if there is a lesion



## What can primary health care staff do?

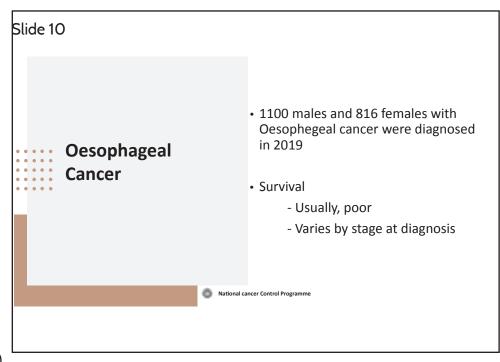
Discuss with the audience

- 1. How to identify high risk individuals based on risk factors and clinical features.
- 2. Identify the clinics/centers in local setting to refer this type of people



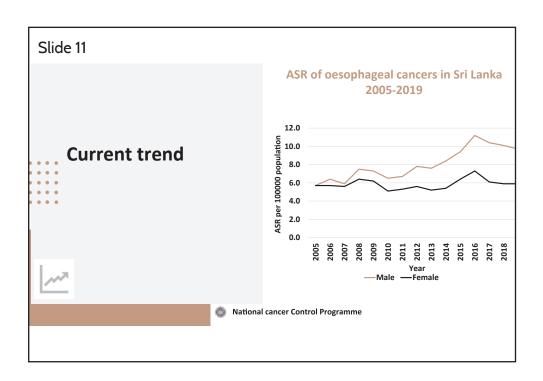
## **Oesophageal Cancer**

Oesophageal cancer is the 4th commonest cancer in males and 7th commonest cancer in females in Sri Lanka.



## **Oesophageal Cancer**

1100 males and 816 females with Oesophegeal cancer were diagnosed in 2019. Usually, the prognosis is poor even in developed counties. Prognosis is highly depend on the stage of the cancer.

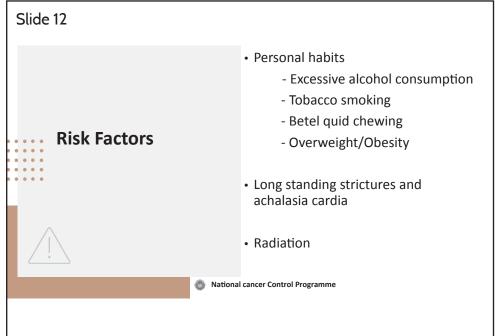


## Current trend

Oesophageal cancer is gradually increasing in Sri Lanka.

Discuss the possible reasons

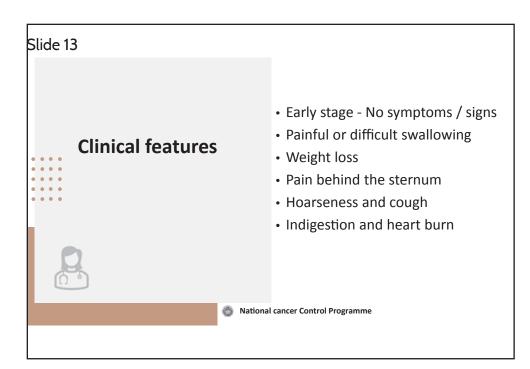
- Ageing population
- Improving diagnostic facilities
- Changes in risk factors pattern- next slide



## **Risk Factors**

Ask audience to list the known risk factors

- Personal habits
  - Excessive alcohol consumption
    - Tobacco smoking
    - Betel quid chewing
    - Overweight/Obesity
- · Long standing strictures and achalasia cardia
- Radiation



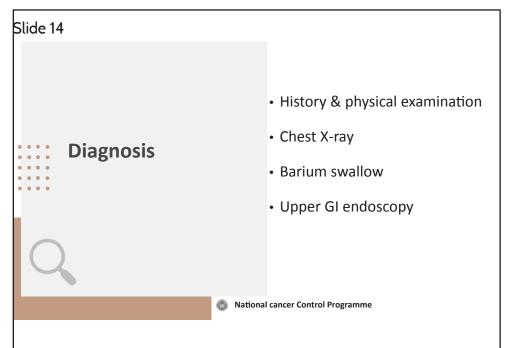
## Clinical features

Explain that the early stage of the cancer does not have signs and symptoms. This is one of the reasons to have poor prognosis.

Highlight the importance to detect dysphagia as early as possible.

Discuss other factors

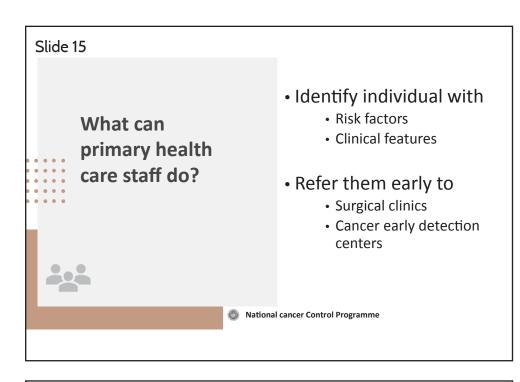
- Weight loss
- · Pain behind the sternum
- · Hoarseness and cough
- · Indigestion and heart burn



## Diagnosis

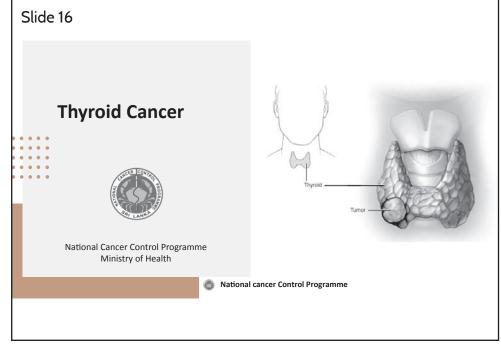
Give a simple description about the methods available for diagnosis

- History & physical examination
- Chest X-ray
- · Barium swallow
- Upper GI endoscopy



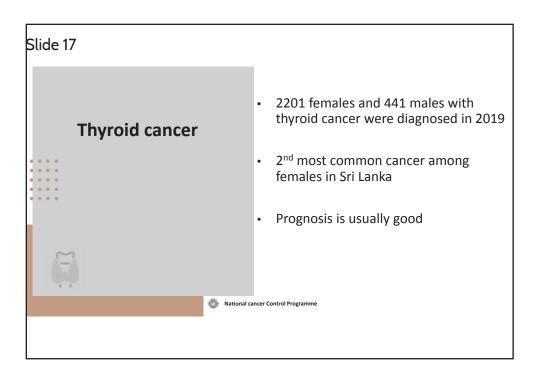
## What can primary health care staff do? Discuss with the audience

- 1. How to identify high risk individuals based on risk factors and clinical features.
- 2. Identify the clinics/centers in local setting to refer this type of people



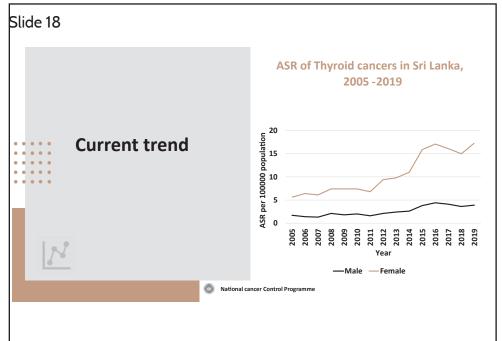
## **Thyroid Cancer**

Thyroid cancer is the second most leading cancer among females in Sri lanka.



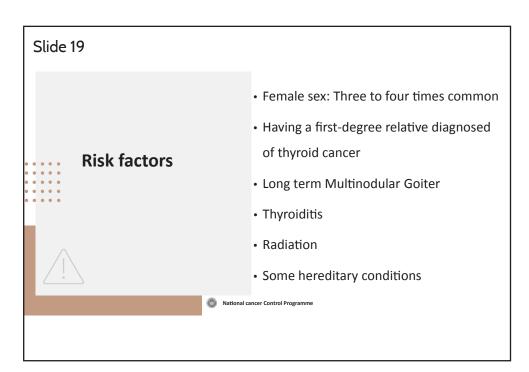
#### Thyroid cancer

In 2109, there were 2201 females and 441 males was diagnosed with Thyroid cancer. Usually the prognosis is good in most thyroid cancers.



#### Current trend

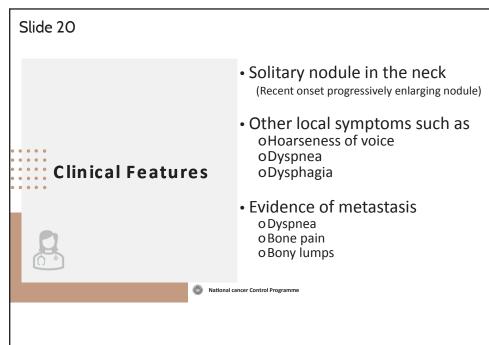
Incidence of thyroid cancer is increasing in Sri Lanka



#### **Risk factors**

Discuss about the possible risk factors

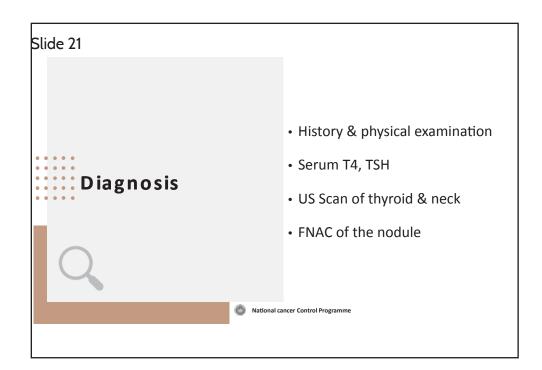
- Female sex: Three to four times common
- Having a first-degree relative diagnosed of thyroid cancer
- Long term Multinodular Goiter
- Thyroiditis
- Radiation
- · Some hereditary conditions



#### **Clinical Features**

Give a basic description about the signs and symptoms of thyroid cancer

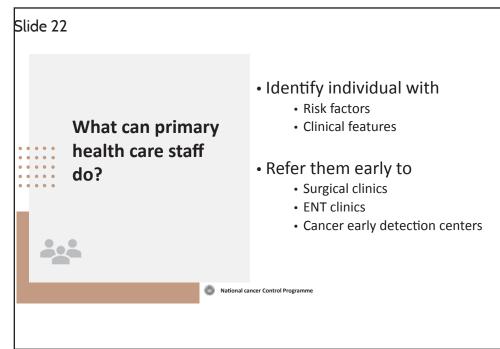
- Solitary nodule in the neck (Recent onset progressively enlarging nodule)
- Other local symptoms such as
  - o Hoarseness of voice
  - o Dyspnea
  - o Dysphagia
- Evidence of metastasis
  - o Dyspnea
  - o Bone pain



#### Diagnosis

Give a simple description about the methods available

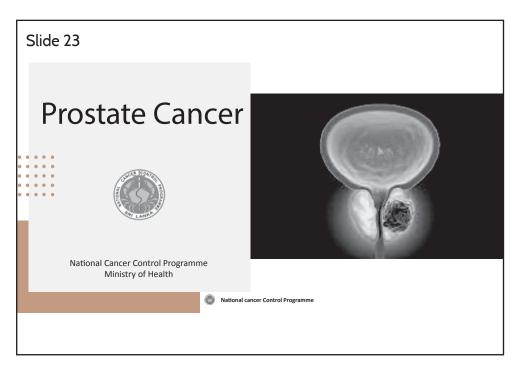
- History & physical examination
- Serum T4, TSH
- US Scan of thyroid & neck
- FNAC of the nodule



#### What can primary health care staff do?

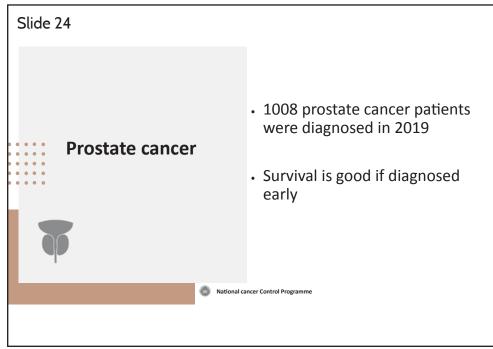
Discuss with the audience

- 1. How to identify high risk individuals based on risk factors and clinical features.
- 2. Identify the clinics/centers in local setting to refer this type of people



#### **Prostate Cancer**

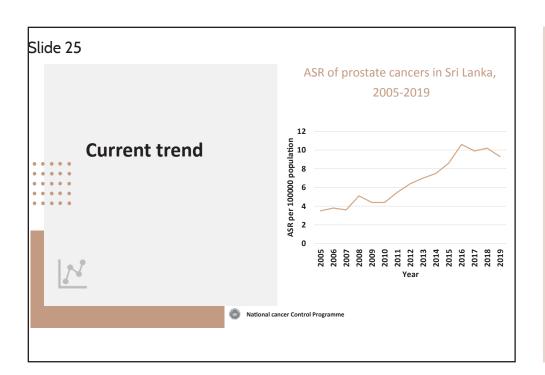
Prostate cancer is a cancer affects only men and develop within the prostate gland.



#### Prostate cancer

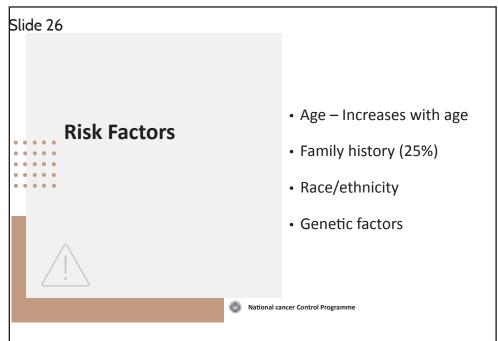
There were 1008 prostate cancer patients in 2019.

Usually, the diagnosis is good if diagnosed early.



#### **Current trend**

Prostate cancer incidence trend is increasing in Sri Lanka.



#### **Risk Factors**

While there is no single cause for development of prostate cancer, several risk factors have been identified. List the risk factors of prostate cancer

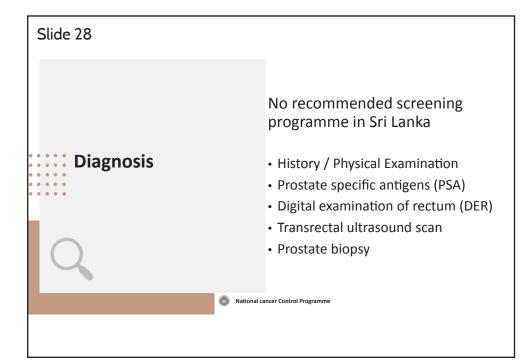
- Age Increases with age
- Family history (25%)
- Race/ethnicity
- Genetic factors

#### Slide 27 • Early stage – No signs and symptoms • Weak / interrupted floor of urine • Sudden urge to urinate Increase frequency Hesitancy (difficulty in starting) Clinical urination) presentation • Inadequate emptying of the bladder · Pain or burning during urination Blood in the urine \* common conditions like benign prostatic hyperplasia shows similar signs and symptoms National cancer Control Programme

#### Clinical presentation

Discuss the clinical features of prostate cancer

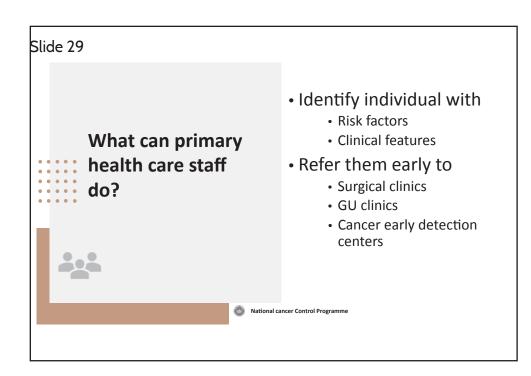
- Early stage No signs and symptoms
- Weak / interrupted floor of urine
- Sudden urge to urinate
- Increase frequency
- Hesitancy (difficulty in starting urination)
- Inadequate emptying of the bladder
- · Pain or burning during urination
- Blood in the urine
- \* common conditions like benign prostatic hyperplasia shows similar signs and symptoms



#### Diagnosis

Give a simple description about the available methods for diagnosis

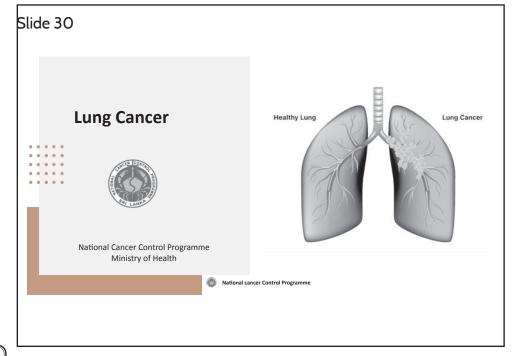
- History / Physical Examination
- Prostate specific antigens (PSA)
- Digital examination of rectum (DER)
- · Transrectal ultrasound scan
- Prostate biopsy



#### What can primary health care staff do?

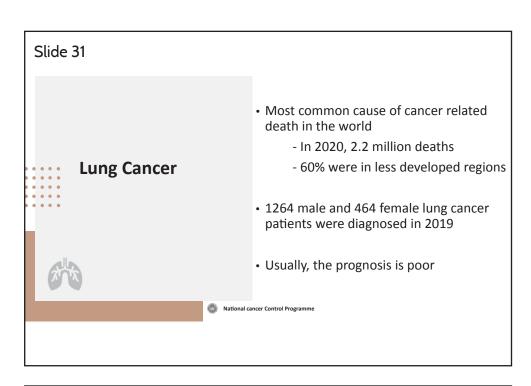
Discuss with the audience

- 1. How to identify high risk individuals based on risk factors and clinical features.
- 2. Identify the clinics/centers in local setting to refer this type of people



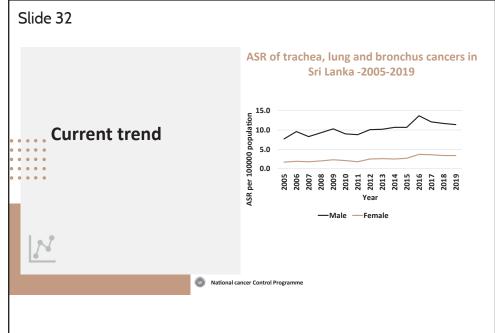
#### **Lung Cancer**

Lung cancer is one of the deadliest cancers in the world.



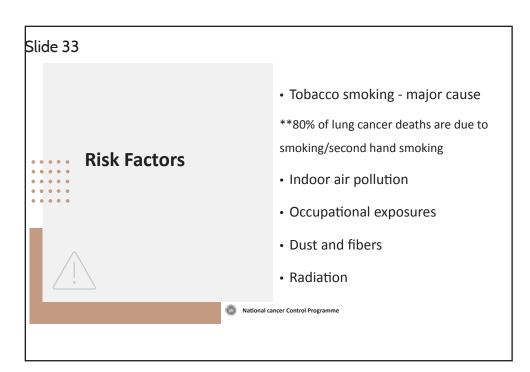
#### **Lung Cancer**

In Sri Lanka, lung cancer is the 2nd commonest cancer among males. In 2019,1264 male and 464 female lung cancer patients were diagnosed. Usually, the prognosis is poor



#### **Current trend**

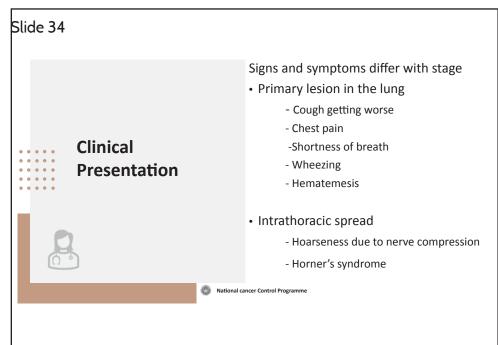
The incidence trend is increasing in Sri Lanka



#### **Risk Factors**

Factors associated with an increased risk of lung cancer can be categorize as personal habits, some occupational exposures, exposure to duct, fibers, radiation and some metals etc..

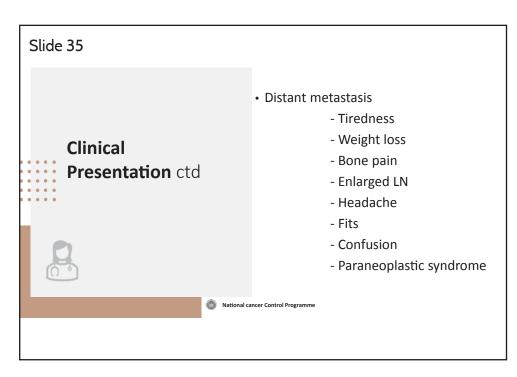
Tobacco smoking is a major cause of lung cancers. Approximately, 80% of the lung cancer deaths worldwide are due to smoking. secondhand smoking also can cause lung cancer



#### **Clinical Presentation**

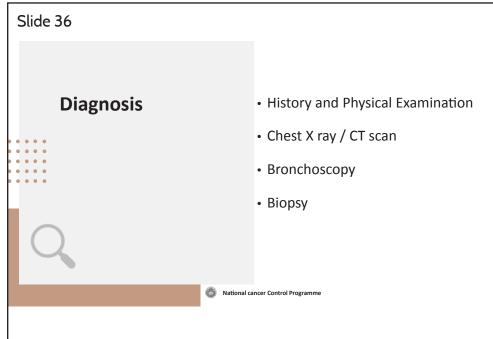
Clinical presentation. Signs and symptoms are related to the site:

- Primary lesion in the lung: progressively worsening cough, chest pain, short of breath, wheezing, haemoptysis
- Intra thoracic spread (through the chest area) : hoarseness (due to nerve palsy), Horner syndrome (small pupil, drooping eye lid, lack of sweating)
- Distant metastasis
- Paraneoplastic syndrome



#### Clinical Presentation ctd

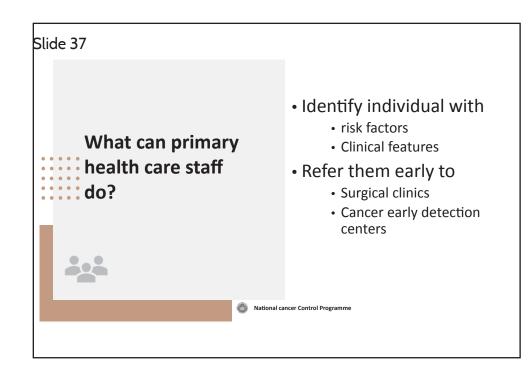
Clinical features of distant metastasis (brain, liver, bone etc..) - tiredness, unintentional weight loss, bone pain, enlarged lymph nodes, headache, seizures, confusion, Paraneoplastic syndrome.



#### **Diagnosis**

Give description the available methods for diagnosis of lung cancer

- History and Physical Examination
- Chest X ray / CT scan
- Bronchoscopy
- Biopsy



#### What can primary health care staff do?

#### Discuss with the audience

- 1. How to identify high risk individuals based on risk factors and clinical features.
- 2. Identify the clinics/ Centers in local setting to refer this kind of persons



#### Module 5: Oral cancer

#### Learning objectives

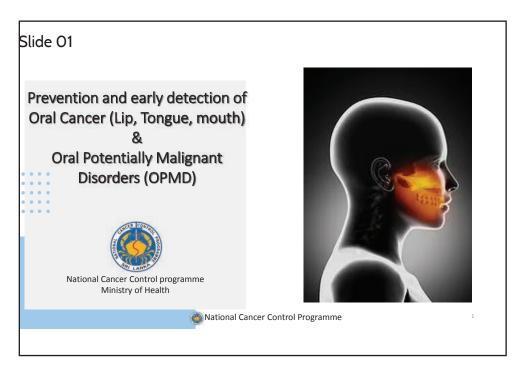
Identify people/ population groups who are at risk for oral cancer

Direct them for habit cessation/ necessary counselling sessions

Identify oral cancers and oral potentially malignant lesions through inspection of oral cavity

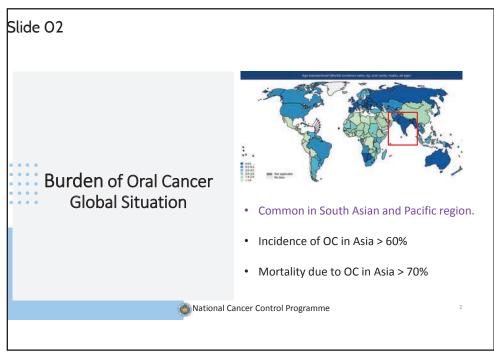
Use the referral pathway to refer patients with abnormalities to the dental surgeon

Oral cancer is the leading cancer among males. This module covers all important aspects of oral cancer including information on incidence, risk factors, clinical features, and preventive and early detection strategies. Other than the presentation a video clip on self mouth examination has been provided. NCCP recommends conducting pre and posttests to assess the effectiveness of the programme. Sample test questions have been provided with the other resources or can be downloaded from the NCCP website.



Prevention and early detection of Oral Cancer (Lip, Tongue, mouth) &Oral Potentially Malignant Disorders (OPMD)

Summarize the objectives of this presentation.

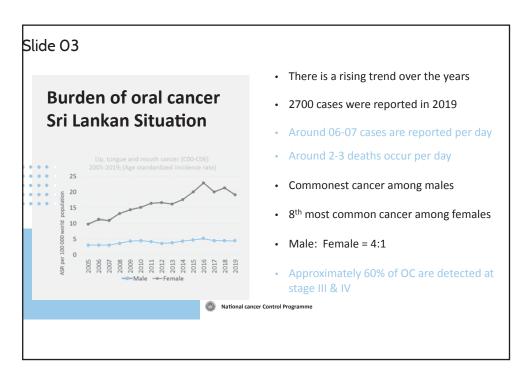


Burden of Oral Cancer: Global Situation

Oral cancer is common in South Asian and Pacific region.

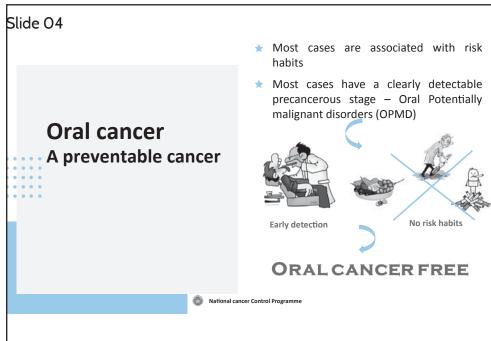
Incidence of oral cancer in Asia is more than 60%

Mortality due to oral cancer in Asia is more than 70%



#### Burden of oral cancer: Sri Lankan Situation

There is a rising trend over the years .2700 cases were reported in 2019. Around 06-07 cases are reported per day. Around 2-3 deaths occur per day. Commonest cancer among males. 8th commonest cancer among females. Male to Female ratio is = 4:1. About 60% of OC are detected at stage III & IV.



#### Oral cancer A preventable cancer

Oral cancer is a preventable cancer. Most cases are associated with risk habits which can be reduces through promoting healthy lifestyle. On the other hand most cases have a clearly detectable precancerous stage namely Oral Potentially Malignant Disorders (OPMD) which can be detected early.

### Risk factors for oral cancer and Oral Potentially Malignant

**Disorders** (OPMD)

- Higher the frequency/amount of risk habits, greater the risk of oral cancer
- Combined use of risk factors increases the risk for oral cancer

#### Major Modifiable risk factors (>90% of OC)

1. Use of Tobacco

Smokeless tobacco

- o Betel chewing
- o Tobacco chewing

Tobacco smoking

2. Use of Areca-nut

With betel quid

Commercial areca-nut preparations

3. Alcohol consumption

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#### Risk factors for oral cancer and Oral Potentially Malignant Disorders (OPMD)

Ask the audience to list the common risk factors of oral cancer. Highlight that these risk factors are preventable

Major Modifiable risk factors (>90% of OC)

- Use of Tobacco
  - oSmokeless tobacco
  - Betel chewing
  - Tobacco chewing and other commercially prepared products.
  - o Tobacco smoking
- Use of Areca-nut
  - oWith betel quid
  - oCommercial areca-nut preparations
- Alcohol consumption

#### Slide 06

Slide 05

#### Risk factors for oral cancer and OPMD

#### Other modifiable risk factors

- 4.Infections (HPV 16 & 18, HIV, some candida species)
- 5.Poor nutrition ( Iron deficiency, Vitamin A, C ,high fat diet )
- 6.Exposure to UV light (not common in SL)
- 7.Poor oral hygiene
- 8. Chronic irritation

#### Non modifiable risk factors

- 9. Age
- 10 Ethnicity

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#### Risk factors for oral cancer and OPMD

Other modifiable risk factors

- Infections (HPV 16 & 18, HIV, some candida species)
- Poor nutrition (Iron deficiency, Vitamin A & C, high fat diet)
- Exposure to UV light (not common in SL)
- Poor oral hygiene
- Chronic irritation

Non modifiable risk factors

- Age
- Ethnicity

#### Slide 07

### Oral Potentially Malignant Disorders (OPMD)

A lesion or condition that has the risk of malignancy being present, either at the time of initial diagnosis or at a future date.

- Prevalence in Sri Lanka: approx. 2%.
- Prevalence is higher in People with risk habits
- Only a certain percentage of OPMD's undergo malignant transformation
- Early identification and proper management prevent malignant transformation of most OPMDs

National cancer Control Programme

#### Oral Potentially Malignant Disorders (OPMD)

Oral Potentially Malignant Disorders (OPMD) includes a group of conditions which affect the oral cavity. These conditions have an increased risk of transforming into a malignancy compared to healthy mucosa. Malignant transformation of most OPMDs can be prevented by early identification and proper management.

#### Slide 08

### Oral Potentially Malignant Disorders (OPMD)

Usually symptomless, can only be identified through visual examination and palpation

#### How do they present in the mouth

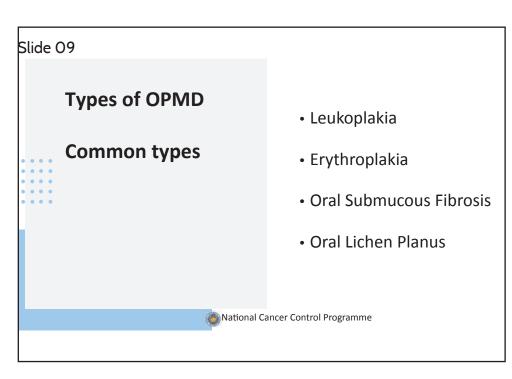
- Colour variations White, Red, and Mixed white and red patches
- Surface changes Plaques, smooth, corrugated, verrucous, granular, atrophic
- In variable sizes
- Can involve any anatomical site in the oral cavity
- May be uni- or multifocal

Malignant transformation depend on the type of lesion, site, intensity of risk habits etc.

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#### **Oral Potentially Malignant Disorders**

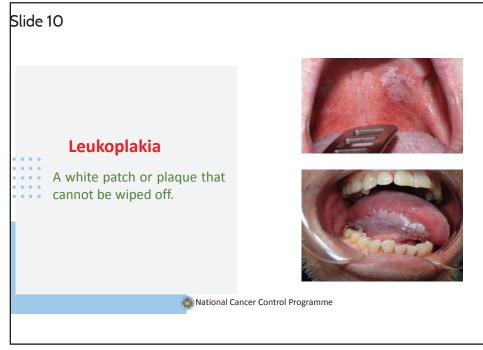
Usually symptomless, can only be identified through visual examination and palpation. They can be presented as White, Red, and Mixed white and red patches. OPMDs can be identified with type of topographic features appear plaques, smooth, corrugated, verrucous, granular or atrophic. They can be in variable sizes and can involve any anatomical site in the oral cavity. There may be single or multiple lesions. Malignant transformation of these lesions depend on the type of lesion, site, intensity of risk habits etc



#### Types of OPMD

There are several types of OPMDs.

- Leukoplakia
- Erythroplakia
- Oral Submucous Fibrosis
- Oral Lichen Planus



#### Leukoplakia

Leukoplakia is the most common OPMD compared to other conditions which is a persistent white patch in the buccal mucosa or any other area of the mouth. It occurs usually adjacent to the place where betel quid is kept. It is unable to remove by rubbing. Surface of the lesion could be smooth and homogeneous, fissured, corrugated, verrucoid, nodular or specked

#### Slide 11

#### Erythroplakia

A bright red velvety plaque or patch that cannot be characterised by clinically or pathologically as any other condition.

High chance of malignant transformation





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#### **Erythroplakia**

Erythroplakia appeared as a red velvety patch or plaque which is not associated with trauma or inflammation. May present with or without leukoplakia which has a higher probability of transforming to a malignancy compared to other types of OPMD

#### Slide 12

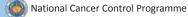
#### **Oral Lichen Planus**

A chronic inflammatory condition affecting mucous membranes that have a tendency to undergo malignant transformation.

Types – Reticular, plaque, erosive, atrophic, bullous etc.







#### **Oral Lichen Planus**

A chronic inflammatory condition affecting mucous membranes that have a tendency to undergo malignant transformation.

Types - Reticular, plaque, erosive, atrophic, bullous etc.

#### Slide 13

#### Oral Sub-mucous Fibrosis (OSF)



A chronic debilitating disease of the oral cavity characterized by inflammation and progressive fibrosis of the sub-mucosal tissues

- Occurs due to use of areca-nut
- Increasing prevalence over last two decades
- High potential for malignant transformation
- Progression can be prevented by detecting at vary early stages
- Late stage detection cannot be reversed even with treatment

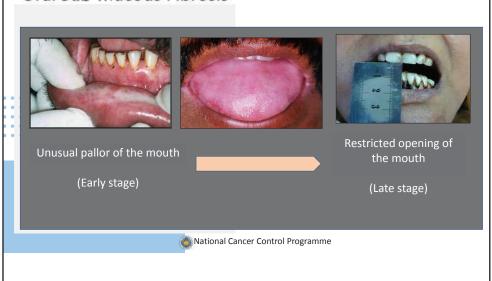
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#### Oral submucous fibrosis (OSF)

Oral submucous fibrosis (OSF) is characterized by reduce mouth opening, burning sensation, difficulty (Limited) in opening mouth. Whitish appearance due to the presence of non-elastic fibrous bands. May be having dysphagia too and has high potential for malignant transformation. At late stages it can not be reversed even with treatment.

#### Slide 14

#### **Oral Sub-mucous Fibrosis**



#### **Oral Sub-mucous Fibrosis**

Let audience to identify the clinical features.

# Slide 15 Burning sensation on eating spicy food Blanching of the mucosa Leathery appearance Recurrent ulceration Taste disturbances Widespread whiteness - particularly vermillion border \*\*Commonly misdiagnosed as anaemia.

#### Symptoms and signs of Oral sub mucous fibrosis at early stages

- · Burning sensation on eating spicy food
- Blanching of the mucosa
- Leathery appearance
- · Recurrent ulceration
- Taste disturbances
- Widespread whiteness particularly vermillion border

This can be commonly misdiagnosed as anaemia.

#### Slide 16

Symptoms and signs of Oral sub mucous fibrosis

Late stages

- Palpable fibrous bands in lips, cheek.
- De-papillation of the tongue and restricted movements. Difficulty in swallowing
- Tightness of lips with lack of elasticity/ inability to blow or whistle
- Restricted mouth opening. (less than 3 fingers / < 40mm)</li>



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#### Symptoms and signs of Oral sub mucous fibrosis at late stages

- Palpable fibrous bands in lips, cheek.
- De-papillation of the tongue and restricted movements.
   Difficulty in swallowing
- Tightness of lips with lack of elasticity/ inability to blow or whistle
- Restricted mouth opening. (less than 3 fingers / < 40mm)

#### Slide 17

#### OPMD/Oral Cancer detection Important things to remember

- Most lesions are small and faintly visible
- Requires:
  - Systematic examination inspection and palpation
  - Need to retract lips, cheek and tongue to see all parts of the mouth
  - Good illumination
  - Trained examiner

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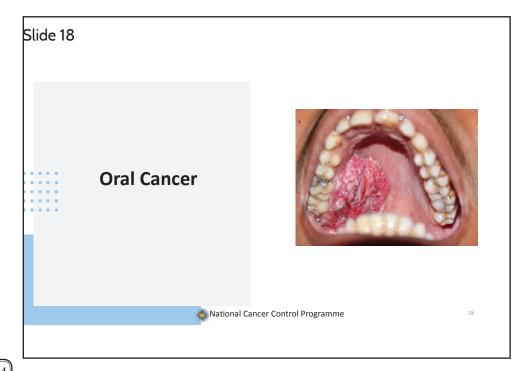


#### OPMD/Oral Cancer detection Important things to remember

Important things to remember OPMD detection

Most lesions are small and faintly visible. Therefore following requirements should be available to diagnose OPMD properly (Let participants to observe and identify lesions)

- Systematic examination
- Good illumination
- Trained examiner
- Need to retract lips, cheek and tongue to see all parts of the mouth



#### **Oral Cancer**

Explain that if the above premalignant lesions were missed or ignored they can be transformed in to a cancer.

#### Slide 19

#### Symptoms of oral cancer

- Non healing ulcer for more than 2 weeks
- Unexplained persistent lump/growth in the mouth
- Unusual mobility of the teeth
- Difficulty in swallowing, chewing, or moving tongue
- Persistent feeling that something is caught in the mouth/throat
- Numbness of the tongue or other areas of the mouth



#### Symptoms of oral cancer

Discuss the important clinical features of oral cancer. Highlight that we should not wait till these sings to appear.

- · Non healing ulcer for more than 2 weeks
- Unexplained persistent lump/growth in the mouth
- Unusual mobility of the teeth
- Difficulty in swallowing, chewing, or moving tongue
- Persistent feeling that something is caught in the mouth/ throat
- · Numbness of the tongue or other areas of the mouth

#### Slide 20

#### Symptoms of oral cancer cont..





- Unhealed tooth extraction site for more than a month
- Chronic swelling of the lymph nodes/lump in the neck
- Voice changes in recent onset
- ❖ Trismus/difficulty in mouth opening

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#### Symptoms of oral cancer cont..

#### Other symptoms

- · Unhealed tooth extraction site for more than a month
- Chronic swelling of the lymph nodes/lump in the neck
- · Voice changes in recent onset
- · Trismus/difficulty in mouth opening

#### Slide 21 1. Risk factor control ★ Enact regulations on risk factors ★ Community awareness Prevention and control ★ Screening people for risk factors and counselling of OPMD and OC 2. Early detection of OPMD and oral cancer ★ Self-mouth examination ★ Opportunistic screening of patients ★ Population-based screening ★ Targeted screening of high risk groups Treatment of OPMD & oral cancer including palliative care National cancer Control Programme

#### Prevention and control of OPMD and OC

Prevention and control of OPMD and OC consist of several strategies

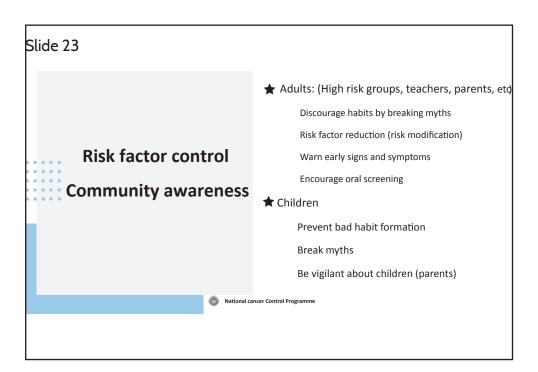
- Risk factor control
  - o Enact regulations on risk factors
  - o Community awareness
  - o Screening people for risk factors and counselling
- Early detection of OPMD and oral cancer
  - o Self-mouth examination
  - oOpportunistic screening of patients
  - o Population-based screening
  - o Targeted screening of high risk groups
- Treatment of oral cancer including palliative care

#### Slide 22 NATA Act 2006 - tobacco and alcohol regulations Risk factor control Ban on smokeless tobacco products (Manufacture, import, sell) Gazette Extraordinary No.1982/33 dated 01/09/2016 **Enact regulations on** Ban on spitting on public roads. Section 73(3) of the National thorough fares act of the Road Act (number 40 of 2008) risk factors (tobacco and alcohol) Ban on the use of betel and tobacco and areca nut products in healthcare facilities. General Circular No.01-14/2018 dated 20.03.2018 Ministry of Health Ban on the use of betel, tobacco and areca nut products in State Institutions. Public Administration circular No. 11/2019 dated 06/05/2019 National cancer Control Programme

#### Enact regulations on risk factors (tobacco and alcohol)

Enactment of regulations on tobacco and alcohol is a one strategy for risk factor control. Primary health care staff should have a clear awareness about these acts and regulations.

- NATA Act 2006 tobacco and alcohol regulations.
- Ban on smokeless tobacco products Manufacture, import, sell) Gazette
   Extraordinary No.1982/33 dated O1/O9/2016
- Ban on spitting on public roads. Section 73(3) of the National thorough fares act of the Road Act (number 40 of 2008)
- Ban on the use of betel and tobacco and areca nut products in healthcare facilities. General Circular No.01-14/2018 dated 20.03.2018 Ministry of Health
- Ban on the use of betel, tobacco and areca nut products in State Institutions. Public Administration circular No. 11/2019 dated 06/05/2019



#### Community awareness

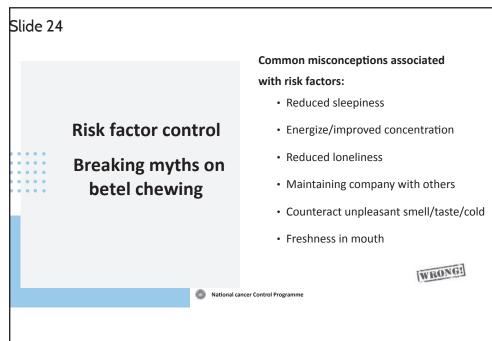
Community awareness is the other strategy for risk reduction. Following factors should be considered when planning such interventions

Adults: (High risk groups, teachers, parents, etc)

- · Discourage habits by breaking myths
- Risk factor reduction (risk modification)
- Warn early signs and symptoms
- Encourage oral screening

#### Children

- Prevent bad habit formation
- Break myths
- Be vigilant about children (parents)



#### Breaking myths on betel chewing

When addressing smoking and betel chewing following myths should be addressed properly.

Some have wrong beliefs that these products can

- Reduce Sleepiness
- Energize/improved concentration
- Reduce loneliness
- Maintaining company with others
- Counteract unpleasant smell/taste/cold
- · Freshness in mouth

# To identify risk groups Betel chewers Screening for risk factors and counselling Refer identified risk-people for Risk-factor counselling Oral screening using the referral form Ensure their referrals and follow-up visits

#### Screening for risk factors and counselling

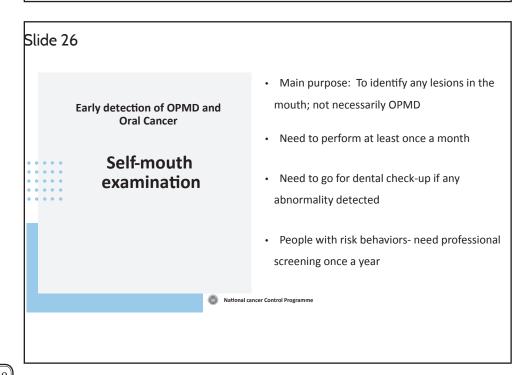
Identification and referring people with risk factors is also important. Identify risk groups

- Betel chewers
- Smokers tobacco and alcohol consumers
- Smokeless tobacco users & areca-nut products users

Refer identified risk-people for

- Risk-factor counselling
- · Oral screening using the referral form

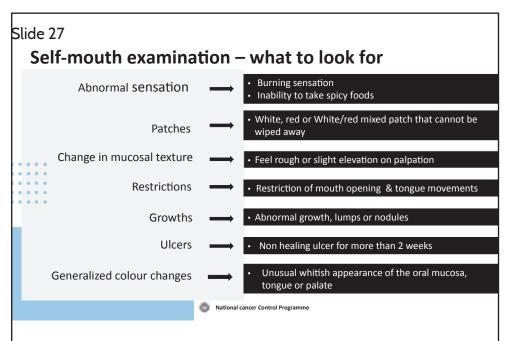
Ensure their referrals and follow-up visits

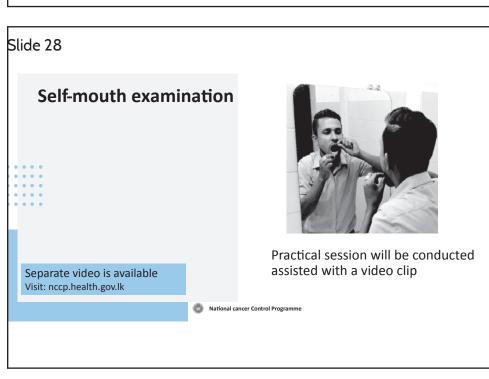


#### Self-mouth examination

Self-mouth examination has been identified as an important strategy for early detection of OPMD and Oral Cancer. Use the video clip on self-mouth examination to demonstrate the procedure.

- Main purpose: To identify any lesions in the mouth; not necessarily OPMD
- Need to perform at least once a month
- Need to go for dental check-up if any abnormality detected
- People with risk behaviors- need professional screening once a year





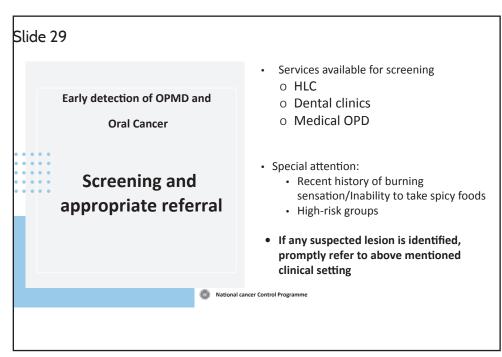
#### Self-mouth examination - what to look for

Highlight following factors to look for when performing Self-mouth examination

- · Abnormal sensation:
  - o Burning sensation
  - o Inability to take spicy foods
- Patches: White, red or White/red mixed patch that cannot be wiped away
- Change in mucosal texture: Feel rough or slight elevation on palpation
- Restrictions: Restriction of mouth opening & tongue movements
- Growths: Abnormal growth, lumps or nodules
- Ulcers: Non healing ulcer for more than 2 weeks
- Generalized colour changes: Unusual whitish appearance of the oral mucosa, tongue or palate

#### Self-mouth examination

Use the video clip on self-mouth examination to demonstrate the procedure, at the end of the presentation.



#### Screening and appropriate referral

Screening for early detection of OPMD and oral cancer is a effective strategy

Services available for screening:-

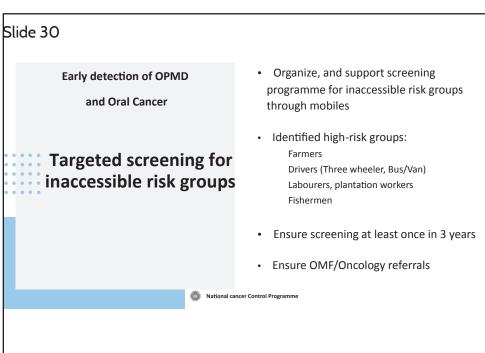
HLC (around 1000 distributed island wide)

**Dental clinics** 

Medical OPD

Special attention should be paid if the client complains about recent history of burning sensation/Inability to take spicy foods and to high-risk groups

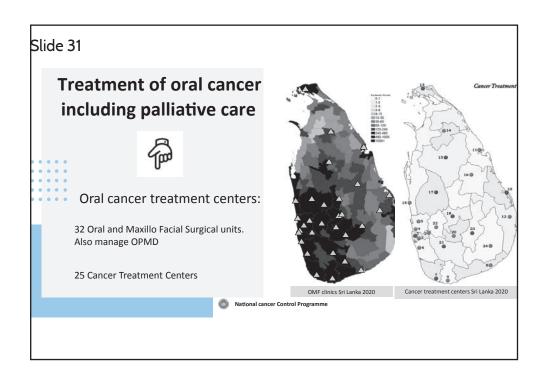
If any suspected lesion is identified, promptly refer to above



#### Targeted screening for inaccessible risk groups

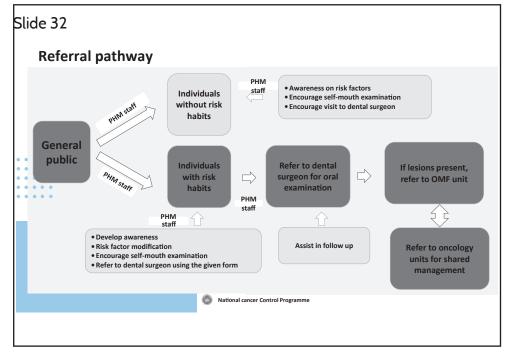
Organize, and support screening programme for inaccessible risk groups through mobiles

- Identified high-risk groups:
  - o Farmers
  - o Drivers (Three-wheeler, Bus/Van)
  - o Labourers, plantation workers
  - o Fishermen
- Ensure screening at least once in 3 years
- Ensure OMF/Oncology referrals if required.



#### Treatment of oral cancer including palliative care

There are number of treatment centers for oral cancer throughout the country. Primary health care staff should be aware about the facilities available in nearest hospitals



#### Referral pathway

Discuss the referral pathway using the diagram. Highlight the places where primary care health staff can interfere

# Slide 33 Promote OC prevention programmes at PHM and PHI level Identify high risk individuals (people with risk factors) for OPMD/OC during field visits and refer them to dental surgeon using the referral form. Educate the public on the importance of habit intervention and self mouth examination Assist in following up of patients diagnosed with oral cancer Follow general circular 54/2018 issued by Ministry of Health for details

#### Role of public health staff

Discuss the following to get a clear idea about the Role of Public health staff on oral cancer prevention and control.

- Promote OC prevention programmes at PHM and PHI level
- Identify high risk individuals (people with risk factors) for OPMD/
   OC during field visits and refer them to DS using the referral form.
- Priority for oral cancer screening to be given from 10.30 a.m. to 11.30 a.m. on week days at dental clinics
- Educate the public on the importance of habit intervention and self mouth examination
- Assist in following up of patients diagnosed with oral cancer
- Follow general circular 54/2018 issued by Ministry of Health for details

#### Self-mouth examination

Checking one's own mouth at least once a month for any abnormalities. Upon suspicion, visiting nearest dental surgeon to undergo clinical oral examination.

#### Areas to check during Self-mouth examination

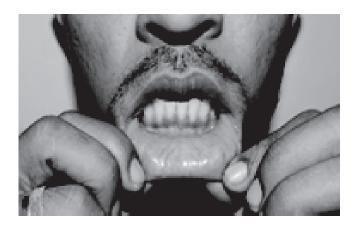
- Upper and lower lip
- Inside the cheek left and right
- Palate and throat
- Tongue surfaces, sides, bottom
- Gum all sides
- The floor of the mouth

#### How should self-mouth examination be conducted?

- Wash your hands thoroughly.
- If dentures are worn, remove dentures or any appliance worn
- Rinse and clean your mouth thoroughly.
- Go in front of a mirror
- Let the light fall well into the mouth
- Open the mouth, retract oral tissues and examine every spot

#### The first step

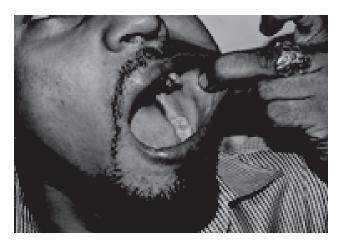
Turn over the upper and lower lips using your fingers and examine the inside and near gums of the lips





#### The second step

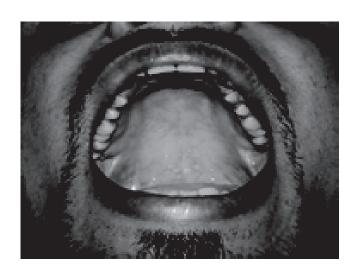
Open the mouth wide retract cheek mucosa and examine the inside of the cheek, the side walls of the mouth and the proximal gums





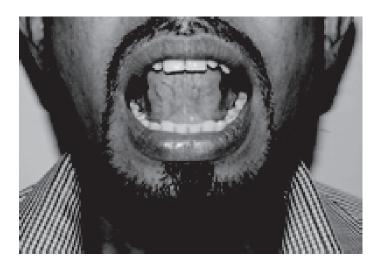
#### The third step

Open your mouth wide and examine palate and throat



#### The fourth step

Turn the tongue up and examine the underside of the tongue, the bottom of the mouth and proximal gums.



#### The fifth step

Hold the tip of the tongue with a sterile piece of gauze or cloth and examine each side (surface, sides and bottom) starting from the tip then moving inwards.





#### **Module 6: Palliative Care**

#### Learning objectives

Define palliative care

Explain the principles of palliative care .

Explain the interdisciplinary team approach in palliative care

Palliative care is an approach that improves the quality of life of patients and their families. It prevents and relieves the suffering by Early identification and impeccable assessment and treatment of pain. Palliative care provides physical, psychosocial and spiritual support. Primary care health staff should have a clear understanding about providing palliative care. NCCP recommends conducting pre and posttests to assess the effectiveness of the programme. Sample test questions have been provided with the other resources or can be downloaded from the NCCP website.



#### Palliative Care in Primary Healthcare

In this module it is expected to discuss about the basic concepts of palliative care.



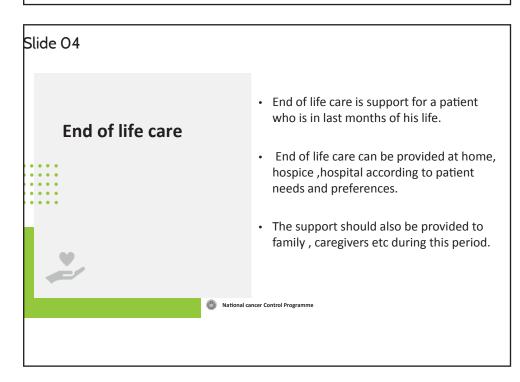
#### What is palliative care?

Palliative care is caring of patients with life-limiting illnesses, relieving their suffering and supporting them and their families. It provides comfort rather than cure with a multidisplinary team approach with a aim of not adding days to life but adds a comfortable life to the days.

Word Health Organization defines palliative care as "an approach that improves the quality of life of patients and their families facing the problems associated with life threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual"

#### Slide 03 • There is a misconception that palliative care is only for caring someone in the last few days of his life. Palliative care is about relieving suffering Are palliative care and and improving quality of life right from the end of life care same? time when a person is diagnosed that he has a life-threatening illness. • The aim of palliative care is not to lengthen – or shorten – life but to improve quality of life so that the time remaining, be it days, or months, or years, can be as peaceful and fruitful as possible. National cancer Control Programme

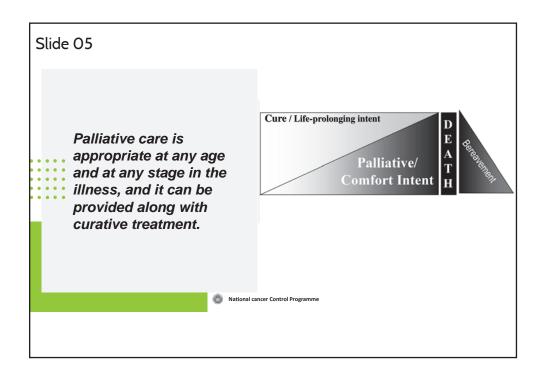
## Are palliative care and end of life care same? There is a misconception that palliative care is only for caring someone in the last few days of his life. Palliative care is about relieving suffering and improving quality of life right from the time when a person is diagnosed that he has a life-threatening illness. The aim of palliative care is not to lengthen – or shorten – life but to improve quality of life so that the time remaining, be it days, or



#### End of life care

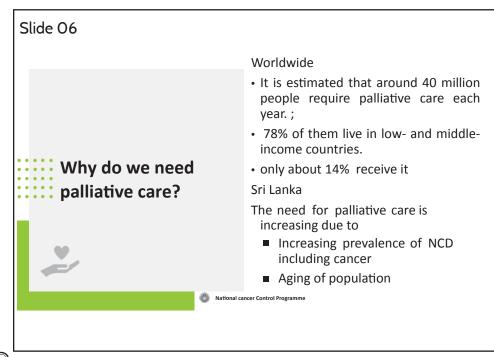
End of life care is support for a patient who is in last months of his life. It should be provided according to patient wishes and preferences and need to plan the care according to those. End of life care can be provided at home, hospice ,hospital according to patient needs and preferences. It should help the patient die with dignity- and peacefully. The support should also be provided to family c, caregivers etc during this period.

months, or years, can be as peaceful and fruitful as possible.



Palliative care is appropriate at any age and at any stage in the illness, and it can be provided along with curative treatment.

Palliative care begins at the point of diagnosis, continuous throughout the rest of patient journey /and extends beyond death into bereavement care.



#### Why do we need palliative care?

It is estimated that worldwide around 40 million people require palliative care each year.; 78% of them people live in low- and middle-income countries. Worldwide, only about 14% of people who need palliative care currently receive it.

The need of palliative care in Sri Lanka also continues to grow due to increasing prevalence of non communicable diseases and ageing population. Data shows that about 75% deaths occurred due to chronic non communicable diseases.

#### Slide 07 Disease among adults Diseases among children Cardiovascular diseases Congenital anomalies Cancer Neonatal conditions Chronic respiratory diseases Protein energy malnutrition Who needs palliative (severe) AIDS Meningitis care? Diabetes HIV/AIDS Chronic kidney disease Cardio vascular diseases Chronic liver disease Endocrine, blood and immune disorders (5.8%) Cancer (5.6%) Dementia Chronic neurological Neurological conditions diseases Congenital anomalies Kidney diseases Drug resistant tuberculosis Cirrhosis of the liver National cancer Control Programme

#### Slide 08 Four domains: Physical – symptoms (complaints), eg pain, breathlessness, tiredness, What is holistic vomiting, wounds etc approach in palliative Psychological – worries, fears, sadness, anger .suicidal ideations care? Social – needs of the family, needs of children, issues related to work, housing, finance and relationships Spiritual – questions of the meaning of life and death, the need to be at peace. National cancer Control Programme

#### Who needs palliative care?

Palliative care can help patients with many different life threatning illnesses: eg: cancer, heart failure, end-stage lung disease, renal failure, liver failure, progressive neurological illness, dementia, end stage diabetes, other life-limiting illnesses

#### What is holistic approach in palliative care?

Need to address all these issues that we are helping the whole person. This is called holistic care

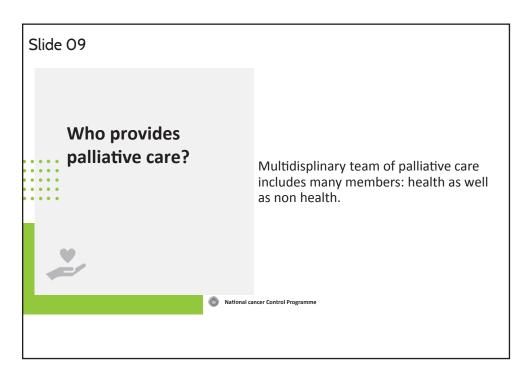
The holistic approach addresses problems in four domains:

Physical - symptoms (complaints), eg pain, breathlessness, tiredness, vomiting etc

Psychological - worries, fears, sadness, anger, suicidal ideations

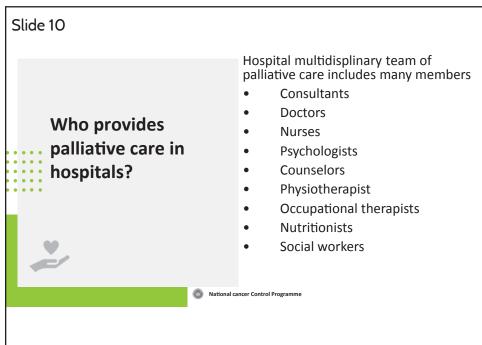
Social - needs of the family, needs of children, issues related to work, housing, finance and relationships

Spiritual - questions of the meaning of life and death, the need to be at peace.



#### Who provides palliative care?

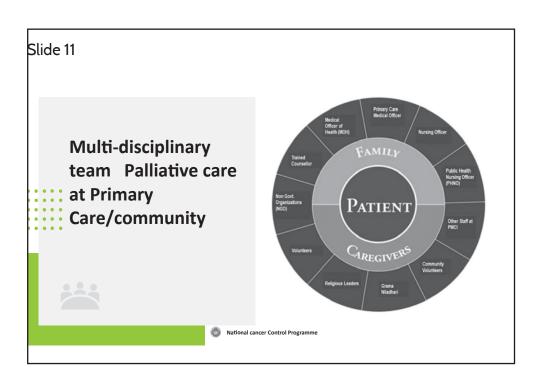
Multidisplinary team of palliative care includes many members: health as well as non health.



#### Who provides palliative care in hospitals?

Multispinary team in the hospital includes,

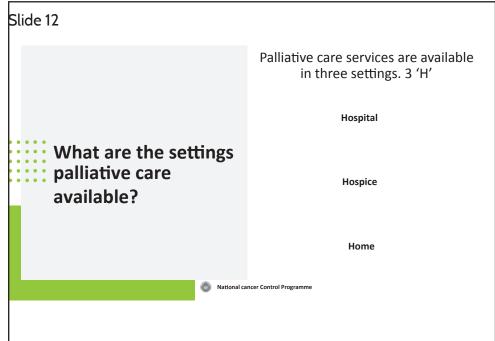
- Consultants
- Doctors
- Nurses
- Psychologists
- Counselors
- Physiotherapist
- Occupational therapists
- Nutritionists
- Social workers



#### Multi-disciplinary team Palliative care at Primary Care/community

Multispinary team in primary care /community includes

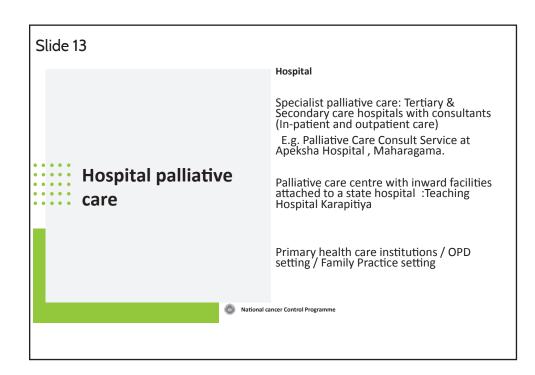
The contribution of community palliative care services in coordination with primary and specialist care service providers is essential as the majority of palliative patients live the balance period of their life at their home . It should be provided with a multidiplinary approach: e.g. officials attached to divisional secretariat office , community-based organizations, religious leaders etc.



#### What are the settings palliative care available?

Palliative care services are available in three settings. 3 'H' -

- (1) Hospital
- (2) Hospice
- (3) Home



#### Hospital palliative care

**Availability of Palliative Care Services** 

**Hospital Care-**

Specialist care is provided at major hospitals: treating specialist unit or through multidisplinary approach . E.g. Palliative Care Consult Service at Apeksha Hospital , Maharagama. First palliative care centre with inward facilities attached to a state hospital was established at Teaching Hospital Karapitiya in 2020. At Primary Healthcare level, services are provided by health care teams at primary healthcare hospitals, General Practitioners.



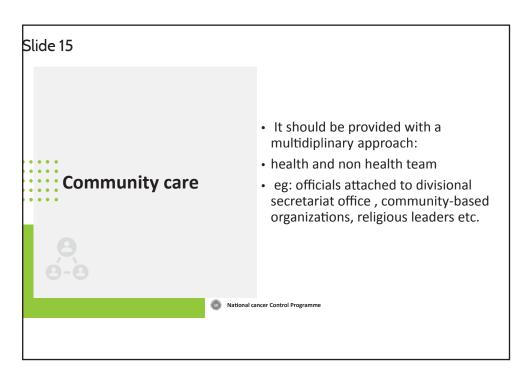
#### **Hospice care**

Hospice care provides for people in the last phases of incurable disease so that they may live as fully and comfortably as possible

| Organization                | Institute                     | Contact No   |
|-----------------------------|-------------------------------|--------------|
| Sri Lanka Cancer Society    | Shantha Sevana Hospice        | 011- 2585879 |
|                             | Care- Maharagama              | 011- 2840312 |
| Cancer Care Association     | Hospice at Kurundankulama,    | 025-3243077  |
| Sri Lanka                   | Anuradhapura                  |              |
|                             | Hospice at Matara             | 041- 2226766 |
| Sathya Sai Association      | Sathya Sai Cancer Hospice,    | 036- 2254902 |
|                             | Hanwella                      |              |
| Cancer Aid for North and    | Hospice at Chunnakum,         | 021- 2240258 |
| East Sri Lanka [CANE]       | Jaffna                        |              |
| Eastern Cancer Care         | Hospice at Eravur, Batticaloa | 076- 0582248 |
| Hospice [EASCCA]            |                               |              |
| Palliative Care Association | Sahana Sevana,                | 077- 3355187 |
|                             | Abagahapura, Maharagama       |              |

#### Hospice care

Hospice is a dedicated institute where supportive care is provided for the patients' emotional, social, and spiritual needs in addition to the care for the remaining physical symptoms following active disease specific treatment by an interdisplinary team. There are seven hospices in Sri Lanka . These hospice services are provided by Non Governmental Organizations. The services are free of charge



#### Community care

The contribution of community palliative care services in coordination with primary and specialist care service providers is essential as the majority of palliative patients live the balance period of their life at their home. It should be provided with a multidiplinary approach: e.g. officials attached to divisional secretariat office, community-based organizations, religious leaders etc.



#### Home based care

#### Care at home:

A caregiver is a person who is caring for a palliative patient and helps to improve the patient's wellbeing. Caregiver can be a paid carer, family member or volunteer carer. Caring for a palliative patient is a demanding work, and caregiving without adequate knowledge, skills, support and self-care can cause harm to the patient

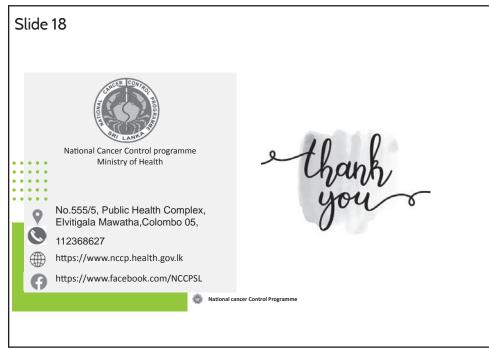
Home based care is supported by trained community healthcare workers or volunteers .Public Health Nursing Officer (PHNO) who is attached to primary health care hospitals, is responsible in home visits and assess palliative care needs at the home setting.



#### palliative care

It is a right of every person with life-threatening illness to receive appropriate palliative care

A responsibility of every health care professional to practice palliative care according to the need of the patient.



#### Cancer Prevention & Early Detection Unit The National Cancer Control Programme Ministry of Health

No. 555/5, Elvitigala Mawatha, Narahenpita, Colombo 05. https://www.nccp.health.gov.lk/ Tel: 011 2368627 ISBN: 978-624-5719-29-7