**Tutorial: NCDs (student’s sheet)**

**Theme: Cancers**

***Question 1:***

**Compare communicable diseases to non-communicable diseases, in terms of age groups, natural history of disease, socioeconomic determinants and prevention measures.**

|  |  |  |
| --- | --- | --- |
|  | **Communicable** | **Non-communicable** |
| Age group at risk |  |  |
| Natural history of disease |  |  |
| Prevention |  |  |
| Socioeconomic determinants |  |  |

***Question 2:***

**A patient came to your clinic complaining of painless breast lump. After examination and investigations she was diagnosed to have breast cancer. What are the different risk factors for cancer in general and in this specific case (modifiable, non-modifiable, cultural, political and environmental)?**

**Question 3:**

**You are working in the Ministry of Health and would like to plan and prevention and control program to address the rising prevalence of Cancers in KSA. With regards to the framework of NCD prevention, how would you like to proceed?**

**Question 4:**

**Discuss the strategies/programs in place for tobacco cessation that are currently available in the region. What others methods of prevention do you suggest?**

**Key : (Facilitator’s guide)**

**Theme: Cancers**

***Question 1:***

**Compare communicable diseases to non-communicable diseases, in terms of age groups, natural history of disease, socioeconomic determinants and prevention measures.**

|  |  |  |
| --- | --- | --- |
|  | **Communicable** | **Non-communicable** |
| Age group at risk | Children and reproductive age groups | All age groups (obesity can affect children, cancers, injuries) |
| Natural history of disease | Incubation period : time from exposure to infectious agent to appearance of symptoms | Latency period: time from exposure to risk factor till disease development |
| Prevention | **Primary prevention:**  High risk strategy: vaccination, education about avoiding exposure.  **Secondary prevention:**  Early detection of disease, surveillance and appropriate treatment.  Tertiary | **Primary prevention:**  High risk strategy: smoking, obesity, family history  Population strategy: education, lifestyle changes, promoting healthy behavior.  **Secondary prevention:**  Early detection and treatment, screening programs for cancers and other NCDs.  **Tertiary prevention:**  Rehabilitation and improving quality of life. |
| Socioeconomic determinants | All socioeconomic levels, but different diseases (malaria, gastroenteritis, HIV) | All socioeconomic levels, but different diseases (Obesity, CHD, HTN, DM, Cancers) |

***Question 2:***

**A patient came to your clinic complaining of painless breast lump. After examination and investigations she was diagnosed to have breast cancer. What are the different risk factors for cancer in general and in this specific case (modifiable, non-modifiable, cultural, political and environmental)?**

***Cancer Risk factors in general:***

*Modifiable causes:*

Tobacco, some [viruses](http://www.cancer.gov/dictionary?expand=v#virus) and [bacteria](http://www.cancer.gov/dictionary?expand=b#bacteria), alcohol, poor diet, lack of physical activity, or being overweight

*Non-modifiable:*

Older age ,family history of some kinds of cancer (breast, colon)

*Environmental, political and cultural causes:*

Exposure to sunlight, ionizing radiation, certain chemicals and other substances

***Breast cancer risk factors:***

*Modifiable causes:*

Nuliparity or having the first child at older age, some hormonal therapy, obesity or being overweight, physical inactivity, breast radiation, alcohol consumption, breast feeding (protective).

*Non-modifiable:*

Older age, being a female, gene mutation, Family history of breast cancer, personal history of breast cancer or some benign lesions in the breast.

*Environmental, political and cultural causes*

Exposure to some carcinogens in (plastics, personal care products….) 🡨 debatable

**Question 3:**

**You are working in the Ministry of Health and would like to plan and prevention and control program to address the rising prevalence of Cancers in KSA. With regards to the framework of NCD prevention, how would you like to proceed?**

**Primary prevention measures:**

1- Population strategy:

* + Mass education of population regarding ( complications of tobacco use, healthy life habits, importance of exercise….etc)
  + using different methods for mass education (media: TV, newspapers, magazines; radio; schools; lectures and seminars in public places; publications: books, brochures)

2- High risk strategy:

* + Measures directed towards those who have family members who smoke (education, healthy life style)
  + Intervention in colleges and schools, Universities
  + Screening programs such offering pap smears to those with a family history of cervical cancers. Mammograms to those with a family history of breast cancers. PSA (prostrate specific antigen) for males with a family history of prostrate cancer.
  + Screening and monitoring of factory, radiologists who are at risk on cancers

**Secondary prevention measures:**

* + Measures directed towards those who smoke (education, healthy life style)
  + Education on smoking cessation strategies

**Question 4:**

**Discuss the strategies/programs in place for tobacco cessation that are currently available in the region. What others methods of prevention do you suggest?**

**Key:** Talk about availability of cigarettes, manufacturing industries, legislations, people’s acceptance to accept it as a taboo, organizations which are working to decrease the prevalence of smokers. ect….

MOH / social cervices Website ect….

Screening facilities in the kingdom and acceptability by the community.

Awareness campaigns in hospitals and schools/universities by breast cancer society.