HEALTH PROBLEM RELATED TO NUTRITION AND ENVIRONMENT

BY:

SHAMSUL AZAHARI ZAINAL BADARI
DEPARTMENT OF RESOURCES MANAGEMENT AND CONSUMER STUDIES
FACULTY OF HUMAN ECOLOGY
UPM
NON-COMMUNICABLE AND COMMUNICABLE DISEASES

• NON-COMMUNICABLE/CHRONIC DISEASES
  # They are degenerative because they cause progressive destruction of human tissue.
  # Have poorly defined beginning.
  # Causes are unclear, often develop over a long time.
  # Reduce body’s function for a long time
  # Treatment is costly: require long-term care.
  # Cardiovascular disease, diabetes mellitus, hypertension, cancer.
COMMUNICABLE DISEASES / INFECTIOUS DISEASES

# Can avoid the transmission by:
& understanding their modes of transmission
& controlling the causative agents in the environment

# Cholera, typhoid, food borne illness, zoonosis diseases.
WAYS OF SPREADING DISEASES

• There are few ways of spreading infectious diseases:

♣ Diseases that are spread by human wastage system (faeces and urine)
  • Typhoid fever, paratyphoid fever, cholera, polio, hepatitis A.

♣ Diseases that are spread through breathing channels and mouth (sneezing and mucus):
  • Tuberculosis, diphtheria, measles, scarlet fever, coughs, smallpox, pneumonia, influenza and so on.

♣ Diseases caused by animals:
  • rabies, brucellosis, bovine tuberculosis, anthrax, leptospirosis, salmonellosis
Diseases caused by animals:
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Diseases caused by insects: typhus fever, dengue fever, malaria.

- Animals can also transmit diseases to humans.
  - It is also known as **zoonosis** (an animal disease that can infect humans).
FOMITE

- **Fomite** is any objects that prepares a place for disease causing agents to rest/settle for a while.

  ♣ Example, people always bite on pencil or pen. By shifting this instrument from one individual to another would also enable the shifting of the disease agent like tuberculosis (dry cough).

  ♣ Examples of normal fomite are money, papers, door knob, and more.
## Comparing Chronic and Infectious Disease

<table>
<thead>
<tr>
<th></th>
<th>Chronic Diseases</th>
<th>Infectious Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Causes</strong></td>
<td>Often lifestyle or environmentally related</td>
<td>Exposure to a biologic agent</td>
</tr>
<tr>
<td><strong>Timeline</strong></td>
<td>Slow, long-lasting</td>
<td>Usually acute; sudden onset</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>Often no recovery, degeneration</td>
<td>Relatively rapid recovery in most cases</td>
</tr>
</tbody>
</table>
CANCER

• What is cancer?
  # A group of conditions that result from the uncontrolled growth of abnormal cells.

• What causes cancer?
  # Very difficult to explain.
  # 90% of all cancer are related to environmental factors.
  # genetic factors toward cancer.
  # 35% of cancer related to dietary intake
    ^ Body fat, dietary fat – increase risk.
    ^ Fruits, vegetables, whole grains – decrease risk.
    ^ Alcohol intake – increase risk.
    ^ Smoked, pickled foods - increase risk.
    ^ Grilled foods – increase risk.
CANCER

- Unwanted tissues would be formed tumour.
- Tumour can be classified to two:
  ♣ **benign**: non-cancerous growth
  ♣ **Malignant**: type of cancer. Cancer cells can attack and destroy tissues and organs nearest to the tumour

- Four types of treatment:
  ♣ **Surgery** - carried out to eliminate cancer cells on parts that are being attacked.
  ♣ **Radiotherapy** - Utilizes the method of high radiation beam to destroy the cancer cells and stopping these cells from expanding.
CANCER

• **Chemotherapy** - This treatment would use medicines to remove the cancer cells.
  ♣ Doctors use one type of medicine or combination of few types.

• **Biological Therapy** - This treatment utilizes chemical compounds to repair body’s immune system to counteract with the disease.
  ♣ being used on cancer cells that already attacked other parts of the body. Treatment would be combined with chemotherapy
DIABETES MELLITUS

• Related to high blood glucose and either insufficient or ineffective insulin hormone

• Type of Diabetes Mellitus
  ❑ Type 1 diabetes
  ❑ Type 2 diabetes
COMPARING TYPE 1 AND TYPE 2 DIABETES

**Type 1 diabetes**
- Insulin-dependent diabetes mellitus (IDDM)
- Juvenile-onset diabetes
- Associated with: Viral infection, heredity
- Mean age onset: 12
- Prevalence: 5 to 10%

**Type 2 diabetes**
- Noninsulin-dependent diabetes mellitus (NIDDM)
- Adult-onset diabetes
- Associated with: obesity, heredity, aging
- Mean age onset: >40
- Prevalence: 90 to 95%
HYPERTENSION

• Related to high blood pressure
  • Systolic /diastolic : 120/80 mmHg – normal

• Risk Factors for Hypertension
  • Smoking
  • High blood lipid
  • Diabetes
  • Age
  • Heredity
  • Obesity
  • Race
CARDIOVASCULAR DISEASE (CVD)

• Related to diseases of heart and blood vessels.
  • CVD is leading single cause of death
  • Coronary heart disease (CHD) the most common form of cardiovascular disease

• Major Risk Factors of CVD
  • High blood cholesterol
  • Hypertension
  • Diabetes
  • Obesity
  • Physical inactivity
  • Smoking
THANKS YOU....