HEALTH PROBLEM RELATED TO NUTRITION AND ENVIRONMENT

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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 / INFECTIONOUS 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:

• rabies, *brucellosis*, bovine tuberculosis, anthrax, *leptospirosis*, *salmonellosis*

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

<table>
<thead>
<tr>
<th>Type 1 diabetes</th>
<th>Type 2 diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Insulin-dependent diabetes mellitus (IDDM)</td>
<td>• Noninsulin-dependent diabetes mellitus (NIDDM)</td>
</tr>
<tr>
<td>• Juvenile-onset diabetes</td>
<td>• Adult-onset diabetes</td>
</tr>
<tr>
<td>• Associated with: Viral infection, heredity</td>
<td>• Associated with: obesity, heredity, aging</td>
</tr>
<tr>
<td>• Mean age onset: 12</td>
<td>• Mean age onset: &gt;40</td>
</tr>
<tr>
<td>• Prevalence: 5 to 10%</td>
<td>• Prevalence: 90 to 95%</td>
</tr>
</tbody>
</table>
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 in activity
  • Smoking
THANKS YOU....