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 / 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:

- 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>
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</tbody>
</table>
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><strong>Type 1 diabetes</strong></th>
<th><strong>Type 2 diabetes</strong></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 inactivity
  - Smoking
THANK YOU....