Objectives of the presentation

• Provide a background for Southeast Asian countries in terms of selected indicators for health and aging

• Compare the Philippine situation vs. that of other countries in the region

I. POPULATION AGING INDICATORS
**Indicator**

- Measurement or value that gives an idea of what something (or situation) is like

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**Aging indicators**

- **Median age** = The age that divides a population into 2 groups of the same size, such that half of the population is younger than this age, and the other half older

- **Percent of population aged 60+ years**

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**Median age (years) in Southeast Asia, 2015**

<table>
<thead>
<tr>
<th>Country</th>
<th>Median Age (y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>24.2</td>
</tr>
<tr>
<td>Thailand</td>
<td>23.9</td>
</tr>
<tr>
<td>Brunei</td>
<td>21.9</td>
</tr>
<tr>
<td>Vietnam</td>
<td>28.5</td>
</tr>
<tr>
<td>Malaysia</td>
<td>28.4</td>
</tr>
<tr>
<td>Indonesia</td>
<td>27.9</td>
</tr>
<tr>
<td>Myanmar</td>
<td>30.4</td>
</tr>
<tr>
<td>Philippines</td>
<td>30.6</td>
</tr>
<tr>
<td>Cambodia</td>
<td>38</td>
</tr>
<tr>
<td>Laos</td>
<td>40</td>
</tr>
</tbody>
</table>


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**Percentage of population aged 60 y or over, 2017**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage of Population Aged 60+ y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>19.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>16.9</td>
</tr>
<tr>
<td>Vietnam</td>
<td>11.1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>9.7</td>
</tr>
<tr>
<td>Myanmar</td>
<td>9.4</td>
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<tr>
<td>Indonesia</td>
<td>8.6</td>
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<td>Brunei</td>
<td>8</td>
</tr>
<tr>
<td>Cambodia</td>
<td>7.6</td>
</tr>
<tr>
<td>Laos PDR</td>
<td>6.3</td>
</tr>
</tbody>
</table>

% of population aged 60 y & over

Summary of aging status in SEA

**Oldest** countries in SEA
- Singapore
- Thailand

**Youngest** countries in SEA
- Laos
- Cambodia
- Philippines

II. HEALTH INDICATORS

Health status indicators
- Life expectancy at birth
- Healthy life expectancy (HALE)
- Mortality between ages 30 and 70 y from cardiovascular diseases (CVD), cancer, diabetes or chronic respiratory diseases
- Selected core health indicators (from WHO 2018 Global Reference List of 100 Core Health Indicators)

**Life expectancy at birth**
- The average number of years that a newborn could expect to live if he or she were to pass through life exposed to the sex- and age-specific death rates prevailing at the time of his or her birth, for a specific year, in a given country

Global average in 2016: 72.0 years

**Healthy life expectancy at birth (HALE)** – indicator of overall health of a population
- the average equivalent number of years of full health that a newborn could expect to live if they were to pass through life subject to age-specific death rates and average age-specific levels of health states for a given period
- Global average in 2016: 63.3 years
LIFE EXPECTANCY AT BIRTH (y) 2016

Source: WHO Global Health Observatory
http://apps.who.int/gho/data/node.main.688?lang=en

HEALTHY LIFE EXPECTANCY AT BIRTH (y), 2016

Source: WHO Global Health Observatory
http://apps.who.int/gho/data/node.main.HALE?lang=en

LIFE EXPECTANCY AT AGE 60 (y) 2016

HEALTHY LIFE EXPECTANCY AT AGE 60 (y), 2016
Mortality between 30 & 70 years of age from cardiovascular disease, cancer, diabetes, or chronic respiratory diseases

- Unconditional probability of dying between the exact ages of 30 and 70 years from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases

Selected Core Health Indicators

% OF NCD DEATHS UNDER AGE 70, 2012

Source: Global status report on NCDs 2014
Age-standardized Death Rates for Cancer per 100,000 (2012)

Men:
- Lao PDR: 174.3
- Vietnam: 163.4
- Myanmar: 132.6
- Thailand: 127.2
- Singapore: 114.2
- Malaysia: 103.8
- Cambodia: 94.1
- Philippines: 105.6

Women:
- Lao PDR: 463.6
- Vietnam: 407.5
- Myanmar: 324.9
- Thailand: 324.9
- Singapore: 262.3
- Malaysia: 232.8
- Cambodia: 215.8
- Philippines: 202.5

Source: Global status report on NCDs 2014

Age-standardized death rates for CVD per 100,000 (2012)

Men:
- Lao PDR: 65.7
- Vietnam: 59.7
- Myanmar: 32.2
- Thailand: 17.2
- Singapore: 3.9

Women:
- Lao PDR: 188.5
- Vietnam: 185.2
- Myanmar: 64.5
- Thailand: 47.4
- Singapore: 25.9

Mortality per 100,000 population due to unsafe water, hygiene, sanitation (WASH), 2016

- Lao PDR: 112.4
- Vietnam: 61.5
- Myanmar: 25.9
- Thailand: 13.3

Source: World Health Statistics 2018
Global action plan for prevention and control of NCDs 2013-2020

- Adopted by the World Health Assembly in 2013
- Consists of a **comprehensive global monitoring framework** with 25 indicators and 9 global targets
  - Identifies **behavioral** and **biological** risk factors (indicators) to monitor progress in reducing NCDs globally

Comprehensive global monitoring framework indicators

**Behavioral risk factors**
- Harmful use of alcohol
- Insufficient physical activity
- Salt/sodium intake
- Tobacco use

**Biological risk factors**
- Raised blood pressure
- Diabetes/raised blood glucose
- Overweight/obesity
- Raised blood lipids

**Box 1.1 Voluntary global targets for prevention and control of noncommunicable diseases to be attained by 2025**

1. A 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases
2. At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context
3. A 10% relative reduction in prevalence of insufficient physical activity
4. A 30% relative reduction in mean population intake of salt/sodium
5. A 30% relative reduction in prevalence of current tobacco use
6. A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances
7. Halt the rise in diabetes and obesity
8. At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes
9. An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities

**Source:** Global status report on NCDs 2014

**Contribution of behavior and metabolic risk factors to CVD**
RAISED BLOOD PRESSURE AMONG ADULTS (%), 2015

Source: Global Nutrition Report 2017

PREVALENCE OF ADULT OVERWEIGHT (BMI ≥25), 2014

Source: Global Nutrition Report 2017

RAISED BLOOD GLUCOSE AMONG ADULTS (%), 2014

Source: Global Nutrition Report 2017

PREVALENCE OF ADULT OBESITY (BMI ≥ 30), 2014

Source: Global Nutrition Report 2017
RAISED BLOOD CHOLESTEROL AMONG ADULTS (%), 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>27</td>
<td>32</td>
</tr>
<tr>
<td>Myanmar</td>
<td>28</td>
<td>33</td>
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<tr>
<td>Lao PDR</td>
<td>29</td>
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<td>Indonesia</td>
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<td>Vietnam</td>
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<td>Philippines</td>
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<td>56</td>
</tr>
<tr>
<td>Singapore</td>
<td>56</td>
<td>59</td>
</tr>
</tbody>
</table>

% with raised blood cholesterol

Source: Global Nutrition Report 2017

Contribution of behavior and metabolic risk factors to CVD

Prevalence of insufficient physical activity in adults age 18+ y, 2010

% adults with insufficient physical activity

Source: WHO status report on NCDs 2014
Age-standardized estimates for Na intake (g/day), 1990 and 2010

Global Burden of Disease Study (GBD)

- Worldwide collaborative effort to measure the impact of health problems on people
- Estimates the burden of premature death and disability in a population caused by more than 300 diseases and injuries in 195 countries
- DALYs (disability-adjusted life years)
  - Measures health loss due to fatal and non-fatal disease burden
  - One DALY = one year of healthy life lost

GBD 2016: Leading causes of DALYs (disability-adjusted life years, Philippines)

1. Ischemic heart disease
2. Lower respiratory infection
3. Stroke
4. Diabetes
5. Low back & neck pain
6. Skin disorders
7. Neonatal preterm birth complications
8. Tuberculosis
9. Congenital birth defects
10. Chronic kidney disease


Leading 10 risk factors in terms of DALYs for both sexes combined, Philippines 2015

1. High systolic blood pressure
2. Smoking
3. High fasting plasma glucose
4. High BMI
5. High total cholesterol
6. Diet low in whole grains
7. Household air pollution from solid fuels
8. Ambient particulate matter pollution
9. Diet high in sodium
10. Diet low in fruit


Summary - Comparison of health status (Philippines vs. SEA countries)

- Low life expectancy at birth (3rd lowest) and at age 60
- Low HALE at birth (4th lowest) and at age 60
- High probability of dying between age 30 and 70 from any of CVD, cancer, diabetes or chronic respiratory diseases (2nd highest)
- Highest % of NCD deaths under age 70
- Highest death rate for CVD (men); 4th highest (women)
- High mortality rate from unsafe water, hygiene, sanitation
- High mortality rate from household and ambient air pollution (2nd highest)

Summary - Comparison of biological risk factors (Philippines vs. SEA countries)

- Middle-ranking compared with other SEA countries
  - > 20% of population with raised blood pressure
  - > 7% with raised blood glucose
  - > 20% overweight
  - > 30% with high blood cholesterol

Summary - Comparison of behavioral risk factors (Philippines vs. SEA countries)

- Middle-ranking compared with other SEA countries
  - High level of smoking (>40%)
  - High level of sodium intake (>4 g)
  - Not very high % with insufficient physical activity
  - Moderate level of alcohol consumption
Overall summary

• Prevalence of behavioral and biological risk factors in Philippines are not as severe as those of other countries but health status indicators are much worse

• WHY???

Future action

• Studies are needed to identify other risk factors and underlying determinants of disease that are specific to the country
  – Results may vary depending on ethnic group, income quintile, geographic location (province, urban/rural)

• Identify/propose country-specific best practices that promote healthy and successful aging (i.e., prevent pathological processes of aging)

ONE ILSI HEALTHY AGING PROJECT

Overall goal: To identify mid-life factors that contribute to healthy vs. pathological ageing

What the One ILSI Healthy Aging Project hopes to achieve

• Investigate reasons for similarities and differences in health and other indicators across SEA

• Examine underlying determinants (i.e., dietary, behavioral, environmental, genetic, etc.) of common risk factors that contribute to disease and disability in the region

• Identify/propose country- and region-specific best practices that promote healthy and successful aging (i.e., prevent pathological processes of aging)
THANK YOU