# ERIA Project on Longitudinal Study of Aging and Health in ASEAN Countries

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Asia Health and Wellbeing Initiatives (AHWIN)
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# Aim of the Project

- Examine well-being of older adults aged 60 and over in two countries of ASEAN:
  - the Philippines and Vietnam (no longitudinal study)
- Focuses on health status including mental health: current health status and correlates, and changes over time if any, and determinants
- Estimate health expectancy
- Examine care needs, economic well-being, etc.

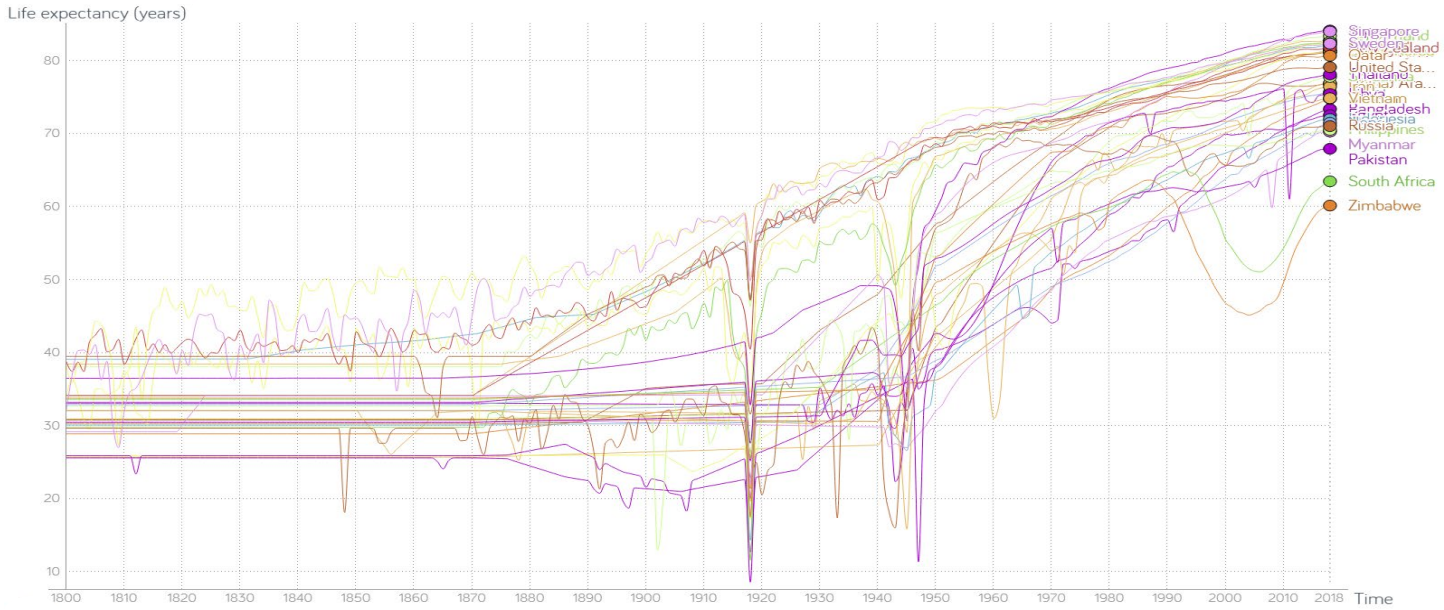
# Key Members of the Project

- Project PI:  Yasuhiko Saito
- Project Co-PI:  Dr. Osuke Komazawa
  - ERIA
- Local PI (Philippines):  Dr. Grace Cruz
  - University of the Philippines Population Institute
  - Ms. Christian Joy P. Cruz
- Local PI (Vietnam):  Dr. Nguyen Cong Vu
  - Institute of Population, Health and Development
  - Ms. Dang Thuy Linh

# Statistics at a glance

| | | Philippines | Vietnam |
|---|---|---|---|
| Population | total | 103 mil | 93 mil |
| | 60+ | 7 mil | 9 mil |
| Proportion of population age 60+ | 2015 | 7.3% | 10.3% |
| | 2030 | 10.3% | 17.5% |
| Life expectancy | at birth | 68.5 | 76.0 |
| | at age 60 | 17.0 | 22.0 |
| GDP per capita | | $8,325 | $5,957 |

# Life expectancy at birth in selected countries over time




- Life expectancy is increasing all over the world, this doesn't mean a healthier population (Crimmins, Hayward, & Saito, 1994; Jagger et al., 2008).
- So, ensuring longer life by reducing mortality at all ages will not ensure SDG 3 (Ensure healthy lives and promote wellbeing for all at all ages)


Crimmins, E. M., Hayward, M. D., & Saito, Y. (1994). Changing mortality and morbidity rates and the health status and life expectancy of the older population. *Demography,* 31(1): 159-175.

Jagger, C., Gillies, C., Moscone, F., Cambois, E., Oyen, H. V., Nusselder, W., Robine, J.-M., & the EHLEIS team (2008). Inequalities in healthy life years in the 25 countries of the European Union in 2005: A cross-national meta-regression analysis. *Lancet,* 372(9656): 2124-2131.

# Health Expectancy

- Summary measures of population health
  - Disability-free life expectancy, Active life expectancy, Healthy life years, Health-adjusted life expectancy, Healthy life expectancy
- Combining information on morbidity and mortality
  - dividing life expectancy into healthy and unhealthy years
- Sanders 1964; Sullivan 1966,1971
- REVES http://reves.site.ined.fr/en/

# Health Expectancy: Definition

Life Expectancy = Healthy Life Expectancy

+ Unhealthy Life Expectancy

(Health Expectancy)

87 Years of Life = 83 Years of Healthy Years

+ 4 Years of Unhealthy Years

4 years of unhealthy years do not mean the last 4 consecutive years of life.

# The World Health Report 1997

## Conquering suffering
## Enriching humanity

Report of the Director-General

World Health Organization
Geneva
1997

# Message from the Director-General

*Increased longevity without quality of life is an empty prize. Health expectancy is more important than life expectancy.*

In today's rapidly changing world, some traditional attitudes towards human health, suffering and disability need to be urgently reviewed.

For example, infectious diseases can no longer be regarded as restricted to developing countries. This is clear from the evidence of their international resurgence and the intercontinental spread of AIDS. Nor can chronic noncommunicable diseases continue to be judged only as problems of the richer nations. They are emerging at an alarming rate in poorer regions, unwelcome additions to the infections which still flourish there.

Until now, the term for this phenomenon – the "double burden" of disease – has usually been applied only to developing countries. But it can no longer be confined to these countries alone; it has expanded into a double threat to global health. In the battle for health in the 21st century, infectious diseases and chronic diseases are twin enemies that have to be fought simultaneously on a global scale.

We dare not turn our back on infectious diseases, for they will return with a vengeance if we do. The lessons of AIDS, tuberculosis, malaria, cholera and *Escherichia coli* food-poisoning outbreaks must not be forgotten. In addition to the many millions of people a year who are killed by infectious diseases, hundreds of millions of others are afflicted by them. This was the theme of *The World Health Report 1996*.

But neither can we ignore the growing burden in suffering and disability represented by noncommunicable diseases and conditions – cancer, circulatory disease, metabolic and hormonal imbalances, mental disorders, musculoskeletal conditions – most of which are chronic; they invariably afflict the sufferer with pain and disability, for years and even decades. This, too, is the plight of hundreds of millions. Confronting these chronic conditions, and the crisis of suffering that goes with them, is the theme of *The World Health Report 1997*.

Health is being increasingly affected by a number of factors over which the individual has little control, and over which the conventional health sector also has little sway: social and economic circumstances, labour-saving technologies, and the information and communication revolutions. People in poorer countries are now acquiring many of the unhealthy lifestyles and behaviours of the industrialized world: sedentary occupations, inadequate physical activity, unsatisfactory diets, tobacco, alcohol and drugs. Populations in richer countries continue to live with all these risks. Problems are aggravated by the international spread of misleading information about consumer products. All these factors together will lead to a global increase in premature ill-health from chronic diseases.

Worldwide, life expectancy has increased dramatically during the last decades of the 20th century. But in celebrating our extra years, we must recognize that increased longevity without quality of life is an empty prize, i.e. *health* expectancy is more important than *life* expectancy.

Unlike many infectious diseases, the majority of chronic diseases are preventable but cannot as yet be cured. The emphasis must therefore be on preventing their onset, delaying their develop-

# Message

Increased longevity without quality of life is an empty prize.  Health expectancy is more important than life expectancy.

# Two Families of Summary Measures

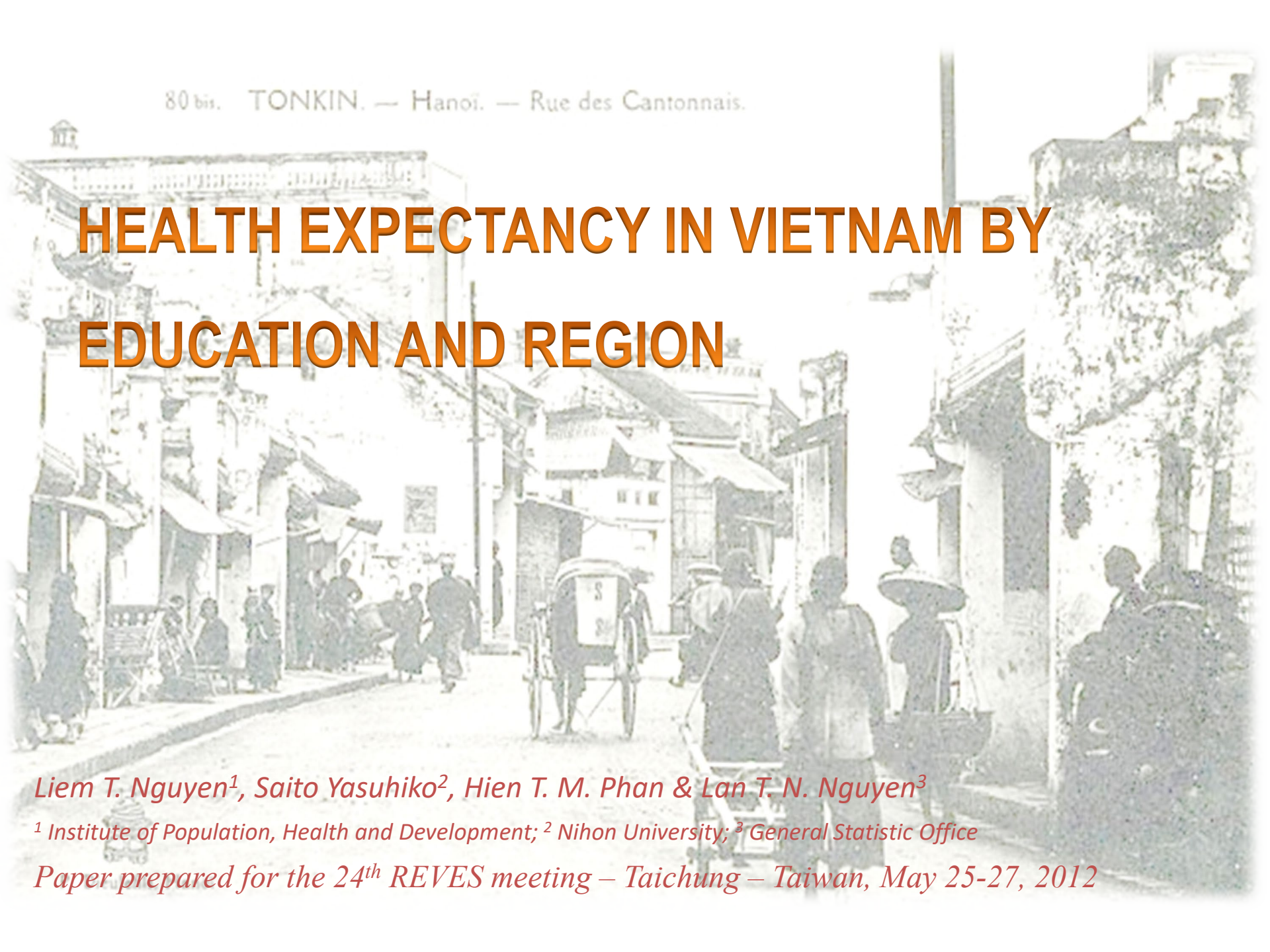
1 Health Expectancy
  - REVES (Réseau Espérance de Vie en Santé)
  - Theories of Predicting Future Population Health

*Quality Adjusted Life Years (QALYs)

2 DALY-based (WHO)
  - Disability-Adjusted Life Years (DALYs)
  - The Global Burden of Disease Project

# Health Expectancy in Policy

- EU:  EuroStat--Healthy life years as indicator of population health
- EU:  Target for a two-year increase in healthy life years at birth from 2010 to 2020
- USA:  First appeared in "Healthy People 2000" as one of priorities and continued in "Healthy People 2010" and "Healthy People 2020"
- Japan:  First priority to increase health expectancy for the next decades in the health promotion guideline released in 2012 by the MHLW
- WHO:  DALY, DALE, HALE




# HEALTH EXPECTANCY IN VIETNAM BY EDUCATION AND REGION

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*Paper prepared for the 24th REVES meeting – Taichung – Taiwan, May 25-27, 2012*

# Regional differences in functional difficulty and disability free life expectancy (DFLE) among older persons in the Philippines

**Jeofrey B. Abalos**[1]

**Heather Booth**[2]

## Abstract

This study aims to describe regional differences in the prevalence of functional difficulty among older persons in the Philippines. It also examines geographic differential in disability free life expectancy (DFLE) and investigates the factors associated with these differences. Data are drawn from the 2010 Philippine Census of Population and Housing (CPH) and the 2010 Philippine Life tables. Sullivan Method was employed to calculate DFLE and meta-regression models were used to examine the factors associated with regional differences in DFLE. Results show a wide disparity in functional difficulty and DFLE among older men and older women in the Philippines. Socioeconomic indicators, including poverty incidence, GDP per capita, education and urbanization, were found to be associated with geographic differences in DFLE.

# Longitudinal Study of Ageing and Health in the Philippines (LSAHP)

- Survey design for baseline survey in 2018
  - Nationally representative sample of 60 and over (not household survey)
  - Sample size of 6,300 persons selected by Multi-stage stratified random sampling
  - oversampled those aged 70-79 by factor of 2 and aged 80 and over by factor of 3
  - In-person interview survey using structured survey questionnaire by tablet (proxy allowed)
- Wave 2 scheduled to be conducted in 2020
  - Exit survey:  death and related information
  - Sample refreshing - may consider

# Longitudinal Study of Ageing and Health in Vietnam (LSAHV)

- Survey design for baseline survey
  - Nationally representative/Provincial representative sample of 60 and over (not household survey)
  - Sample size of 6,050 persons selected by Multi-stage stratified random sampling
  - oversampled those aged 70-79 by factor of 2 and aged 80 and over by factor of 3
  - In-person interview survey using structured survey questionnaire by tablet (proxy allowed)
- Wave 2 is scheduled be to conducted in 2020
  - Exit survey:  death and related information
  - Sample refreshing - may consider

# Baseline Survey

- Philippines
  - compare with 1996 and 2007 survey
  - module for the Philippines
- Vietnam
  - compare with 2011 aging survey
  - module for Vietnam

# Questionnaires

- Screening by Short Portable Mental State Questionnaire (SPMSP:  Pfeiffer 1975)
- Household questionnaire
- Main questionnaire for older adults
- Anthropometric measures questionnaire
- Child questionnaire
- Care giver/potential future care giver questionnaire

# Household Questionnaire

- Family Structure
- Living arrangements
- Information on Surviving Children's family
- Electricity
- Water
- Cocking fuel
- Toilet
- Asset
- Bank account
- GPS

# Main Questionnaire

- Demographic attributes
- Socioeconomic status
- Intergenerational exchange
- Social network
- Lonelyness
- Health behaviors
- Chronic conditions
- WG disability questions
- Sleep
- GALI
- Physical functioning (ADL, IADL, NAGI)
- Mental Health
- Vision & Hearing
- Fall
- Pain
- Dental Health
- Health Care Utilization
- Income/Pension
- Information Technology

# Exit Survey

Decedent proxy Interview

- Date of death
- Cause of death
- Place of death
- Medical expenses in the last 6 months prior to death
- Relationship of main caregiver

# Anthropometric and performance measurements

- Blood Pressure / Pulse
- Anthropometric Measures
  - Height
  - Weight
- Grip strength
- Gait speed
- Peak flow
- Segmental Appendicular Muscle Mass
- Functional reach
- Balance test

# Adult Child Questionnaire

- relationship with older parents
- intergeneration support
  - financial support
  - in kind support
  - others
- filial piety
- Contact information

# Care giver/ Potential future care giver questionnaire

- working status
- health status
- family composition
- attitude and beliefs
- kind of care providing

# Health states and transitions among them

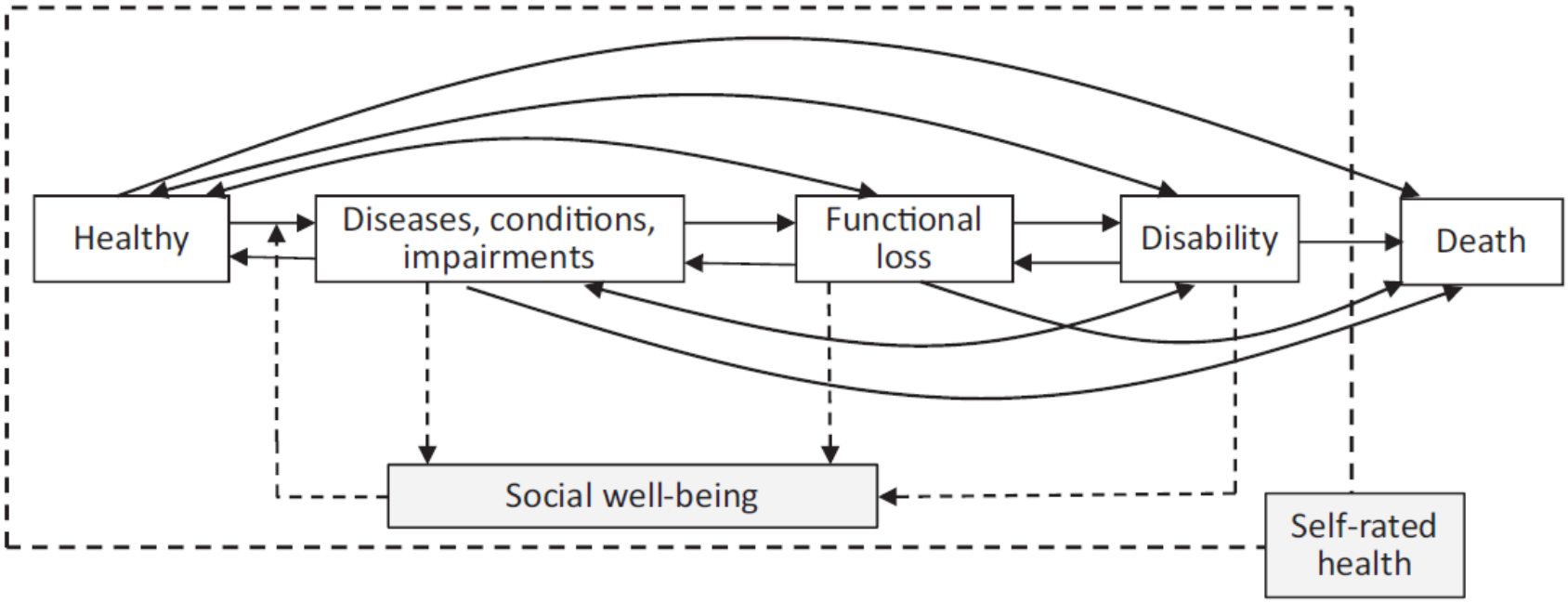
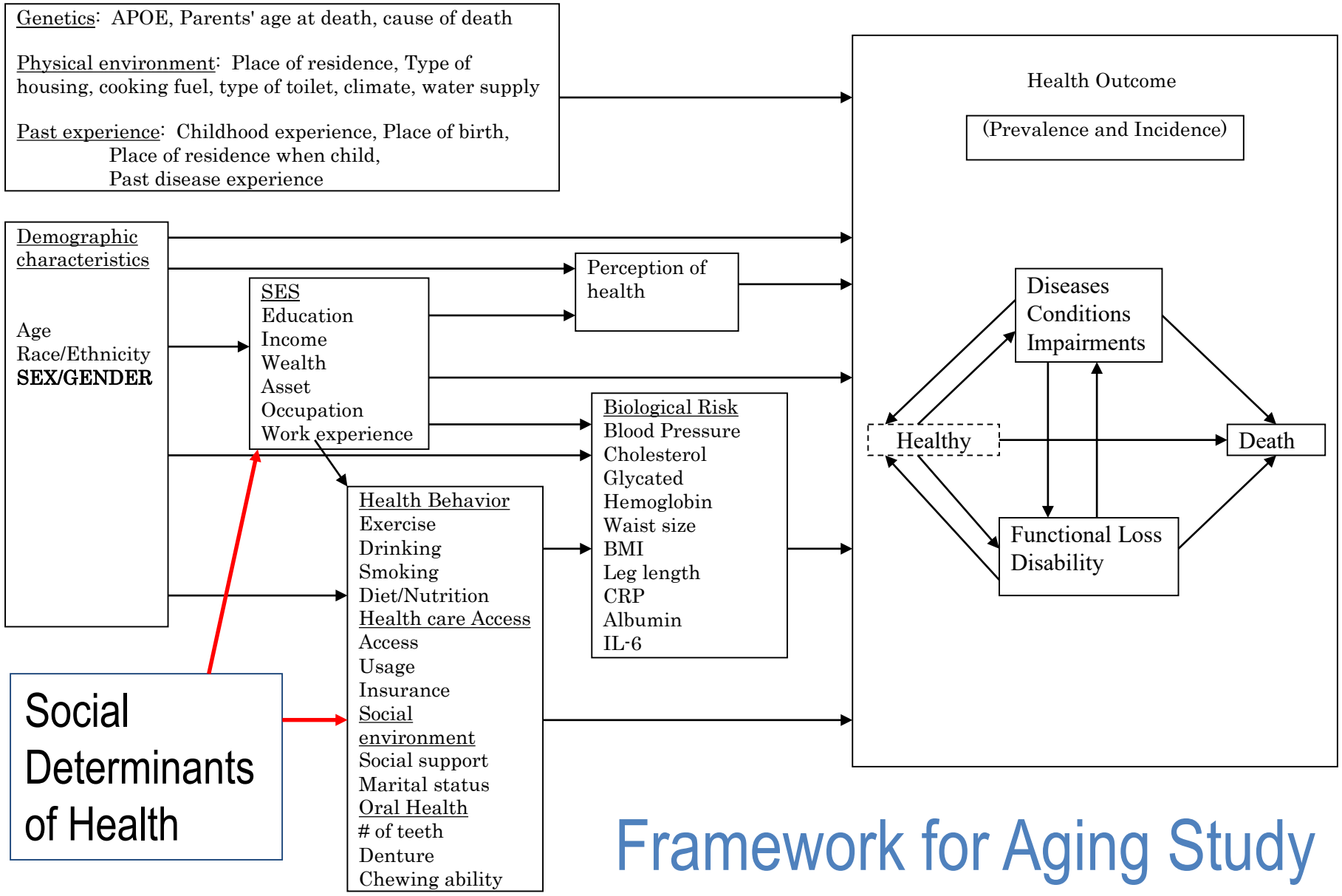



Fig. 1. Conceptual model of health states and health transitions according to the disablement process.




# Framework for Aging Study

# LSAHP
# Summary of Interviews Conducted

- Total number of OP interviewed: 5,985
- Response rate: 94.5%
- SPMSQ – 301 failed (5%)
- Number of caregivers interviewed: 5,163 (86.3%)
- Number of children interviewed: 3,568 (59.6%)
- Anthropometric measurements: 5,731 (95.8%)
- Inner body scan: 4,022 (70.2%)

# LSAHV
# Summary of Interviews Conducted

- Total number of OP interviewed: 6,050
- Response rate: 95.8%; Total refusal and replaced 257
- SPMSQ – 696 failed (11.5%)
- Number of caregivers interviewed : 3,193 (52. 8%)
- Number of children interviewed : 2,498 (45.3%)
- Arthrometric measurement: 5,782 (95.6%)
- Inner body scan: 5,350 (88.4%)

Comparison of selected characteristics of older adults
in LSAHP (The Philippines), LSAHV (Vietnam) and PHASE III (Singapore)

| | The Philippines | Vietnam | Singapore |
|---|---|---|---|
| Data collection year | 2018/2019 | 2018/2019 | 2015 |
| Analytical sample size (N) | 5191 | 5286 | 1572 |
| % Male | 43.6 | 44.4 | 44.8 |
| Mean age (years) | 68.3 | 69.9 | 74.4 |
| GALI 1, % limited | 56.9 | 56.4 | 29.4 |
| GALI 2, % limited | 14.1 | 9.56 | 8.5 |
| WGSS 1, % having difficulty with ≥ 1action/activity | 19.2 | 12.4 | na |
| WGSS 2, % having difficulty with ≥ 1action/activity | 68.6 | 61.4 | na |
| ADL limitations, % having limitations with ≥ 1 activity | 16.6 | 10.8 | 13.3 |
| IADL limitations, % having limitations with ≥ 1 activity | 21.6 | 25.1 | 18.5 |
| Mobility difficulties, % having difficulty with ≥ 1 physical ability | 50.5 | 58.2 | 50.9 |
| Self-reported health as unhealthy, % | 34.8 | 26.3 | 20.3 |

GALI: Global Activity Limitation Indicator;
ADL: Activity of Daily Living;
IADL: Instrumental Activity of Daily Living;
GALI 1: Severely limited & limited but not severely
GALI 2: Severely limited only
WGSS 1: A lot of difficulty or cannot do at all in at least one of the Washington Group's six questions
WGSS 2: Some difficulty or a lot of difficulty or cannot do it at all in at least one of the Washington Group's six questions

# Oral health : LSAHP

| Supplements | SEX | | | AGE GROUP | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | Male | Female | Sig | 60–69 | 70–79 | 80+ | Sig | |
| % with no teeth | 16.6 | 35.4 | *** | 21.4 | 36.0 | 47.3 | *** | 28.0 |
| N | 2,292 | 3,483 | | 3,475 | 1,713 | 594 | | 5,782 |
| Mean number of original teeth | 11.48 | 8.05 | *** | 11.00 | 7.36 | 5.02 | *** | 9.41 |
| N | 2,289 | 3,484 | | 3,657 | 1,490 | 626 | | 5,773 |
| Mean number of functioning teeth | 3.48 | 2.32 | *** | 3.37 | 2.00 | 1.16 | *** | 2.78 |
| N | 2,271 | 3,457 | | 3,631 | 1,478 | 629 | | 5,728 |
| % who have dentures | 19.3 | 40.1 | *** | 28.6 | 38.1 | 34.3 | *** | 31.7 |
| N | 2,411 | 3,574 | | 3,760 | 1,552 | 673 | | 5,985 |
| % who always use dentures when they eat | 82.1 | 86.9 | * | 89.3 | 81.2 | 80.2 | *** | 85.7 |
| N | 464 | 1,435 | | 1,077 | 591 | 232 | | 1,900 |
| % who are satisfied with their dentures | 81.1 | 75.7 | * | 80.6 | 72.4 | 72.3 | *** | 77.0 |
| N | 465 | 1,435 | | 1,077 | 591 | 231 | | 1,899 |