Population ageing in Asia-Pacific：
Life-cycle approach

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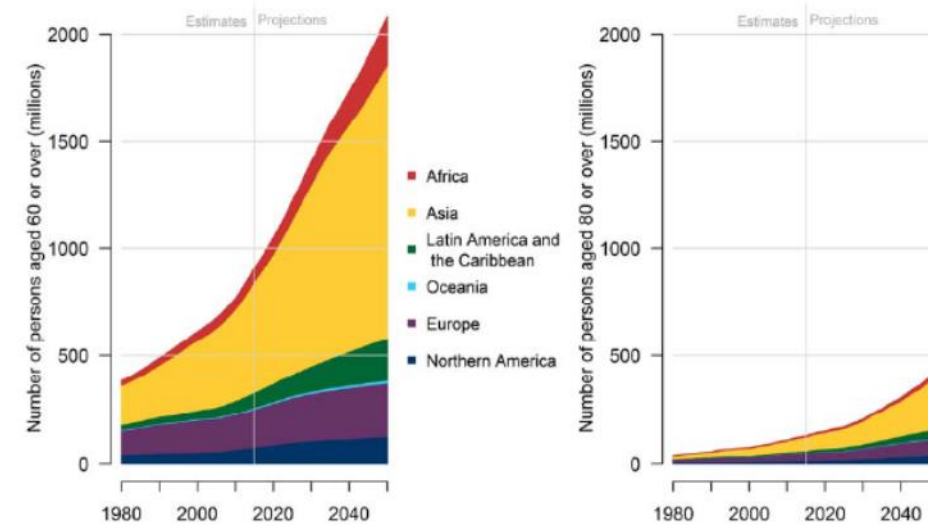*(Professor in Health Policy for Children and Families, Kyoto University)*

Rapid population ageing in Asia-Pacific

Asia-Pacific Region:

547 million people aged 60 and older in 2017

1.3 billion by 2050 (1 in 4 – 60 years or older)

Figure II.2.
Number of persons aged 60 years or over and aged 80 years or over for regions, 1980-2050
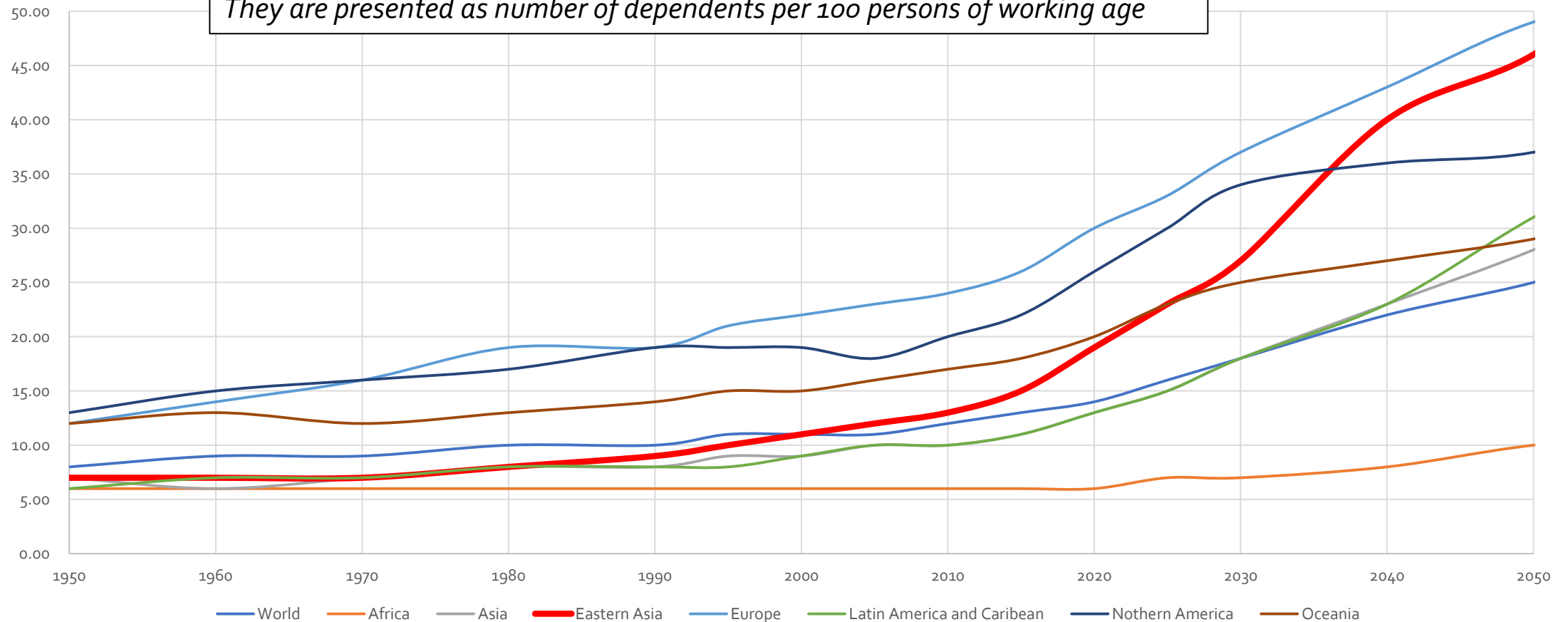
Data source: United Nations (2017). World Population Prospects: The 2017 Revision.

Old-age dependency ratio* (World, 1950-2050)

*The ratio of the population aged 65 years or over to the population aged 15-64. They are presented as number of dependents per 100 persons of working age

Produced from United Nations Department of Economic and Social Affairs/Population Division. World Population Prospects: The 2019 Revision
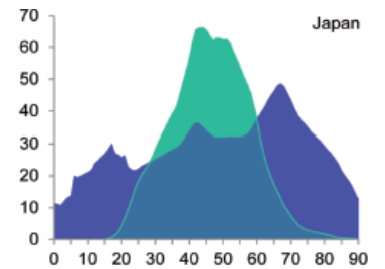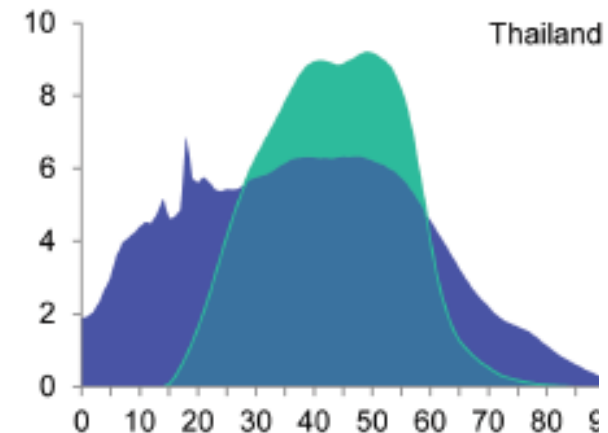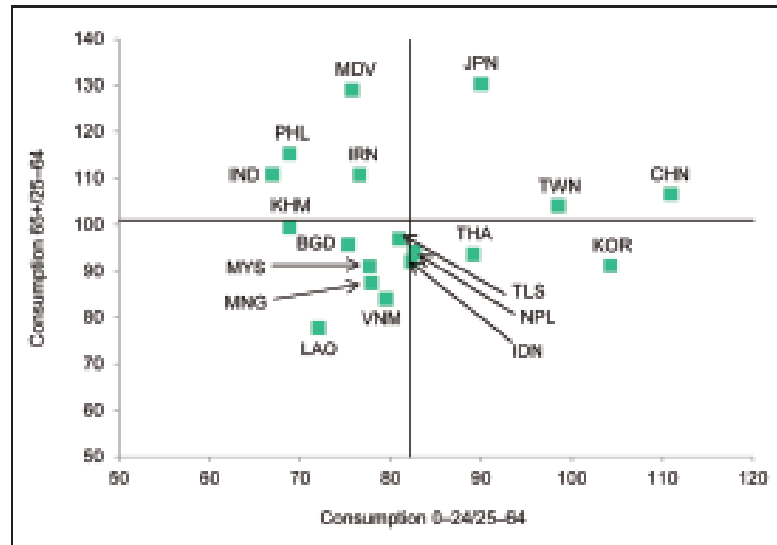
The economic lifecycle:

Per capita labour income and consumption at all ages
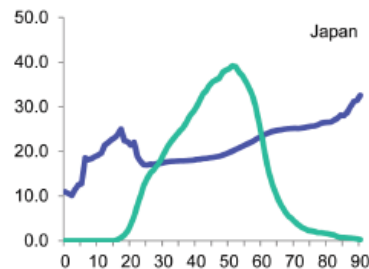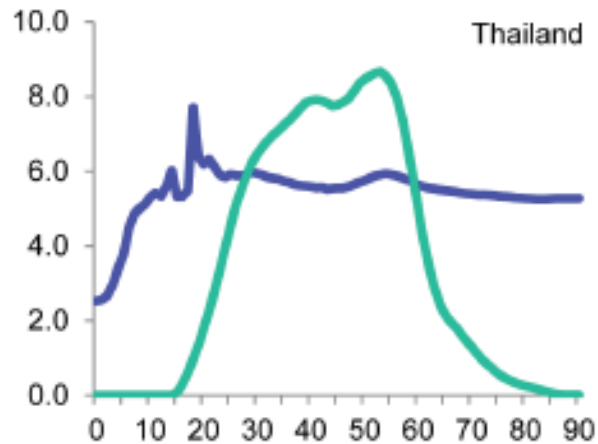
*Aggregate labour income and consumption by one-year age groups*

Are the children and the older persons benefitting from economic growth?

Figure 1. Per capita consumption by children (age 0–24) and the elderly (age 65+) expressed as a percent of per capita consumption by adults age 25–64. The simple average values for consumption by children and the elderly in all 18 countries divide the figure into four quadrants. Data points to the left of the vertical line indicate lower than average consumption by children. Data points below the horizontal line indicate lower than average consumption by the elderly. See Table 1 and text for economy designations and base years.

Source: Calculated from NTA data.
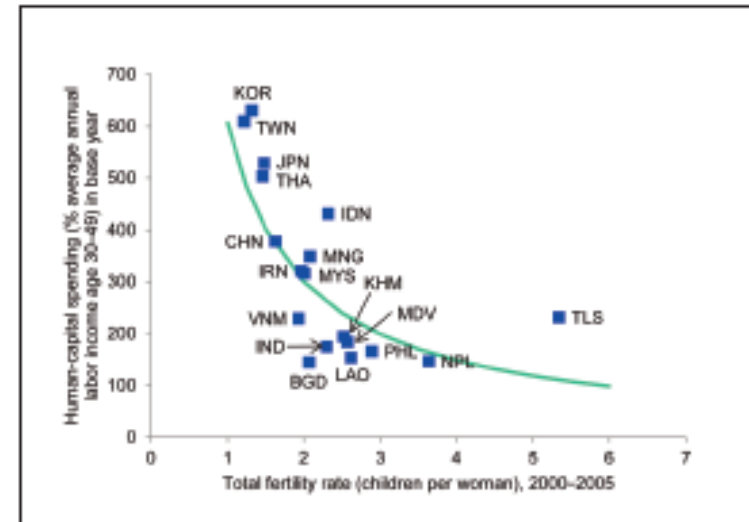
Figure 2. Tradeoff between human-capital spending and fertility. Lifetime human-capital spending per child is a synthetic cohort measure constructed by cumulating per capita health spending from ages 0–17 and per capita education spending from ages 3–26. To enable international comparisons, the values are expressed as a percentage of the average annual labor income of adults age 30–49 in each economy. See Table 1 and text for economy designations and base years.

Source: Human-capital spending calculated from NTA data; total fertility rate from United Nations, Department of Economic and Social Affairs, Population Division (2017). *World population prospects: The 2017 revision.* https://esa.un.org/unpd/wpp/DataQuery/. Accessed 26 October 2017.

Asset income and support from families and governments:

Public transfers, family transfers and asset-based income as percentages of the lifecycle deficit
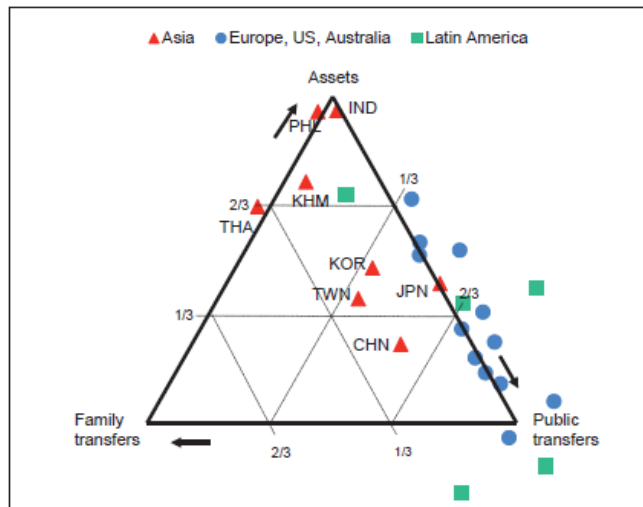
At age 65 and older

Figure 2. Public transfers, family transfers, and asset-based income as percentages of the lifecycle deficit (gap between consumption and labor income) at age 65 and older in 25 countries in a recent year.

Source: NTA data, 2016.

Note: Country designations are Cambodia (KHM), China (CHN), India (IND), Japan (JPN), Philippines (PHL), Republic of Korea (KOR), Taiwan Province of China (TWN), and Thailand (THA).
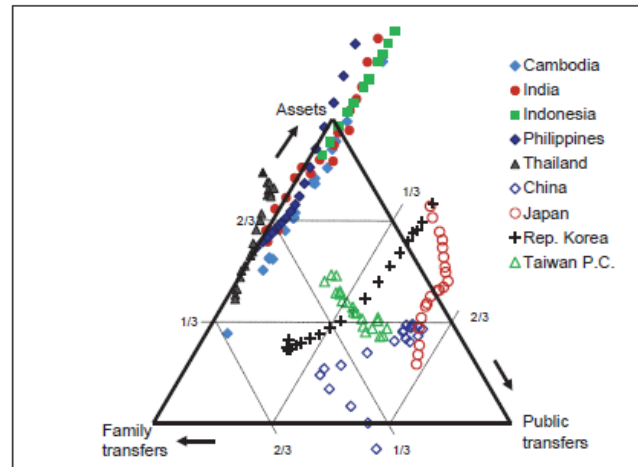
For one-year age groups from 65 to 84

Figure 3. Public transfers, family transfers, and asset-based reallocation as a proportion of the lifecycle deficit (gap between consumption and labor income) for one-year age groups from 65 to 84 in nine Asian countries in a recent year.

Source: NTA data, 2016.

Table 1. Fiscal support ratios (projected tax revenues relative to public transfers as percent of values in 2015) in selected Asian economies and the United States, 2020–2050.

	2015	2020	2030	2050
Cambodia (KHM)	100	102	104	104
China (CHN)	100	97	88	78
India (IND)	100	101	102	101
Indonesia (IDN)	100	102	104	108
Japan (JPN)	100	97	91	79
Philippines (PHL)	100	102	105	111
South Korea (KOR)	100	98	89	80
Taiwan P.C. (TWN)	100	100	93	74
Thailand (THA)	100	102	102	96
Vietnam (VNM)	100	100	96	86
United States (USA)	100	98	92	88

Source: NTA data, 2016.

Note: Revenues and expenditures are projected assuming that per capita taxes and public expenditures by single year of age remain constant at base-year values.

Age specific profiles of consumption and labour income (Japan)
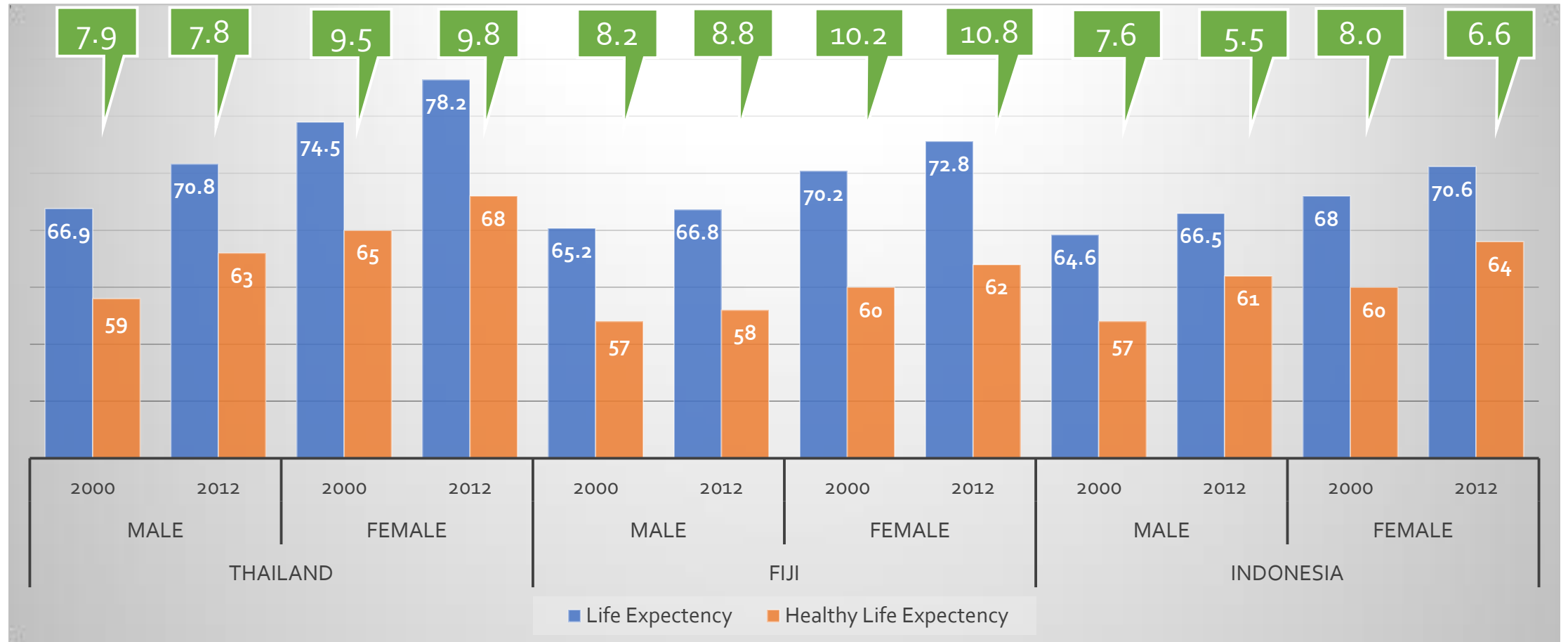

Per capita age specific profiles of consumption and labor income
Japan, 1984-2009

Matsukura 2015
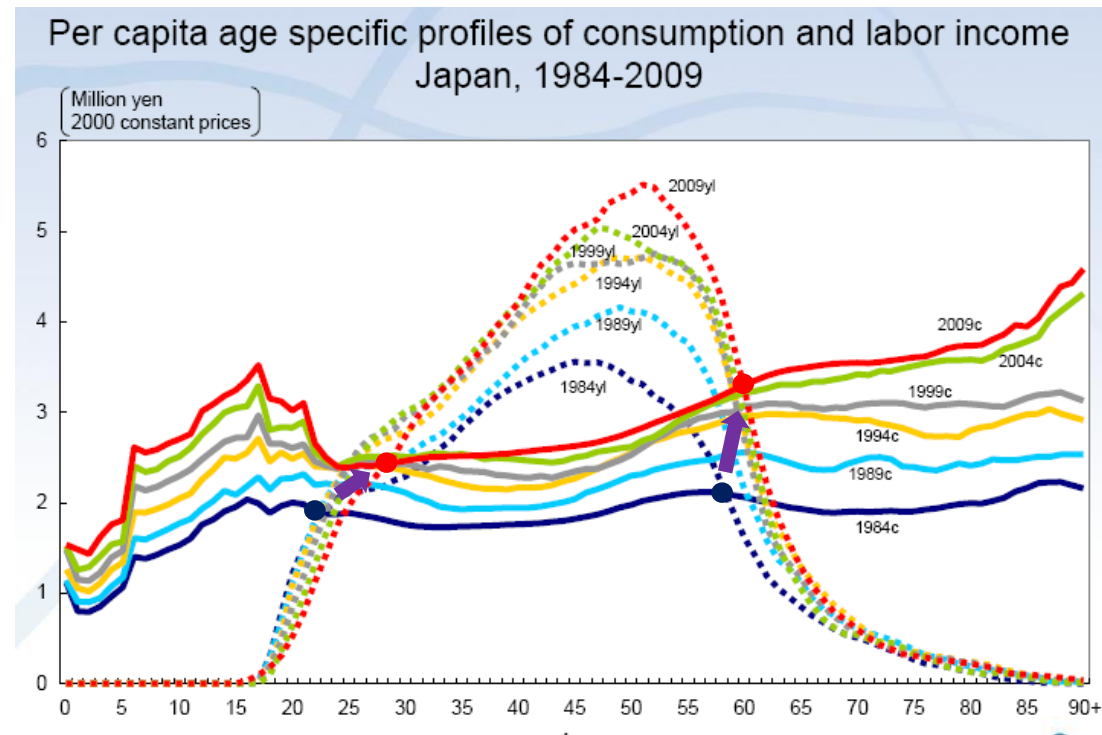
Healthy Life Expectancy – Life Expectancy

Produced from World Health Statistics

Overview review of impact of low birth weight on life style diseases in adulthood

Diseases	Methods	N	Results	References
Type II Diabetes	Meta-analysis	14	<2500g: OR 1.32 [1.06, 1.64] >4000g: OR 1.27 [1.01, 1.59]	Am J Epidemiological 2007;165:849 JAMA 2008;300:2886
		30	OR 0.80 per 1kg [0.72, 0.89]	
Metabolic Syndrome	Meta-analysis	11	LBW: OR 2.53 [1.57, 4.08]	Rev Saude Publica 2008;42:1
Obesity	Meta-analysis	20	>4000g: OR 2.07 [1.91, 2.24] <2500g: OR 0.61 [0.46, 0.80]*	Obesity reviews 2011;12:525
Childhood obesity	Structured Review	20	Low birth weight and high BMI up to 11 years – highest risk for IHD	Cad Saude Reblica 2006;22:2281

Biological association between perinatal health and NCDs

(Mori 2013)

Golden windows for behavioural changes

Pregnancy & child, life-long development → Biological / Behavioural Mechanism → Happy and Healthy Ageing

Reproductive cycle /"Family" - The golden window for investment
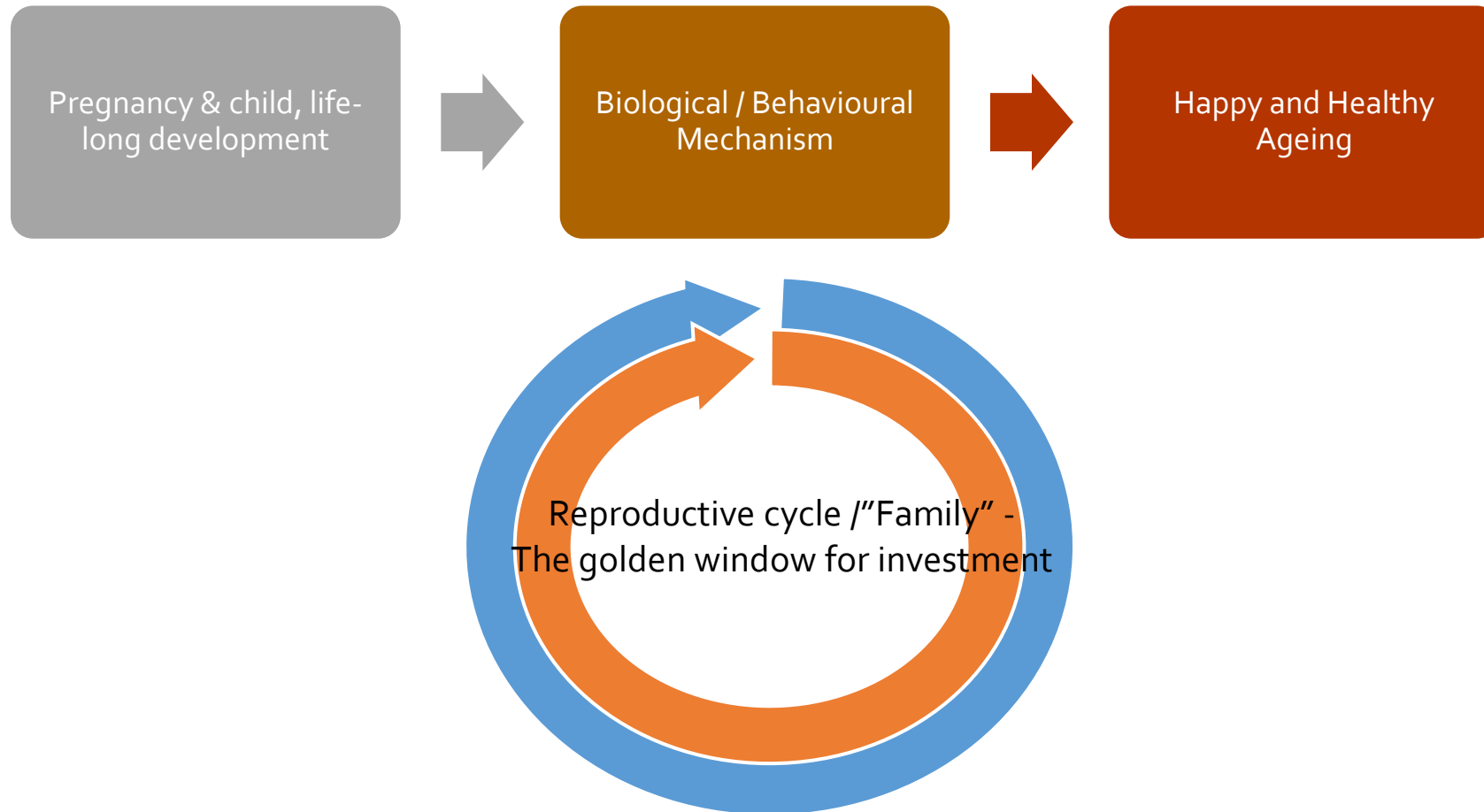
"The clearest message that we get from this 75-year study is this: Good relationships keep us happier and <u>healthier</u>. Period."

Robert Waldinger, director of the Harvard Study of Adult Development

The Harvard Gazette 2017

Population ageing – a false binary

Mitigation	Improving wellbeing for those in need today
Adaptation	Improving the current and future condition of people who have already had many aspects of their life-course in train
Resilience	Ensuring the youngest in society age well and can maximise their social and economic potential

"an integrated, inclusive framework based upon that used in climate science - **adaptation, mitigation, and resilience** to make the compromises we need and to start to get there; and that we can also benefit from a multidimensional set of age-sensitive measures and a more sophisticated, proactive approach to defining the future we want, rather than fighting a (losing) battle against a future which we are presented with"

Population is not a problem. **Institutions** often outdated to suit the **characteristics** of the population. **Demographic intelligence** and **life-cycle approach** as our key strategies

Life-cycle approach
https://asiapacific.unfpa.org/videos