

ERIA Research Project Report FY2023 No. 03

# **Towards Progress in Population Health and Health Equality in the Asian Region**

**Edited by**

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## **Towards Progress in Population Health and Health Equality in the Asian Region**

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# Table of Contents

|           |   |     |
|-----------|---|-----|
|           | List of Authors                                       | iii |
|           | List of Figures                                       | v   |
|           | List of Tables  | vi  |
|           | List of Abbreviations and Acronyms                    | vii |
| Chapter 1 | Introduction  | 1   |
| Chapter 2 | Universal Health Coverage Progress in Asian Countries | 12  |
| Chapter 3 | Country Chapter                                       | 15  |
| Chapter 4 | Recommendations                                       | 32  |
|           | References  | 34  |

## List of Figures

|            |  |    |
|------------|--|----|
| Figure 3.1 | Change in Leading Causes of Death in Cambodia, 2009–2019 | 16 |
| Figure 3.2 | Change in Key Risk Factors in Cambodia, 2009–2019        | 16 |
| Figure 3.3 | Change in Leading Causes of Death in Malaysia, 2009–2019 | 20 |
| Figure 3.4 | Change in Key Risk Factors in Malaysia, 2009–2019        | 21 |
| Figure 3.5 | Change in Leading Causes of Death in Thailand, 2009–2019 | 24 |
| Figure 3.6 | Change in Key Risk Factors in Thailand, 2009–2019        | 25 |
| Figure 3.7 | Change in Leading Causes of Death in Viet Nam, 2009–2019 | 28 |
| Figure 3.8 | Change in Key Risk Factors in Viet Nam, 2009–2019        | 29 |

## List of Tables

|           |  |    |
|-----------|--|----|
| Table 1.1 | Demographic Indicators in 2021 (or latest available)                                   | 3  |
| Table 1.2 | Macroeconomic Indicators in 2021 (or latest available)                                 | 6  |
| Table 1.3 | Life Expectancy at Birth and Health Indicators by Gender in 2021 (or latest available) | 9  |
| Table 1.4 | Trends in Healthcare Expenditure in 2021 (or latest available year)                    | 11 |
| Table 2.1 | Coverage of Health Services at National Level  | 13 |
| Table 3.1 | Basic Health Indicators, Cambodia  | 15 |
| Table 3.2 | Social Healthcare Security Scheme, Cambodia  | 17 |
| Table 3.3 | Medical Institutions and Required Functions, Cambodia                                  | 19 |
| Table 3.4 | Type and Number of Public Healthcare Facilities in Cambodia, 2012–2013                 | 19 |
| Table 3.5 | Basic Health Indicators, Malaysia  | 20 |
| Table 3.6 | Basic Health Indicators, Thailand  | 24 |
| Table 3.7 | Public Health Financing Scheme, Thailand   | 26 |
| Table 3.8 | Basic Health Indicators, Viet Nam  | 28 |
| Table 3.9 | Medical Referral System, Viet Nam (number of medical institutions in parentheses)      | 30 |

## List of Abbreviations and Acronyms

|          |   |
|----------|---|
| ASEAN    | Association of Southeast Asian Nations                          |
| CBHI     | Community Health Protection Fund (Cambodia)                     |
| CMHEF    | Community-Managed Health Equity Fund                            |
| COVID-19 | novel coronavirus disease                                       |
| CPA      | comprehensive service package (Cambodia)                        |
| CSMBS    | Civil Servant Medical Benefit Scheme (Thailand)                 |
| ERIA     | Economic Research Institute for ASEAN and East Asia             |
| G7       | Group of Seven  |
| GDP      | gross domestic product  |
| HEF      | Health Equity Fund (Cambodia)                                   |
| HIV/AIDS | human immunodeficiency virus/acquired immunodeficiency syndrome |
| Lao PDR  | Lao People's Democratic Republic                                |
| MPA      | basic service package (Cambodia)                                |
| NCD      | non-communicable disease  |
| NGO      | nongovernment organisation                                      |
| NSSF     | National Social Security Fund (Cambodia)                        |
| NSSF-C   | National Social Security Fund for Civil Servants                |
| OD       | health administrative district (Cambodia)                       |
| SCI      | service coverage indicator                                      |
| SSS      | Social Security Scheme (Thailand)                               |
| UC       | universal coverage  |
| UCS      | Universal Health Coverage Scheme (Thailand)                     |
| UHC      | universal health coverage                                       |
| UK       | United Kingdom  |
| WHO      | World Health Organization                                       |

# Chapter 1

## Introduction

In the report 'Tracking Universal Health Coverage: 2017 Global Monitoring Report' by the World Health Organization (WHO) and the World Bank (WHO and World Bank, 2017, p.v), Jim Yong Kim, the President of the World Bank at that time stated that 'universal health coverage....is an investment in human capital and a foundational driver of inclusive and sustainable economic growth and development'. As emphasised in this statement, improving population health, and building functioning healthcare systems are recognised as the foundation of economic growth. Whilst member countries of the Economic Research Institute for ASEAN and East Asia (ERIA) have shown remarkable economic growth in the past decades, further improvements in population health are necessary for continued economic development in the region.

In the past decades, people in the ERIA member countries have been able to lead healthier and longer lives. In most ERIA member countries, health-related Millennium Development Goals, including targets for maternal and child health metrics and infectious disease control, were met by 2015. However, ageing populations, an increased burden of non-communicable diseases (NCDs), increasing drug prices, and healthcare expenditures now pose tremendous challenges for all countries, regardless of economic status. In the face of these challenges, countries need to transform their healthcare systems.

In addition, health disparities, both within and between countries, have increased. For example, whilst life expectancy in Japan increased from 79.0 years in 1990 to 83.2 years in 2015, disparities in life expectancy across prefectures (difference between the prefecture with the highest vs the lowest life expectancy) increased from 2.5 years to 3.1 years (2.3 to 2.7 years for healthy life expectancy) (Nomura et al., 2015). Similar trends were observed in ERIA member countries (Sumriddetchkajorn et al., 2019; Han et al., 2019). Because health disparities are an important obstacle for continued economic growth, reducing disparities whilst facilitating continued growth is of great importance.

Although research addressing population health and health disparities meet ERIA priorities of (i) deepening economic integration, (ii) diminishing development disparities, and (iii) sustainable economic growth, ERIA research has previously not focused on health issues. The declaration from the Group of Seven (G7) summit in Ise-Shima, Japan in 2016 (G7, 2016) stated that 'health is the foundation of prosperity and security not only for individual but also for nations.' In the chairperson's statement of the 12th East Asia Summit in 2017 in Manila, the Philippines, it was further stated: 'We further welcomed ERIA's activities in new areas such as efforts to strengthen regional health services' (ASEAN Secretariat, 2017). Thus, addressing global health challenges and promoting global health research is of utmost relevance to ERIA's activities and to further contribute to sustainable economic growth in this region.

Against this background, this report outlines the health systems in each ERIA country, with particular focus on the characteristics of each country's health system and its progress in



achieving universal health coverage (UHC). Chapter 1 describes the basic indicators for each ERIA country. Chapter 2 describes the progress of each ERIA country, with a particular focus on UHC, followed by Chapter 3, which describes the health system characteristics of four selected countries within ERIA. Chapter 4 summarises the challenges to achieving UHC identified in light of the novel coronavirus disease (COVID-19) pandemic and the recommendations for achieving UHC. The COVID-19 pandemic, which has continued to spread since the end of 2019, has caused tremendous damage to the health systems of countries, and there is an urgent need to rebuild systems based on the lessons learned from COVID-19. We hope that the contents of this report will serve as a reference for countries.

## **1. Geography and Socio-demography**

This report surveys and analyses 16 East Asian countries that are members of ERIA. They are Brunei Darussalam (Brunei), Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam (the 10 Association of Southeast Asian Nations [ASEAN] countries), Japan, China, the Republic of Korea, India, Australia, and New Zealand.

Table 1.1 summarises basic statistics for ERIA member states, covering a wide range of countries from those with very large populations, such as China, India, Indonesia, and Japan, to those with very small populations, such as Singapore. In relation to health care, the most notable trend is the ageing of the population. Whilst ERIA includes countries like Japan, which has the world's most aged population, ageing is not limited to high-income countries. Ageing is defined as the stage at which the percentage of the population aged 65 or older exceeds 7% of the total population. In light of this definition, Australia, New Zealand, Singapore, Thailand, Viet Nam, China, and India, in addition to Japan, already have ageing rates exceeding 7%, and Indonesia is expected to soon surpass this level. As populations age, the number of people living longer with chronic diseases such as hypertension and diabetes increases. Therefore, each country's healthcare system must be reformed to accommodate the needs of older adults with multiple chronic diseases. At the same time, as will be explained in more detail later in this report, a higher ageing population rate means a decrease in the percentage of the working population. In general, healthcare systems in each country are financed by taxes or insurance, and the proportion of the working population has a significant impact on the revenue portion. Therefore, when considering the relationship between population ageing and health systems, it is necessary to pay attention not only to the increase in demand for medical care, but also to the decrease in revenue that can be allocated to medical expenses to build a sustainable healthcare system.

**Table 1.1. Demographic Indicators in 2021 (or latest available)**

| <b>Indicators</b>                       | <b>Brunei</b> | <b>Cambodia</b> | <b>Indonesia</b> | <b>Lao PDR</b> | <b>Malaysia</b> | <b>Myanmar</b> | <b>Philippines</b> | <b>Singapore</b> |
|---|---------------|-----------------|------------------|----------------|-----------------|----------------|--------------------|------------------|
| Population (in thousands)               | 440           | 16,950          | 276,360          | 7,380          | 32,780          | 54,810         | 111,050            | 5,450            |
| Population (% of total)                 |               |                 |                  |                |                 |                |                    |                  |
| 0–14 years                              | 21.92         | 30.7            | 25.62            | 31.62          | 23.27           | 25.11          | 29.53              | 12.0             |
| 65 years and older                      | 5.96          | 4.99            | 6.51             | 4.37           | 7.45            | 6.47           | 5.72               | 14.0             |
| Annual population growth (%)            | 0.8           | 1.2             | 0.7              | 1.4            | 1.1             | 0.7            | 1.5                | –4.2             |
| Population density (2020)               | 84            | 93              | 145              | 32             | 101             | 82             | 376                | 7,919            |
| Total fertility rate (per woman) (2020) | 1.8           | 2.4             | 2.2              | 2.5            | 1.8             | 2.2            | 2.8                | 1.1              |
| Crude birth rate (per 1,000) (2020)     | 14            | 20              | 17               | 22             | 15              | 17             | 22                 | 9                |
| Crude death rate (per 1,000) (2020)     | 5             | 6               | 7                | 6              | 5               | 9              | 6                  | 5                |

**Table 1.1. Continued**

| <b>Indicators</b>                       | <b>Thailand</b> | <b>Viet Nam</b> | <b>Japan</b> | <b>China</b> | <b>Republic of Korea</b> | <b>India</b> | <b>Australia</b> | <b>New Zealand</b> |
|---|-----------------|-----------------|--------------|--------------|--------------------------|--------------|------------------|--------------------|
| Population (in thousands)               | 69,950          | 98,170          | 125,680      | 1,412,360    | 51,740                   | 1,407,563    | 25,688           | 5,122              |
| Population (% of total)                 |                 |                 |              |              |                          |              |                  |                    |
| 0–14 years                              | 16.0            | 23.0            | 12.0         | 18.0         | 12.0                     | 26.0         | 18.0             | 19.0               |
| 65 years and older                      | 15.0            | 9.0             | 30.0         | 13.0         | 17.0                     | 7.0          | 17.0             | 16.0               |
| Annual population growth                | 0.2             | 0.8             | –0.5         | 0.1          | –0.2                     | 0.8          | 0.1              | 0.6                |
| Population density (2020)               | 140             | 308             | 346          | 150          | 531                      | 470          | 3                | 19                 |
| Total fertility rate (per woman) (2020) | 1.3             | 2.0             | 1.3          | 1.3          | 0.8                      | 2.1          | 1.6              | 1.6                |
| Crude birth rate (per 1,000) (2020)     | 9               | 15              | 7            | 9            | 5                        | 17           | 12               | 11                 |
| Crude death rate (per 1,000) (2020)     | 7               | 6               | 11           | 7            | 6                        | 7            | 6                | 6                  |

Notes: Population density: people per square kilometre of land area. Dates other than 2021 are noted in brackets in the table.

Source: World Bank Open Data. <https://data.worldbank.org> (accessed 27 April 2023).

## **2. Economic Context**

In general, as economic growth progresses, health-related outcomes such as life expectancy improve, and this trend is generally followed in the ERIA member states. Table 1.2 summarises the economic levels of the ERIA member states. In general, healthcare costs are rising year by year due to the ageing of the population and the advancement of medical technology, and the major issue is how to deal with such growing healthcare costs within the financial resources of each country. If the rate of economic growth was higher than the increase in medical expenses, such economic growth would be returned in the form of tax revenues and insurance premiums, and thus it would be possible to accept a certain level of increase in medical expenses. On the other hand, if economic growth is not as high as the increase in healthcare costs, it will be difficult to make up for the increase in healthcare costs within the existing framework (tax rates and insurance premiums). Therefore, the sustainability of health care, especially the sustainability of healthcare financing, is closely related to the economic growth of each country. As shown in Table 1.2, with the exception of some countries such as Myanmar, where the government is not stable, the ASEAN Member States are showing relatively strong economic growth (however the recent COVID-19 pandemic has also had a negative impact on countries' economies, making evaluation difficult). On the other hand, most high-income countries such as Japan and the Republic of Korea have already entered a period of economic stagnation, and in these countries, it is difficult to compensate for the growth in healthcare costs from economic growth, and healthcare financing is facing difficulties in its sustainability

**Table 1.2. Macroeconomic Indicators in 2021 (or latest available)**

| <b>Indicators</b>                     | <b>Brunei</b> | <b>Cambodia</b> | <b>Indonesia</b> | <b>Lao PDR</b> | <b>Malaysia</b> | <b>Myanmar</b> | <b>Philippines</b> | <b>Singapore</b> |
|---------------------------------------|---------------|-----------------|------------------|----------------|-----------------|----------------|--------------------|------------------|
| Total GDP (current US\$ millions)     | 14,006        | 26,961          | 1,186,092        | 18,827         | 372,980         | 65,091         | 394,086            | 396,986          |
| GDP per capita, (current US\$)        | 31,449        | 1,625           | 4,332            | 2,535          | 11,109          | 1,209          | 3,460              | 72,794           |
| GDP average annual growth rate (%)    | -1.6          | 3.0             | 3.7              | 2.5            | 3.1             | -17.9          | 5.7                | 7.6              |
| Value added in industry (% of GDP)    | 62.7          | 36.8            | 39.9             | 34.1           | 37.8            | 35.0           | 28.9               | 24.9             |
| Value added in agriculture (% of GDP) | 1.3           | 22.8            | 13.3             | 16.1           | 9.6             | 23.4           | 10.1               | 0.0              |
| Value added in services (% of GDP)    | 37.6          | 34.2            | 42.8             | 38.8           | 51.6            | 41.5           | 61.0               | 69.4             |
| Unemployment rate                     | 4.9           | 0.5             | 3.8              | 3.3            | 4.5             | 1.5 (2020)     | 3.4                | 3.5              |
| Gini coefficient                      | NA            | NA              | 37.9             | 38.8 (2018)    | 41.1 (2018)     | 30.7 (2017)    | 42.3               | NA               |

**Table 1.2. Continued**

| <b>Indicators</b>                     | <b>Thailand</b> | <b>Viet Nam</b> | <b>Japan</b> | <b>China</b> | <b>Republic of Korea</b> | <b>India</b> | <b>Australia</b> | <b>New Zealand</b> |
|---------------------------------------|-----------------|-----------------|--------------|--------------|--------------------------|--------------|------------------|--------------------|
| Total GDP (US\$ million)              | 505,947         | 366,137         | 4,940,877    | 17,734,062   | 1,810,955                | 3,176,295    | 1,552.667        | 249,885            |
| GDP per capita, (current US\$)        | 7,066           | 3,756           | 39,312       | 12,556       | 34,997                   | 2,256        | 60,443           | 48,781             |
| GDP average annual growth rate (%)    | 1.5             | 2.6             | 1.7          | 8.1          | 4.1                      | 8.7          | 2.2              | 3.7                |
| Value added in industry (% of GDP)    | 34.8            | 37.5            | 29.0 (2020)  | 39.4         | 32.4                     | 25.9         | 25.5             | 20.4 (2019)        |
| Value added in agriculture (% of GDP) | 8.5             | 12.6            | 1.0 (2020)   | 7.3          | 1.8                      | 16.8         | 2.3              | 5.7 (2019)         |
| Value added in services (% of GDP)    | 56.7            | 41.2            | 69.5 (2020)  | 53.3         | 57.0                     | 47.5         | 65.7             | 65.6 (2019)        |
| Unemployment rate                     | 1.2             | 2.4             | 2.8          | 5.1          | 3.6                      | 6.5          | 5.1              | 3.8                |
| Gini coefficient                      | 35.0            | 35.7<br>(2020)  | 32.9 (2013)  | 38.2 (2019)  | 31.4<br>(2016)           | 35.7 (2019)  | 34.3<br>(2018)   | NA                 |

Note: Dates other than 2021 are noted in brackets in the table.

GDP = gross domestic product, NA = not available.

Source: World Bank Open Data (<https://data.worldbank.org>) (accessed 27 April 2023).

### **3. Health Status**

A comparison of basic health indicators for ERIA member states is summarized in Table 1.3 below. The world average life expectancy is 75 years for women and 70 years for men<sup>7</sup>. In comparison, some countries, such as Japan and Singapore, are much higher than the world average, while others, such as Laos and Myanmar, are more than 5 years below the world average. Healthy life expectancy is also summarized in Table 1.3. Healthy life expectancy (HALE), defined as "Average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury<sup>8</sup>", currently exists in all countries with a gap of about 10 years between average life expectancy and HALE for both men and women. A long gap means that people are living with some kind of physical disability, and it is a global challenge to reduce this gap from the perspective of curbing medical and long-term care costs.

**Table 1.3. Life Expectancy at Birth and Health Indicators by Gender in 2021 (or latest available)**

| Indicators  | Brunei | Cambodia | Indonesia | Lao PDR | Malaysia | Myanmar | Philippines | Singapore |
|---|--------|----------|-----------|---------|----------|---------|-------------|-----------|
| Life expectancy (in years) <sup>a)</sup>                  |        |          |           |         |          |         |             |           |
| Female  | 77     | 73       | 71        | 71      | 78       | 70      | 74          | 86        |
| Male  | 73     | 68       | 67        | 67      | 74       | 64      | 70          | 82        |
| Healthy life expectancy (in years) <sup>b)</sup>          |        |          |           |         |          |         |             |           |
| Female  | 66.1   | 63.0     | 63.8      | 61.9    | 66.9     | 62.8    | 63.9        | 74.7      |
| Male  | 65.2   | 59.8     | 61.9      | 59.2    | 64.5     | 58.8    | 60.1        | 72.4      |
| Age-standardised mortality rate (per 1,000) <sup>a)</sup> |        |          |           |         |          |         |             |           |
| Female  | 97     | 135      | 161       | 139     | 73       | 150     | 109         | 34        |
| Male  | 141    | 201      | 220       | 194     | 144      | 252     | 153         | 59        |

| Indicators  | Thailand | Viet Nam | Japan | China | Republic of Korea | India | Australia | New Zealand |
|---|----------|----------|-------|-------|-------------------|-------|-----------|-------------|
| Life expectancy (in years) <sup>a)</sup>                  |          |          |       |       |                   |       |           |             |
| Female  | 84       | 80       | 88    | 81    | 87                | 72    | 85        | 84          |
| Male  | 75       | 71       | 82    | 75    | 81                | 69    | 81        | 80          |
| Healthy life expectancy (in years) <sup>b)</sup>          |          |          |       |       |                   |       |           |             |
| Female  | 70.6     | 68.3     | 75.5  | 70.0  | 74.7              | 60.4  | 71.7      | 70.8        |
| Male  | 65.9     | 62.4     | 72.6  | 67.2  | 71.3              | 60.3  | 70.1      | 69.6        |
| Age-standardised mortality rate (per 1,000) <sup>a)</sup> |          |          |       |       |                   |       |           |             |
| Female  | 71       | 68       | 36    | 55    | 32                | 144   | 43        | 53          |
| Male  | 174      | 163      | 64    | 109   | 72                | 202   | 73        | 81          |

Sources: <sup>a)</sup> World Bank Open Data (<https://data.worldbank.org>) (accessed 27 April 2023);

<sup>b)</sup> WHO Global Health Observatory (<https://www.who.int/data/gho/data/indicators/indicator-details/GHO/gho-ghe-hale-healthy-life-expectancy-at-birth>) (accessed 27 April 2023).



In general, infectious diseases and maternal and child health-related diseases are the leading causes of death in many low-income countries. However, as economic growth progresses, an epidemiological transition occurs, and NCDs such as cancer and cardiovascular diseases become the leading causes. In many high-income countries, this epidemiological transition happened over a period of time, and NCDs began to increase after infectious diseases and maternal and child health-related diseases could be controlled to some extent. On the other hand, in many low- and middle-income countries, due to rapid urbanisation and dietary changes, the disease burden of NCDs is also increasing before the healthcare system is sufficiently established, i.e. when the disease burden of infectious diseases and maternal and child health-related causes are still high. This situation – in which both infectious diseases and/or maternal and child health-related diseases and NCDs need to be addressed – is referred to as the double burden of disease. The major causes of death in each country are discussed in detail in the case studies of Cambodia, Malaysia, Thailand, and Viet Nam (in Chapter 3), but many ERIA countries also face the challenge of the double burden of disease.

In this context, low- to middle-income countries are also being pressed to respond to NCDs before their healthcare delivery systems can be strengthened, and the double burden of disease is placing a significant burden on their healthcare delivery systems. To overcome this situation, there is a need to establish a healthcare system that can respond to patient care in a more comprehensive manner rather than through individual disease control. For example, it often happens that patients with HIV/AIDS can be treated and medications are available, but patients with diabetes cannot be managed, and medications are not available. However, the goal is to create a system that can address basic primary healthcare needs at a community level, and investment in strengthening the overall health system rather than investing in individual disease control is urgently needed.

#### **4. Sustainability in Healthcare Financing**

Next, we review the sustainability of healthcare financing in ERIA member states. The Abuja Declaration adopted in 2001 (WHO, 2019) recommends that approximately 15% of each country's gross domestic product (GDP) be allocated to health care. Although the actual basis for this estimate is not clear, in any case, a certain amount of public funds is indispensable to provide adequate medical care to the people and protect their standard of health. If this public funding is insufficient, it will mean an increase in out-of-pocket payments. As explained in more detail in the next section, the larger the co-payment ratio, the greater the health inequality will widen as only the wealthy are able to receive medical care. Therefore, it is important to increase the investment of public funds and reduce co-payments so that even low-income households can receive medical care without undue financial burden.

Table 1.4 shows the breakdown of healthcare financing in ERIA member states. Public spending of around 10% of GDP is found only in high-income countries such as Japan, the Republic of Korea, Australia, and New Zealand. Most countries are only able to allocate less than 5%. Similarly, in terms of out-of-pocket payments, most countries have very high rates of 40% or more. Going forwards, a common challenge for the entire region is to increase the allocation of public funds to the healthcare sector and at the same time reduce the co-payment ratio by enhancing the public insurance system and other schemes.

**Table 1.4. Trends in Healthcare Expenditure in 2021 (or latest available year)**

| <b>Indicators</b>                           | <b>Brunei</b> | <b>Cambodia</b> | <b>Indonesia</b> | <b>Lao PDR</b> | <b>Malaysia</b> | <b>Myanmar</b> | <b>Philippines</b> | <b>Singapore</b> |
|---|---------------|-----------------|------------------|----------------|-----------------|----------------|--------------------|------------------|
| Total health expenditure (THE) (% of GDP)   | 2.16          | 6.99            | 2.90             | 2.60           | 3.83            | 4.68           | 4.08               | 4.08             |
| Government expenditure on health (% of THE) | 94.32         | 24.31           | 48.94            | 36.93          | 52.2            | 15.76          | 40.60              | 50.20            |
| Private expenditure on health (% of THE)    | 5.68          | 69.19           | 50.51            | 41.86          | 47.80           | 75.96          | 58.99              | 49.80            |
| OOP payment (% of THE)                      | 5.69          | 64.39           | 34.76            | 41.83          | 34.57           | 75.95          | 48.56              | 30.15            |

| <b>Indicators</b>                           | <b>Thailand</b> | <b>Viet Nam</b> | <b>Japan</b> | <b>China</b> | <b>Republic of Korea</b> | <b>India</b> | <b>Australia</b> | <b>New Zealand</b> |
|---|-----------------|-----------------|--------------|--------------|--------------------------|--------------|------------------|--------------------|
| Total health expenditure (% of GDP)         | 3.79            | 5.25            | 10.74        | 5.35         | 8.16                     | 3.01         | 9.91             | 9.74               |
| Government expenditure on health (% of THE) | 71.66           | 43.80           | 83.86        | 55.98        | 59.53                    | 32.79        | 71.68            | 75.56              |
| Private expenditure on health (% of THE)    | 28.23           | 55.23           | 16.14        | 44.02        | 40.47                    | 66.38        | 28.32            | 24.44              |
| OOP payment (% of THE)                      | 8.67            | 42.95           | 12.91        | 35.23        | 30.25                    | 54.78        | 15.98            | 12.24              |

GDP = gross domestic product, THE = total healthcare expenditure, OOP = out-of-pocket.

Source: World Bank Open Data (<https://data.worldbank.org>) (accessed 27 April 2023).

## Chapter 2

### Universal Health Coverage Progress in Asian Countries

Universal health coverage (UHC) is defined by the World Health Organization (WHO) as ‘all people have access to the full range of quality health services they need, when and where they need them, without financial hardship. It covers the full continuum of essential health services, from health promotion to prevention, treatment, rehabilitation and palliative care across the life course’ (WHO, 2022). UHC comprises three major components: (i) cover entire population without disparity, (ii) provide necessary health services, and (iii) provide financial risk protection. To measure the achievement of UHC, the service coverage indicator (SCI) has been established by the WHO and the World Bank to provide necessary health services and financial risk protection with the establishment of two indicators: catastrophic expenditure and impoverishment.

Table 2.1 shows the progress made by each ERIA country on the most representative indicators in the SCI. All countries have achieved a relatively high level of progress in infectious diseases and maternal and child health, and almost all countries have achieved 80%, especially in the area of child immunisation. On the other hand, indicators for the management of NCDs, especially hypertension, are still low in most countries, and further improvement is needed. The greatest disparity between high-income and low- and middle-income countries is probably in the area of ‘service capacity and access.’ This indicates the number of doctors, nurses, and hospital beds per population and other so-called medical infrastructure, but there is still a large disparity in this area, and further improvement is needed in the future. In addition, the SCI basically evaluates inputs, not the actual quality of medical care and services provided. Therefore, for example, it has been pointed out that even if 80% of maternal health check-ups are achieved, the maternal health check-ups provided there are not always of good quality, and as a result, do not contribute to the reduction of maternal deaths. It will be important to incorporate the aspect of quality assessment in the future, especially in countries in the ERIA region, where the achievement of SCI is approaching 80% to some extent.

**Table 2.1. Coverage of Health Services at National Level (%)**

| <b>Indicators</b>   | <b>Brunei</b> | <b>Cambodia</b> | <b>Indonesia</b> | <b>Lao PDR</b> | <b>Malaysia</b> | <b>Myanmar</b> | <b>Philippines</b> | <b>Singapore</b> |
|---|---------------|-----------------|------------------|----------------|-----------------|----------------|--------------------|------------------|
| Family planning   | 76            | 61              | ≥80              | 70             | 55              | 77             | 57                 | 77               |
| Antenatal care by healthcare providers                          | ≥80           | 76              | ≥80              | 62             | ≥80             | 59             | ≥80                | ≥80              |
| Child vaccination   | ≥80           | ≥80             | ≥80              | ≥80            | ≥80             | ≥80            | 77                 | ≥80              |
| Care seeking for pneumonia or acute respiratory tract infection | ≥80           | 69              | 75               | 40             | ≥80             | 58             | 66                 | ≥80              |
| Tuberculosis treatment  | ≥80           | 63              | 66               | 61             | ≥80             | 77             | 68                 | ≥80              |
| HIV treatment   | 71            | ≥80             | 24               | 50             | 50              | ≥80            | 43                 | 76               |
| Access to at least basic sanitation                             | ≥80           | 66              | ≥80              | 79             | ≥80             | 73             | ≥80                | ≥80              |
| Management of blood pressure                                    | 23            | 57              | 33               | 53             | 32              | 38             | 44                 | 48               |
| Management of diabetes  | 68            | ≥80             | ≥80              | ≥80            | 76              | ≥80            | ≥80                | ≥80              |
| Tobacco control   | 76            | 68              | 46               | 53             | 67              | 35             | 66                 | 76               |
| RMNCH   | ≥80           | 74              | ≥80              | 61             | ≥80             | 70             | 71                 | ≥80              |
| Infectious diseases   | ≥80           | 70              | 51               | 62             | 76              | 77             | 62                 | ≥80              |
| NCDs  | 49            | 73              | 53               | 65             | 55              | 51             | 66                 | 71               |
| Service capacity and access                                     | ≥80           | 37              | 53               | 26             | ≥80             | 49             | 32                 | ≥80              |
| UHC SCI   | 77            | 61              | 59               | 50             | 76              | 61             | 55                 | ≥80              |

**Table 2.1. Continued**

| Indicators  | Thailand | Viet Nam | Japan | China | Republic of Korea | India | Australia | New Zealand |
|---|----------|----------|-------|-------|-------------------|-------|-----------|-------------|
| Family planning   | ≥80      | 79       | 57    | ≥80   | ≥80               | 73    | ≥80       | ≥80         |
| Antenatal care by healthcare providers                          | ≥80      | 74       | ≥80   | 77    | ≥80               | 51    | ≥80       | ≥80         |
| Child vaccination   | ≥80      | ≥80      | ≥80   | ≥80   | ≥80               | ≥80   | ≥80       | ≥80         |
| Care seeking for pneumonia or acute respiratory tract infection | ≥80      | ≥80      | ≥80   | ≥80   | ≥80               | 78    | ≥80       | ≥80         |
| Tuberculosis treatment  | ≥80      | 60       | ≥80   | ≥80   | ≥80               | ≥80   | ≥80       | ≥80         |
| HIV treatment   | 75       | 65       | ≥80   | 75    | 75                | 63    | ≥80       | ≥80         |
| Access to at least basic sanitation                             | ≥80      | ≥80      | ≥80   | ≥80   | ≥80               | 68    | ≥80       | ≥80         |
| Management of blood pressure                                    | 52       | 51       | 48    | 55    | 56                | 48    | 51        | 48          |
| Management of diabetes  | ≥80      | ≥80      | ≥80   | 72    | ≥80               | ≥80   | ≥80       | ≥80         |
| Tobacco control   | 68       | 64       | 70    | 63    | 69                | 60    | 80        | 80          |
| RMNCH   | ≥80      | ≥80      | ≥80   | ≥80   | ≥80               | 72    | ≥80       | ≥80         |
| Infectious diseases   | ≥80      | 70       | ≥80   | ≥80   | ≥80               | 71    | ≥80       | ≥80         |
| NCDs  | 70       | 69       | 69    | 62    | 70                | 63    | 73        | 69          |
| Service capacity and access                                     | ≥80      | 61       | ≥80   | ≥80   | ≥80               | 44    | ≥80       | ≥80         |
| UHC SCI   | ≥80      | 70       | ≥80   | ≥80   | ≥80               | 61    | ≥80       | ≥80         |

HIV = human immunodeficiency virus, RMNCH = Reproductive, Maternal, Newborn, and Child Health, = NCD = non-communicable disease, UHC = universal health coverage, SCI = service coverage indicator.

Source: World Health Organization (2021), Tracking Universal Health Coverage: 2021 Global Monitoring Report.

<https://www.who.int/publications/i/item/9789240040618>

## Chapter 3

### Country Chapter

#### 1. Cambodia

##### 1.1. Overview

Cambodia is a constitutional monarchy located in the southern Indochina peninsula, with 16.7 million people living in a land area of 180,000 square kilometres. Total gross domestic product (GDP) is US\$26.9 billion<sup>1</sup> and per capita GDP is approximately US\$1,600. Table 3.1 shows some basic health indicators of Cambodia.

**Table 3.1. Basic Health Indicators, Cambodia**

|                                 | <b>Cambodia</b>             | <b>Asian Average</b>        |
|---------------------------------|-----------------------------|-----------------------------|
| Life expectancy (female) (2017) | 72.7 years old <sup>a</sup> | 76.0 years old <sup>c</sup> |
| Life expectancy (male) (2017)   | 66.8 years old <sup>a</sup> | 71.0 years old <sup>c</sup> |
| Total fertility rate            | 2.7 <sup>a</sup> (2017)     | 2.3 <sup>d</sup> (2019)     |
| Maternal mortality rate (2020)  | 218                         | 140 <sup>e</sup>            |
| Under 5 mortality rates (2021)  | 24.8                        | 37.1 <sup>b</sup>           |

Sources: <sup>a</sup> Global Health Data Exchange. <https://www.healthdata.org/cambodia> (accessed 26 April 2023).

<sup>b</sup> UNICEF Data: Monitoring the Situation of Children and Women. <https://data.unicef.org> (accessed 26 April 2023). (Note: Under 5 mortality rate for Asian average covers only the South Asia region, according to UNICEF category and does not cover the entire region).

<sup>c</sup> Statista. <https://www.statista.com/markets/411/topic/446/demographics/#overview> (accessed 26 April 2023).

<sup>d</sup> OECD (2022), Society at a Glance: Asia/Pacific 2022. (Note: this number is for the Asia-Pacific region, not Asian region).

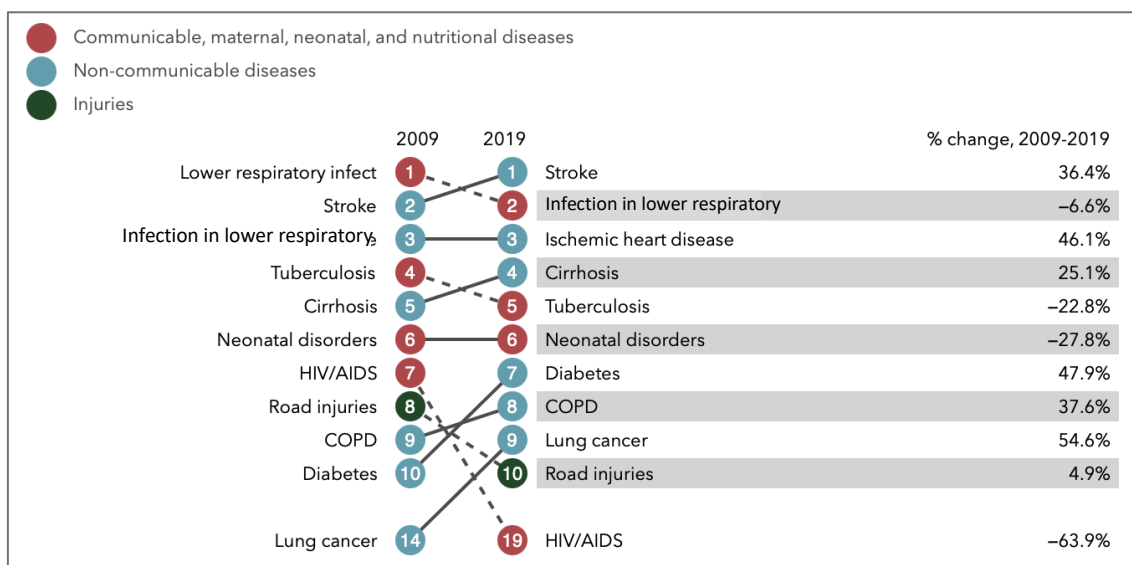
<sup>e</sup> OECD (2020), Health at a Glance: Asia/Pacific 2020. (Note: this number is for lower and lower-middle income countries in the region and does not include upper middle- and high-income countries in the region).

Figure 3.1 and Figure 3.2 shows changes in the leading causes of death and major risk factors in Cambodia from 2009 to 2019. Cambodia is also facing a typical double burden of diseases, with lower respiratory tract infections, tuberculosis, and neonatal diseases also amongst the leading causes of death, although the proportion of non-communicable diseases (NCDs) is gradually increasing.

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<sup>1</sup> World Bank Data. <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=KH> (accessed 27 April 2023).

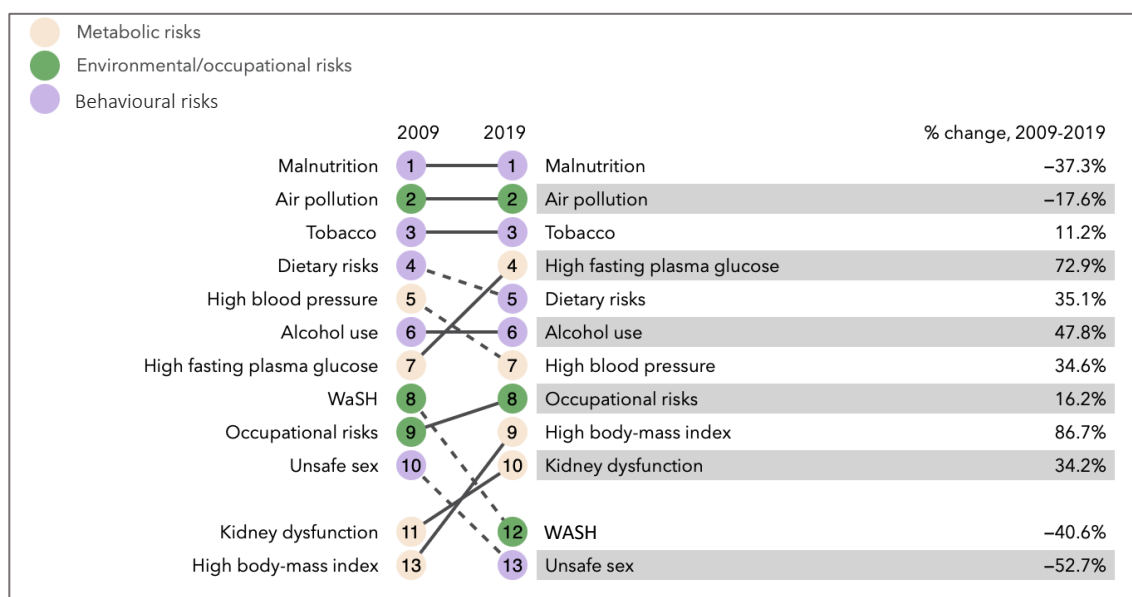
**Figure 3.1. Change in Leading Causes of Death in Cambodia, 2009–2019**



COPD = chronic obstructive pulmonary disease, HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome.

Source: Global Health Data Exchange. <https://www.healthdata.org/cambodia> (accessed 27 April 2023) (modified by author)

**Figure 3.2. Change in Key Risk Factors in Cambodia, 2009–2019**



WASH = water, sanitation and hygiene.

Source: Institute for Health Metrics and Evaluation. Cambodia Health Data. <https://www.healthdata.org/Cambodia> (accessed 27 April 2023) (modified by author).

## 1.2. Public Insurance Scheme

The social healthcare security scheme that currently exists in Cambodia is shown Table 3.2. Cambodia does not have a comprehensive universal health insurance system in place, and basically all medical expenses are self-paid.

**Table 3.2. Social Healthcare Security Scheme, Cambodia**

|   |                          |   |
|---|--------------------------|---|
| 1 | Health Equity Fund (HEF) | Medical assistance for poor households  |
| 2 | Government subsidy       | Full medical fee waiver programme for the poor  |
| 3 | CBHI                     | Voluntary, non-profit, community-based health insurance managed by nongovernment organisations and other organisations  |
| 4 | Voucher scheme           | A system where each family can receive free services by bringing a specific medical service voucher (coupon) distributed to each family to a medical institution.                     |
| 5 | Integrated programme     | Pilot project integrating 1, 3, and 4.  |
| 6 | CMHEF                    | A programme to provide transportation and food for hospital visits for the elderly, disabled, pregnant, and nursing mothers, and other vulnerable groups not covered by the HEF.      |
| 7 | Private insurance        | Benefit package is elective and focuses on hospitalisation  |
| 8 | NSSF                     | Social security scheme for private employees. Currently only workers' compensation insurance is in operation, but medical insurance and pensions will be launched within a few years. |
| 9 | NSSF-C                   | Social security scheme for government employees and their families. Currently only pensions   |

HEF = Health Equity Fund, CBHI = Community Health Protection Fund, CMHEF = community-Managed HEF, NSSF = National Social Security Fund.

Source: JICA (2017).

### Health Equity Fund

The Health Equity Fund (HEF) is a medical assistance programme for ID poor-certified households and was introduced in 2000. ID poor-certified households are eligible for benefits such as free medical services and reimbursement of transportation costs. The number of HEF beneficiaries is estimated to be 3.2 million (about 20% of the total population) as of August 2015 (11.7 million as of 2012, some reports put the figure at 78% of the total population [METI, 2021]), and the number of public medical facilities covered by the HEF as of August 2015 were 1,069 health centres, and 138 provincial hospitals and Khmer soviet hospitals.<sup>11</sup>



### **Community Health Protection Fund**

The Community Health Protection Fund (CBHI) is a voluntary, non-profit medical insurance programme operated by community-based nongovernment organisations and other organisations. The CBHI operates in areas by promoting enrolment and collecting insurance premiums. Participants pay a certain amount of premiums to receive services at medical institutions without having to pay out-of-pocket. Basically, the benefits cover services provided at public healthcare institutions. The CBHI covered 118,000 people in 21 health administrative districts (ODs) in seven states<sup>2</sup> as of 2016 (Lo, 2016; JICA, 2017). Since the non-poor informal sector is estimated to be about 10 million people, only 1.2% of them are currently covered by the CBHI. The Ministry of Health only develops and oversees the guidelines and does not invest any budget in the fund.

### **Community-managed Health Equity Fund**

The scheme provides transportation and food expenses for hospital visits to the elderly, disabled, pregnant and nursing mothers, and other vulnerable groups not covered by HEF. The scheme is not necessarily implemented throughout Cambodia and is only introduced in some areas.

### **National Social Security Fund**

The programme covers medical expenses for workers only, arising from accidents or disasters on the job, and the cost is split between the employer and employee. The National Social Security Fund (NSSF) under the Ministry of Labour and Vocational Training and the Ministry of Economy and Finance provides social security for employees in the private sector, the National Social Security Fund for Civil Servants (NSSF-C) under the Ministry of Social Affairs, Veterans and Youth Rehabilitation and the Ministry of Economy and Finance provides social security for civil servants and their families, and the medical security for the poor is administered and managed by the insurance certificate. The medical care guarantee for the poor is administered and managed by the insurance certificate.

## **1.3. Medical Delivery System**

The current public healthcare delivery system in Cambodia are based on the Health Coverage Plan formulated in 1995. Table 3.3 and Table 3.4 shows the detailed number of healthcare facilities in Cambodia. Health posts are public health facilities located at least 15 kilometres away from the nearest health centre, covering 2,000–3,000 people per health post. Each public health post provides services according to the level set by the Ministry of Health guidelines. The basic service package (MPA) is provided by health centres and health posts, whilst the comprehensive service package (CPA) is provided by provincial hospitals and more advanced medical institutions (secondary and tertiary health care facilities).

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<sup>2</sup> An operational health district covers a population of 100,000–200,000 and is required to have at least one referral hospital and one health centre for every 10,000–20,000 people.

**Table 3.3. Medical Institutions and Required Functions, Cambodia**

| Level of Medical Institution | Required Functions   |
|------------------------------|--|
| MPA                          | Preventive measures, basic treatment services, and specific disease measures   |
| CPA1                         | 40–60 bed inpatient facility. Large operating room (anaesthesiology) and obstetrics  |
| CPA2                         | 60–100 bed inpatient facility with CPA1 services plus ICU, anaesthesiology, blood bank, and special services such as emergency medicine, major surgery, and blood transfusions |
| CPA3                         | Inpatient facility with 100–250 beds, serving CPA2 or higher   |

CPA = comprehensive service package, ICU = intensive care unit, MPA = basic service coverage.

Source: The Kingdom of Cambodia. Health System Review. WHO Asia Pacific Observatory (2015).

**Table 3.4. Type and Number of Public Healthcare Facilities in Cambodia, 2012–2013**

|  |       |
|--|-------|
| Number of health administrative district (ODs) | 81    |
| Total number of hospitals                      | 106   |
| National hospitals                             | 8     |
| Number of referral hospitals                   | 91    |
| Provincial hospitals                           | 24    |
| Referral hospitals                             | 67    |
| Number of health centres                       | 1,024 |
| Number of health posts                         | 86    |

CPA = comprehensive service package.

Source: The Kingdom of Cambodia. Health System Review. WHO Asia Pacific Observatory (2015).

## 2. Malaysia

### 2.1. Overview

Malaysia is a country of 330,000 square kilometres with 32.7 million inhabitants. With a total GDP of US\$337 billion<sup>3</sup> and a per capita GDP of approximately US\$10,0231, Malaysia is classified as a middle-income country by the World Bank. Table 3.5 shows some basic health indicators of Malaysia.

<sup>3</sup> World Bank Data. <https://data.worldbank.org/country/malaysia?view=chart> (accessed 27 April 2023).

**Table 3.5. Basic Health Indicators, Malaysia**

|   | Malaysia                    | Asian Average               |
|---|-----------------------------|-----------------------------|
| Average life expectancy (female) (2017) | 77.3 years old <sup>a</sup> | 76.0 years old <sup>c</sup> |
| Average life expectancy (male) (2017)   | 72.4 years old <sup>a</sup> | 71.0 years old <sup>c</sup> |
| Total fertility rate                    | 2.0 <sup>a</sup> (2019)     | 2.3 <sup>d</sup> (2019)     |
| Maternal mortality rate (2020)          | 21                          | 140 <sup>e</sup>            |
| Under 5 mortality rate (2021)           | 7.5                         | 37.1 <sup>b</sup>           |

Sources: <sup>a)</sup> Global Health Data Exchange. <https://www.healthdata.org/malaysia> (accessed 26 April 2023).

<sup>b)</sup> UNICEF Data: Monitoring the situation of children and women. <https://data.unicef.org> (accessed 26 April 2023). (Note: Under 5 mortality rate for Asian Average covers only South Asia Region, according to UNICEF category and does not cover the entire region).

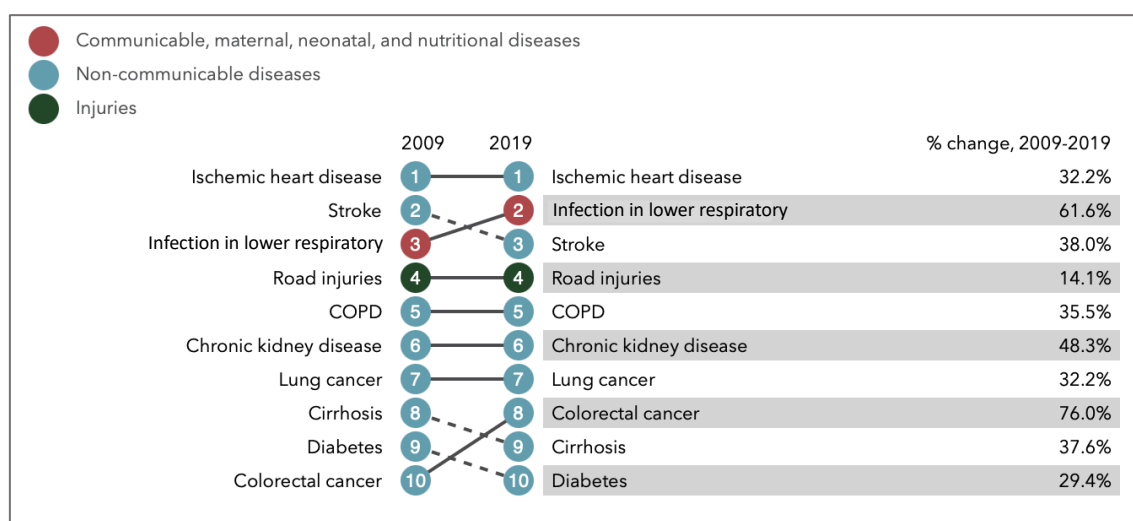
<sup>c)</sup> Statista. <https://www.statista.com/markets/411/topic/446/demographics/#overview> (accessed 26 April 2023).

<sup>d)</sup> OECD (2022), Society at a Glance: Asia/Pacific 2022. (Note: this number is for Asia-Pacific region, not Asian region).

<sup>e)</sup> OECD (2022), Health at a Glance: Asia/Pacific 2020. (Note: this number is for lower- and lower-middle income countries in the region and does not include upper middle- and high-income countries in the region).

Figure 3.3 and Figure 3.4 shows the changes in the leading causes of death and major risk factors in Malaysia from 2009 to 2019. NCDs are already the leading cause of death in Malaysia, and relatedly, the majority of major risk factors are also attributed to NCDs.

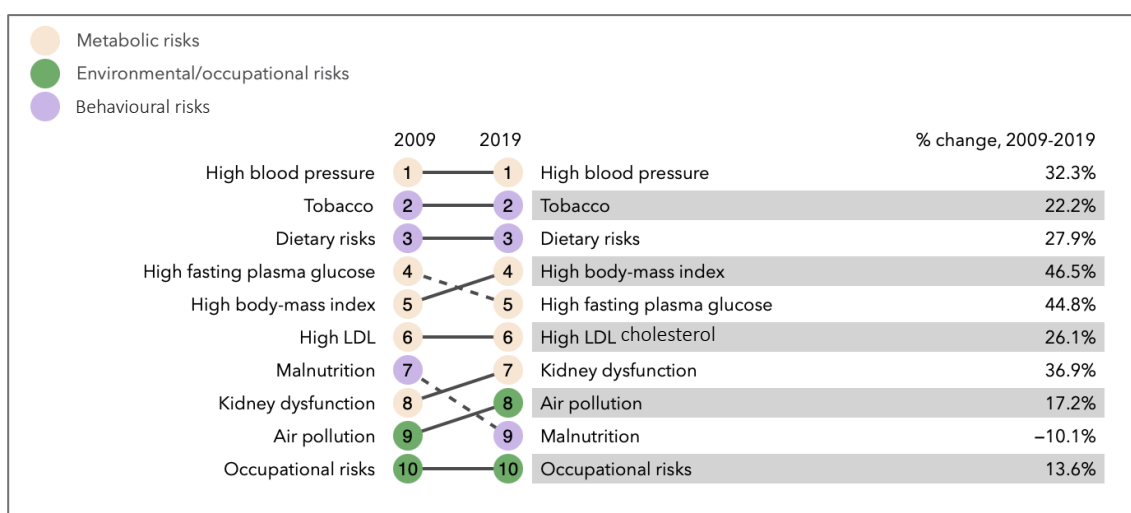
**Figure 3.3. Change in Leading Causes of Death in Malaysia, 2009–2019**



COPD = chronic obstructive pulmonary disease.

Source: Global Health Data Exchange. <https://www.healthdata.org/malaysia> (accessed 27 April 2023) (modified by author).

**Figure 3.4. Change in Key Risk Factors in Malaysia, 2009–2019**



LDL = low-density lipoprotein.

Source: Global Health Data Exchange. <https://www.healthdata.org/malaysia> (accessed 27 April 2023) (modified by author).

## 2.2. Public Insurance Scheme

Although there is no public medical insurance system in Malaysia, medical services at public medical institutions are covered by the federal government budget, so patients do not have to pay for their own medical expenses. For example, Malaysian citizens can receive outpatient treatment for one to several ringgit (RM1 = US\$0.22 as of December 2022). In addition, low-income individuals and civil servants receive treatment free of charge. Additional costs for tests, surgeries, hospitalisation, and drugs are also low.

Private medical institutions vary from large hospitals and highly-specialised hospitals targeting high-income and wealthy foreigners, etc. to small clinics run by nongovernment organisations and other organisations. In general, private medical institutions offer better services, such as shorter waiting times for consultations, but are often more expensive than public medical institutions, and are used by those who have private medical insurance or can receive subsidies from their employers. In addition, there are certain restrictions on the technical fees (consultation, examination, surgery, etc.) charged by doctors at private medical institutions under the Fee Schedule established in 1998 under the Private Medical Facilities and Services Act.

Soaring medical costs have become an issue in Malaysia in recent years, with medical costs rising sharply in the 2000s; total medical costs in 2011 were US\$11.6 billion (4.4% of GDP). In particular, the growth of medical expenses at private medical institutions has been remarkable, and in 2004, medical expenses at private medical institutions reversed the trend of medical expenses at public medical institutions. Currently, private and public medical institutions each account for about half of total medical expenditures. However, in 2010, the total number of annual outpatient visits and total number of hospitalised patients were approximately 48 million and 3 million, respectively, and it is estimated that public medical institutions are responsible for approximately 90% of these outpatient visits and 70% of these hospitalised patients. Therefore, the current situation in which private medical institutions, which provide only 10% of outpatient visits and

30% of inpatient admissions, account for about half of total medical costs has been criticised against the backdrop of soaring medical costs (MHLW, 2013).

### **2.3. Medical Delivery System**

In Malaysia, there are two types of medical institutions: public medical institutions under the umbrella of government agencies such as the Ministry of Health, and private medical institutions run by private organisations or nongovernment organisations. In general, patients at public medical institutions are middle- and low-income earners, civil servants, retirees, and residents of rural and remote areas, whilst private medical institutions mainly target high-income urban residents and affluent foreigners (including medical tourists). Medical services in rural and remote areas are mainly provided by public medical institutions, while basic outpatient care and health and hygiene services are provided by community clinics and mobile clinics set up every 10 kilometres. More specialised examinations and treatments are provided at district hospitals, and more advanced medical services such as emergency care are provided at state hospitals and national centres (such as the National Cardiovascular Centre), thus establishing a division of roles amongst medical institutions. In depopulated villages far from the cities, medical assistants (with 3 years of medical education but without a medical licence), nurses, and public health nurses provide medical services under the supervision and support of doctors in urban hospitals, either stationed or traveling around the city.

Since 2010, as one of the measures to support the poor, '1-Malaysia Clinics' have been established in urban residential areas where medical assistants provide late night (after 10 pm) treatment for minor illnesses such as fever and cough (about 100 clinics were established as of April 2012, and 70 more are scheduled to open by the end of 2012). Similarly, 1 Malaysia Clinics have been established to provide medical services to residents living in areas far from urban areas. Similarly, '1-Malaysia Mobile Clinics' converted from buses and boats, will provide free medical services to residents in areas far from urban areas. Although there is no registration system for opening clinics, there are few private clinics. In addition, Malaysia's overall system strongly reflects the influence of the United Kingdom (UK) but differs from the UK in that in primary care, there are no registered gatekeeper physicians as in the UK. As a result, patients tend to be concentrated in relatively high-level medical facilities.

On the other hand, amongst private medical institutions, major hospital groups such as KPJ Healthcare (20 hospitals with 2,600 beds) and Parkway-Pantai Group (30 hospitals with 4,900 beds and 60 clinics in Japan and abroad) have been constructing new hospitals in recent years, and 17 major hospitals alone (totalling 4,500 beds) are expected to open by 2015. In addition, 17 hospitals (totalling 4,500 beds) are scheduled to open by 2015. In addition, existing hospitals are being expanded.

The ratio of the number of doctors to the population is 1:859, but there are large regional differences. The ratio is 1:357 in Kuala Lumpur, the capital city, while the ratio is less than 1:1000 in seven of the 13 states. There is a shortage of psychiatrists, neurosurgeons, and other specialists in various fields, and there is also an exodus of doctors going overseas, where salaries are higher than in Malaysia. The government has been expanding the number of medical schools to increase the ratio of physicians to the population to 1:600, but the country faces a shortage of clinical training hospitals to accept the rapid increase in the number of new graduates and a

decline in the quality of new graduate physicians. As for nurses, the government intends to raise the ratio of nurses to population to 1:200 by 2015. Most graduates of public nursing schools (about 5,000 per year) are employed by public medical institutions, but there are not enough graduates of private nursing schools who wish to work in private medical institutions (about 1,500 new graduate nurses are accepted by private medical institutions compared to about 12,000 graduates per year). For about 12,000 graduates per year, the number of new graduate nurses accepted by private medical institutions is said to be about 1,500. Public medical institutions accept only about 400. As with doctors, whilst experienced nurses are leaving for overseas (developed countries and the Middle East), a large number of foreign nurses (about 8,000) are working in private medical institutions, and there are calls for private medical institutions to hire Malaysian nurses.

#### **2.4. Major Issues and Future Prospects**

While Malaysia is generally considered to have one of the highest standards of health care amongst ASEAN countries, it also faces challenges. Particularly serious are the various disparities between public and private medical institutions. Private institutions offer short waiting times, cleanliness, and advanced medical care, but at higher prices than public institutions, however only a limited number of people are able to take advantage of these services.

Public healthcare institutions also face a variety of problems. It has already been mentioned that gatekeeper functions do not exist at the primary care level, and thus there is a concentration of patients in higher tertiary care institutions. In addition, although public medical institutions generally charge very low prices for basic medical care and tests, some of the medical services and supplies are expensive, and even if a patient does visit a public medical institution, the increasing co-payment ratio is a problem. The increasing co-pay ratio is a problem even if the patient receives medical care at a public medical institution.

### **3. Thailand**

Thailand established the Universal Health Coverage Scheme (UCS) and achieved UHC in 2002. Since then, it has been actively working to equalise the healthcare delivery system, improve the quality of health care, and increase access to health care for the poor and the informal sector, etc. Thailand is one of the countries most often mentioned as a representative country that has succeeded in achieving universal coverage amongst middle-developed countries.

#### **3.1. Overview**

Thailand is one of the bigger countries in ASEAN with 70.1 million people living in a land area of 514,000 square kilometres. With a total GDP of US\$505.95 billion and a GDP per capita of US\$7,066<sup>4</sup>, Thailand is classified as a middle-income country by the World Bank. Table 3.6 shows some basic health indicators of Thailand.

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<sup>4</sup> World Bank Data. <https://data.worldbank.org/country/thailand?view=chart> (accessed 27 April 2023).

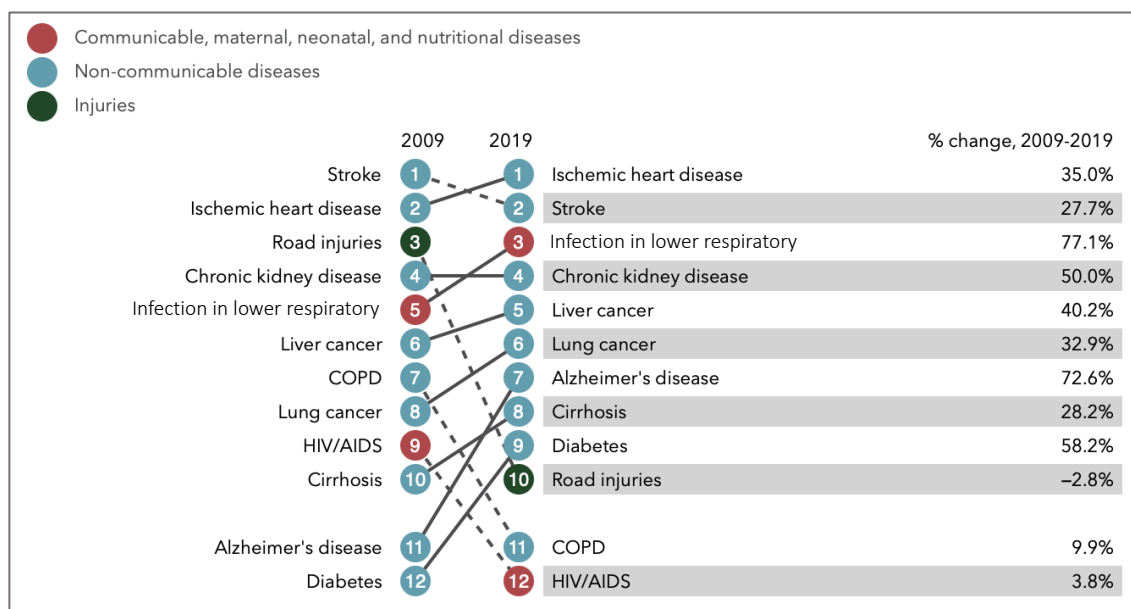
**Table 3.6. Basic Health Indicators, Thailand**

|   | Thailand                    | Asian Average               |
|---|-----------------------------|-----------------------------|
| Average life expectancy (female) (2017) | 82.0 years old <sup>a</sup> | 76.0 years old <sup>c</sup> |
| Average life expectancy (male) (2017)   | 74.3 years old <sup>a</sup> | 71.0 years old <sup>c</sup> |
| Total fertility rate                    | 1.2 <sup>a</sup> (2019)     | 2.3 <sup>d</sup> (2019)     |
| Maternal mortality rate (2020)          | 29                          | 140 <sup>e</sup>            |
| Under 5 mortality rate (2021)           | 8.3                         | 37.1 <sup>b</sup>           |

Sources: <sup>a)</sup> Global Health Data Exchange. <https://www.healthdata.org/thailand> (accessed 26 April 2023).  
<sup>b)</sup> UNICEF Data: Monitoring the situation of children and women. <https://data.unicef.org> (accessed 26 April 2023). (Note: Under 5 mortality rate for Asian average covers only South Asia Region, according to UNICEF category and does not cover the entire region).  
<sup>c)</sup> Statista. <https://www.statista.com/markets/411/topic/446/demographics/#overview> (accessed 26 April 2023).  
<sup>d)</sup> OECD (2022), Society at a Glance: Asia/Pacific 2022. (Note: this number is for Asia-Pacific region, not Asian region).  
<sup>e)</sup> OECD (2022), Health at a Glance: Asia/Pacific 2020. (Note: this number is for lower and lower-middle income countries in the region and does not include upper middle- and high-income countries in the region).

Figure 3.5 and Figure 3.6 shows changes in the leading causes of death and major risk factors in Thailand from 2009 to 2019. NCDs are already the leading cause of death in Thailand, and relatedly, the majority of major risk factors are also attributed to NCDs.

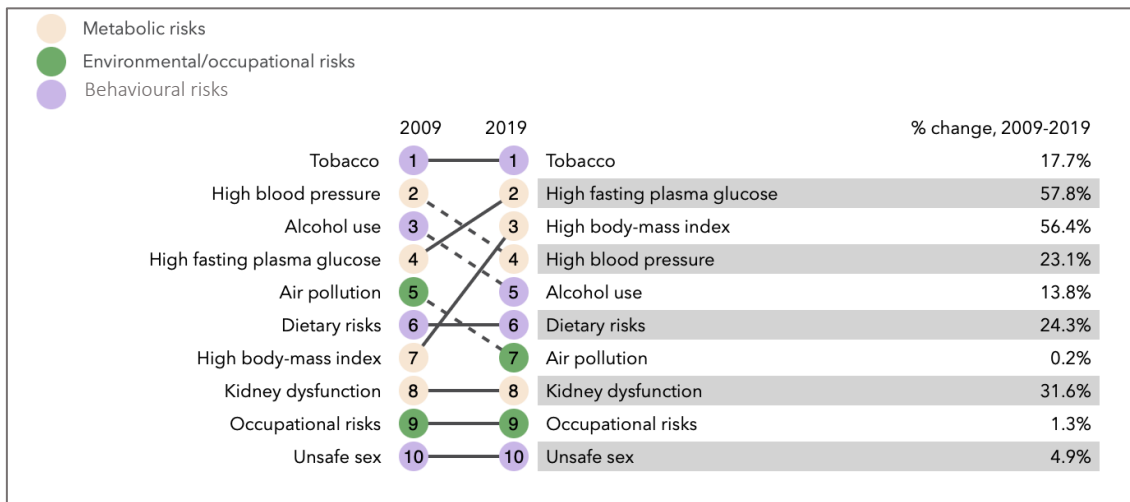
**Figure 3.5. Change in Leading Causes of Death in Thailand, 2009–2019**



COPD = chronic obstructive pulmonary disease, HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome.

Source: Global Health Data Exchange. <https://www.healthdata.org/thailand> (accessed 27th April 2023) (modified by author)

**Figure 3.6. Change in Key Risk Factors in Thailand, 2009–2019**



Source: Global Health Data Exchange. <https://www.healthdata.org/thailand> (accessed 27 April 2023) (modified by author).

### 3.2. Public Health System

Historically, the Civil Servant Medical Benefit Scheme (CSMBS) covering civil servants was established first, followed by the Social Security Scheme (SSS) covering employees of large companies, and finally the Universal Coverage (UC) scheme covering citizens who are not covered by these two schemes. The CSMBS is the most preferential scheme, covering civil servants and their families, financed by general taxation, and with virtually no restrictions on benefits. In SSS, family members are not covered (i.e., they are covered under the UC scheme). Funding is a combination of 50–50 labour–management premiums (the share varies from company to company) and tax subsidies. Hospital visits are limited to those at medical facilities contracted by the insurer. The UC scheme, introduced in 2002, is financed by taxes, and hospital visits are mainly at primary care-based public medical facilities contracted by the Ministry of Health. Since the UC scheme is voluntary, there are a certain number of non-enrolees, including the wealthy who do not need to join the system and the poorest who do not know how to enrol. In the case of an emergency, treatment can be received at any medical institution within 72 hours, but after 72 hours, treatment is subject to the conditions of the system to which the patient is enrolled.

An important policy regarding medical costs is the B30 medical fee system introduced under the Thaksin administration (2001–2006). Under this system, patients only needed to pay B30 to a medical institution for a single consultation or treatment, which has greatly improved the public's access to medical care. However, the amount paid by the National Health Security Office to hospitals under this system was only about B300, far below the actual cost, and as a result, many medical institutions suffered losses. Although the system was eventually abolished with the fall of the Thaksin administration, the system, which provided access to medical care for the middle-income class, was greatly supported by the public. On the other hand, the B30 co-payment was too heavy for low-income groups, and this led to the subsequent UC system with no co-payment.



**Table 3.7. Public Health Financing Scheme, Thailand**

|                                    | <b>Civil Servant Medical Benefit Scheme (CSMBS)</b>  | <b>Strategic Information System (SSS)</b>                               | <b>Universal Coverage (UC)</b>   |
|------------------------------------|--|---|--|
| Target population                  | 5 million (7%)   | 14 million (20%)  | 50 million (73%)   |
| Target group                       | Government employees, their spouses, and their immediate family members  | Employees of private and public companies (dependents are not eligible) | All others not covered by CSMBS and SSS                                  |
| Resources                          | Taxes  | Taxes and insurance (company and employee share)                        | Taxes  |
| Choice of service provider         | Free access for public medical institutions, free access for private medical institutions in case of emergency | Public and private healthcare providers contracted with the insurer     | Mainly temporary medical facilities contracted by the Ministry of Health |
| Annual medical expenses per capita | B15,249  | B1,500  | B3,197   |
| Ministry in charge                 | Principal Accounting Bureau, Ministry of Finance   | Ministry of Labour (now Ministry of Health, Labour and Welfare)         | National Health Security Bureau, Ministry of Health                      |

Source: WHO Regional Office of the Western Pacific (2015), The Kingdom of Thailand Health System Review.

Comparing the per capita medical cost of each public healthcare system, the per capita medical cost amount of CSMBS is about 10 times higher than that of SSS and about five times higher than that of the UC scheme. In addition to the amount of money, there is the problem that CSMBS covers the subscribers and their family members, whilst SSS and UC cover only the subscriber and not dependents. Although there are difficulties because the governing bodies of each system differ, the challenge is to correct the inequalities amongst the systems.

### **3.3. Medical Delivery System**

In Thailand, public medical institutions account for the majority of secondary, tertiary, and advanced tertiary care facilities, whilst private medical institutions play a major role in primary care facilities. Primary healthcare facilities are classified as (i) community health centres, (ii) health promotion hospitals, and (iii) clinics. Community health centres are responsible for the management of chronic diseases and common diseases, as well as preventive and health promotion activities including immunisation. In rural areas, this corresponds to health promotion hospitals (no full-time physicians, nurses on staff, and no hospital beds), which are characterised by comprehensive preventive and health promotion activities in addition to primary care. As a result, the health status of the poor in particular has improved significantly. Under the UC scheme mentioned above, residents are registered at community health centres

(or health promotion hospitals in rural areas), and when necessary, they visit these medical institutions. If it is determined that a doctor's examination is necessary, the patient is referred to a secondary medical facility in charge of that area. In principle, referrals are made to secondary or higher level of medical facilities.

One of the challenges of medical resources in Thailand is their geographic uneven distribution. Due to the expansion of medical tourism targeting foreign patients, mainly through private hospital chains, the number of doctors and nurses working in private hospitals in urban areas, where they are better paid, is increasing, resulting in a shortage of medical personnel working at rural medical institutions. To secure doctors in rural areas, the Thai government requires all medical professionals to work in rural areas for several years after graduation from university (3 years for doctors). The government has also introduced preferential admission and scholarship programmes for medical students from rural areas. However, this has not led to a sufficient solution to the uneven distribution of medical personnel, and further action is needed.

### **3.4. Major Issues and Future Prospects**

As in many middle-income countries, Thailand has an equally urgent need to address the increase in chronic diseases due to changes in the structure of disease and the ageing of the population. There are also persistent calls for correcting institutional imbalances, i.e. inequalities amongst the UC scheme, the CSMBS, and the SSS, especially between CSMBS and the rest of the system, and especially amongst civil servants.

## **4. Viet Nam**

Reflecting the spirit of a socialist nation, Viet Nam is the only ASEAN country to have universal health insurance. Although the level of medical care has been improving in recent years, there are still disparities between urban and rural areas, and between the rich and the poor. The country's diverse ethnic minorities place high value on medical care, and although the universal health insurance system is gradually being developed, there are still issues to be addressed, such as the actual behaviour of patients in receiving medical care and the improvement of medical outcomes.

### **4.1. Overview**

Viet Nam is one of the bigger countries in ASEAN with 96.2 million people living in a land area of 330,000 square kilometres. With a total GDP of US\$245.2 billion<sup>5</sup> and a per capita GDP of approximately US\$2,590, Viet Nam is classified as a middle-income country by the World Bank. Table 3.8 shows some basic health indicators of Viet Nam.

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<sup>5</sup> World Bank Data. <https://data.worldbank.org/country/vietnam?view=chart> (accessed 27 April 2023).

**Table 3.8. Basic Health Indicators, Viet Nam**

|   | Viet Nam                    | Asia Average                |
|---|-----------------------------|-----------------------------|
| Average life expectancy (female) (2017) | 79.2 years old <sup>a</sup> | 76.0 years old <sup>c</sup> |
| Average life expectancy (male) (2017)   | 70.0 years old <sup>a</sup> | 71.0 years old <sup>c</sup> |
| Total fertility rate                    | 1.9 <sup>a</sup> (2017)     | 2.3 <sup>d</sup> (2019)     |
| Maternal mortality rate                 | 124 <sup>b</sup> (2021)     | 140 <sup>e</sup> (2020)     |
| Under 5 mortality rate (2021)           | 20.6 <sup>b</sup>           | 37.1 <sup>b</sup>           |

Sources: <sup>a)</sup> Global Health Data Exchange. <https://www.healthdata.org/vietnam> (accessed 26 April 2023).

<sup>b)</sup> UNICEF Data: Monitoring the situation of children and women. <https://data.unicef.org> (accessed 26 April 2023). (Note: Under 5 mortality rate for Asian average covers only South Asia region, according to UNICEF category and does not cover the entire region).

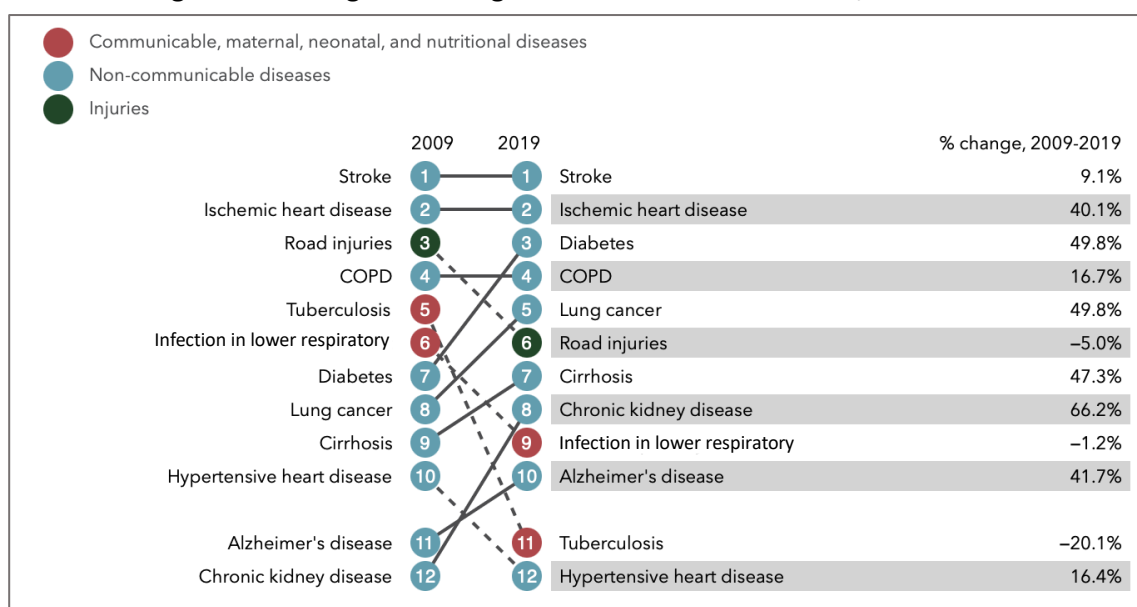
<sup>c)</sup> Statista. <https://www.statista.com/markets/411/topic/446/demographics/#overview> (accessed 26 April 2023).

<sup>d)</sup> OECD (2022), Society at a Glance: Asia/Pacific 2022. (Note: this number is for Asia-Pacific region, not Asian region).

<sup>e)</sup> OECD (2022), Health at a Glance: Asia/Pacific 2020. (Note: this number is for lower and lower-middle income countries in the region and does not include upper middle- and high-income countries in the region).

Figure 3.7 shows changes in the leading causes of death and major risk factors in Viet Nam from 2009 to 2019. In Viet Nam, NCDs already account for the majority of major causes of death, and relatedly, the majority of major risk factors are also attributable to NCDs (Figure 3.8).

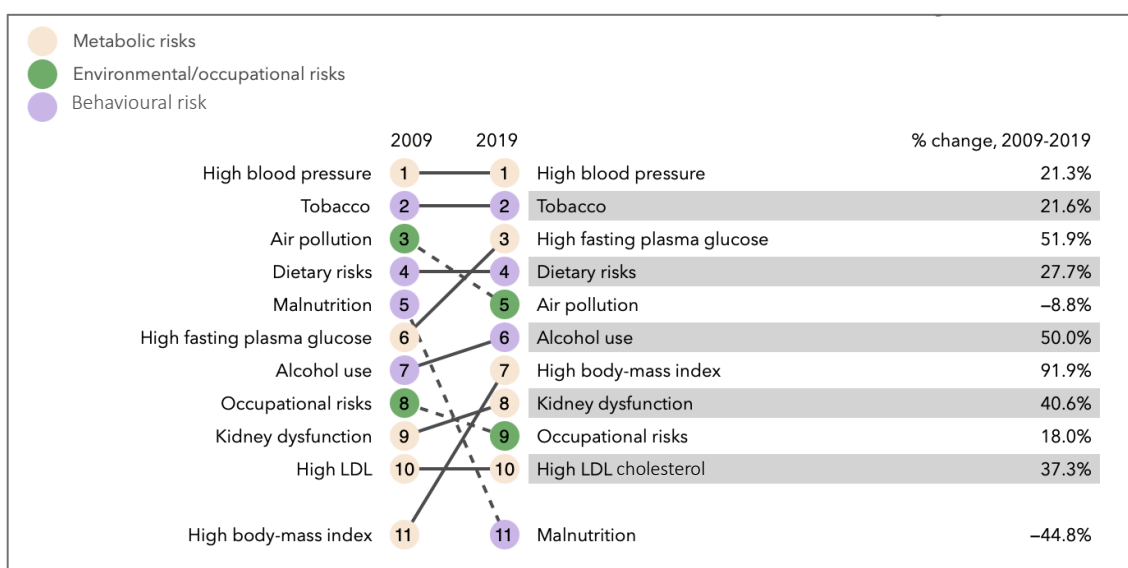
**Figure 3.7. Change in Leading Causes of Death in Viet Nam, 2009–2019**



COPD = chronic obstructive pulmonary disease.

Source: Global Health Data Exchange. <https://www.healthdata.org/vietnam> (accessed 26 April 2023) (modified by author).

**Figure 3.8. Change in Key Risk Factors in Viet Nam, 2009–2019**



LDL = low-density lipoprotein.

Source: Global Health Data Exchange. <https://www.healthdata.org/vietnam> (accessed 26 April 2023) (modified by author).

#### 4.2. Public Insurance Scheme

Viet Nam, a socialist country, values the spirit of equality and has introduced a compulsory universal health insurance system as one of its public social security systems. This is a compulsory insurance programme operated by the state, based on the Health Insurance Law, and workers who join the programme are compensated for their medical expenses by the Health Insurance Fund. The insurance covers not only company workers, but also a wide range of socially vulnerable groups such as children, the elderly, ethnic minorities, and agriculture, forestry, and fishery workers. The amount covered by the insurance is 60%–100% of the actual medical treatment received.

The programme dates back to 1992. Initially, the programme covered a limited number of people, including employees, government employees, and pensioners, but the scope of coverage was gradually expanded, and today, the insured are divided into the following six categories.

Group 1: Employees and civil servants (about 15 million)

Group 2: Pensioners and other public benefit recipients (about 2.5 million)

Group 3: Ethnic minorities and low-income people (about 30 million)

Group 4: Children under 6 years old (approx. 10 million)

Group 5: Students (approx. 20 million)

Group 6: Self-employed, farmers, informal sector other than Group 1–5 (about 20 million people)

Of these, Groups 1–5 are compulsory, whilst Group 6 is voluntary. Premium rates and public subsidies vary depending on age and the industry in which they work, but Groups 2–4 in

particular are positioned as socially vulnerable, and the government pays all or half of their premiums. Although the government aims to achieve full universal health insurance coverage, the current coverage rate is about 80%.

### 4.3. Medical Delivery System

Visits to medical institutions are not free-access; rather, patients can receive medical treatment at the medical institution listed on their health insurance card. In addition, although both public and private medical institutions are responsible for medical services, the number of private medical institutions is much smaller than the number of public medical institutions (182 private institutions vs 1,150 public hospitals). Public medical institutions have introduced a referral system whereby patients are referred to higher-level medical institutions based on their symptoms. As shown in Table 3.9, Viet Nam has a four-tier system from lower to higher tiers (primary, secondary, tertiary, and quaternary), which has realised a division of roles amongst medical institutions, with commune health stations (equivalent to clinics) in each region taking care of patients with minor conditions, whilst higher tier medical institutions handle patients with severe conditions. However, the financial resources of each provincial government are scarce and budget allocations are inadequate, and many provincial hospitals have inadequate facilities and equipment, as well as a shortage of medical personnel.

**Table 3.9. Medical Referral System, Viet Nam**  
(number of medical institutions in parentheses)

|                   |   |
|-------------------|---|
| Primary (11,083)  | Commune health stations (commune level)   |
| Secondary (982)   | County hospitals, regional general hospitals (county level)                                   |
| Tertiary (459)    | Provincial hospitals, traditional medical hospitals, specialised hospitals (provincial level) |
| Fourth level (47) | National hospitals (central level)  |

Source: General Statistics Office, Viet Nam. Statistics Yearbook 2017. <https://www.gso.gov.vn/wp-content/uploads/2019/10/Nien-giam-2017-pdf.pdf>

To be covered by insurance, patients must visit medical institutions in accordance with the referral system. If the referral system is ignored, the co-payment of medical expenses is expensive. However, a phenomenon has been observed in which patients, mainly the wealthy, ignore the referral system and are excessively concentrated in upper-level medical institutions. The centralised concentration of patients in central base hospitals has resulted in a bed occupancy rate of nearly 200%, making it an issue to improve the quality of services and the efficiency of the medical system as a whole.

#### **4.4. Major Issues and Future Prospects**

Viet Nam has set a goal of a universal health insurance system and is working to raise the coverage rate by subsidising premiums for low-income individuals, introducing household-based coverage, and ensuring that employers are fully covered. However, there are regional differences in insurance coverage rates, and eliminating these disparities is an urgent issue. For example, in the northern province of Hoa Binh, the insurance coverage rate is over 80%, whilst in some southern provinces it is only around 55% (Daiwa Institute of Research, 2016). The coverage rate tends to be higher in rural areas where there are more people eligible for subsidised insurance premiums, and lower in urban areas where there are fewer people eligible for subsidised insurance premiums. It has been pointed out that the high medical insurance coverage rate in the province of Hoa Binh is due to the fact that ethnic minorities account for more than 70% of the province's population and the poverty rate is relatively high due to the lack of notable industries (Daiwa Institute of Research, 2016). On the other hand, in urban areas where insurance coverage is low, the presence of a certain number of people that purchase private medical insurance and do not purchase public insurance may also be a factor in the rural disparity.

In addition, there are cases where medical insurance coverage does not necessarily lead to the use of medical insurance, even if the patient actually has medical insurance. For example, in Viet Nam most of the medical institutions covered by public insurance are public hospitals, but the facilities, especially those corresponding to primary facilities, are small in size and inadequate in terms of both equipment and human resources, so the level of medical services is perceived as low. Therefore, patients often visit private medical institutions in the hope of receiving better services. There is an urgent need to improve this gap in quality of medical care between public and private medical institutions. Furthermore, as mentioned above, whilst the insurance coverage rate in the province of Hoa Binh is higher than the national average, the rate of medical visits is reportedly low. Approximately 75% of the province is mountainous, and access to public medical facilities is difficult in many areas. In addition, due to the custom of traditional medicine that has taken root in the region, many people do not visit medical institutions when they feel unwell, and instead rely solely on traditional medicine within the region. Whilst there are aspects of traditional medicine that should be respected, some of its effects and efficacy have not been scientifically proven, and patients should be encouraged to visit a medical institution when necessary.

To eliminate these disparities in Viet Nam, in addition to raising the public medical insurance coverage rate, it is essential to improve the level of medical services provided by public medical institutions, especially in rural areas. In addition, whilst most medical institutions covered by public insurance are currently limited to public medical institutions, it will be necessary to expand the scope of coverage to include the private sector as well.

## Chapter 4

### Recommendations

We have reviewed the progress of universal health coverage (UHC) in ERIA member states. Since ERIA member states differ greatly in terms of their economic conditions and medical standards, it is difficult to draw any common view on the progress of UHC. However, there are some commonalities that are key to achieving UHC. The first is the very core concept of UHC, which is to cover the entire population. Basically, when considering the coverage of healthcare services in any country, it starts with civil servants, and then the formal sector, such as companies, is covered. On the other hand, coverage of the informal sector, racial minorities, people living in remote areas, and other socially vulnerable groups comes last. Therefore, it is important for each country to identify where in the country the social groups most likely to be left behind are located when considering coverage for all.

In addition, as public services expand, population coverage by private actors will expand, especially at a faster rate than the expansion of public services. This in itself is an inevitable situation, and collaboration with the private sector is essential to achieving UHC. On the other hand, compared to public services, the private sector often offers higher quality but also higher prices. Therefore, there is concern about the widening gap between those who have access to such high-priced services, such as the wealthy, and those who can only access public services. Whilst some countries are developing regulations regarding the entry of the private sector into the healthcare industry, others do not have such regulations and leave the gap between public and private healthcare providers untouched.

The next commonality is the way to provide a financial risk protection scheme. As explained in Chapter 2, it is common practice for countries to introduce either tax revenues or a public insurance system to reduce the co-payment ratio (there are many ERIA member states that rely on donor assistance to finance their health care, and there is a need for a gradual shift away from such donor assistance and the introduction of a system that does not rely on donor assistance). Some countries, such as Malaysia rely on taxation, whilst others, such as Viet Nam rely mainly on an insurance system. There is no one way better than the other, and it is important to find a method that suits the country and build a system. What is crucial is to take into account the impact of the underlying economic growth and demographics. When economic growth is high, tax revenues are naturally high, and social insurance premiums, which form the basis of the insurance system, can be paid from economic growth and salary growth at the individual level. On the other hand, when economic growth is not so high, it will be difficult to convince the public whether to raise taxes or social insurance premiums. It is also important to keep in mind the ageing of the population. Population ageing is often discussed in terms of the increase in the need of medical services, but it is also an important factor to consider when constructing financial risk protection. In other words, an ageing population means a decrease in tax revenues and a decrease in the number of payers of social insurance premiums. Since demographic trends

can be predicted to some extent over the medium to long term, it is important to consider system design based on such future projections.

The third commonality is the service provision package. The necessary service coverage is different from the basic services. Whilst it is of important to establish a system so that primary care as envisioned in so-called primary clinics can be provided appropriately, the service provision that UHC aims for goes beyond the framework of primary care. As stated in the definition, the goal is to be able to provide a series of medical services, starting with prevention, examination, treatment, rehabilitation, and palliative care. The definition of what constitutes necessary medical services varies from country to country. It is important to take into account all indicators such as the burden of disease and cost-effectiveness in a country when determining the necessary services to be covered by the public system, whether through taxes or insurance.

Finally, we would like to discuss the impact of the novel coronavirus disease (COVID-19), which has been prevalent since the end of 2019. So far, the majority of ERIA member states had made good progress towards achieving UHC by 2030 before COVID-19. However, the COVID-19 pandemic has changed that situation, and in fact, several health services in several countries have been noted to be regressing in service coverage indicators. This is due to the fact that limited medical resources and donor funds were allocated entirely to COVID-19 during the pandemic. Because all resources were devoted to the COVID-19 response, even in high-income countries, appropriate responses to other diseases were not available, resulting in a situation where excess deaths are seen in many countries. The urgent task is to return to normalcy the provision of health services other than the many infectious disease control measures that were interrupted by COVID-19. In addition, since a global pandemic like COVID-19 will eventually occur again, it is necessary for countries to establish a system that enables the provision of a minimum level of medical services even in the midst of a health crisis. The goal is to create a system that can protect people's lives by flexibly changing its system, rather than responding to a contingency within a rigid healthcare delivery system during an emergency.



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