BACKGROUND PAPER

Universal Health Coverage and Ageing in Developing Asia

Paul Kowal, Thanh Hoang, and Nawi Ng

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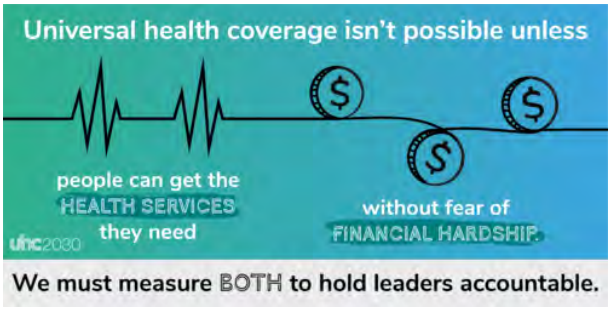
Universal Health Coverage and Ageing In Developing Asia

Paul Kowal,[1] Thanh Hoang,[2] and Nawi Ng [2]
[1]Australian National University, College of Health and Medicine, Health Data Analytics Team
[2] University of Gothenberg, School of Public Health and Community Medicine

I. INTRODUCTION

Over the next 30 years, the number of persons aged 60 years or older who are living in Asia is expected to more than double, from 606 million in 2020 to 1.3 billion by 2050. The percentage of the global population aged 60 and older who are residing in Asia will also increase from 57% in 2020 to 62% in 2050. Alongside the projected increase in the number and proportion of older adults in Asia in the future, the overall disease burden from chronic conditions has also increased in the recent past from 70% to 77% of all deaths between 2010 and 2019. This could indicate higher levels of chronic diseases in older populations and, possibly, earlier age of onset of these conditions and their risks (like adolescent obesity and tobacco use) (Terfel 2021, Akseer et al. 2020, Young Help Programme 2018). These demographic and health shifts raise concerns about labor force participation and productivity, social protection systems, and the overall health and economic security across working age and older adult populations. The implications for health systems are also significant. Health systems focused on hospital-based acute care and disease treatment will struggle to provide long-term disease management and care for those with one or more non-communicable diseases (NCDs) (multimorbidity). Adding to this, the push to leave no one behind in global initiatives has propelled interest in older individuals and societies, including countries across Asia. For population health equity goals, this includes universal health coverage (UHC) at all ages.



Access to health care at an affordable cost is the basis for the World Health Organization (WHO) and the United Nations Sustainable Development Goal (SDG) 3.8 definition of UHC: "...people receive the quality health services they need without suffering financial hardship". Monitoring of Target 3.8 will be incomplete unless it tracks the two aspects that are integral to UHC; namely, coverage of essential health services and financial protection (see box, UHC2030). Performing well on one UHC dimension (coverage or access) does not guarantee strong performance on the other dimension (financing). If we are to truly leave no one behind, then UHC must transform the ability of health and social systems to address both dimensions for them to be fit for an ageing Asia.

In the Asian context, a number of countries have achieved UHC (for example, Bhutan, Malaysia, Singapore, Sri Lanka, and Thailand), while the pace of progress towards UHC varies in other countries in the region. The pace of improvement in access and quality of services accelerated in Southeast Asia between 2000 and 2019, with wide differences at subnational levels and disparities in the main drivers of disease burden (like NCDs) and available health services (Global Burden of Disease 2019). Even in countries who report having achieved UHC, the coronavirus disease (COVID-19) pandemic has exacerbated the often-difficult situation of access and inequalities in health and health care for older persons in Asia and the Pacific.

"Even before the COVID-19 pandemic struck, almost 1 billion people were spending more than 10 per cent of their household budget on health."
– Juan Pablo Uribe, Global Director for Health, Nutrition and Population, World Bank (World Health Organization and World Bank 2021a)

As of the end of 2017, WHO and the World Bank estimated that at least half of the global population could not obtain essential health services and 100 million people were pushed into poverty because of health expenses (WHO and World Bank 2017). Each year, large numbers of households in developing Asia are being pushed into poverty because they must pay for health care out of their own pockets (Wang et al. 2018). Disrupted health services, stretched health systems, and reduced labor force participation that stemmed from the COVID-19 pandemic altered progress towards UHC in many countries (WHO and World Bank 2021a, WHO and World Bank 2021b). Achieving UHC can provide the mechanisms to decrease or prevent household catastrophic expenditure, but may not eliminate it (Tangcharoensathien et al. 2020, Wagstaff et al. 2018). However, UHC will require reconciling the social determinants of health and individual well-being with health, social systems, and rights. In turn, this will require political will at local and national levels that goes beyond global agreements—and restructuring of not just services, but the way that services are conceived—where prevention is a major component of integrated person-centered, value-based support and care (Barber et al. 2017). Here, it is worth noting the prevention paradox and the importance of implementing both low-risk population-based health promotion strategies as well as high-risk targeted individual intervention, especially for those with multimorbidity (Rose 1981). For older adults specifically, person-centered care may well improve health outcomes and has the potential to improve cost effectiveness of care (Liang 2017).

The COVID-19 pandemic has shown just how quickly governments and health care systems can change, where capacity and political and financial support are aligned. It has also illustrated how much more systems need to adapt and strengthen to achieve the 2030 SDGs, including SDG 3.8 regarding UHC, as a mitigating factor against future communicable disease and NCD burdens. The recovery process offers an opportunity to assess the needs of the growing population of older persons in the region and to set the stage for transformations of health systems. It also provides space to consider transformations of health systems that suit the needs of Asian populations, but are not under the UHC umbrella. This may include health systems that conceptualize health as a right versus as a commodity, focus on universal health care (versus

Objectives
Investigate universal health coverage (UHC) and ageing in developing Asia countries[1] by:
(i) summarizing the demographic and health situation of older populations, and
(ii) assessing the status of progress towards UHC through summarizing available access and financial protection estimates and UHC indices.

Methods
Access and use available population, health and financing estimates from a variety of secondary data sources. A mixture of descriptive and analytical approaches will be applied to generate results.

coverage), or work to strengthen primary health care to achieve health for all (Sanders et al. 2019, Birn and Nervi 2019, Kittelsen et al. 2019).

Whichever approach to transformation is chosen, access to affordable, quality care at no or low out-of-pocket cost over a lifetime can result in these populations reaching older ages in a better health state and continuing to actively contribute to families, communities and the workforce. Investments in systems in this manner may have resulted in healthier older individuals, thereby mitigating the high mortality and morbidity that are seen in this population from COVID-19 (United Nations 2020). Yet, it is uncertain whether measures to progress towards UHC will include older adults, especially in developing Asian nations where sufficient levels of funding to ensure the provision of essential services may not be a reality.

To outline the situation of ageing and UHC across Asia, we will start by providing an overview of the demographic and health transitions in older people, using available population and health esitmates in developing Asian countries.[1] These elements and the relationships between them provide important context for decision-makers who shape health and social services. Using this important background, we move into an investigation of the two main factors for UHC: access and financing. As fewer age-specific data are available in the health systems data, analyses of access and financing of UHC will not be age-disaggregated.

II. CURRENT AND FUTURE DEMOGRAPHIC SITUATION IN 46 ADB COUNTRIES

Populations across Asia are living much longer. As of 2023, 59% of the global population aged 60+ years resided in Asia. This represents more than 674 million people, including 278 million older adults in the population of the People's Republic of China (PRC) and 153 million in India. Africa had the lowest average percentage of the population aged 60+ years (5.5%) in 2023, followed by Western Asia (8.9%), Central Asia (9.5%), Southern Asia (10.1%), and the highest percentage in Eastern Asia (21%). For individual countries in 2023, Afghanistan had the lowest percentage of persons aged 60+ (3.9%) with 4.8% in Nauru and 5.6% in Solomon Islands. Even countries that are experiencing comparatively slower ageing will see a large increase in their older populations: the three countries just mentioned have almost 1.7 million older adults combined—tripling to 5 million by the year 2050. Hong Kong, China (29.8%) and the Republic of Korea (ROK) (26.5%) had the highest percentages of older adults in 2023, with a total of 15.9 million older adults combined.

[1] Central Asia (8): Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. East Asia (5): Hong Kong, Mongolia, the People's Republic of China (PRC), the Republic of Korea (ROK), and Taiwan. South Asia (8): Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka. Southeast Asia (11): Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam. The Pacific (14): the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, the Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

In contrast to this, the proportion of Asia's population aged 0–14 years is still large (at 1.08 billion), but continues to decline in most countries, reaching 925 million by 2050. As of 2023, seven Asian Development Bank (ADB) countries have older populations (60+) that already exceed the size of the younger population (0–14 years) (Armenia; the PRC; Hong Kong, China; the ROK; Singapore; Taipei, China; and Thailand). This will increase to 20 countries by the year 2050 (Figure 1). Countries currently reaping benefits from a demographic dividend (Singapore and Taiwan) will see their core working age populations (15–59 years) peak and begin to decline over the next decades (Ogawa et al. 2021). Meanwhile, those countries with large younger populations who are ready to join the workforce (Indonesia, Timor-Leste, and the Philippines) will need to ensure that the workforce is well educated and have sufficient jobs to ensure that countries reap the potential benefits of a demographic dividend (West 2019).

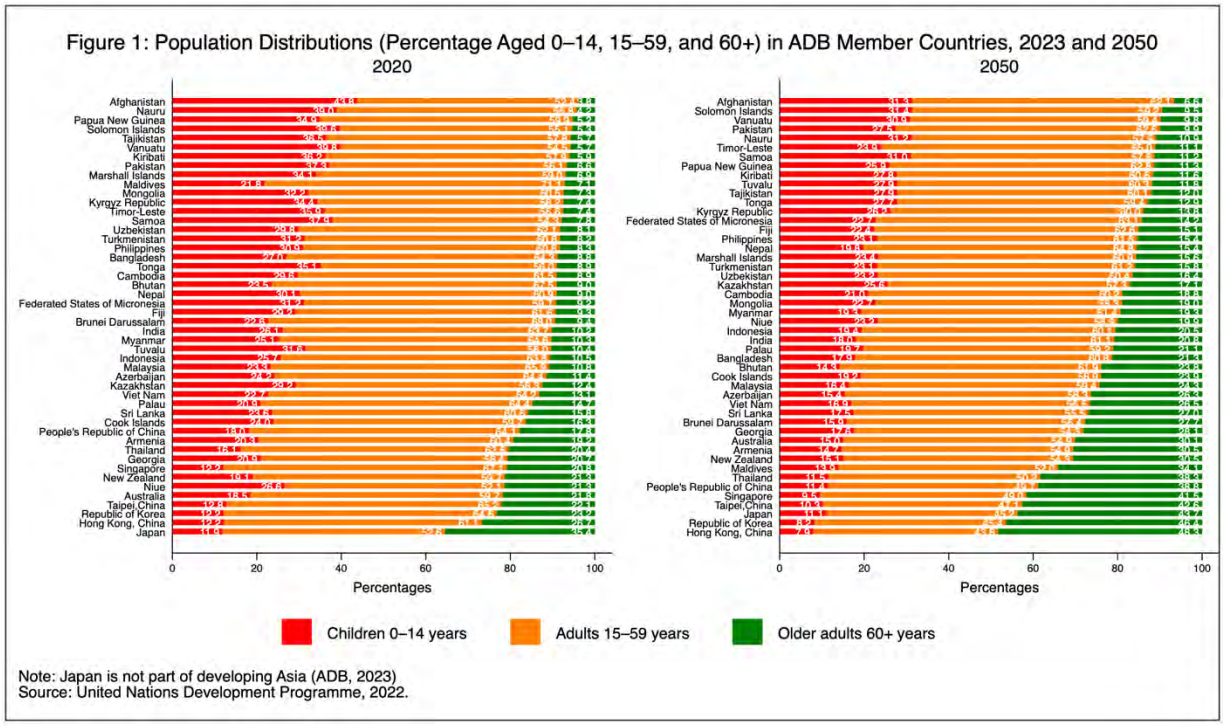


Figure 1: Population Distributions (Percentage Aged 0–14, 15–59, and 60+) in ADB Member Countries, 2023 and 2050

Note: Japan is not part of developing Asia (ADB, 2023)
Source: United Nations Development Programme, 2022.

A. Rapid But Uneven Pace of Ageing Across Asia

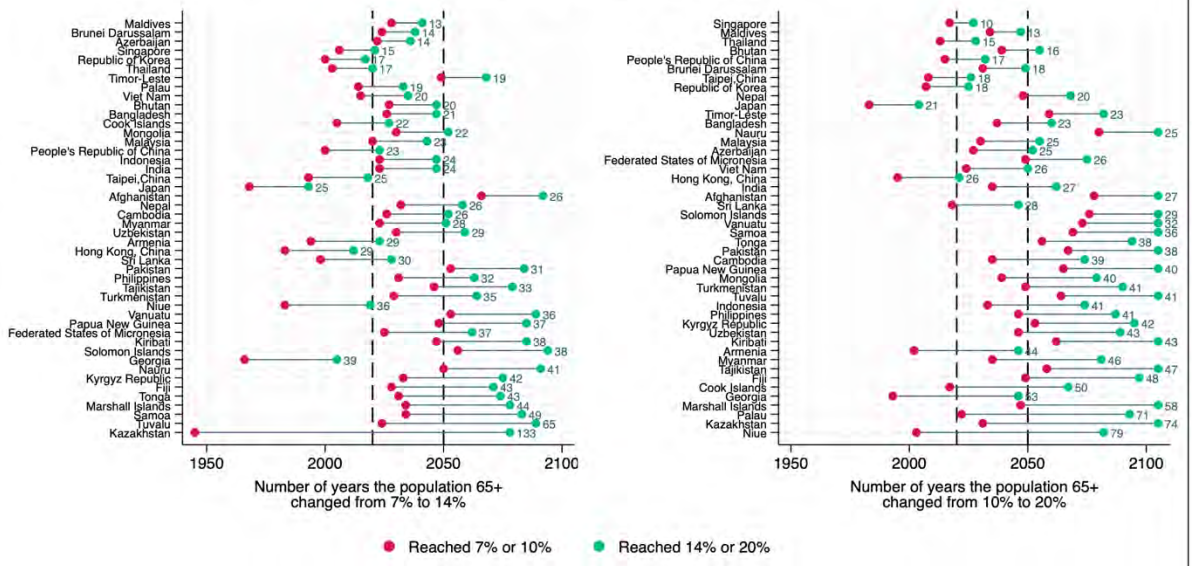
Within Asia, although demographic shifts are broadly aligned, there are considerable differences in the level and speed of population ageing across countries with different economic levels (Park et al. 2012). The share of the population aged 60 years and older is expected to grow more than double in Asia (from 13.1% in 2020 to 26.9% in 2060) in the next four decades. By the year 2040 in Asia and 2035 in Oceania, the numbers of people aged 60+ years will exceed the numbers of people aged 0–14 years.

The Organisation for Economic Co-operation and Development defined a country as an "ageing society" if the proportion of persons aged 65+ years is between 7% and 14% of the total population, an "aged society" if this share is between 15% and 20%, and a "super-aged society" if this share is 21% or higher (OECD 2020).

Using the proportion of the population aged 65+ years, the pace of ageing has been assessed by looking at the time it takes for this population to double from 7% to 14%, or from 10% to 20%, of the total population. Doubling from 7% to 14%, this ranges from just 12 years in the Maldives and 14 years in Brunei Darussalam and Azerbaijan—all between the years 2020 and 2050—compared to the 58 years it took in Georgia (between 1945 and 2003) (Figure 2a). To put this in context, France took 115 years and Sweden 85 years to double their populations aged 65+ years from 7% to 14% (Kinsella and He 2009). France then took just 42 years and Sweden 40 years to increase from 14% to 21% (He et al. 2016).

By 2050, almost two-thirds of the world's population aged 65+ years will live in Asia (He et al. 2016). Twenty-one ADB countries are already considered "ageing societies*", four are "aged societies", and five "super-aged societies" (Figure 2a). The year 2050 will see 11 ageing societies, 12 aged societies, and 17 super-aged societies (Figure 2b). Looking at ageing societies moving to aged or super-aged status: seven countries will take less than 20 years for their respective populations to double from 10% to 20% (Figure 2b). Singapore's 65+ population will double from 10% to 20% in just 10 years, and the Maldives in just 13 years.

Figure 2a and Figure 2b: Number of Years for Population Aged 65+ Years to Double from 7% to 14%; and to Double from 10% to 20%, by Country



Note: Japan is not part of developing Asia (ADB, 2023)
Source: United Nations Development Programme, 2022.

III. HEALTH SITUATION IN 46 ADB COUNTRIES

A. Differences in Ageing and Population Health

Population ageing reflects the positive impacts of health and development policies and actions over the last few decades. Yet, while increased longevity is a remarkable success for the region overall, not all people in Asia have fared equally well in terms of their health and longevity.

Longevity is often measured by life expectancy (LE). Average LE at birth is a commonly used measure of population health, and reflects overall population mortality levels. High LE is often associated with low death rates and access to high-quality health care that typically come with (relative) healthier environments and higher wealth. Four of the global current top five highest average life expectancies at birth (both sexes combined) are higher-income Asian countries: Hong Kong, China; Japan; Macao, China; Switzerland; and Singapore. LE in Hong Kong, China was 85.3 years in 2020 (UN Population Division 2022). As with demographic differences, significant health disparities exist between lower- and higher-income ADB countries; in this case, a difference of more than 20 years when comparing average life expectancies at birth for women in Afghanistan and Kiribati compared to the ROK and Singapore (Figure 3).

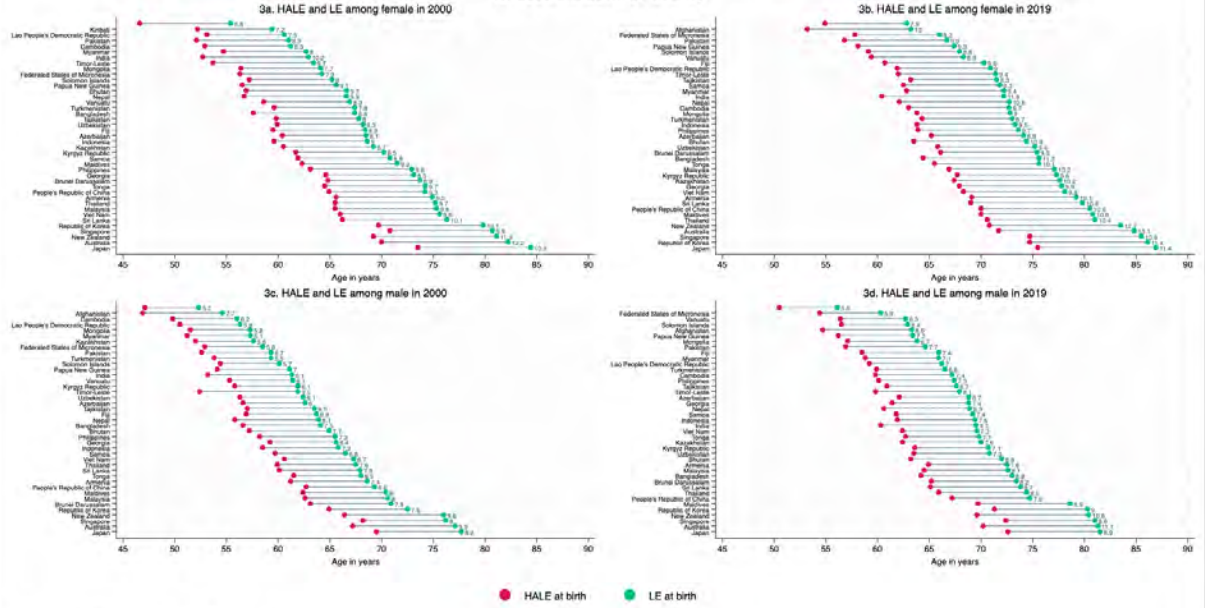
Average life expectancies at birth for women and men have increased in all ADB countries between 2000 and 2019 (Figure 3). Since 2000, average LE at birth has increased by 5.6 years in low- and lower middle-income, by 5.2 years in upper middle-income, and 4.4 years in high-income ADB countries.

While LE at birth provides context for the ageing process, LE at age 60 (LE60) looks specifically at population health levels at older ages. LE60 has increased in all ADB countries between 2000 and 2019 (table). Similar to life expectancies at birth, differences in LE60 persist between lower- and higher-income ADB countries—a difference of 10.6 years in LE60 when comparing countries like Afghanistan and the ROK (WHO 2022).

B. Older Asian women continue to live longer than older Asian men.

Female LE60 was higher than male LE60 in all Asian countries in 2019, with the biggest differences between the sexes in Viet Nam (5.2 years), the ROK (4.5), Mongolia (4.4), and Tonga (4.1) (table). The highest average female LE60 in 2019 was in the ROK and Singapore, both higher than 27 years, while women living in Kiribati on average had LE60 of 14.6 years and in the Federated States of Micronesia, 15.6 years. The highest average male LE60 was in Singapore (23.8 years) and the ROK (23.4 years). Men living in Kiribati had an average LE60 of 12.5 years and in the Federated States of Micronesia 13.8 years.

Figures 3a–d: Average Healthy Life Expectancy (HALE) and Life Expectancy (LE) at Birth and Differences (LE–HALE), for Females and Males, for 2000 and 2019, by Country



Note: Japan is not part of developing Asia (ADB, 2023)
Source: Global Health Observatory, 2019.

Average Life Expectancy and Healthy Life Expectancy at 60 Years of Age in 2019 for Both Sexes, Women and Men, by Country

	Life Expectancy at 60	Healthy Life Expectancy at 60	Life Expectancy at 60	Healthy Life Expectancy at 60	Life Expectancy at 60	Healthy Life Expectancy at 60
	Both sexes combined	Both sexes combined	Men	Men	Women	Women
Afghanistan	15.2	10.8	15.4	11.2	15.1	10.6
Armenia	20.4	15.7	18.2	14.2	22.1	16.9
Azerbaijan	17.1	13.4	15.6	12.4	18.3	14.2
Bangladesh	20.9	15.5	20.3	15.4	21.5	15.7
Bhutan	19.4	14.5	18.9	14.3	19.9	14.7
Brunei Darussalam	19.2	14.5	19.0	14.3	19.4	14.7
Cambodia	17.7	13.2	15.9	12.0	19.1	14.1
People's Republic of China	21.1	15.9	19.2	15.0	23.1	16.9
Fiji	16.2	11.8	14.9	11.1	17.5	12.6
Georgia	18.8	14.4	16.0	12.4	21.0	16.1
India	18.8	13.2	18.1	13.0	19.5	13.5
Indonesia	17.9	13.4	16.7	12.7	19.1	14.0
Kazakhstan	19.5	14.8	16.8	13.0	21.4	16.2
Kiribati	13.7	10.3	12.5	9.5	14.6	11.0
Kyrgyz Republic	20.0	15.7	17.8	14.2	21.7	16.8
Lao People's Democratic Republic	17.6	13.3	16.3	12.5	18.9	14.0
Malaysia	19.5	14.6	18.5	14.0	20.6	15.3
Maldives	22.1	16.8	21.4	16.4	23.1	17.2
Federated States of Micronesia	14.7	11.1	13.8	10.7	15.6	11.6
Mongolia	16.4	12.6	14.2	11.0	18.5	14.2
Myanmar	18.1	13.6	16.2	12.4	19.6	14.6
Nepal	18.0	13.3	16.8	12.7	19.2	13.8

Pakistan	17.3	12.6	16.8	12.5	17.8	12.6
Papua New Guinea	16.5	12.3	15.4	11.7	17.6	12.8
Philippines	17.8	13.4	15.8	12.1	19.6	14.6
Republic of Korea	25.8	19.8	23.4	18.2	27.9	21.2
Samoa	17.9	13.4	17.4	13.3	18.3	13.5
Singapore	25.5	20.0	23.8	18.8	27.2	21.0
Solomon Islands	15.5	11.8	14.7	11.4	16.3	12.2
Sri Lanka	20.8	15.3	18.6	13.8	22.6	16.6
Tajikistan	16.1	12.7	15.1	12.1	17.2	13.4
Thailand	23.6	18.0	22.1	17.0	24.8	18.8
Timor-Leste	17.9	13.2	16.9	12.5	18.9	13.8
Tonga	19.0	14.5	17.0	13.3	21.2	15.7
Turkmenistan	18.7	14.7	17.1	13.6	20.1	15.6
Uzbekistan	18.6	14.5	17.3	13.7	19.8	15.3
Vanuatu	15.7	11.9	14.8	11.5	16.7	12.4
Viet Nam	19.6	14.8	16.9	12.9	22.0	16.4

Source: WHO 2022.

C. Are the extra years of life healthy years?

Healthy life expectancy (HALE) is a population measure to gauge whether extended longevity comes with healthy extra years. HALE reflects the average length of time an individual can expect to live without disease or injury. HALE accounts for years lost due to morbidity or mortality and can be used to examine the portion of years that one can expect to live in a state of "full health" (WHO 2022).

The overall picture seems positive for most countries, with Figure 3 showing gains in both LE and HALE at birth for females and males in all ADB countries. Females in Singapore, the ROK, and Thailand had high HALE at birth in 2000 and in 2019. However, looking more closely reveals differences that are less positive. The difference between LE and HALE expanded in all three countries during this time frame (9.9 versus 10.8 years for Singapore, 10.1 versus 11.4 years in the ROK, and 9.7 versus 10.4 years in Thailand) (Figure 3). This means that overall LE increased faster than HALE. Similar patterns were seen for females in countries with lower LE and HALE, with a growing gap seen in Kiribati (7.2–7.9 years), Afghanistan (8.8-10.0 years), and Pakistan (8.9–9.9 years).

Males had lower LE and HALE overall than females in 2000 and 2019. Like their female counterparts, males in Singapore, the ROK, and Thailand also had high HALE at birth in 2000 and in 2019, also with growing differences between LE and HALE in all three countries during this time frame (8.0 versus 8.6 years for Singapore, 7.6 versus 9.0 years in the ROK, and 7.6 versus 8.5 years in Thailand). For males in countries with lower LE and HALE at birth (Kazakhstan, Kiribati, and Mongolia), the gap between LE and HALE grew over the last two decades.

This suggests that, in lower- and higher-income countries alike, for females and males, more of the extra years gained are not healthy years. The gaps between LE and HALE grew between 2000 and 2019 in both sexes in almost all countries. Exceptions were seen in Tajikistan and Timor-Leste where the LE and HALE difference decreased in both sexes, Indonesia and Nepal (among men), and the Philippines (among women). Even so, the decreases were small, less than 1% (mostly between 0.1% and 0.3% shrinkages), which means no improvement.

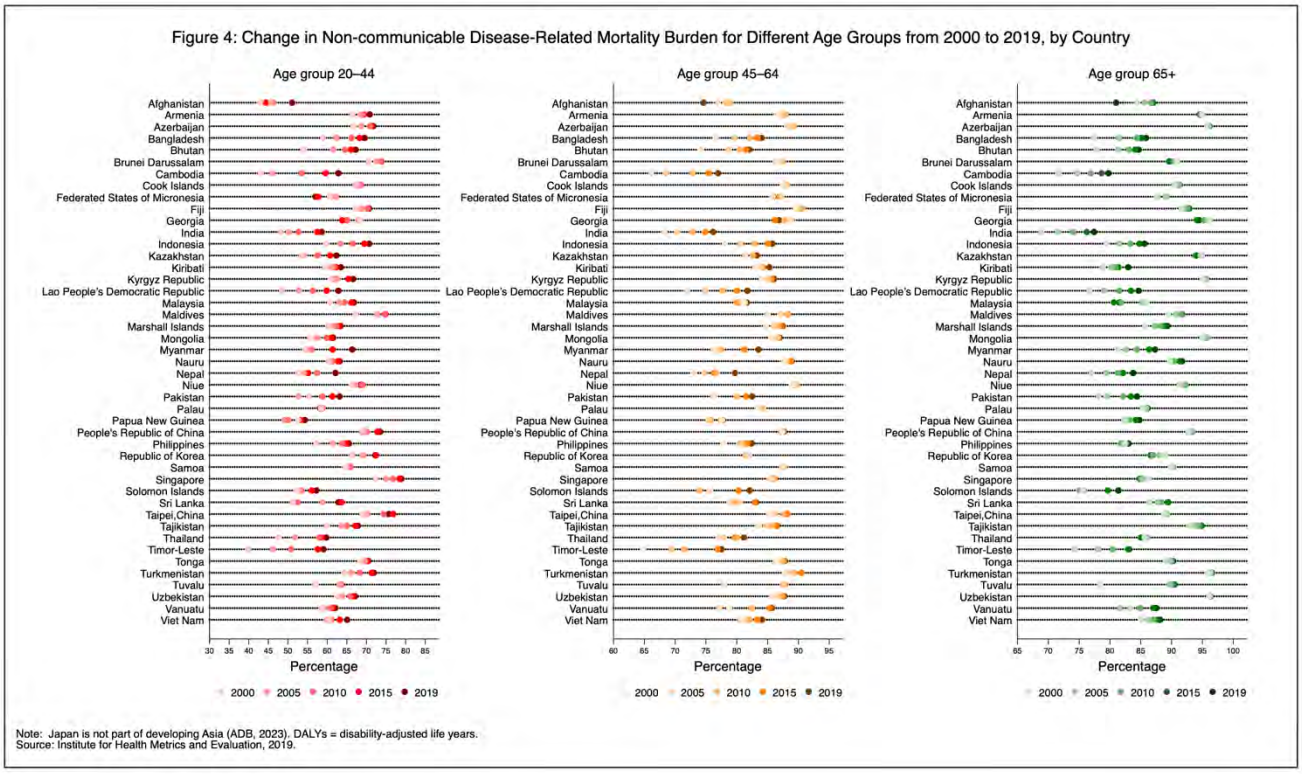
D. Healthy Extra Years Even at Older Ages

Average HALE at age 60 provides a closer look at the health of older Asian populations. Similar to temporal trends in overall life expectancies and HALE at birth, HALE at age 60 (for both sexes combined) in higher- and lower-income countries across Asia have increased. Gains of two years or more in HALE at 60 between 2000 and 2019 were seen in seven countries: Bangladesh (2.2 years), the Democratic People's Republic of Korea (2.6 years), the Maldives (3.1 years), Mongolia (2.3 years), the ROK (3.9 years), Singapore (3.3 years), and Thailand (2.3 years). Fourteen countries in the region had gains of less than one year, with the Federation of Micronesia's HALE at age 60 decreasing by an average of 0.06 years over this time period.

E. Disease Burden at Older Ages

People in all age groups are dying at lower rates compared to previous decades, one of the drivers of longevity increases at the global level, but the composition of causes of death continues shifting (Global Burden of Disease 2019). Since 1990, there has been a marked shift towards this large proportion of disease burden from NCDs and injuries. In addition to demographic and LE shifts, all Asian countries have experienced increases in NCDs and NCD-related risks changes between 2000 and 2019. In the year 2000, 61.8% of the total deaths in Asia were attributable to NCDs. In 2019, it was 77%.

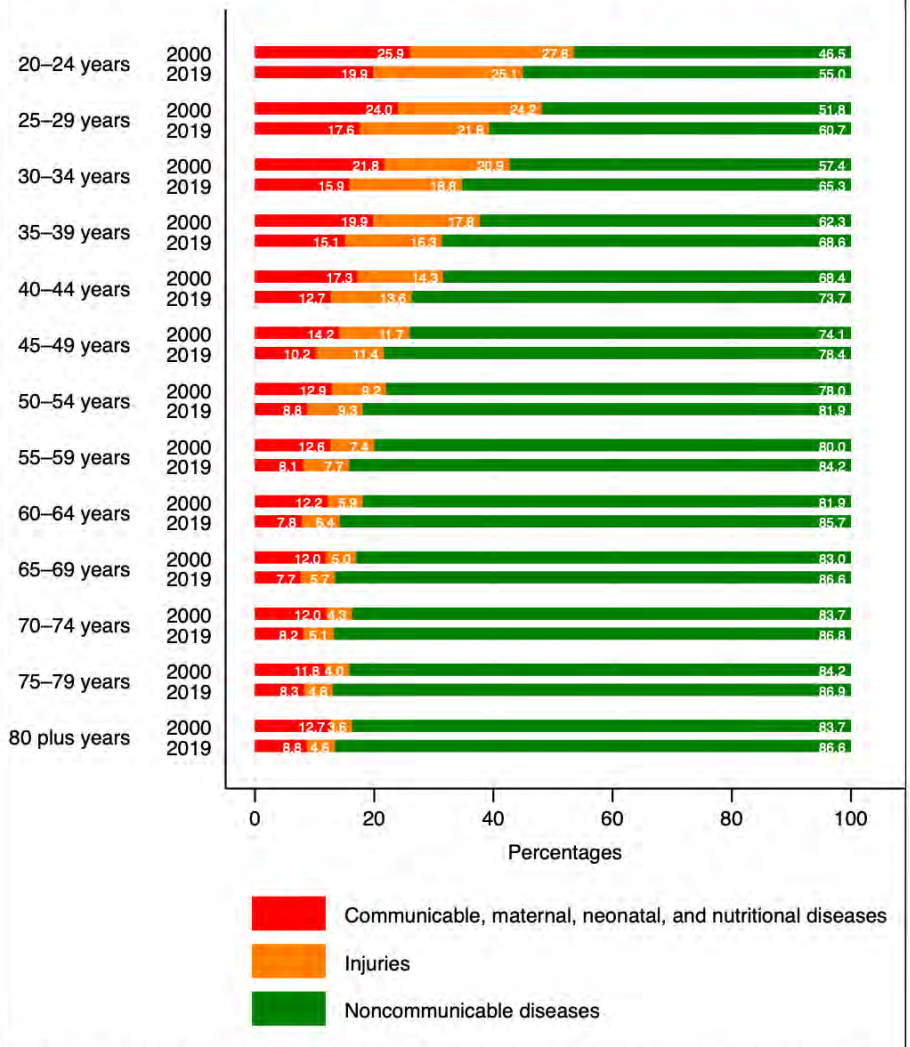
In 2019, an estimated 42 million of 56 million deaths (74%) globally were attributed to NCDs, with 24 million of the 42 million (57%) NCD-related deaths occurring in Asia (Vos et al. 2020). Forty-one percent of these NCD-related deaths in Asia occurred in working age populations (15–69 years old), where preventing these deaths would have significant economic and health dividends for countries. Figure 4 shows an age gradient in NCD-related burden (measured by deaths) for most countries in Asia, and worrying levels of burden in the 20-year–44-year age group. In a number of countries, for example, Azerbaijan, Pakistan, and Solomon Islands, the burden in the 45-year–64-year age group is not dissimilar to the 65+ age group. The figure also shows an increasing burden of NCD-related deaths in all three age groupings for many countries between 2000 and 2019; for example, Bhutan, Cambodia, and Indonesia. These trends can be slowed or reversed, as shown by Malaysia's lower NCD burden in more recent years for two age groups in Figure 4, through efforts that apply systems thinking and have political support (Lim 2021). A study that modelled a one-third reduction in premature NCD-related mortality showed substantial effects on longevity, particularly from deaths that are attributed to cardiovascular diseases in lower middle-income countries (Cao et al. 2018).



But NCDs do not just kill, they also contribute to poor health and disability at every younger ages. Disability-adjusted life years (DALYs) is a common measure for this, incorporating both mortality and morbidity, where one DALY represents the loss of the equivalent of one year of full health (WHO 2011). In terms of overall impacts, Figure 5 shows how NCD-related DALYs increased over two decades in each age group, including the 20–24-year old age group where, in 2019, more than 50% of DALYs were attributable to NCDs. Disease prevention through "NCD Best Buys" hold significant potential to disrupt this pattern of increasing NCD burden, although medical care also plays a considerable role (Isaranuwatchai 2020). A 2017 study showed high risk of premature deaths because of NCDs that would not have occurred in the presence of timely and effective medical care in low- and middle-income countries in Southeast Asia (Martinez 2020). Also, the mortality and morbidity from NCDs have significant impacts on economic productivity, which, in turn, can contribute to declines in socioeconomic position and other the social determinants of health (Soeung et al. 2012, Chand et al. 2020). Reducing risk factors through prevention efforts and improving NCD care, even in older ages, have significant health and economic impacts (International Longevity Centre-United Kingdom 2020, Hu et al. 2019, Mayor 2016). However, earlier age of onset of disease and uptake of risky health behaviors both contribute to poorer health outcomes later in life, and higher health system burden and health maintenance costs over the longer term, especially with complications that may accumulate as a result of delayed diagnosis from inability to access health care (Akseer et al. 2020, Mikkelsen et al. 2019).

As an example of the overall burden from NCDs, in 2019, two NCDs—ischaemic heart disease and stroke—were the top-ranked causes of DALYs in the 50-year–74-year and 75+ year age groups in the 2019 Global Burden of Disease Study (Vos et al. 2020). Diabetes and chronic obstructive pulmonary disease were also in the top five for both age groups. Age-related hearing loss and lower back pain also contributed to morbidity in these older age groups. Morbidity from NCDs can be impacted through non-health (for example, disease prevention from addressing air pollution) and health interventions (person-centered and value-based service delivery for early detection and treatment of lung and other pollution-related disease) (OECD 2016, Tao et al. 2020).

Figure 5: Composition of Disease Burden (DALYs) for Major Causes Groupings for 2000 and 2019, by Age Groups, ADB Member Countries

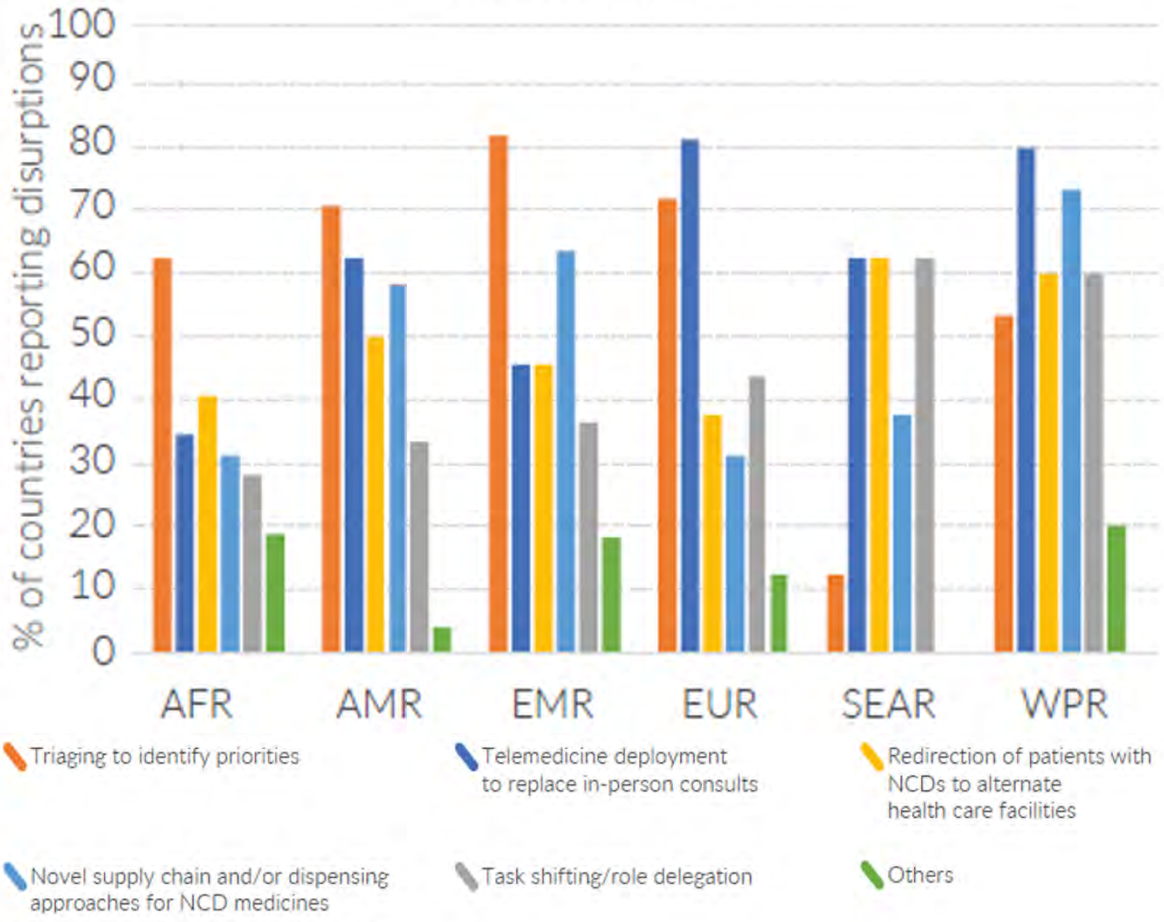


Note: Japan is not part of developing Asia (ADB, 2023). DALYs = disability-adjusted life years.
Source: Institute for Health Metrics and Evaluation, 2019.

F. Non-communicable Diseases, COVID-19, and Health System Pivots

People living with NCDs have had significant additional health risks and, possibly, more severe illness from COVID-19 (Hernández-Galdamez et al. 2020, Bello-Chavolla et al. 2020, Gutierrez and Bertozzi 2020). Older persons living with NCDs had even higher risks of severe illness and death from COVID-19 (Mueller et al. 2020, Perrotta 2020, Li et al. 2020). With the COVID-19 pandemic, health systems in lower- and higher-income countries alike faced the additional challenges that occur with care needs at the intersection of communicable diseases and NCDs (Nikoloski et al. 2021). Despite the clear trends in NCDs over a number of decades, it has taken an infectious disease pandemic to raise the profile of NCDs in Asia and across the globe. In the shorter-term, systems have reallocated resources to respond to COVID-19, but with a higher awareness of the high burden that NCDs place on health resources and the need to consider more effective prevention strategies, including stricter tobacco, alcohol, and sugar controls (Lancet 2020). An International Federation of Red Cross and Red Crescent Societies-coordinated study from 2020 found that 72% of respondents from Indonesia, Malaysia, Myanmar, and Pakistan were concerned about the health system being overloaded by COVID-19 (International Federation of the Red Cross and Red Crescent Societies 2020). This may have contributed to self-censoring of NCD-related care needs, combined with decreased access to services and decreased income because of public health movement restriction orders. An Asian Development Bank Institute study in eight countries of the Association of Southeast Asian Countries from 2020 found declining household income in 73% of households on average as a result of COVID-19 (Morgan and Trinh 2020). Reduced income would lead to reduced care access, especially in countries with high rates of out-of-pocket payments for health care services. These perceptions about the impacts on NCD-related health and health systems and the real impacts on income in Asian households were further supported by results from a rapid WHO assessment of health systems in 2020 (WHO 2020). Major disruptions on NCD-related health care services were seen from the impacts of COVID-19. However, health care systems in countries in WHO's Southeast Asia (SEAR) and Western Pacific (WPR) regions pivoted quickly in comparison to other regions (Figure 6) through telemedicine, task shifting, and redirecting patients living with NCDs to available services (WHO 2020). The United Nations Inter-Agency Task Force on the Prevention and Control of Non-communicable Diseases reported that, in Asia, ADB supported countries to address NCDs and COVID-19 through UHC grants, loans, and technical assistance (UNIATF 2020). Sustained attention, support, and health systems agility will be required through the multiple waves of COVID-19.

Figure 6: Percentage of Countries in World Health Organization Regionsa that Reports Utilization of Methods to Overcome Disruption to Non-communicable Disease-Related Services, by World Health Organization Region



NCD: noncommunicable disease.

[a] World Health Organization regional offices for AFR = Africa, AMR = Americas, EMR = Eastern Mediterranean, EUR = Europe, SEAR = Southeast Asia, WPR = Western Pacific.

Source: World Health Organization. 2020. *The impact of the COVID-19 pandemic on noncommunicable disease resources and services: Results of a rapid assessment*. Geneva.

G. Risk Factors Contributing to Disease Burden

NCDs are the result of a combination of genetic, physiological, social, environmental, and behavioral factors, with some common risk factors such as unhealthy diets, physical inactivity, tobacco and alcohol use, air pollution, and poverty. These risk factors contribute significantly to the onset and severity of NCDs, reduced income status of households, and higher rates of health care utilization. Risk factors are also clustering in lower socioeconomic status households in low- and middle-income countries (Bukhman et al. 2020, Niessen et al. 2018). A study of the impact of risk factors (tobacco and alcohol use, obesity, salt intake, and raised blood pressure and glucose) on NCD mortality showed high probability of men and women dying prematurely in Southeast Asia, and large numbers of deaths from the four main NCDs in the Western Pacific

(Kontis et al. 2015). Despite the known impacts, current evidence suggests little progress on slowing the increase in these risk factors in the last two decades (Murray et al. 2020, Musich et al. 2016, Elrashidi et al. 2016, Li and Supakankunti 2018).

In a study of 87 risk factors, only one NCD risk—tobacco smoking—declined worldwide between 2000 and 2019, even while the prevalence remains high overall (Murray et al. 2020). As of 2019, three risk factors contributed to high and increasing risk exposure: high body mass index, air pollution (ambient particulate matter), and high blood glucose. Poor diet and low physical activity levels contribute to raised blood pressure, blood glucose, blood lipids, and obesity in people, which, in turn, lead to cardiovascular and other chronic diseases. Cardiovascular diseases are the leading contributor (10.8 million of a total 24.1 million) to NCD-related deaths in Asia as of 2019) (Global Burden of Disease 2019). These global patterns mask the variability across regions and countries with relative improvements in some areas (green, decreased DALYs) and worsening impacts in others (red, increased DALYs) (Figure 7). A number of these risk factors can be modified or changed through policy and systemic changes to reduce deaths and disability. Addressing insufficient taxation and regulation of tobacco and alcohol have the potential to decrease many of the highest burden risks (Figure 7) in higher- and lower-income countries across the region, while simultaneously providing needed health care resources (Ezzati et al. 2018). Policies that improve nutrition and living environments would address another set of these factors (for example, high blood pressure, high blood glucose, high body-mass index, and improved water and sanitation).

Figure 7: Heat Map of Annual Change in All-Age DALYs from 2010 to 2019, by Subregions of Asia

	Annual rate of change in all-age DALYs from 2010 to 2019									
	-9.7% to <-3.3%	-3.3% to <-1.4%	-1.4% to <-0.7%	-0.7% to <-0.3%	-0.3% to <0.0%	0.0% to <0.4%	0.4% to <0.8%	0.8% to <1.1%	1.1% to <1.6%	1.6% to <5.0%
	1	2	3	4	5	6	7	8	9	10
Central Asia	High systolic blood pressuse	Dietary risks	High body-mass index	Tobacco	High fasting plasma glucose	Malnutrition	Air pollution	High LDL cholesterol	Alcohol use	Kidney dysfunction
East Asia	Tobacco	High systolic blood pressure	Dietary risks	Air pollution	High fasting plasma glucose	High body-mass index	High LDL cholesterol	Alcohol use	Occupational risks	Kidney dysfunction
High-income Asia Pacific	Tobacco	High systolic blood pressure	High fasting plasma glucose	Dietary risks	Alcohol use	High body-mass index	Kidney dysfunction	Occupational risks	High LDL cholesterol	Air pollution
Oceania	Malnutrition	Air pollution	High fasting plasma glucose	Tobacco	High body-mass index	Dietary risks	High systolic blood pressure	WaSH	High LDL cholesterol	Unsafe sex
South Asia	Malnutrition	Air pollution	High systolic blood pressure	Tobacco	Dietary risks	High fasting plasma glucose	WaSH	High body-mass index	High LDL cholesterol	Kidney dysfunction
Southeast Asia	High systolic blood pressuse	Tobacco	High fasting plasma glucose	Dietary risks	Air pollution	High body-mass index	Malnutrition	Kidney dysfunction	High LDL cholesterol	Alcohol use

DALYs = disability-adjusted life years.
Note: Top 10 ranked risks by contribution to overall DALYs, with heatmap colors indicating percent change (increase, no change, decrease) over the decade.
Source: Murray et al. 2020.

A strengthened effort across multiple sectors with effective economic tools, such as price policies and insurance, is necessary to make progress on slowing NCDs and their risks. Noting that NCDs are heavily clustered in people with low socioeconomic status and are an important cause of medical impoverishment, these epidemiological facts should drive countries that are embarking on UHC-inspired reforms and strengthening health and social care systems (Nugent et al. 2018, Kanayson 2018; Castillo-Carandang et al. 2020).

In parallel, coordinated efforts outside the formal health system and in younger age groups would also be needed when some of these risk factors are initiated or established. The risks are evident in marketing and sales strategies for tobacco and alcohol that target women and youth in Asia, even while smoking rates in men remain high especially in the PRC, India, and Indonesia (Yang 2019). The Asia Pacific Tobacco Market projects a 4.4% compound annual growth rate over the years of 2020–2026 (Amul et al. 2021, Business Wire 2021). Related to this, results from the Global Youth Tobacco Surveys in Bangladesh, India, Pakistan, and Sri Lanka showed mean overall rates of almost 10%, with much higher rates in boys than girls (Kaneda and Naik 2016, Mishu et al. 2021). Among 13–15-year old boys in secondary school, 36% in Indonesia, 30% in Myanmar, and 25% in Nepal were using tobacco currently (Kaneda and Naik 2016). Tobacco monitoring and policies could improve the focus on younger populations (Ranabhat et al. 2019), whereas youth-focused obesity prevention strategies have been developed in a growing number of countries from sugar taxes to narrower interventions. In the Philippines, for example, the Department of Health and the National Nutrition Council, in partnership with international organizations, are working together to address overweight and obesity in adolescents and adults (https://www.unicef.org/philippines/press-releases/poor-diets-failing-food-systems-and-lack-physical-activity-are-causing-overweight). A school- and family-based intervention in the PRC was found to be effective in changing dietary behaviors and body weight in children (Li et al. 2019). These efforts will be made more difficult, again, by impacts from COVID-19, which suggest an increase in obesity in children and adolescents in the United States from a broad range of backgrounds during the pandemic (Woolford et al. 2021).

Multisectoral policy and legislation are effective levers to reduce these risks (Ghebreyesus 2018, WHO 2019a). In addition to legislation, many of the key drivers of health risks (tobacco, alcohol, and diet) are outside of the health system and require coordinated and sustained contributions from governments, civil society, and other stakeholders (Di Cesare et al. 2019, Tangcharoensathien et al. 2019, Buse et al. 2017) to reduce the heavy financial burden of NCDs on households, lost productivity, and health systems (Kankeu et al. 2013, Bertram et al. 2018, Murphy et al. 2020, Kazibwe et al. 2021).

IV. HEALTH SYSTEMS ACCESS

As described so far in this report, the ongoing demographic and health transitions in most countries are driving changes in demand on health systems. Ensuring that individuals can access the health services that they need without facing financial hardship is key to improving population health and well-being. This is also the definition of UHC and the specific focus of SDG 3, Target 3.8: "achieving UHC, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all".

The SDG 3, Target 3.8 consists of two indicators: one on access (3.8.1) and one to financing (3.8.2). Countries moving towards UHC are under pressure to improve access to health services (capacity and quality) and financing in response to the increasing prevalence of NCDs and

population ageing challenges. A proposed strategy to address these challenges, particularly access, is to strengthen primary health care systems for all ages of the population (Lancet 2018a, Kanayson 2018, Sanders et al. 2019). This is also a core policy recommendation, particularly in low- and middle-income countries, to protect against health emergencies, achieve UHC, and promote health and well-being (WHO 2019b).

Yet, the pace of health system changes in response to demographic and epidemiological transitions have been too slow to meet SDG 3 targets by 2030—with the ongoing pandemic exposing health systems' limitations and gaps, particularly at the intersection of infectious diseases, chronic NCDs, and ageing. An estimate from 2017 was that at least half of the world's population lacked access to essential health services, with notably wide gaps in availability of services in South Asia (WHO and World Bank 2017). Older adults in many countries, including Bangladesh and India for example, have had more difficulties than usual in accessing medicine and receiving routine medical care during the pandemic (Mistry et al. 2021, Singh et al. 2021).

While COVID-19 has contributed to a further slowing of the pace of improvements in access to essential health services, it also accelerated concrete discussions about future health systems that are more effective, equitable, and preventive for all (United Nations Department of Economic and Social Affairs 2021, Devex 2021).

As it is, public health measures and health systems have contributed to current cohorts entering older age now that may be healthier than previous ones (Strand et al. 2019, Koivunen et al. 2021), supported by evidence of increasing HALE in many Asian countries (Figure 3). However, illnesses in many places are taking on a new and complex character, as NCDs add to, and begin to outweigh, the traditional burdens of infectious diseases (Egger 2009). The resurgence of health burdens from infectious disease may mitigate these health gains (Nikoloski et al. 2021). Adding to this, the growing evidence about earlier age of onset of NCDs would put a further brake on gains in HALE and workforce productivity. Younger age of NCD onset and NCD risk factor initiation also may contribute to increases in the differences between LE and HALE mentioned earlier. Evidence from India showed the median age of onset of a range of NCDs (including diabetes, hypertension, heart disease, mental health conditions, and chronic respiratory diseases) decreased from 57 years to 53 years between 2004 and 2018 (Mohanty et al. 2021). Similarly, rates of some NCD risks, such as childhood and adolescent overweight and obesity, are accelerating in Asia (Abarca-Gomez et al. 2017, Mazidi et al. 2018). Policies supporting UHC should not focus only on adding years to life, but adding life to the extra years being lived in adult and ageing populations.

V. MEASURING UNIVERSAL HEALTH CARE: ACCESS TO QUALITY HEALTH CARE

Health outcomes, like overall and healthy life expectancies, have improved in ADB countries over the last two decades (Figure 3), yet changing health needs, shifting public expectations following COVID-19, and ambitious health targets as part of the United Nations' SDGs have

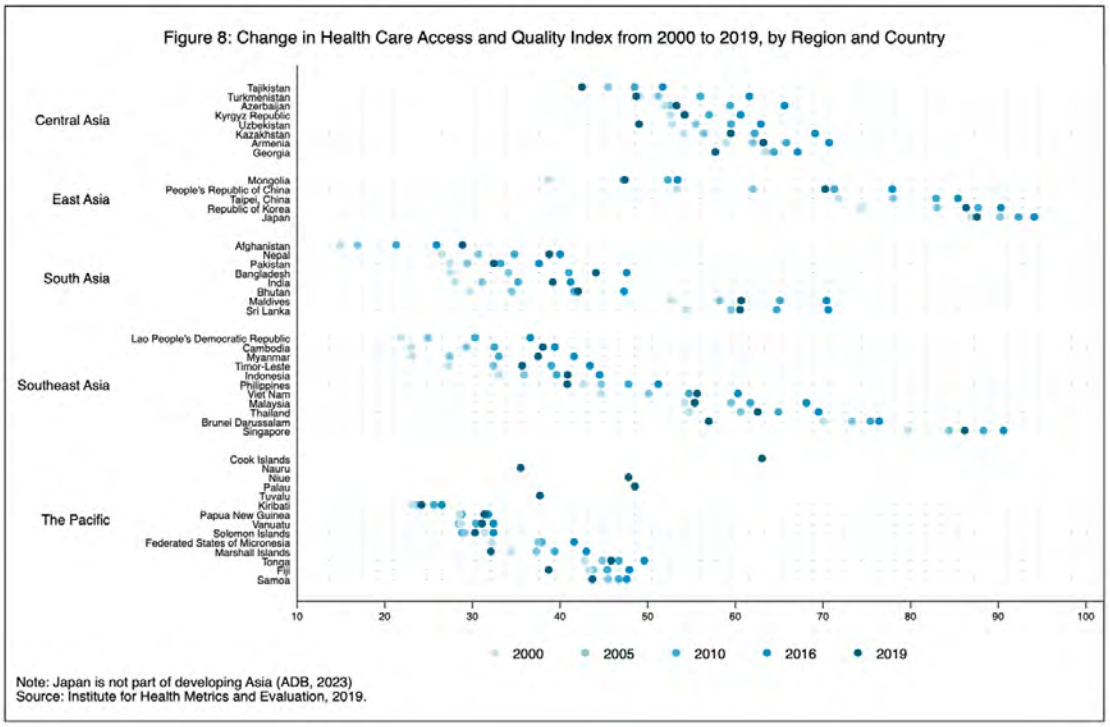
put the spotlight on health systems to produce better health outcomes and greater social value (Lal et al. 2021). This relates not just to access, but also to the quality of care. A number of new metrics have been created to help better understand how investments in health systems and UHC are contributing to achieving SDG 3.8 and better health outcomes in Asia. These measurement tools are essential to quantify and track health systems trends, as well as the extent to which services contribute to population health gains. Data from two of these metrics are used here. One composite measure is related to health care access and quality, the Health Access and Quality Index (HAQI), and one composite measure of UHC, the UHC Effective Coverage Index (UHC Index) (Global Burden of Disease 2018, Global Burden of Disease 2020; Lozano et al. 2020).

It is estimated that the burden of mortality attributable to poor care is larger than that because of lack of access to care (Kruk et al. 2018a, Kruk and Pate 2020). Reimagined and "built-back-better" health systems as part of UHC will be required to deliver high-quality care in different contexts that improves or maintains health, is valued and trusted by populations, and responds to changing population health needs (Thapa et al. 2019, Kruk et al. 2018b, Lancet 2018b).

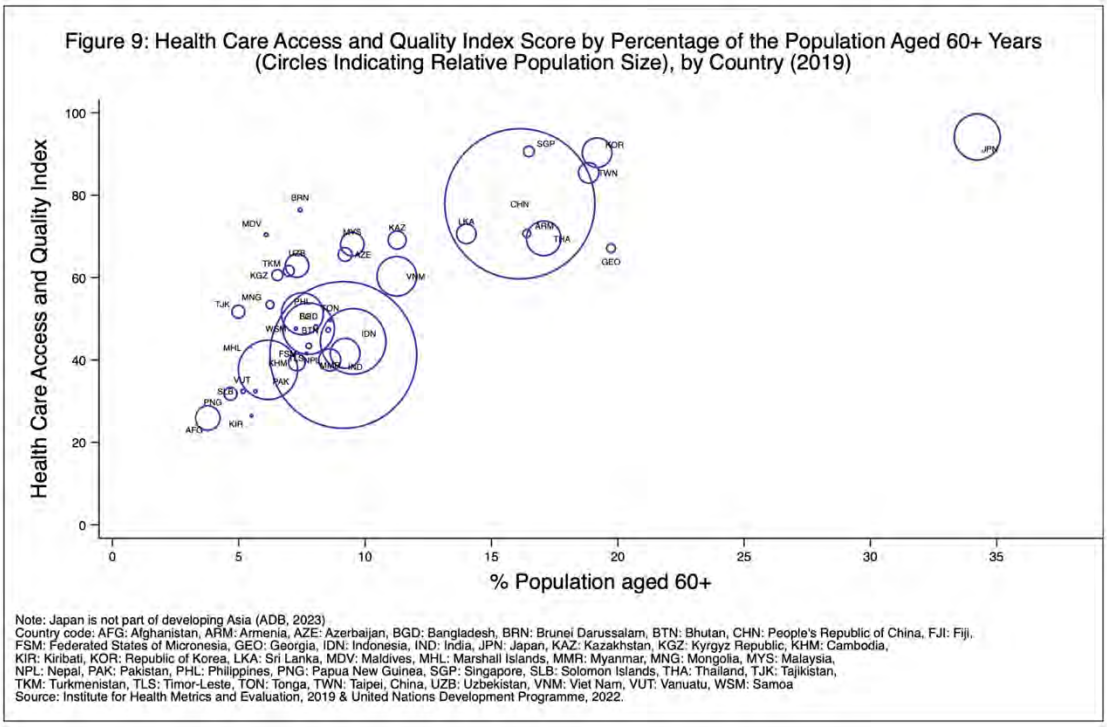
One metric, the HAQI,[2] focuses on a set of 32 proxy conditions from which death would not occur with access to health care. A final score was generated and transformed to a scale of 0–100, with a higher index score indicating better health access and quality. In Asia, the mean levels of HAQI have improved over time for most countries (Figure 8). This suggests progress in personal health care access and quality across Asia and the Pacific. Differences are seen in the baseline starting point, gains (or losses), and pace of change between 2000 and 2016.

For example, health access and quality were lower in Afghanistan, Kiribati, Mongolia, the Lao People's Democratic Republic (Lao PDR) and Tajikistan compared to other countries in the respective subregions, even after the gains experienced over a 19-year period (Figure 8). In South Asia, Afghanistan's index score between 2016 and 2019 was equivalent to index scores from 2000 for Bangladesh, India, Nepal, and Pakistan. While progress continues overall, the differences between low- and high-income countries remain stark and point to regional inequalities in need of remedy (for example, refer to the difference in index scores between the Lao PDR and Singapore in the Southeast Asia region).

[2] HAQI focused on causes amenable to personal health care, by using risk-standardized cause-specific mortality rates for each geography-year and removing the joint effects of local environmental and behavioral risks, and adding back the global levels of risk exposure as estimated for Global Burden of Disease 2015. Principal component analysis was then used to create a single, interpretable summary measure on a scale of 0–100 (Barber et al. 2017b).



The composite indicator provides valuable insights about overall performance. It hides the details about which components (such as NCD-related care) performed better or worse over time. Older adult populations survived younger ages and the conditions that more commonly contribute to mortality and morbidity for younger populations at the time, but generally have higher NCD-related care needs that require ongoing, longer-term care maintenance. In Figure 9, the percentage of persons aged 60 years and older in the total population was plotted against the HAQI, and it suggests that health systems, in some ways, already are adapting to higher proportions and numbers of older persons in the population and their health needs.

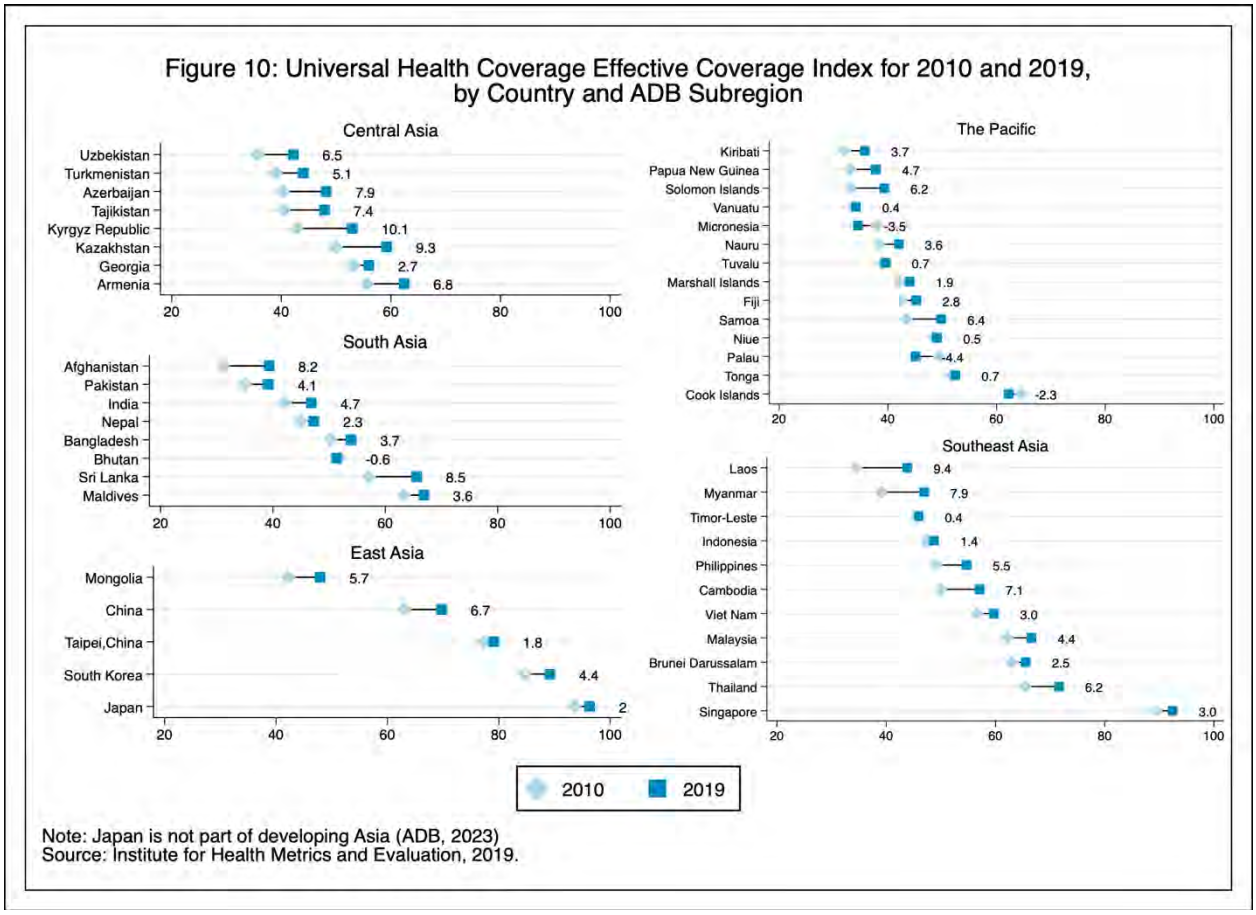


Note: Japan is not part of developing Asia (ADB, 2023)
Country code: AFG: Afghanistan, ARM: Armenia, AZE: Azerbaijan, BGD: Bangladesh, BRN: Brunei Darussalam, BTN: Bhutan, CHN: People's Republic of China, FJI: Fiji, FSM: Federated States of Micronesia, GEO: Georgia, IDN: Indonesia, IND: India, JPN: Japan, KAZ: Kazakhstan, KGZ: Kyrgyz Republic, KHM: Cambodia, KIR: Kiribati, KOR: Republic of Korea, LKA: Sri Lanka, MDV: Maldives, MHL: Marshall Islands, MMR: Myanmar, MNG: Mongolia, MYS: Malaysia, NPL: Nepal, PAK: Pakistan, PHL: Philippines, PNG: Papua New Guinea, SGP: Singapore, SLB: Solomon Islands, THA: Thailand, TJK: Tajikistan, TKM: Turkmenistan, TLS: Timor-Leste, TON: Tonga, TWN: Taipei, China, UZB: Uzbekistan, VNM: Viet Nam, VUT: Vanuatu, WSM: Samoa
Source: Institute for Health Metrics and Evaluation, 2019 & United Nations Development Programme, 2022.

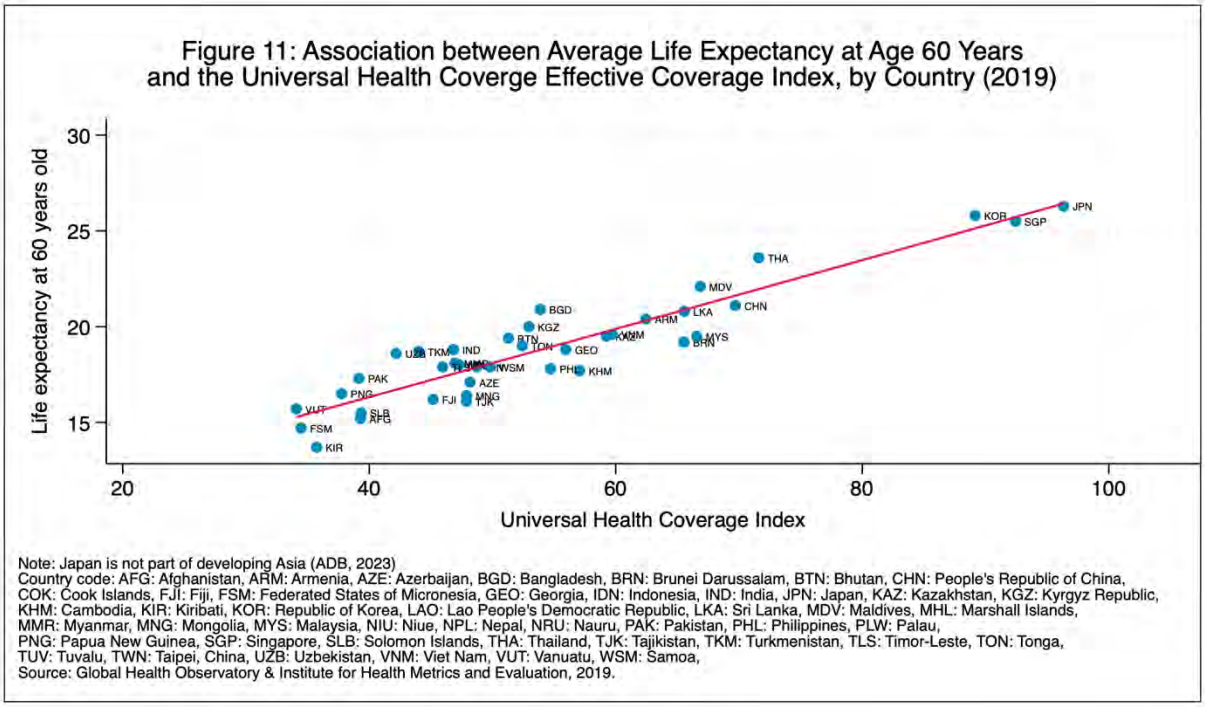
VI. MEASURING UNIVERSAL HEALTH CARE: EFFECTIVE COVERAGE

The second index to examine health systems access—the UHC Index—represents health needs and corresponding service types across the life course using tracer indicators. This index is a measure of effective coverage combining need, use, and quality into a single metric to estimate health gains from care interventions. Assessing effective coverage of health systems can contribute to aligning quality health services with population disease burden profiles. The UHC Index incorporates 23 effective coverage indicators against five health service domains: promotion, prevention, treatment, rehabilitation, and palliation (Global Burden of Disease 2020). The scores were transformed to a scale of 0–100, with a higher score indicating better effective coverage.

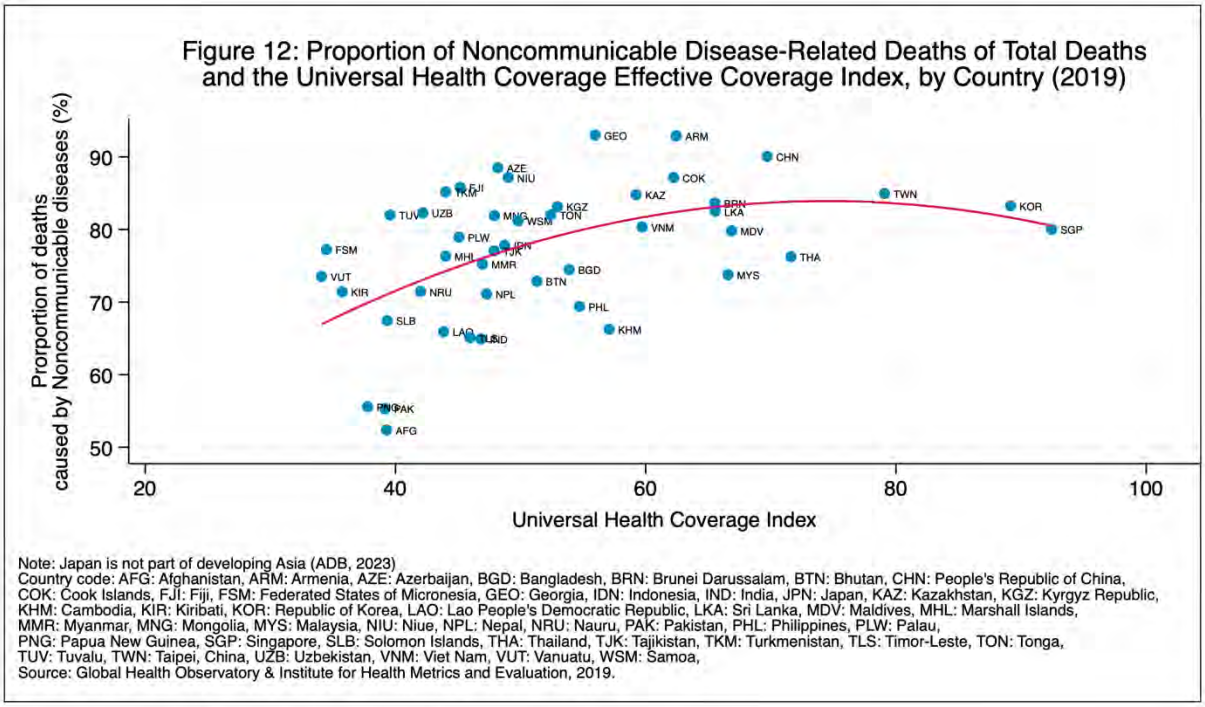
Within the five ADB subregions, considerable differences were seen between countries with the lowest and highest UHC Index scores. Armenia in Central Asia, the ROK in East Asia, the Maldives in South Asia, Singapore in Southeast Asia, and the Cook Islands in the Pacific had the highest UHC Index scores, albeit with considerable differences between the ROK and Singapore compared to the other three (Figure 10). Most countries showed an improved performance on the UHC Index between 2010 and 2019 with the largest gains in the Kyrgyz Republic (10.1), the Lao PDR (9.4), Kazakhstan (9.3), and Sri Lanka (8.5). A number of exceptions, where scores in 2019 were the same or lower than in 2010, were seen in the Pacific, Bhutan, and Timor-Leste.



While age-specific indicators for health systems access are not available for the HAQI or UHC Index, and noting that these were not corrected by country economic levels, a positive relationship is seen between mean LE60 years (in years) and the UHC Index (Figure 11). Without accounting for the many economic and social factors that could influence the results, nonetheless it points to the positive relationship between health care access and population health. It also points to countries that might be producing better outcomes for older adults (those above the line) at similar levels of coverage.



People of all ages are affected by NCDs, so ensuring UHC addresses chronic conditions would contribute to healthier and more productive lives at many different ages. The WHO estimated that 77% of all NCD-related deaths are in low- and middle-income countries, which means that, for UHC to be able to improve population health, health systems will need coordinated and concerted efforts to prevent and manage NCDs. The relationship between NCDs and health systems can be examined by plotting the proportion of NCD-related deaths (of total deaths) against the UHC Index. Country-level performance on the UHC Index for developing Asian countries revealed a nonlinear relationship with NCD-related deaths (Figure 12). A bending of the curve by lower- and higher-income countries may reveal the relative efficiency or inefficiency with which countries are responding to NCDs. Similarly, large differences are seen in NCD-related deaths in some countries at similar levels of UHC Index (for example, the PRC and Thailand). There are also large gaps in the UHC Index in countries at similar levels of NCD deaths (for example, Bhutan and Vanuatu). In countries with 80%–85% of NCD-attributed deaths, countries like Singapore; Taiwan; and the ROK have higher UHC Index scores than Fiji, Uzbekistan, and Tuvalu. Additional information would be required to know whether these differences were because of more efficient and equitable care, but regardless, it points to the capacities and challenges faced by different health systems and funding required to respond to the burden of NCDs.



Note: Japan is not part of developing Asia (ADB, 2023)
Country code: AFG: Afghanistan, ARM: Armenia, AZE: Azerbaijan, BGD: Bangladesh, BRN: Brunei Darussalam, BTN: Bhutan, CHN: People's Republic of China, COK: Cook Islands, FJI: Fiji, FSM: Federated States of Micronesia, GEO: Georgia, IDN: Indonesia, IND: India, JPN: Japan, KAZ: Kazakhstan, KGZ: Kyrgyz Republic, KHM: Cambodia, KIR: Kiribati, KOR: Republic of Korea, LAO: Lao People's Democratic Republic, LKA: Sri Lanka, MDV: Maldives, MHL: Marshall Islands, MMR: Myanmar, MNG: Mongolia, MYS: Malaysia, NIU: Niue, NPL: Nepal, NRU: Nauru, PAK: Pakistan, PHL: Philippines, PLW: Palau, PNG: Papua New Guinea, SGP: Singapore, SLB: Solomon Islands, THA: Thailand, TJK: Tajikistan, TKM: Turkmenistan, TLS: Timor-Leste, TON: Tonga, TUV: Tuvalu, TWN: Taipei, China, UZB: Uzbekistan, VNM: Viet Nam, VUT: Vanuatu, WSM: Samoa,
Source: Global Health Observatory & Institute for Health Metrics and Evaluation, 2019.

These results provide an indication of the current state of UHC in Asia. Demographic transitions might be already influencing health care access, quality, and coverage measures based on the relationships between age-related population variables and the two metrics used here—HAQI and UHC Index (Figures 9 and 11). Similarly, health transitions and NCDs will continue to drive population health needs, and while not a direct relationship, the bending mortality curve provides some indication that health systems in some countries may be adapting their NCD-related care (Figure 12).

For all countries, particularly countries with lower scores on the metrics used above, accelerating progress on UHC would require concerted and coordinated action on NCD and ensuring inclusion of ageing and older adult populations. These actions could help countries to better translate health spending into improved health system performance and healthier adult populations.

These actions will require continued investments in the health system—and equitable financing mechanisms—so that the second component of progressing towards UHC (fair financing) is addressed. This relationship is explored further with health financing in the next section.

VII. HEALTH SYSTEMS FINANCING

Many countries in Asia are ageing rapidly, but unlike higher-income countries/regions like Hong Kong, China; the ROK; Singapore; and Taipei,China, many lower-income countries in the region will become "old" before they become rich (Bloom et al. 2015, West 2018). Even in higher-

income countries, the sheer numbers of older adults will require stronger health and social protection systems to address chronic conditions and prevent the rise in common health risks. Strengthening these systems will require substantial and sustained investments to achieve SDG 3.8 in many countries (Stenberg et al. 2017). Health systems strengthening will also require better health spending data and estimates as key inputs for policy and planning. For example, few data are available on saving and borrowing to cover health care costs, loss of income from illnesses, and health spending disaggregation by age groups and conditions (NCDs) (Wagstaff et al. 2020a).

Globally, health spending continues to increase. In the two decades up to 2016, average per capita health spending grew by 2.7% and is projected to continue increasing, although at a slower rate in the decades leading to 2050 (Dieleman et al. 2019). The increase is also seen in real terms. For example, global estimates of mean current health expenditure (CHE)[3] and domestic general government health expenditure per capita (both in current United States dollars) for 2018 reached $1,111 and $682, respectively. Within developing Asia countries, estimates for CHE per capita in 2018 varied significantly from $50 in Afghanistan to $2824 in Singapore, for example (World Bank 2021, data-worldbank-org/indicator/SH.XPD.CHEX.PC.CD). For the same countries and year, domestic government health expenditure per capita was $9.64 and $2,235, respectively (data-worldbank-org/indicator/SH.XPD.GHED.PP.CD). The difference between the two values, particularly for lower-income countries, points to the share of health expenditure that is "out-of-pocket". Out-of-pocket health expenditures are highly correlated with catastrophic health expenditures, which is household medical spending that exceeds a certain level of that household's capacity to pay and can lead to impoverishment (Xu et al. 2007).

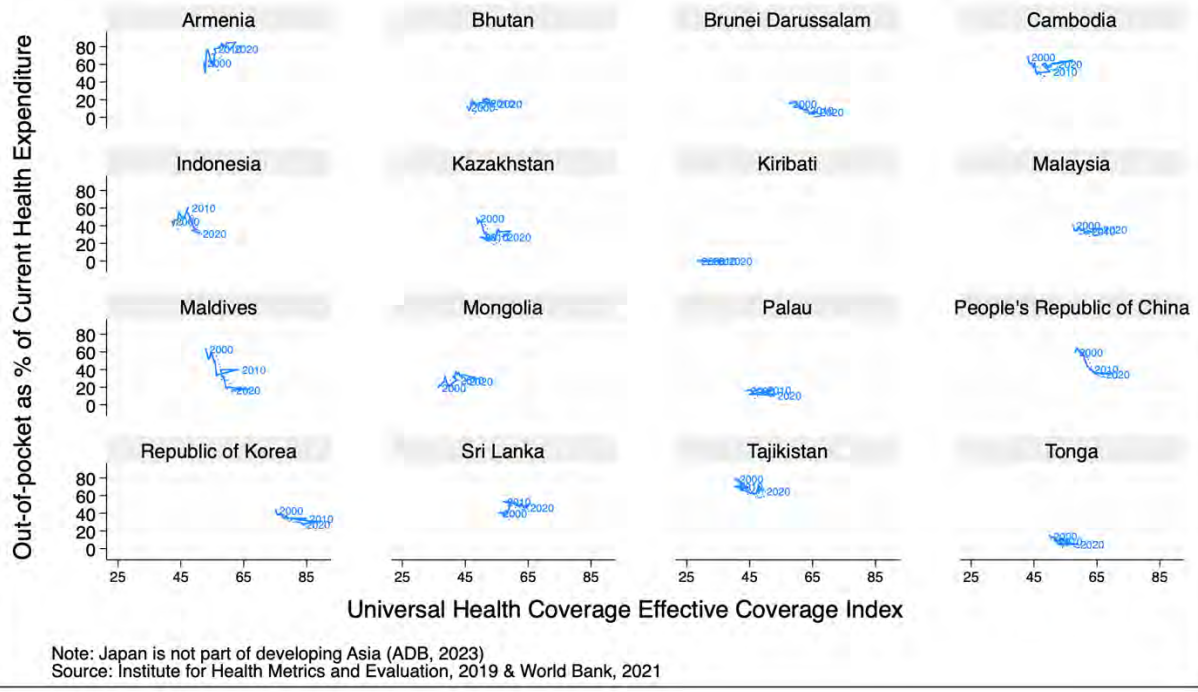
In 2015, worldwide, 926 million people incurred catastrophic health spending, with Asia and middle-income countries having the highest numbers and percentage of population facing catastrophic health expenditures (WHO 2019b). The largest number and percentage of the world population impoverished by out-of-pocket health spending were also in Asia or middle-income countries. These findings are correlated with gross domestic product per capita, which means that the financial impacts may increase as countries become richer. Even with the significant impacts of COVID-19 on economies across Asia in 2020, there is evidence that economic growth will rebound in most developing Asian countries in 2021 and 2022 (ADB 2021a), so out-of-pocket health expenditures may also continue increasing. There is also evidence that COVID-19 has slowed or reversed the share of development aid for health allocated for NCDs (Council for Foreign Relations 2021), albeit a small but important source of health funding for NCDs in lower-income countries (Allen 2017; Kostova et al. 2021). The

[3] Estimates of current health expenditures (CHE) include health care goods and services that are consumed during each year. This indicator does not include capital health expenditures, such as buildings, machinery, information technology, and stocks of vaccines for emergency or outbreaks. CHE estimates are based on the System of Health Accounts 2011 (WHO 2011) framework, which tracks all health spending in a given country over a defined period of time regardless of the entity or institution that financed and managed that spending. http://apps.who.int/nha/database.

challenge is to find a policy mix that shifts resources from out-of-pocket spending to compulsory pooled pre-payment mechanisms (WHO 2019b, Wagstaff 2020a).

While policy reform related to the progressive realization of UHC is ongoing, worrying trends are seen in some countries when looking at the relationship between increased service coverage and out-of-pocket expenses to finance needed services. Few of the countries in Figure 13 (for example, Brunei Darussalam, the PRC, Indonesia, and the Maldives) have had decreasing out-of-pocket health expenditure as a percentage of overall current health expenditure between 2000 and 2020 even with an progressive improvement in the UHC index. More of the countries had increased (Armenia, Mongolia, and Sri Lanka) or relatively small change (Bhutan, Cambodia, Malaysia, and Palau) in out-of-pocket health expenditure as their respective UHC Index has improved over this time period.

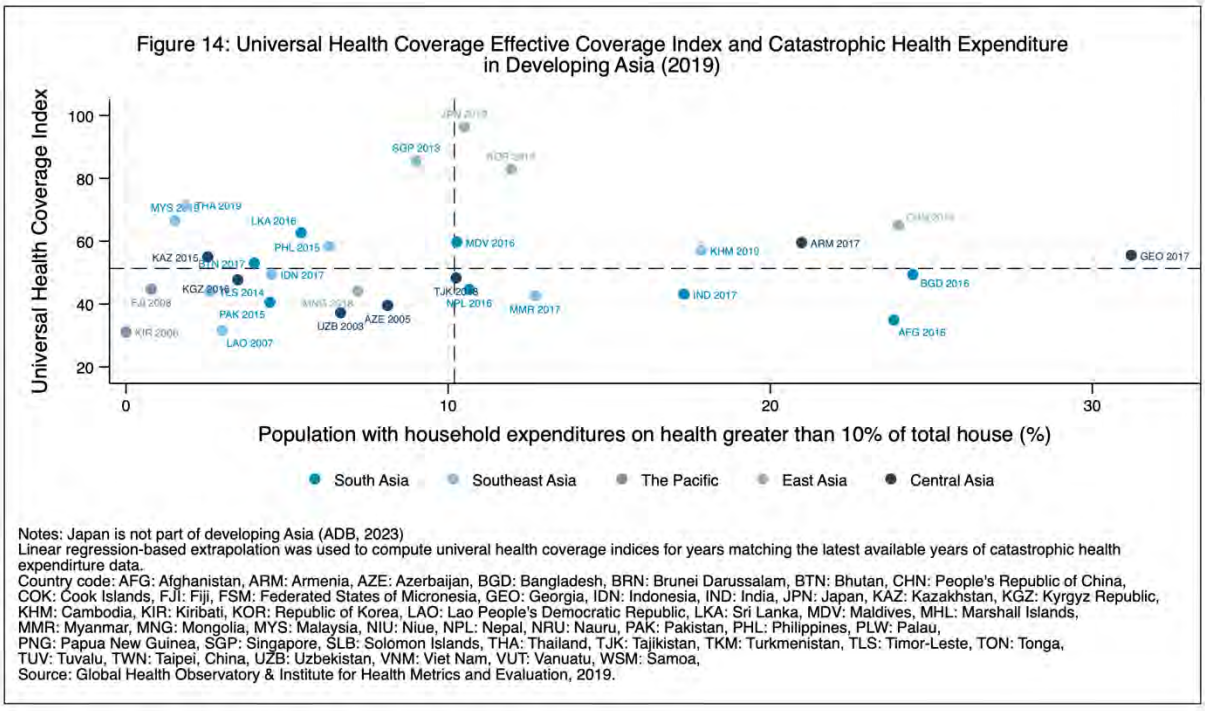
Figure 13: Universal Health Coverage Effective Coverage Index and Out-of-Pocket Health Expenditure as a Percentage of Overall Current Health Expenditure for a Selection of Developing Asia Countries, 2000–2020



Note: Japan is not part of developing Asia (ADB, 2023)
Source: Institute for Health Metrics and Evaluation, 2019 & World Bank, 2021

Countries across Asia are at different stages in their service coverage and financial protection. The plot of the two components of UHC, SDG indicator 3.8.1 (service coverage) against SDG indicator 3.8.2 (financial protection or lack thereof, as measured by high levels of catastrophic expenditure defined by greater than 10% of overall household expenditure), was divided into four quadrants delimited by the mean value (Figure 14). The mean values do not relate directly to targets or goals, but do provide a way of comparing relative performance against these measures. Thirteen countries had a UHC Index score above the mean (quadrants A1 [top left] and A2 [top right]), and 16 had catastrophic expenditures below the mean (that is, better financial protection, quadrants A1 and A4 [bottom left]) (Figure 14). Moving clockwise from quadrant A1, seven countries had comparatively high service coverage and lower levels of

catastrophic expenditure (A1). Six countries had high service coverage, but also high proportion of catastrophic expenditure (A2). Six countries had lower service coverage and higher catastrophic expenditure (low financial protection) (quadrant A3 [bottom right]). Nine countries had comparatively low service coverage, but also lower catastrophic expenditures (A4).The high-income countries (the KOR) and Singapore) had similar performance on the UHC Index, but quite different levels of financial protection. With the exception of Sri Lanka (LKA) and the Maldives (MDV), countries in South Asia had relative UHC Index scores below the mean, and a number of those countries from the subregion with comparatively low financial protection (NPL, AFG, IND, BGD). It is these countries in quadrant A3 with below mean UHC Index and above mean catastrophic expenditure levels (low financial protection) that would require support to improve both components, if they are to make progress towards UHC, particularly with the additional challenges of ageing populations and increasing NCD-related disease burden.



Notes: Vertical and horizontal lines indicate mean values across all developing Asia countries. Catastrophic health expenditure = out-of-pocket expenditures exceeding 10% of household total consumption/income. Quadrant A1 above mean UHC Index and below mean catastrophic expenditure; A2 above mean UHC Index and above mean catastrophic expenditure; A3 below mean UHC Index and above mean catastrophic expenditure; A4 below mean UHC Index and below mean catastrophic expenditure.

VIII. PROGRESSIVE REALIZATION OF UNIVERSAL HEALTH COVERAGE FOR OLDER ADULTS LIVING IN DEVELOPING ASIA

Demographic and health transitions have been transforming health care systems slowly and incrementally across Asia over decades. Even with the added pressure of agreements to progress towards UHC by 2030, a much-faster pace of health systems transformation is

required, as highlighted by the COVID-19 pandemic and its relationship with older adults and NCDs. COVID-19 also showed that rapid changes are possible in lower- and higher-income countries across the region. A number of digital solutions (such at the uptake of telemedicine, task shifting, and redirecting patients living with NCDs to available services) demonstrated the capacity of health systems to make these changes. Research is now needed to see whether these changes are temporary or will be sustained, represent value for money especially in lower-income countries, provide better NCD-related prevention and treatment services, and push sustainable transformations in health systems that contribute to progress in UHC.

In this paper, we have mapped out (i) the current and future shape of demographic ageing, (ii) the current health situation of older adults, (iii) the current state of health systems using various UHC indices, and (iv) the relationships between these factors.

The findings point to ageing populations and increasing NCD-related health burden, and a mixed relationship with the available health systems indicators across countries in the different subregions of developing Asia. The results suggest a need for metrics that more clearly measure the intersection of ageing; health (communicable diseases, NCDs, and their risks); and health systems.

A. Asia is rapidly ageing.

While considerable differences exist in the level and speed of population ageing across Asian countries at different economic levels, the share of the population aged 60 years and older is projected to more than double in Asia (from 13.1% in 2020 to 26.9% in 2060) in the next four decades. By the year 2040 in Asia and 2035 in Oceania, the numbers of people aged 60+ years will exceed the numbers of people aged 0-14 years. This demographic shift will shape future health systems.

B. Non-communicable disease burden and prevalence of non-communicable disease risks are high and rising in Asia.

As of 2019, the percentage of total deaths in Asia attributable to NCDs reached 77%. Twenty-four million of the 42 million deaths (57%) attributed to NCDs globally in 2019 occurred in Asia. These NCD-related deaths in Asia were not just in the oldest populations, 41% occurred in working age populations (15–69 years old), where preventing these deaths would have significant economic and health dividends. Stronger preventive measures and strengthened health systems would contribute to the needed solutions.

C. Accelerate multisectoral transformations to progress towards UHC.

Making progress on UHC for older adults in developing Asia will require addressing NCDs. This will require a coordinated approach that includes the health, finance, transport, education, agriculture, and planning sectors. Strengthening primary care has been shown to be a cost-effective economic investment, but this will require sustained and increased levels of government funding combined with improved health insurance coverage to address fragmented health systems (Lal et al. 2021). For lower-income countries, it will also require a

reverse in the patterns of development assistance for health related to NCDs if they are to adequately finance and embed needed transformations (Collins et al. 2019).

Finally, the findings suggest that better metrics are required to measure the relationship between health systems, older adults, and NCDs more directly. This will require a research agenda and actions that support expanding health information systems to capture individual-level patient records in lower-income countries as has become the norm in many high-income countries (Nimako and Kruk 2021). Such systems have the potential to improve vital registration, care quality, and more timely data to guide the health system.

In the meantime, progress toward UHC can be tracked by using indices that capture both service coverage and financial protection. Improvements in current metrics that allowed age-disaggregated or disease-specific analyses should be pursued. In some developing Asia countries, the indices used here suggest that health systems may already be responding to population ageing and the ongoing transition to higher population level NCD-related disease burden. Continued investment into health systems strengthening will be required to progressively work towards UHC, and into research that assess this impacts across different sectors of the population. The rapid shifts in virtual delivery of health care (eHealth or telemedicine) resulting from COVID-19 may provide an important role in improving access and reducing costs for NCDs and older adults (Adedeji et al. 2021, Osei et al. 2020, Bertoncello et al. 2020, Ezzati et al. 2018). Here again, COVID-19 has provided a unique opening to rethink health systems (Nimako and Kruk 2021), but research will be needed to turn digital solutions and responses to COVID-19 surges into lessons and feasible, sustainable solutions for health systems. Research is needed into how digital and other solutions contribute to health systems transformations, and the direct and indirect health consequences for older Asian populations (Lancet 2020, Lancet 2021). Using these research results, development assistance for health would be needed for lower-income Asia and the Pacific countries to embed these solutions into their health systems and policies for UHC.

The relative efficiency with which countries can translate their health spending into improved service coverage and financial protection for older adults varies considerably across the region, even in countries at similar levels of development. As part of health systems strengthening and progress towards UHC, and particularly for older adults, social care systems will also require strengthening (ADB 2021b).

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