# Health Statistics in the Western Pacific Region 2023

## Monitoring health for the SDGs

World Health Organization
Western Pacific Region

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# Foreword

Only six years remain for the world to reach the Sustainable Development Goals (SDGs) – the global call to action to end poverty and inequality, protect the planet, and ensure that all people enjoy health, justice and prosperity by 2030.

The global community is not on track to achieve the health-related targets of the SDGs. The COVID-19 pandemic reversed years of progress in health and well-being. Now national health systems are trying to regain lost ground while grappling with a host of emerging challenges.

Conquering this new health landscape requires more systematic and evidence-driven action. The World Health Organization (WHO) Western Pacific Region continues to work with Member States to take action to accelerate progress on health.

WHO and Member States have renewed their commitment to achieve the health-related SDG targets through the endorsement of the global WHO *Fourteenth General Programme of Work 2025–2028* (GPW14) in June 2024 at the World Health Assembly. A stronger overall monitoring system – including reports such as this *Health Statistics in the Western Pacific Region 2023: Monitoring health for the SDGs* – are essential to track and accelerate progress towards the shared commitments of the SDGs.

The new vision for WHO's work with Member States in the Region – *Weaving Health for Families, Communities and Societies of the Western Pacific Region: Working together to improve health and well-being and save lives* – will be presented to the WHO Regional Committee for the Western Pacific in October 2024. Developed in consultation with Member States, the vision will enhance WHO's performance to achieve the shared goals of WHO and Member States to promote, provide and protect health, while also empowering the work of the global health ecosystem to reach the SDGs.

The 37 countries and areas that make up the Western Pacific Region are at various stages of their journey towards achieving universal health coverage and attaining the SDGs. This statistical report serves to monitor regional and country SDG progress, and as a GPW14 baseline report. While detailing setbacks due to the COVID-19 pandemic, the report highlights the acceleration required to regain momentum and achieve the SDG targets.

I urge all those concerned with better health for all, particularly health decision-makers and other stakeholders, to study this report as a guide for evidence-based decisions to help Member States fulfil their national and international commitments to promote health, keep the world safe and serve the vulnerable.

WHO in the Western Pacific Region will continue to work hand in hand with all countries and areas in realizing this ambition, so that together we can weave better health for individuals, families and communities.

**Dr Saia Ma'u Piukala**
Regional Director for the Western Pacific
World Health Organization

# Acknowledgements

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# Abbreviations

| | |
|---|---|
| **AMR** | antimicrobial resistance |
| **ANC** | antenatal care |
| **ANC4+** | four or more antenatal care visits |
| **ARI** | acute respiratory infections |
| **ART** | antiretroviral therapy |
| **CHE** | current health expenditures |
| **CMPN** | communicable, maternal, perinatal and nutritional |
| **CRVS** | civil registration and vital statistics |
| **DALY** | disability-adjusted life year |
| **DTP3** | three doses of the combined diphtheria, tetanus toxoid and pertussis–containing vaccine |
| **EMT** | emergency medical teams |
| **FPG** | fasting plasma glucose |
| **GDP** | gross domestic product |
| **GGE** | general government expenditures |
| **GGHE-D** | domestic general government health expenditures |
| **GHO** | Global Health Observatory |
| **GLASS** | Global Antimicrobial Resistance and Use Surveillance System |
| **GOARN** | Global Outbreak Alert Response Network |
| **GPW14** | Fourteenth General Programme of Work 2025–2028 |
| **HALE** | health-adjusted life expectancy |
| **HBsAg** | hepatitis B surface antigen |
| **HIS** | health information system |
| **HPVc** | human papillomavirus complete series |
| **IHR (2005)** | International Health Regulations (2005) |
| **JEE** | Joint External Evaluation |
| **MCV2** | two doses of measles-containing vaccine |
| **MMR** | maternal mortality ratio |
| **MRSA** | methicillin-resistant Staphylococcus aureus |
| **NCD** | noncommunicable disease |
| **NTD** | neglected tropical disease |
| **OOP** | out-of-pocket |

| | |
|---|---|
| **PCV3** | pneumococcal conjugate vaccine three doses |
| **PICs** | Pacific island countries and areas |
| **PM** | particulate matter |
| **RMNCH** | reproductive, maternal, newborn and child health |
| **SDG** | Sustainable Development Goal |
| **SPAR** | States Parties Self-assessment Annual Reporting tool |
| **TB** | tuberculosis |
| **TRIPS** | Doha Declaration on the Agreement on Trade-Related Aspects of Intellectual |
| **UHC** | universal health coverage |
| **UNICEF** | United Nations Children's Fund |
| **WASH** | water, sanitation and hygiene |
| **WHO** | World Health Organization |

# Executive summary

*Health Statistics in the Western Pacific Region 2023: Monitoring health for the SDGs* is the third biennial report providing an overview of the progress of the World Health Organization (WHO) Western Pacific Region towards the health-related Sustainable Development Goal (SDG) targets. This edition also serves as a baseline assessment for the implementation of the global WHO *Fourteenth General Programme of Work 2025–2028* (GPW14) within the Western Pacific Region. Hence, its structure is closely aligned with the GPW14 monitoring framework, presenting statistics on programmatic indicators for various health areas to promote, provide and protect health. These areas encompass topics ranging from climate change and environmental health to health risk factors and the social impact of health, as well as health system capacity and emergency preparedness and response.

The COVID-19 pandemic has significantly impacted health globally, reducing life expectancy across all WHO regions. In the Western Pacific Region, life expectancy increased in all Member States until 2020, declining during the second year of the pandemic. Despite this, the Western Pacific was the least affected of all six WHO regions in terms of life expectancy loss during the first two years of the pandemic. The Region still faces challenges, particularly with one of the largest and fastest-growing older populations in the world. Currently, more than 245 million people – about 14% of the Region's population – are aged 65 and older. This number is projected to double by 2050. Rapid ageing will pose significant challenges for health systems in ensuring the health and well-being of the population.

Progress has slowed in reducing the probability of premature mortality from noncommunicable diseases (NCDs). The Region is not on track to meet the SDG target for NCDs. Significant progress has been made in reducing maternal mortality, but nine out of the 27 countries in the Region with data in this report remain off-track in achieving the SDG target for maternal mortality. On the other hand, the Region has made notable progress in reducing under-5 mortality, with rates significantly lower than global and other region's averages.

The reduction in road traffic mortality in the Region has been insufficient to meet the SDG target of halving deaths by 2020, and suicide rates in some countries remain among the highest in the world. The Region has also experienced an increase in HIV incidence, despite a global average decline. The reduction in the tuberculosis incidence rate has also been slower than the average global reduction, and there has been an increase in malaria incidence, although it remains much lower than the global incidence rate.

Focusing on key health risks related to health promotion, per capita total alcohol consumption in the Western Pacific Region rose significantly between 2000 and 2015. It has since been declining, but the decline falls short of the targets in the WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2030*. Despite a reduction in tobacco use in the Region, regional prevalence remains above the global average, indicating slower progress compared to other regions. It is unlikely that the Region will achieve the global NCD target of a 25% relative reduction by 2025 in the prevalence of raised blood pressure, or uncontrolled hypertension, against the 2010 baseline.

Stunting among children in the Region was reduced remarkably – by nearly one third – over the past 10 years. However, overweight among children has increased in most countries in the Region during the same period. Anaemia among women of reproductive age continues to increase in most countries in the Region. The lifetime prevalence of intimate partner violence among ever-married or partnered women and girls in some Pacific island countries is double the global average.

In the march towards universal health coverage (UHC), the Region has made impressive strides in advancing service coverage since the turn of the millennium; however, this progress has slowed in recent years. While service coverage for reproductive, maternal and child health, as well as infectious disease control, improved substantially in recent years, progress in NCD control and health systems service capacity and access remained stagnant. Despite the progress in service coverage, the proportion of the population in the Region incurring catastrophic health spending has increased substantially over time. The percentage of the population spending over 10% of their household budget on out-of-pocket health expenditures has doubled, affecting nearly one in five people in the Region, a higher burden than any other WHO region.

In relation to protecting health, the Western Pacific Region demonstrated strong performance across most core capacities, as highlighted in the States Parties Self-Assessment Annual Reporting tool under the International Health Regulations (2005) or IHR (2005). The Region exceeded the global average in all core capacities except for zoonotic diseases and radiation emergencies. When looking at the variation between countries in the Western Pacific, average scores ranged between the high 30s and the high 90s, reflecting varying degrees of IHR (2005) capacities, with five countries averaging below 50.

Regarding health information system (HIS) capacity to measure and monitor key health indicators by country income level, lower-middle-income countries in the Western Pacific Region exhibited larger capacity gaps across all measured aspects of HIS capacity compared to high- and upper-middle-income countries. Whether it was the ability to conduct comprehensive population surveys, effectively monitor health risks or utilize data for strategic decision-making, lower-middle-income countries within the Region struggled to match global levels. In terms of birth registration in the Region, millions of children remain unregistered, lacking legal identity. Additionally, data availability on birth and death registration remains sparse in the Region, falling short of commitments made a decade ago to improve civil registration and vital statistics.

This report highlights the pressing need for a renewed commitment to accelerate progress towards key health-related SDG targets across the Western Pacific Region.

# Introduction

This report – *Health Statistics in the Western Pacific Region 2023: Monitoring health for the SDGs* – is the third update on the progress in the World Health Organization (WHO) Western Pacific Region towards achieving the health-related Sustainable Development Goals (SDGs), as outlined in the *2016 Regional Action Agenda on Achieving the Sustainable Development Goals in the Western Pacific (1, 2).* The first report, *Monitoring Universal Health Coverage and Health in the Sustainable Development Goals: Baseline Report for the Western Pacific Region 2017 (3)*, was published in 2017, followed by the second report, *The Health-related Sustainable Development Goals Progress Report of the Western Pacific Region 2020*, published in 2021 *(4).*

# Objectives and target audiences

This report aims to serve as a baseline assessment for the implementation of the WHO *Fourteenth General Programme of Work 2025–2028 (GPW14)* within the Western Pacific Region and across its 27 countries *(5)*. This approach is reflected in the new future-oriented vision for the work of WHO with Member States in the Western Pacific Region from 2025 to 2029, *Weaving Health for Families, Communities and Societies of the Western Pacific Region: Working together to improve health and well-being and save lives*, which is set to be presented to the Regional Committee in October 2024. This SDG report primarily relies on indicators in the *2030 Agenda for Sustainable Development* and reaffirms WHO's global Triple Billion targets and the thematic priorities of the Western Pacific Region *(1, 5–7)*. As such, the insights from this report will be invaluable to a broad audience, including health policy-makers, public health implementors and practitioners, and academic and research institutions. Considering health impacts for all of society, the audience can be expanded to civil society organizations, other government institutions, nongovernmental organizations and the general public.

This report aims:

- to provide an overview of the progress of the Western Pacific Region towards the health-related SDGs, which should be achieved by 2030;
- to highlight the most important gaps in data and information that could hamper the implementation of GPW14 and Western Pacific Region thematic priorities;
- to provide insight into current health inequalities in the Western Pacific Region; and
- to describe the current health information system (HIS) situation and how to strengthen it to promote better data utilization for decision-making.

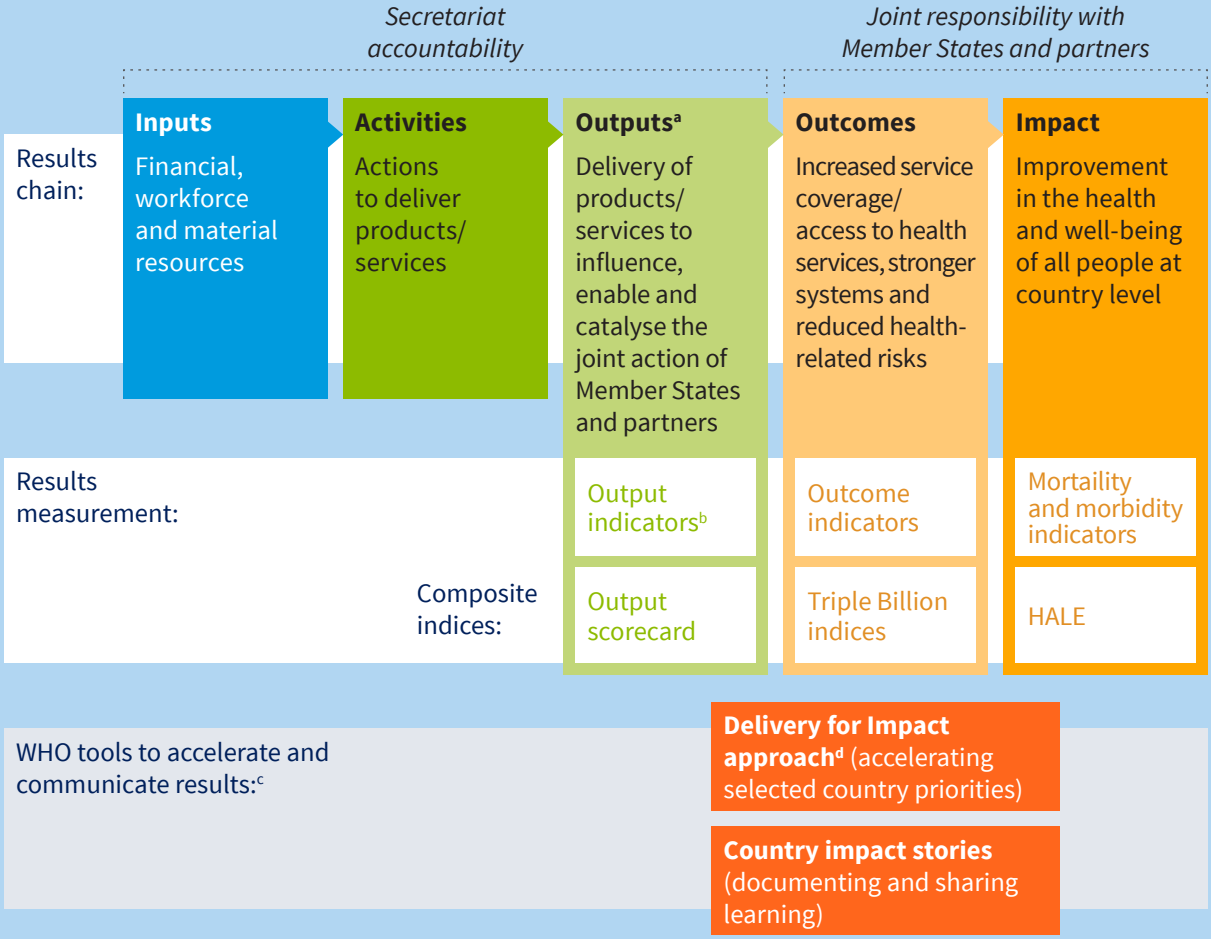
# Report structure

To achieve these aims, this report follows the GPW14 results monitoring framework, with some modifications based on the availability of indicators and the regional context (Fig. 1) *(5)*.

- The report monitors various health impacts by evaluating health-adjusted life expectancy (HALE), which provides insight into overall health outcomes. It also examines the disease burden in the Region, assessing the leading causes of death and disability.
- Progress on the Triple Billion targets in the Region is not included due to the ongoing updates of GPW14 indicators set for those targets and methodology adjustments.
- The report follows the structure of the GPW14 goals – promote, provide and protect health – to present various health areas using programmatic indicators. These areas encompass topics ranging from climate change and environmental health to risk factors and social impact, as well as health system capacity and emergency preparedness and response.

**Fig. 1** GPW14 results framework

## Results framework




[a] Includes corporate outputs that reflect WHO cross-cutting technical and enabling functions.
[b] WHO is using "leading indicators", which are between outputs and outcomes, to better explain the contribution of outputs to the achievement of outcomes.
[c] These are complemented by other tools used by WHO at country, regional and global levels to monitor and manage for results.
[d] Includes delivery stocktakes, delivery dashboards and two-year delivery milestones.

*Source:* WHO *(5)*.

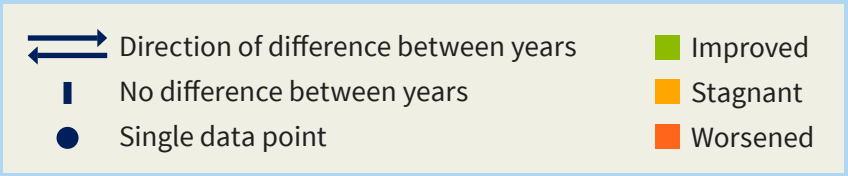
# Data resource, collection and visualization

The data in this report cover the 27 countries in the Western Pacific Region, with no data reported for the Region's 10 areas.

The data for this report were drawn predominantly from the WHO Global Health Observatory (GHO) data repository *(8)*. Other global or regional databases produced and maintained by United Nations agencies have been used for this report when data were not available from GHO or other WHO products, including the United Nations Children's Fund (UNICEF), the United Nations Department of Economic and Social Affairs, the Joint United Nations Programme on HIV/AIDS, the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene, and others. The respective sources have been referenced under each indicator.

Unless otherwise stated, global and regional estimates are derived from GHO data *(8)*. Disaggregated information is presented by sex, wealth, education level and place of residence for applicable health-related SDG indicators. For most indicators in the report, the trend is shown from the baseline year 2000 to the latest year with available data. For other indicators, the trend is shown from the reference year used to assess the relative change towards the SDG target. Some indicators consisted of just one data point because only one year of data was available, or disaggregated estimates were presented for only one year. Only the latest available data are shown for disaggregated data.

Where a graph depicts the data using an arrow, the arrowhead represents the most recent year for which data are available. The colour green represents a positive trend, red represents a negative trend and amber represents a stagnant trend.




# Chapter briefing

While the WHO Western Pacific Region has experienced marked improvements in health since the turn of the millennium, not all populations are benefiting in the same way. **Chapter 1** of the report highlights health trends and their impact on life expectancy. There is a continued shift in mortality patterns, with fewer deaths from communicable diseases and injuries, and a rising proportion of deaths due to noncommunicable diseases (NCDs). The burden of communicable diseases generally decreased across Western Pacific countries until the COVID-19 pandemic, when the trends reversed in several countries. The leading causes of disability continued to shift towards NCDs, reflecting a significant increase in their contribution to disability-adjusted life years (DALYs) over time. These trends illustrate evolving health challenges in the Region, emphasizing the need to address NCDs and promote healthy ageing.

**Chapter 2** discusses efforts to promote health across the Region through strengthening enablers and reducing risk factors, yet certain areas require additional improvement. More than half of the nine countries that joined the global climate change and health survey have put in place national health and climate change plans, integrating assessments and operations to tackle health challenges. While alcohol consumption has risen overall since 2000 but decreased since 2015, and tobacco use has declined over time, they still fall short of global targets, particularly among males.

Similarly, hypertension rates have slightly decreased since 2010 but are unlikely to meet the global target. Access to safe water and sanitation has generally improved, and urban air quality is on the mend, yet major disparities persist between urban and rural areas for both. Further, the Region grapples with a double burden of malnutrition and persistent issues such as anaemia and domestic violence against women and children.

**Chapter 3** explores the pursuit of affordable universal health coverage (UHC) to promote better health outcomes. Although some countries in the Western Pacific Region have built strong health-care infrastructures with higher health worker and hospital bed density, others still face significant shortages and gaps. Over the past two decades, average health expenditures per capita have tripled, with a growing share of gross domestic product (GDP) allocated to health. However, public financing for health as a proportion of government expenditures has slightly decreased. Service coverage has improved but varies widely among countries, with notable progress in reproductive, maternal and child health, and infectious disease control, but limited advancement in NCD prevention and treatment and health systems capacity and access. Progress towards essential service coverage and protection against catastrophic health spending varies widely among Member States, highlighting ongoing challenges in achieving UHC across the Region.

Considering that the Western Pacific Region is one of the areas of the world most prone to disasters and emerging infections, health emergency preparedness and response remain particularly important. **Chapter 4** shows that despite the challenges posed by the COVID-19 pandemic, Member States have continued to enhance their health security capacities and bolster preparedness for and response to health emergencies. A total of 17 countries conducted a Joint External Evaluation (JEE) to identify capacity gaps up to 2023.

Lastly, **Chapter 5** highlights that while efforts are being made to conduct routine monitoring and surveys, as well as reviewing progress and performance, the Region's capacity for optimizing data use for policy and action requires greater efforts to improve, emphasizing the urgent need for enhanced HIS and employing the power of data. Significant gaps in civil registration and vital statistics (CRVS) systems persist in the Western Pacific Region, particularly in birth and death registration data, where data are often missing or outdated across the Region. Only three countries achieved universal birth registration, and while most countries meet the 80% completeness threshold for death registration, data on causes of death are limited.

# 1 Life expectancy and burden of disease

This chapter describes life expectancy and population ageing and gives an overview of deaths and disability due to: (1) NCDs; (2) communicable, maternal, perinatal and nutritional conditions; and (3) injuries. Furthermore, it describes the infectious disease burden in the Region, including antimicrobial resistance (AMR).

## Chapter highlights

- HALE increased in most countries in the Region between 2000 and 2019. The Western Pacific was the least affected region in terms of HALE loss during the first two years of the COVID-19 pandemic.
- Rapid population ageing has occurred across some Member States in the Western Pacific Region. Currently, there are more than 245 million people aged 65 and older in the Region, and this number is projected to double by 2050.
- Since 2000, the probability of NCD premature mortality in the Western Pacific Region has declined by more than 25%. Despite this decline, progress has slowed since the beginning of the SDG era in 2015, and current projections show that the Region is not on track to meet SDG target 3.4.
- The maternal mortality ratio (MMR) decreased by 42% between 2000 and 2020. However, nine Member States in the Region had not achieved the SDG target by 2020.
- Twenty countries in the Region achieved the SDG target for under-5 mortality by 2022. However, within-country inequalities in under-5 mortality persist. This shows that while a country may reach the SDG target, some populations may be left behind.
- Road traffic mortality decreased by 16% between 2010 and 2021. However, the SDG target of halving the number of deaths from road traffic accidents was far off target.
- Suicide rates in some countries in the Western Pacific Region were among the highest in the world.
- In 2019, more than 2.3 million deaths in the Region were attributable to air pollution.
- While HIV incidence has been declining globally, with a 32% reduction between 2015 and 2022, the Western Pacific Region has seen a 7% increase in the HIV incidence rate during this period.
- The Region experienced only a 4% reduction in the tuberculosis (TB) incidence rate, dropping from 100 per 100 000 in 2015 to 96 in 2022, slower than the 8.7% global reduction.
- The malaria case incidence rate in the Western Pacific Region in 2022 (2.4 per 1000 people at risk) was much lower than the global incidence rate (58.4 per 1000 people at risk). However, from the beginning of the SDG era in 2015 until 2022, malaria incidence in the Western Pacific Region has increased by 43.5% from 1.7 per 1000 people at risk in 2015.

# 1.1 Life expectancy and population ageing

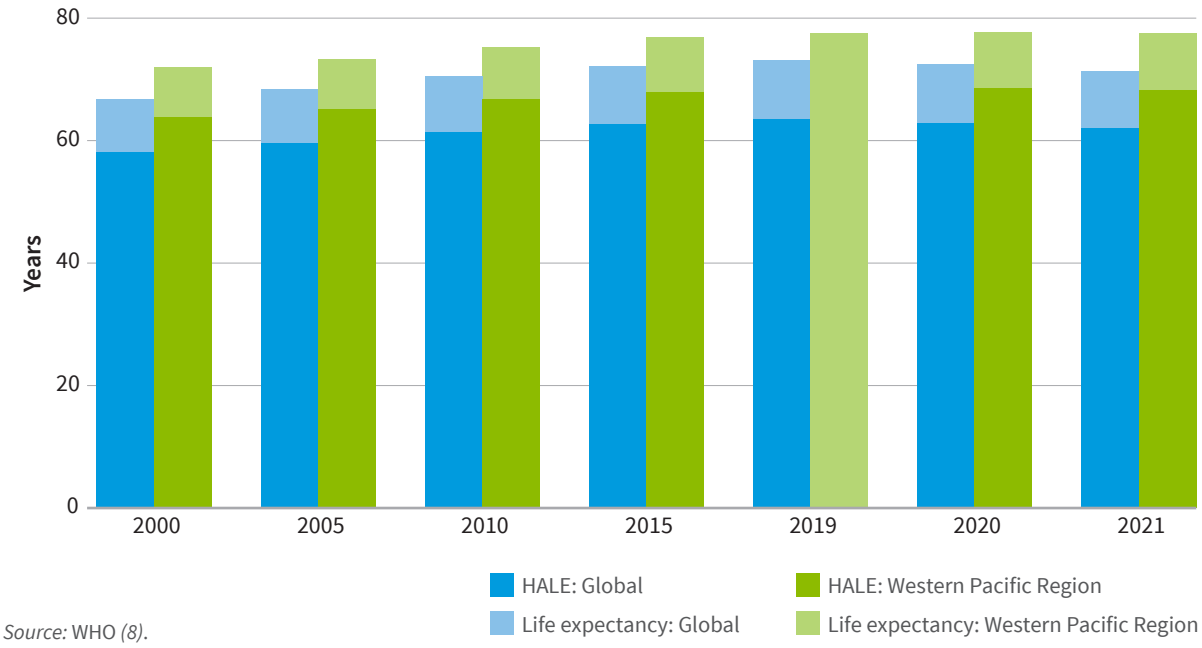
Life expectancy is a key indicator of health progress, and the Western Pacific Region shows a positive trajectory. The increase in life expectancy, coupled with an increase in health-adjusted life expectancy, indicates that individuals are not only living longer but also enjoying more years of life free from disability. In 2021, the Western Pacific was the region with the highest life expectancy and HALE at birth. However, the COVID-19 pandemic has reversed some of the recent progress, but not everywhere and everyone across the Region was affected the same way.

## Life expectancy and HALE at birth

### *Global and regional trends*

Life expectancy at birth has steadily increased globally and in the Western Pacific Region for the past two decades, rising globally from 66.8 years in 2000 to 73.1 years in 2019, and in the Region from 72.0 years to 77.5 years during the same period (Fig. 2). In 2019, the Western Pacific Region had the second-highest life expectancy at birth among the six WHO regions, just slightly below the life expectancy of the highest-ranking region and surpassing the global life expectancy by 4.4 years. Furthermore, in 2019, the Region had the highest HALE at birth (68.4 years), above the global HALE of 63.5 years. Following the global trend, in 2019, females in the Western Pacific Region had a longer life expectancy (females 80.7 years versus males 74.5 years) and HALE (females 70.1 years versus males 66.7 years) than males *(9)*.

**Fig. 2** Global and regional trends in life expectancy and HALE at birth, 2000–2021



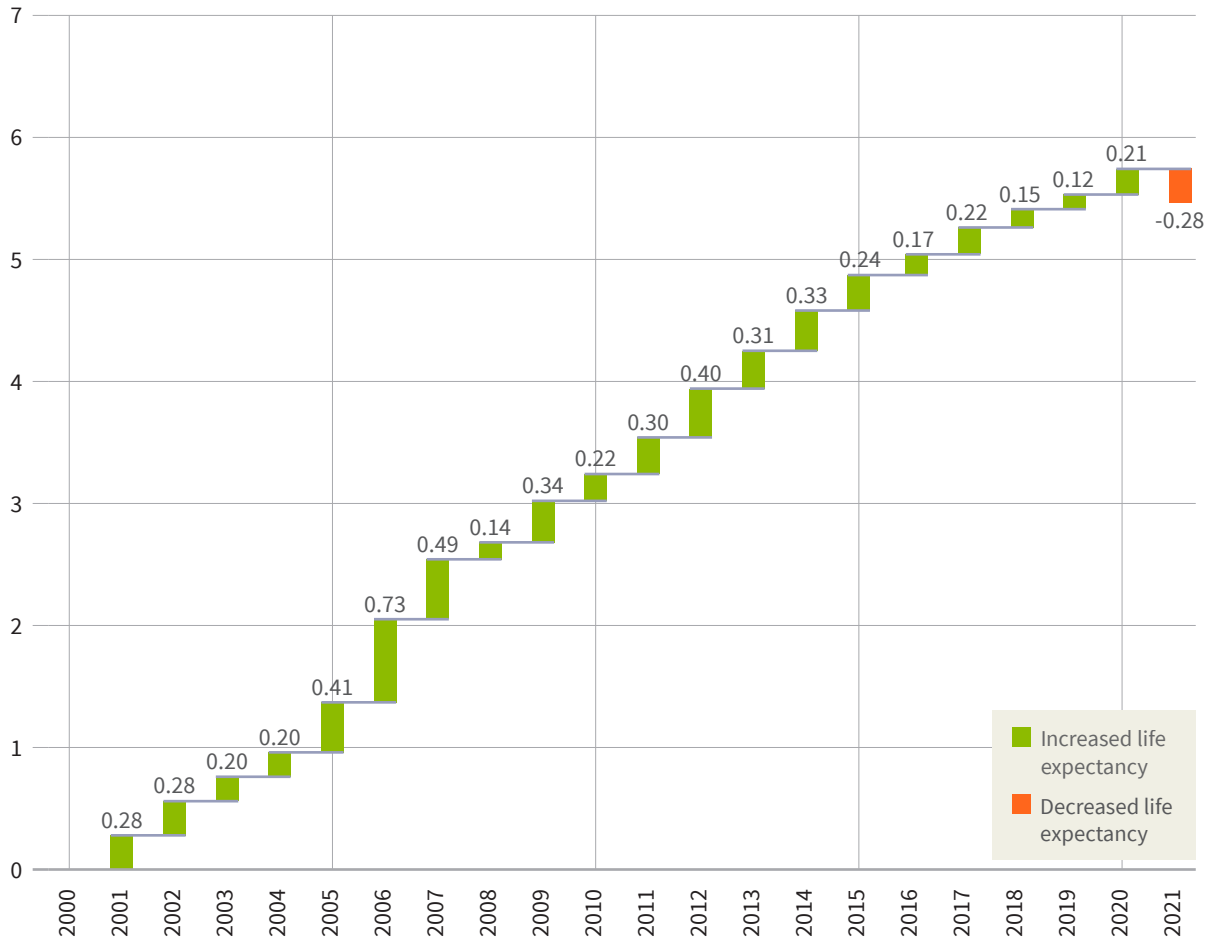

*Source:* WHO *(8)*.

However, the COVID-19 pandemic has reversed some of the progress of the last decade, but with a much greater impact globally than in the Western Pacific Region *(9)*. Globally, life expectancy at birth dropped by a total of 1.7 years during the first two years of the COVID-19 pandemic, 2020 and 2021, down to 71.4 years, a level similar to that of 2012. This represents a reversal of approximately nine years of progress.

The Western Pacific Region was the least affected WHO region during the first two years of the pandemic, and it was the only WHO region where increases in life expectancy and HALE were still observed in 2020 *(9)*. A decline in life expectancy in the Region was observed only in 2021, as the steady increase in life expectancy had continued up to 2020 (Fig. 3). Between 2020 and 2021, life expectancy in the Western Pacific Region dropped by 0.28 years, down to 77.4 years, reversing the progress of only the previous year. The overall decline in life expectancy in this Region during the first two years of the pandemic (2020 and 2021) was 0.07 years, which represents less than 5% of the global decline of 1.7 years during the same period.

These different global and regional trends during the first two years of the pandemic have raised the status of the Western Pacific Region from being the WHO region with the second-highest life expectancy in 2019 to the region with the highest life expectancy in 2020 and 2021.

**Fig. 3** Yearly change in life expectancy in the Western Pacific Region, 2000–2021

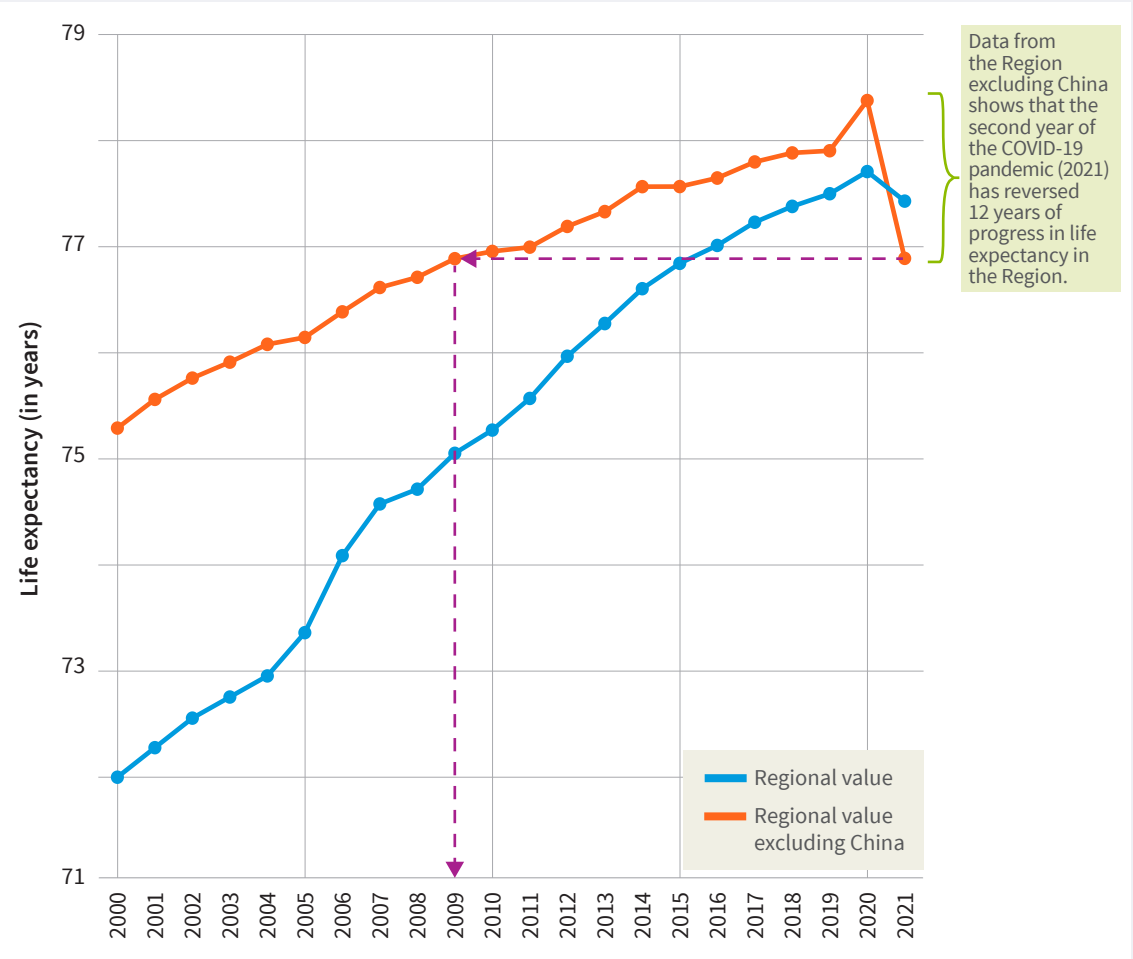



*Source:* WHO *(8)*.

## **Box 1.** Life expectancy in the Western Pacific Region and the influence of large populations

The regional estimate for life expectancy is based on population-weighted age-sex-specific mortality rates. Hence, China, which accounts for over half the Region's population, has a heavy influence on this value. When the regional trend in life expectancy is computed excluding data from China, a greater negative impact of the COVID-19 pandemic on life expectancy is observed, with the value dropping by 1.5 years between 2020 and 2021, down to 76.9 years. This decline brings life expectancy to a level equivalent to that of 2009. Therefore, the life expectancy across the remaining countries of the Region has reversed more than one decade of progress in just one year as a result of the impact of COVID-19. This impact in the Region is equivalent to the impact observed globally *(9)* (Fig. 4).

**Fig. 4** Life expectancy in the Western Pacific Region including and excluding China, 2000–2021

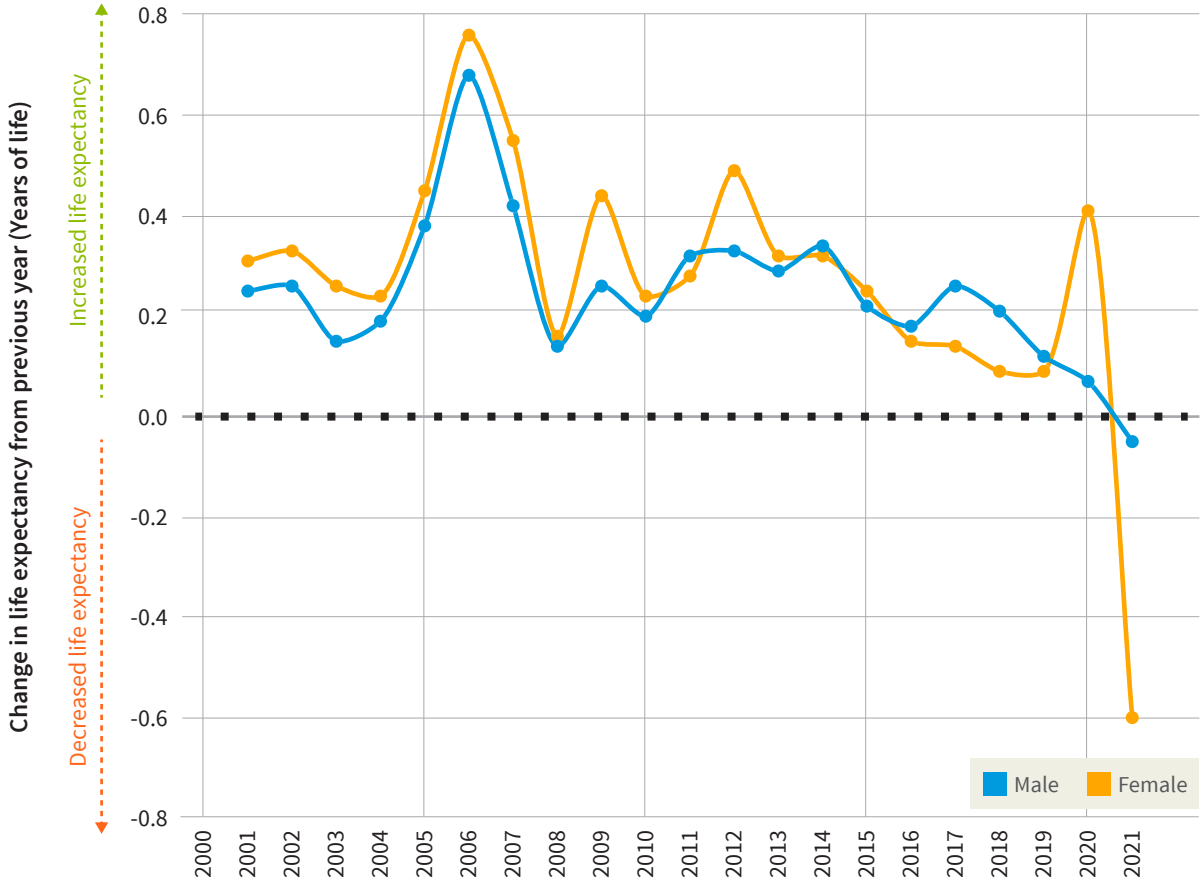



*Source:* WHO *(8)*.

In terms of HALE, the Western Pacific Region was the WHO region with the highest HALE at birth in 2021 (68.2 years), a rank that the Region has held since 2000 (Fig. 2). The COVID-19 pandemic has also influenced the global and regional trends in HALE at birth, which followed a similar pattern as life expectancy. The Region experienced a HALE decline of 0.18 years during the first two years of the pandemic, less pronounced than the global decline of 1.6 years during the same period (Fig. 2). However, it is important to note that China, which accounts for over half of the Region's population, has a heavy influence on the regional estimate (Box 1).

Furthermore, a substantial disparity in the decline in life expectancy during the first two years of the COVID-19 pandemic was observed between males and females in the Western Pacific Region: life expectancy decreased by 0.05 for males and 0.59 for females, corresponding to a decline in female life expectancy that was nearly 12 times greater than that of males (Fig. 5). This diverged from the global trend where, across the first two years of the COVID-19 pandemic, no difference in the drop in life expectancy was observed between males and females *(9)*.

**Fig. 5** Change in life expectancy from the previous year in the Western Pacific Region, by sex, 2000–2021




*Source:* WHO *(8)*.

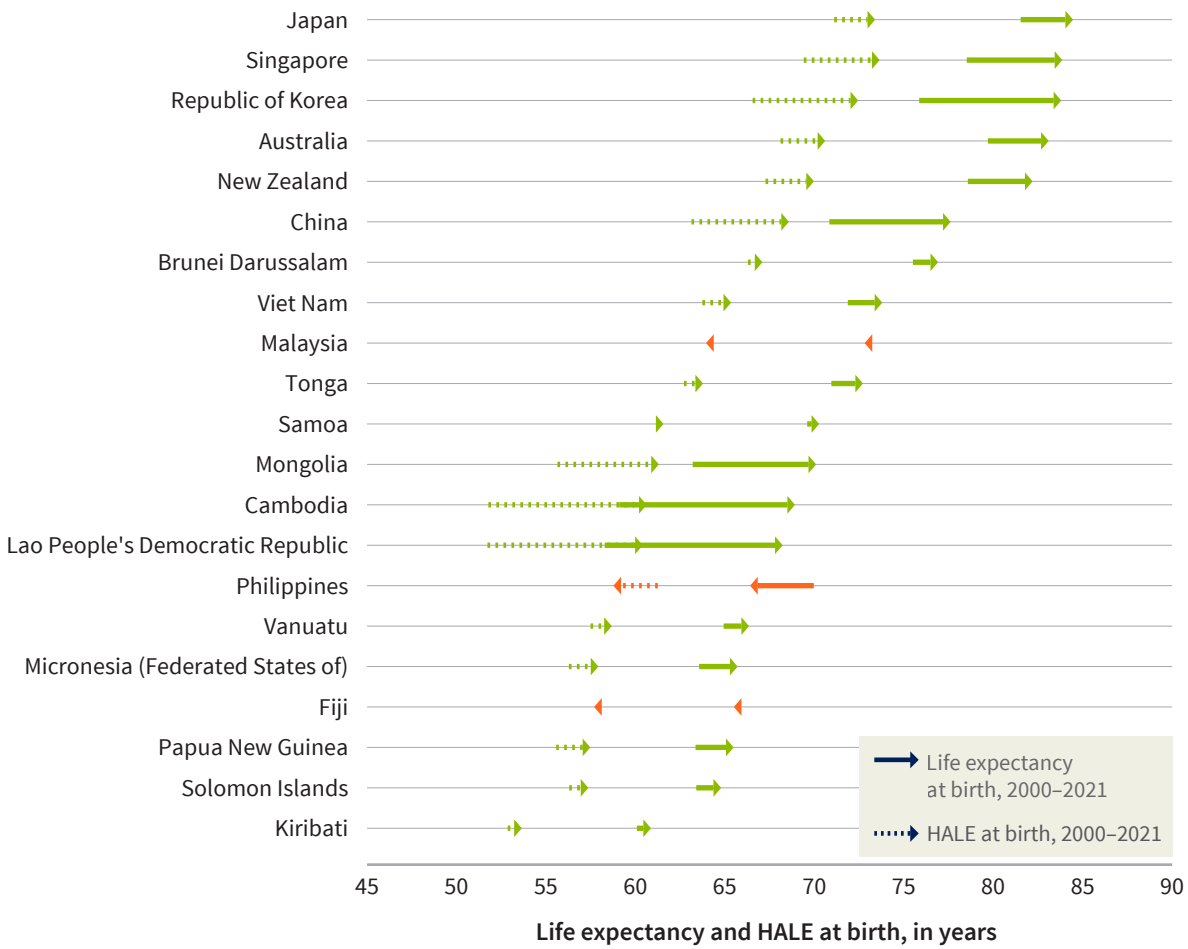
### *Trends in Member States*

The Western Pacific Region showed varied trends in life expectancy and HALE at birth across Member States (Fig. 6). In 2021, Australia, Japan, New Zealand, the Republic of Korea and Singapore had the highest life expectancies and HALE at birth – all of them high-income countries with a life expectancy of over 80 years. The most significant improvements in life expectancy at birth were observed in Cambodia, China, Mongolia, the Lao People's Democratic Republic and the Republic of Korea, where the increase ranged from 6.8 to 10.0 years in two decades.

However, there were considerable disparities in life expectancy and HALE across Member States. In 2021, life expectancy at birth ranged from 60.9 years in Kiribati to 84.5 years in Japan, a 23.6-year difference between the highest and the lowest life expectancies in the Region. Similarly, HALE at birth ranged from 53.7 years in Kiribati to 73.7 years in Singapore, a difference of 20 years. Further, there was a substantial difference between life expectancy and HALE at birth in all Member States, which ranged from 7.2 years to 12.5 years of life not lived in full health.

Of concern, between 2000 and 2021, life expectancy and HALE at birth decreased in three countries: Fiji, Malaysia and the Philippines. In these countries, the declines during the first two years of the COVID-19 pandemic reversed the gains that had been achieved (Fiji and Malaysia) or the nearly stable trends (Philippines) since the turn of the millennium. Further, between 2020 and 2021, life expectancy and HALE declined in most Member States (Box 2).

**Fig. 6** Life expectancy and HALE at birth, 2000 and 2021



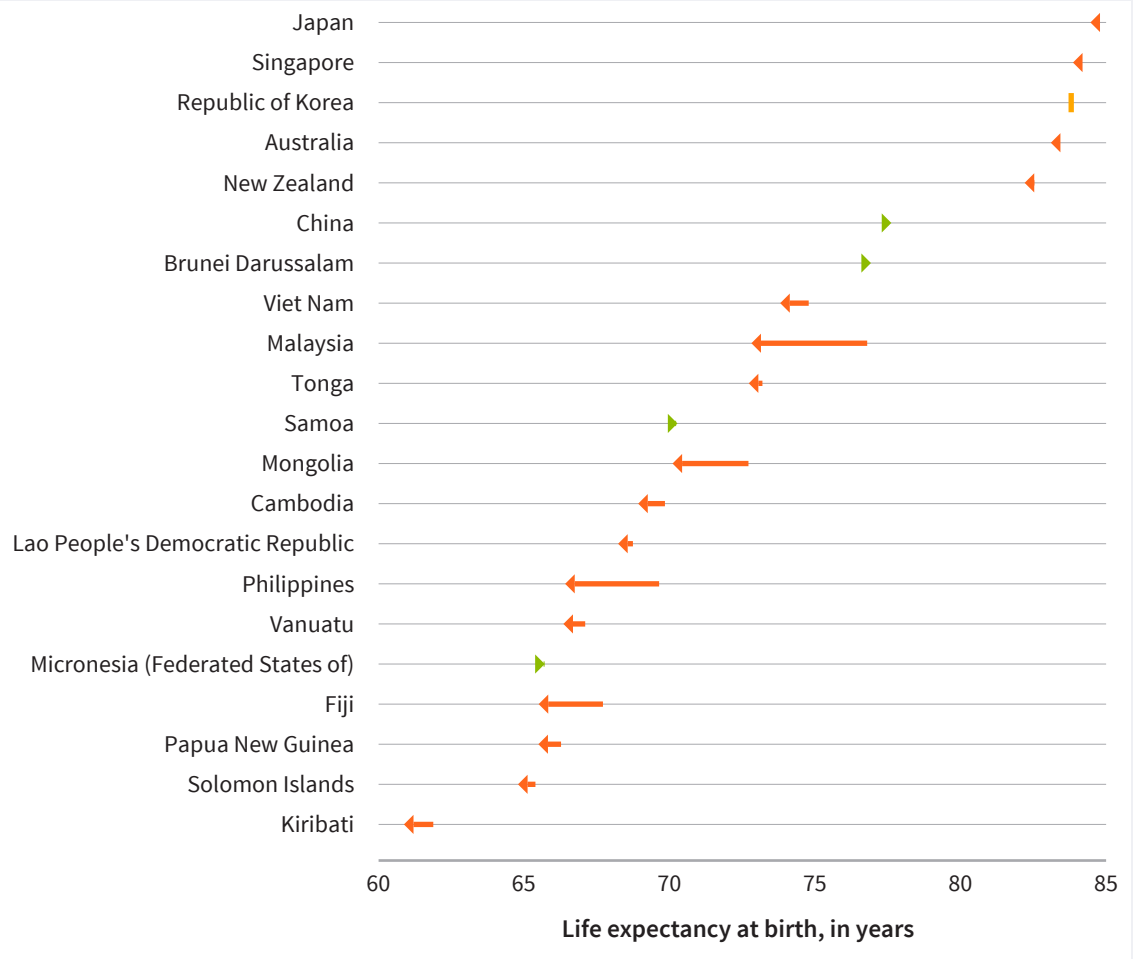

*Source:* WHO *(8)*.

## **Box 2.** Impact of the COVID-19 pandemic on life expectancy and HALE at birth in the Member States of the Western Pacific Region

The COVID-19 pandemic substantially impacted life expectancy and HALE in Member States of the Western Pacific Region. Most countries experienced a decline in life expectancy and HALE between 2020 and 2021, after decades of steady increases. Among the 21 countries for which there are available data, life expectancy declined in all countries except in five (Brunei Darussalam, China, the Federated States of Micronesia, Republic of Korea and Samoa) (Fig. 7), and HALE declined in all countries but two (Brunei Darussalam and China) (Fig. 8).

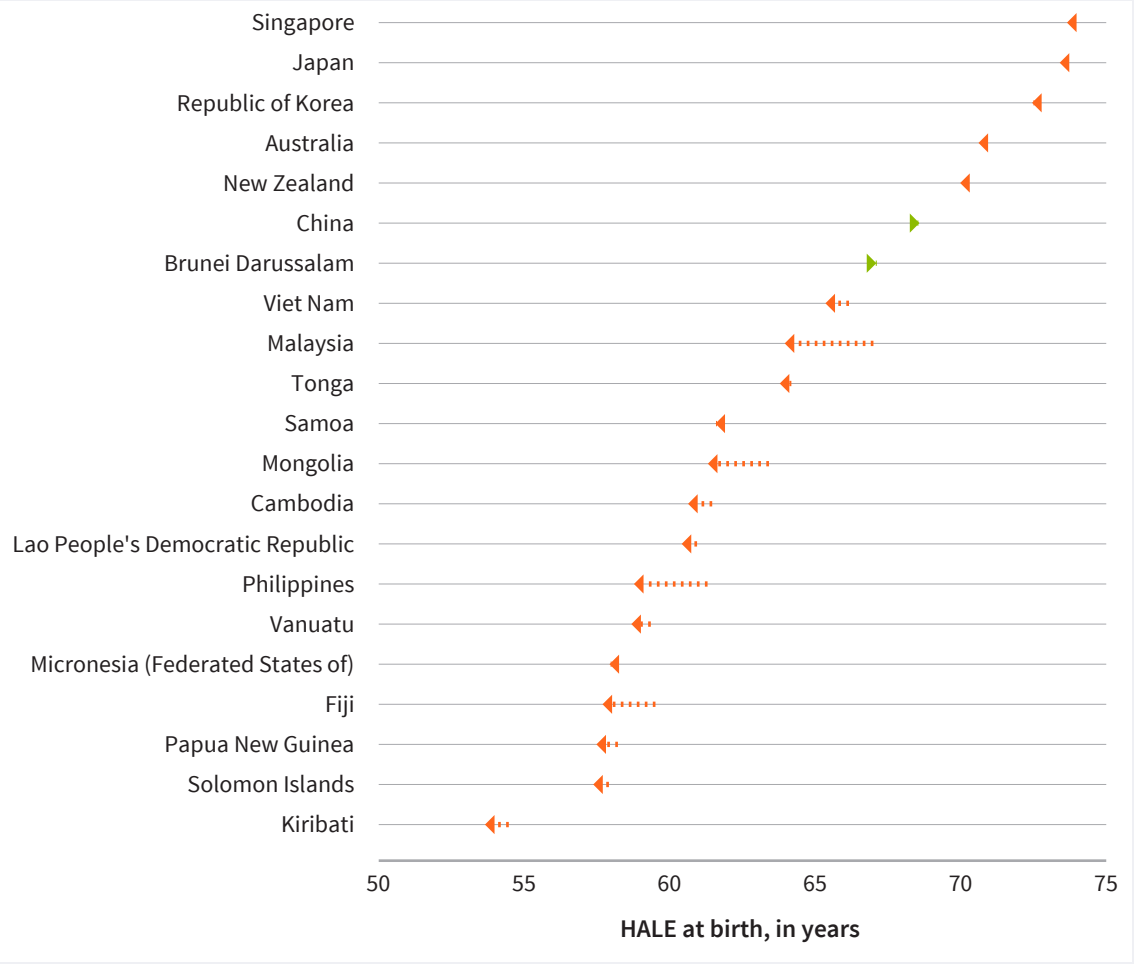
However, the declines were not the same across all countries. Most countries experienced only minor declines, while Fiji, Malaysia, Mongolia and the Philippines showed substantial declines in life expectancy and HALE between 2020 and 2021, ranging from between 4.0 and 2.2 years of life expectancy lost in just one calendar year. While in most countries in the Region declines in life expectancy occurred in 2021, a few countries, including all Pacific island countries and areas (PICs) with available data, also experienced declines in 2020.

**Fig. 7** Life expectancy at birth, 2020 and 2021




*Source:* WHO *(8)*.

**Fig. 8** HALE at birth, 2020 and 2021



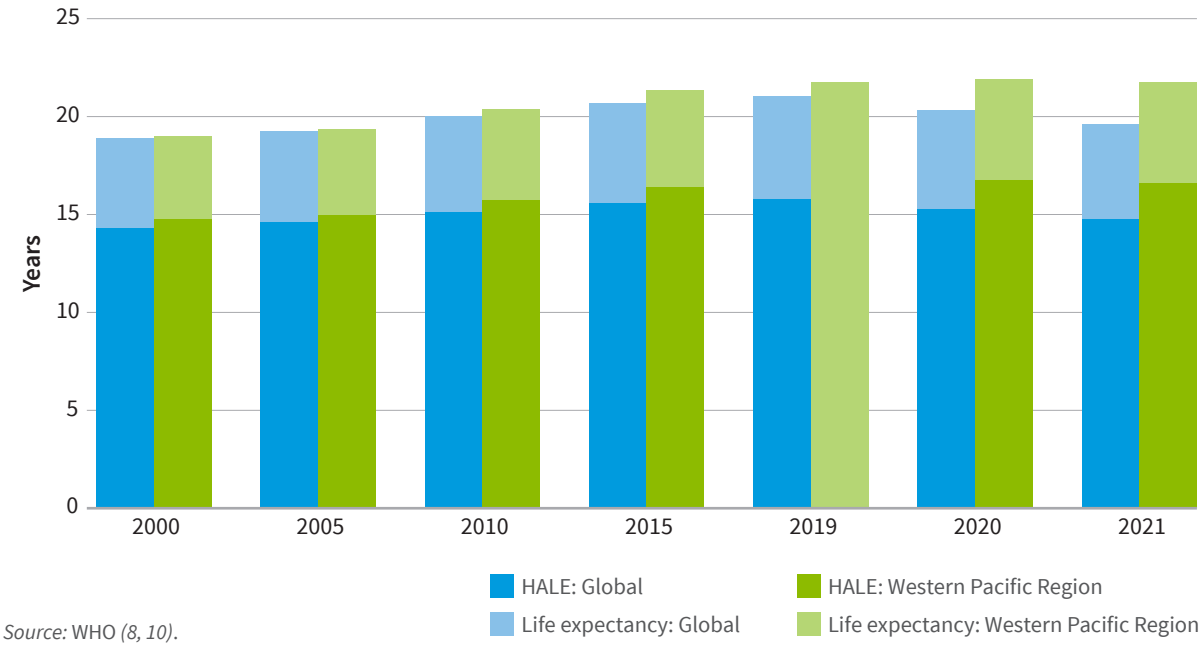

*Source:* WHO *(8)*.

## Life expectancy and HALE at 60 years

Life expectancy and HALE at 60 years of age signify the additional years and healthy years individuals can anticipate after turning 60, respectively. These provide valuable insights into the health and quality of life of older people. In 2021, life expectancy at 60 was 19.6 years globally and 21.7 years in the Region, while HALE at 60 was 14.7 years globally and 16.6 years in the Region (Fig. 9). Similarly to life expectancy and HALE at birth, life expectancy and HALE at 60 have continuously increased over time, both globally and in the Region, up until the COVID-19 pandemic, when progress stagnated in the Region and declined globally. In 2021, the Western Pacific was the WHO region with the highest life expectancy and HALE at 60 across the six WHO regions.

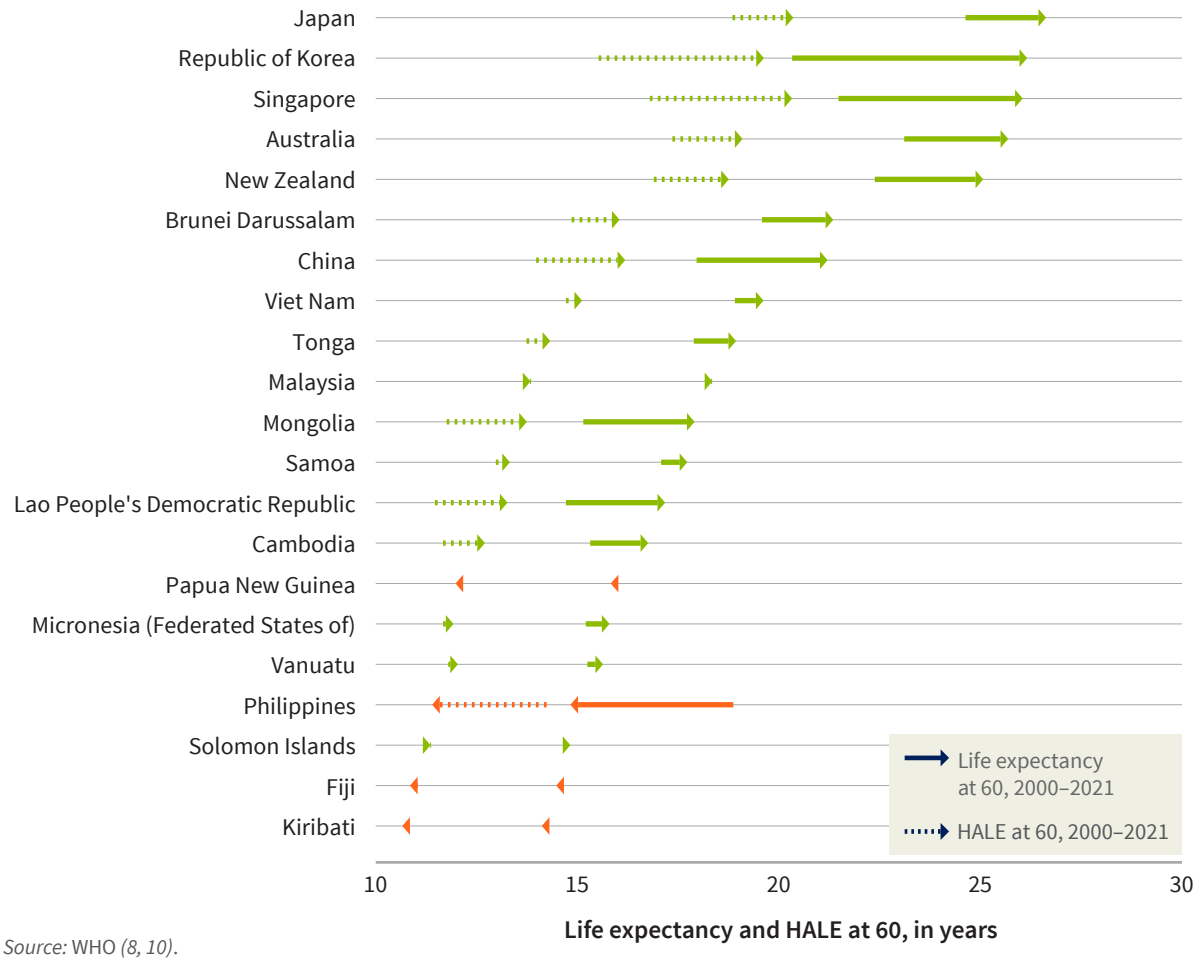
There was, however, large variation between Member States in life expectancy at 60 years, health-adjusted life expectancy at 60 years, and the change between 2000 and 2021 (Fig. 10). Australia, Japan, New Zealand, the Republic of Korea and Singapore had the highest life expectancy and HALE at 60 years. The most significant increases in life expectancy at 60 were observed in Singapore and the Republic of Korea, where it increased by 4.6 and 5.8 years, respectively. Of concern, life expectancy and HALE at 60 decreased in four countries, with marginal decreases in Fiji, Kiribati and Papua New Guinea, but with a substantial decrease in the Philippines.

**Fig. 9** Life expectancy and HALE at 60 years, global and Western Pacific Region, 2000–2021




*Source:* WHO *(8, 10)*.

**Fig. 10** Life expectancy and HALE at 60 years, 2000 and 2021




*Source:* WHO *(8, 10)*.

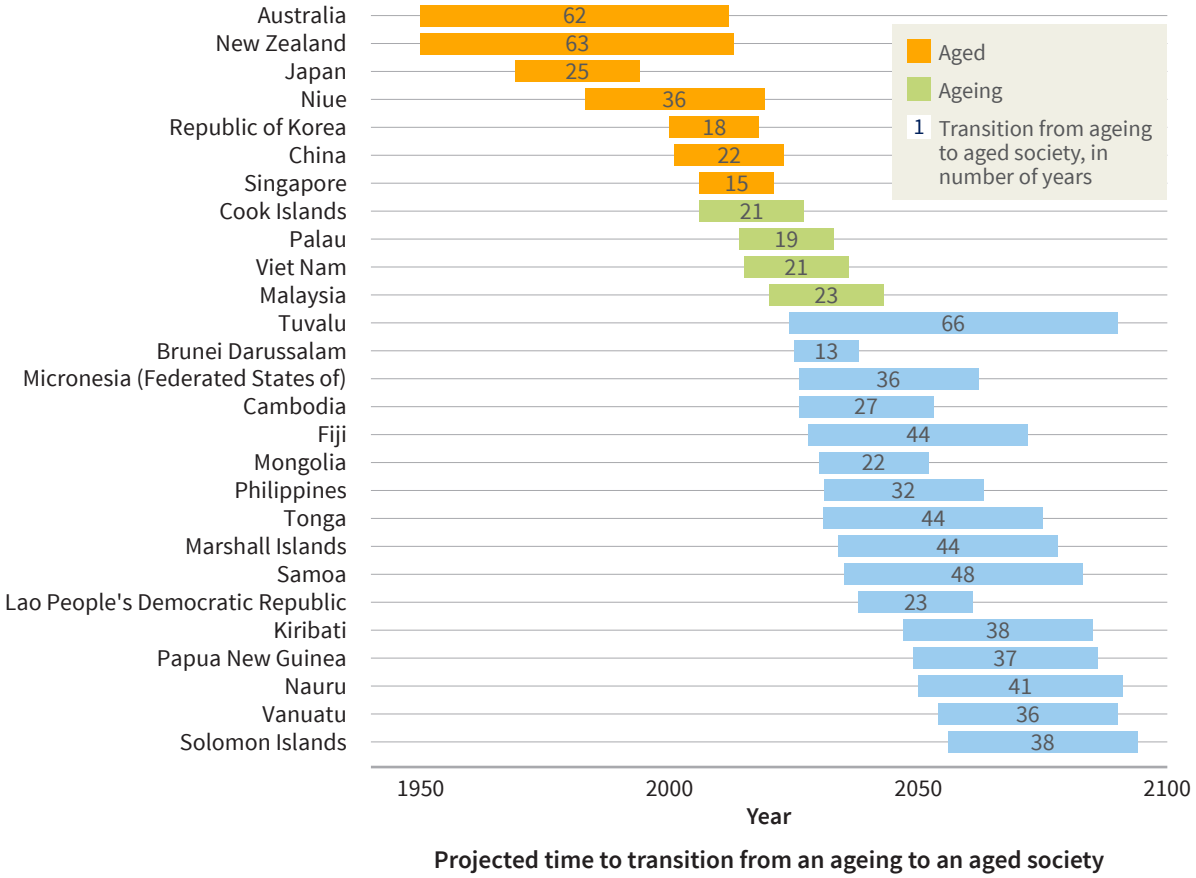
## Population ageing

Populations across Member States in the Western Pacific Region are rapidly ageing. The Region is home to one of the largest and fastest-growing older populations in the world. Currently, there are more than 245 million people aged 65 and older in the Region, and this number is projected to double by 2050 *(11)*. The speed of ageing is the transition time from an ageing to an aged society. An ageing society is defined as having 7% or more of the population aged 65 years and over, while an aged society has 14% or more of the population in that age group.

In 2024, seven countries in the Region had aged populations, five countries had ageing populations, and the remaining 15 countries had younger population structures that were not yet classified as ageing. However, the speed of ageing across countries varies widely, even among countries in the same classification. For instance, among currently aged societies, some countries like Australia and New Zealand took around 60 years to transition from an ageing to an aged society, while others like the Republic of Korea and Singapore made this transition in less than 20 years (Fig. 11).

By 2091, all Member States in the Region are projected to have become aged societies. For countries that do not currently have an aged population, it is expected to take them an average of 33.7 years to achieve that status once they have an ageing population – ranging from just 13 years in the fastest-transitioning country to up to 66 years in the country projected to have the slowest transition. Rapid preparedness for healthy ageing in these transitioning countries is needed to address the challenges associated with an impending aged society.

**Fig. 11** Speed of ageing, 1950–2100




Note: For Nauru, Palau and Kiribati, speeds of ageing are estimated by the recent or future population ageing.
*Source:* 2022 Revision of World Population Prospects *(12)*.

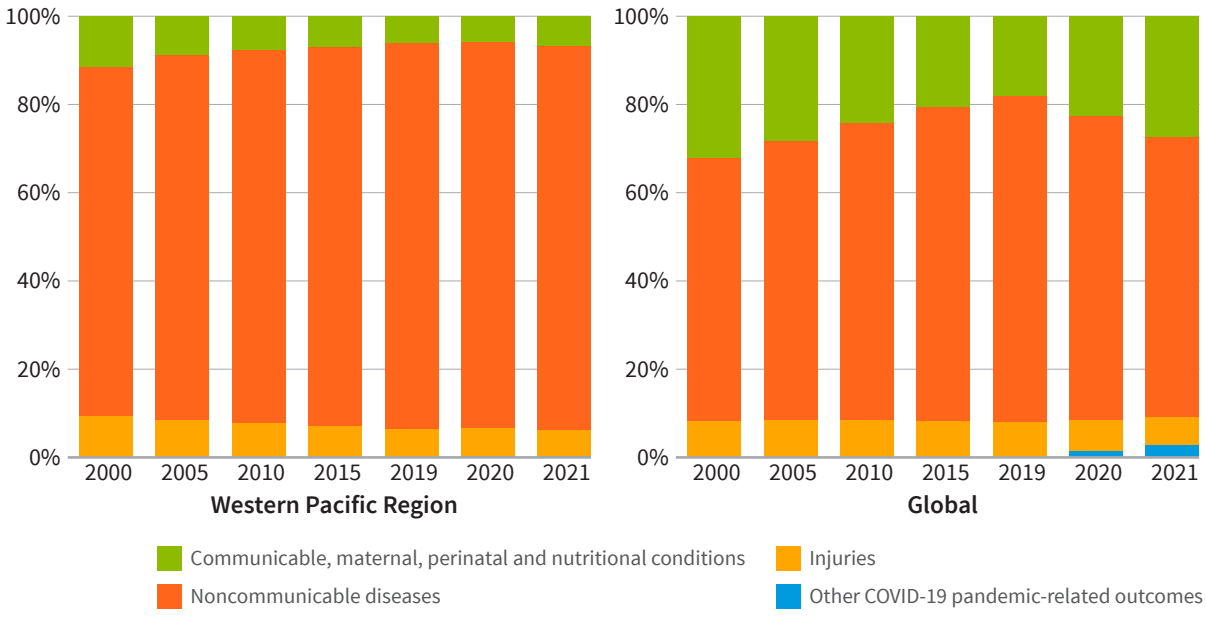
# 1.2 Leading causes of death

Health in the Western Pacific Region has evolved significantly during the past two decades. The Region continued to experience an epidemiological transition with a shift from infectious diseases and injuries to NCDs as leading causes of mortality. The proportion of deaths due to communicable, maternal, perinatal and nutritional (CMPN) conditions and injuries has declined since the year 2000 against a rise in the proportion of deaths due to NCDs (Fig. 12).

Between 2000 and 2019, the percentage of the burden of mortality due to CMPN conditions declined from 11.5% to 6.2%, and due to injuries from 9.3% to 6.5%. Conversely, the percentage of deaths due to NCDs rose from 79.1% in 2000 to 87.3% in 2019. At the global level, the same trend was observed. However, the Western Pacific Region transitioned earlier towards a burden of disease dominated by NCDs, accruing a higher proportion of deaths due to NCDs than observed globally throughout the entire period.

As COVID-19 emerged as a new infectious disease, the trends in the composition of causes of death have changed both globally and regionally: In the Region, the transition towards a higher proportion of deaths due to NCDs stagnated in 2020, followed by a slight decline in 2021 in favour of an increase in the proportion of deaths due to CMPN causes, which rose to 6.8%, a value similar to that of 2019. Globally, the disease shift was substantially more pronounced than in the Region, with the increase in the burden of CMPN conditions beginning in the initial year of the pandemic and reaching up to 27.3% in 2021, which was about the same level of burden due to CMPN conditions in 2005.

**Fig. 12** Composition of cause of death: Proportion of deaths by three broad categories of causes of death, global and Western Pacific Region estimates, 2000–2021

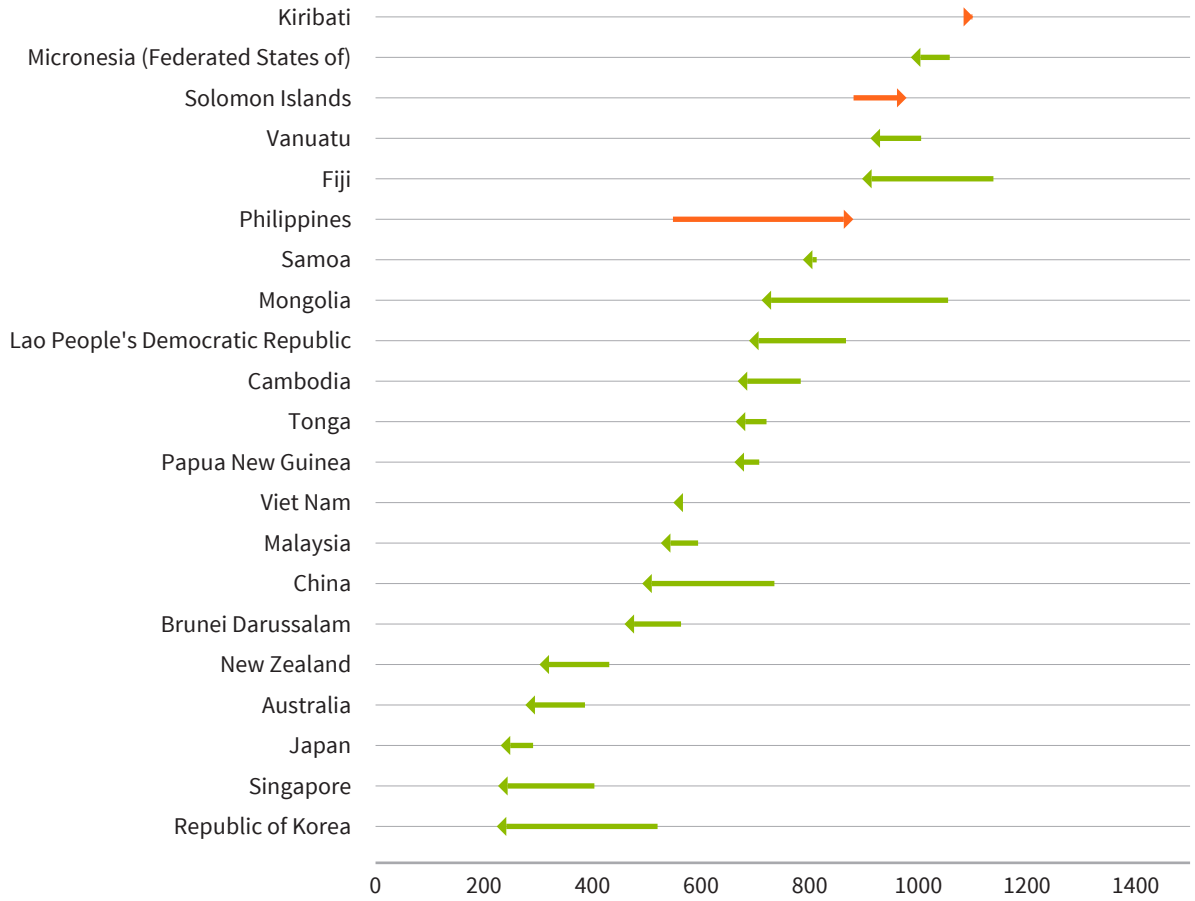



Note: Other COVID-19 pandemic-related outcomes capture the deaths that cannot be attributed to specific causes.
*Source:* WHO *(10)*.

# Deaths due to NCDs

Most countries experienced declines in age-adjusted death rates due to NCDs between 2000 and 2021. However, differences between countries persist, including three countries − Kiribati, the Philippines and Solomon Islands − that experienced reversed trends from the improvement seen in the Region (Fig. 13). The increase in the mortality burden due to NCDs in the Philippines was substantial.

**Fig. 13** Age-adjusted death rates due to NCD causes per 100 000 population, 2000 and 2021




*Source:* WHO *(10)*.

## Premature mortality due to NCDs

> SDG target 3.4: By 2030, reduce by one third premature mortality from NCDs through prevention and treatment and promote mental health and well-being
>
> - Indicator 3.4.1: Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease

Globally, despite the probability of dying prematurely before the age of 70 years from one of the four major NCDs – cancer, cardiovascular diseases, chronic respiratory diseases or diabetes – decreasing from 22.9% in 2000 to 18.5% in 2015 and 17.8% in 2019, the world is still off-track to meet the SDG target.

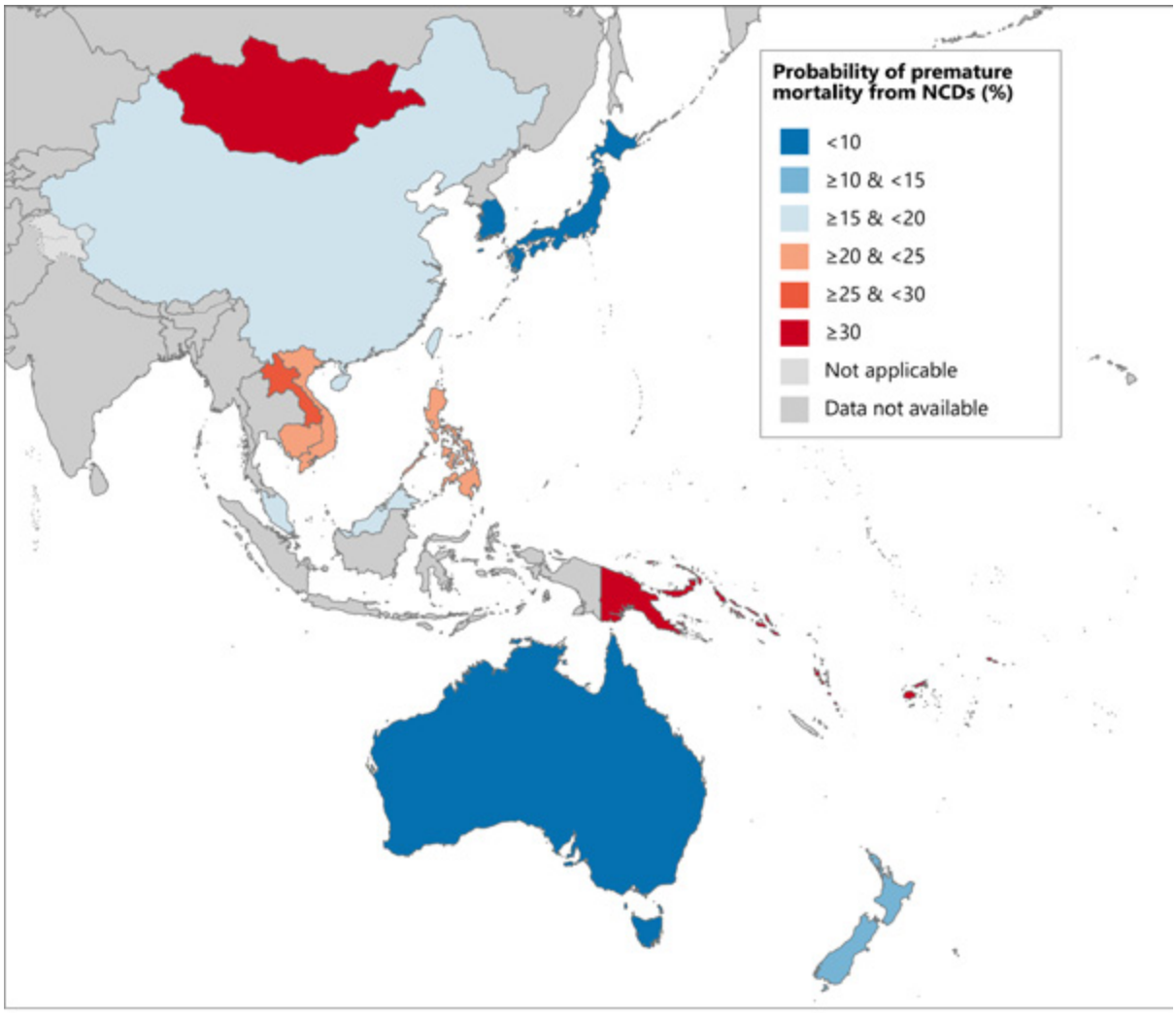
Since 2000, there has been a decline of more than 25% in the probability of NCD premature mortality in the Western Pacific Region, surpassing the global average rate of decline. In 2019, a 30-year-old in the Region had a 15.6% chance of dying prematurely from one of the four major NCDs, showing marginal improvement from 16.2% in 2015. Despite this decline, progress has been slow since the beginning of the SDG era in 2015 and current projections show that the Western Pacific Region is also not on track to meet SDG target 3.4 *(4)*.

Males faced a higher risk of premature death from NCDs than females in the Region and globally. Yet, the male-to-female ratio increased by 11% in the Western Pacific Region, while remaining stable or decreasing in other regions *(4)*.

The highest burden of NCD premature mortality in 2019 occurred in middle-income countries in the Western Pacific Region, with PICs experiencing particularly high burdens (Fig. 14).

Between 2000 and 2019, four countries (the Federated States of Micronesia, Papua New Guinea, the Philippines and Solomon Islands) saw increases in premature mortality due to NCDs, contrasting with the Region's overall decreasing trend (Fig. 15).

**Fig. 14** SDG 3.4.1 Probability of dying between 30 and 70 years from cancer, cardiovascular diseases, chronic respiratory diseases or diabetes, 2019

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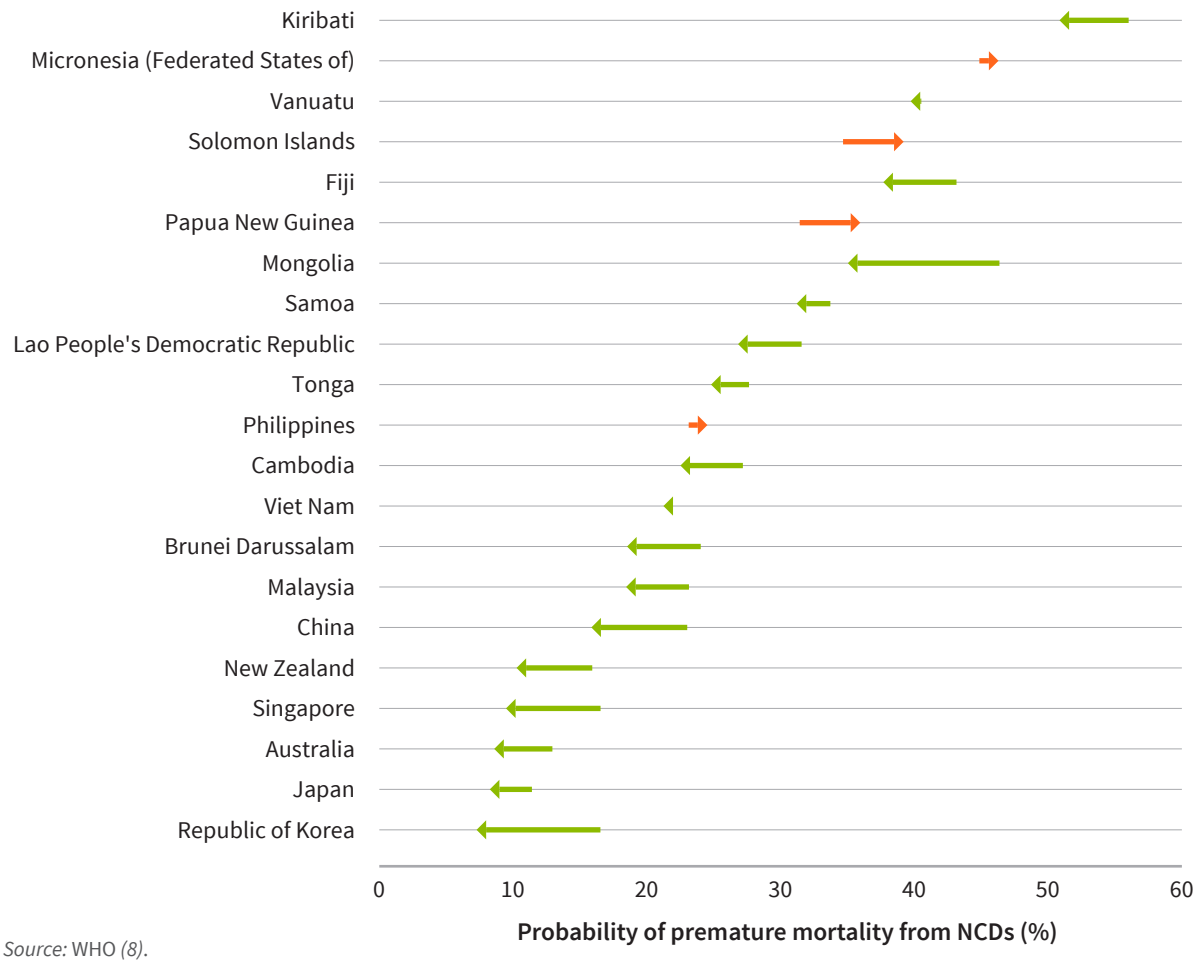
*Source:* WHO *(8)*.

**Fig. 15** SDG 3.4.1 Probability of dying between 30 and 70 years from cancer, cardiovascular diseases, chronic respiratory diseases or diabetes, 2000 and 2019



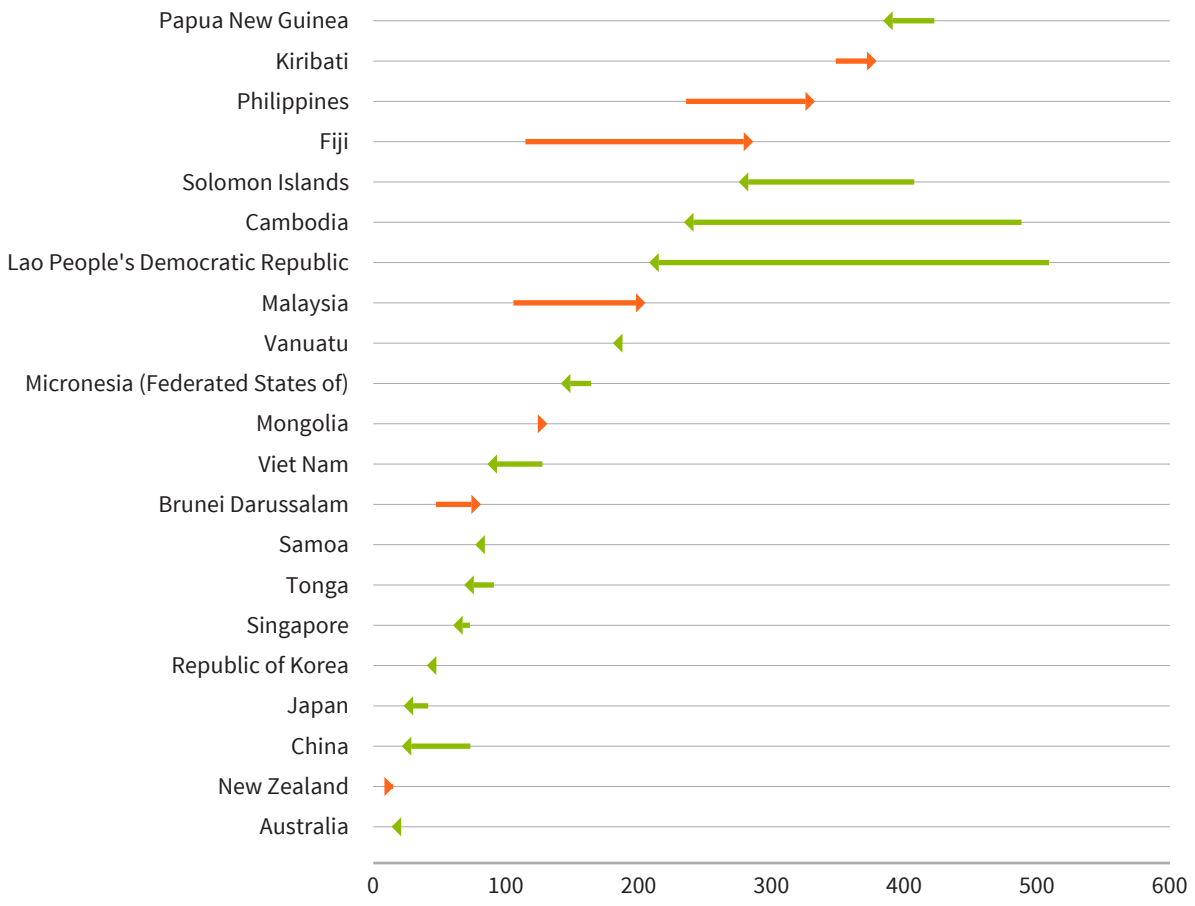

*Source:* WHO *(8)*.

# Deaths due to communicable, maternal, perinatal and nutritional conditions

Some countries in the Western Pacific Region still have a high burden of mortality due to CMPN conditions, although some of these countries – Cambodia, the Lao People's Democratic Republic and Solomon Islands – experienced the largest reductions in CMPN death rates between 2000 and 2021 (Fig. 16). Before the COVID-19 pandemic, most countries in the Region experienced decreased mortality due to CMPN conditions, signalling the success of intensified public health interventions, including vaccination programmes, better maternal and child health services, and improved sanitation and nutrition (see Chapters 2 and 3).

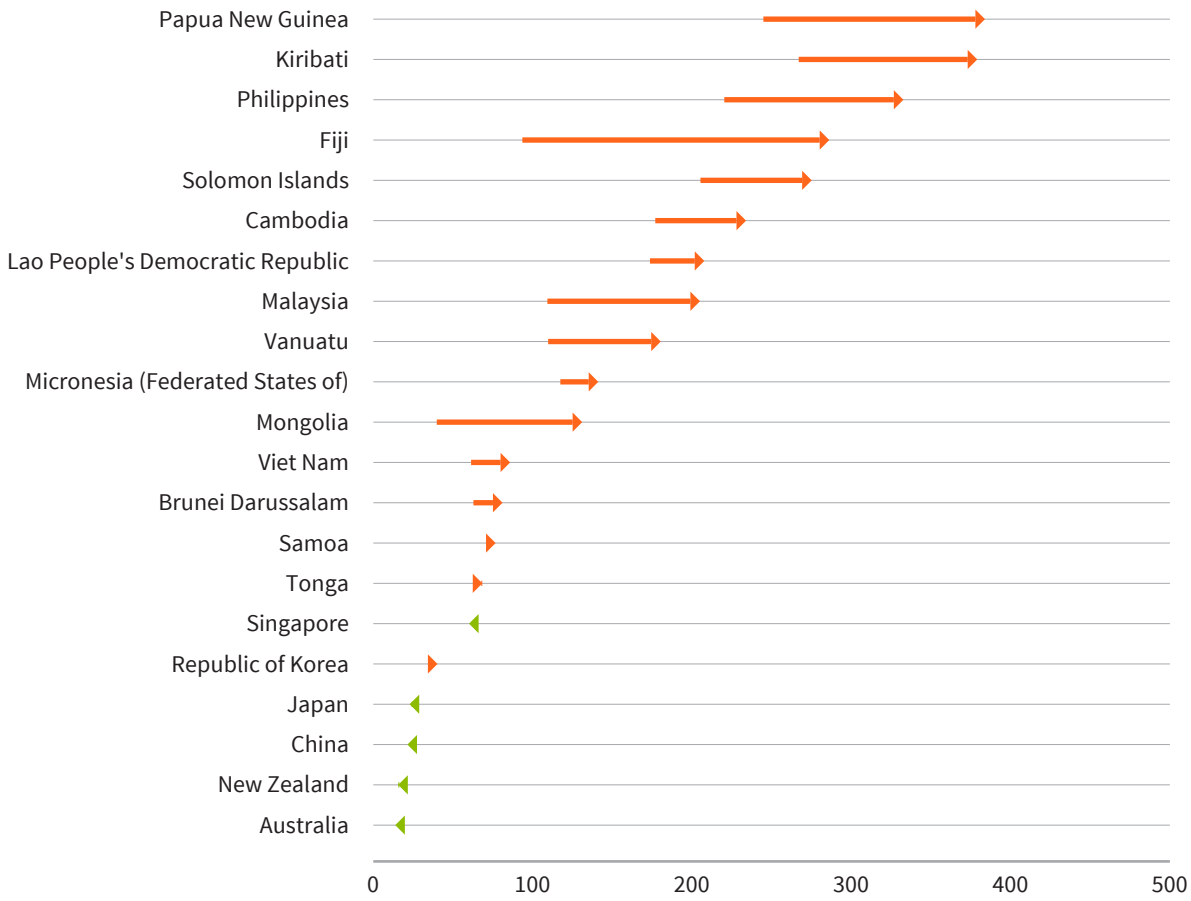
However, most countries that had seen improvements over the two decades that ended in 2019, saw the mortality due to CMPN conditions increase during the first two years of the COVID-19 pandemic (Fig. 17). Between 2000 and 2021, the increase in death rates due to CMPN conditions in some countries can be attributed to the trend reversal that occurred during the first two years of the COVID-19 pandemic. This major reversal over the past two decades is evident in Fiji, Malaysia and the Philippines.

**Fig. 16** Age-adjusted death rates due to CMPN causes per 100 000 population, 2000 and 2021




*Source:* WHO *(10)*.

**Fig. 17** Age-adjusted death rates due to CMPN causes per 100 000 population, 2019 and 2021




*Source:* WHO *(10)*.

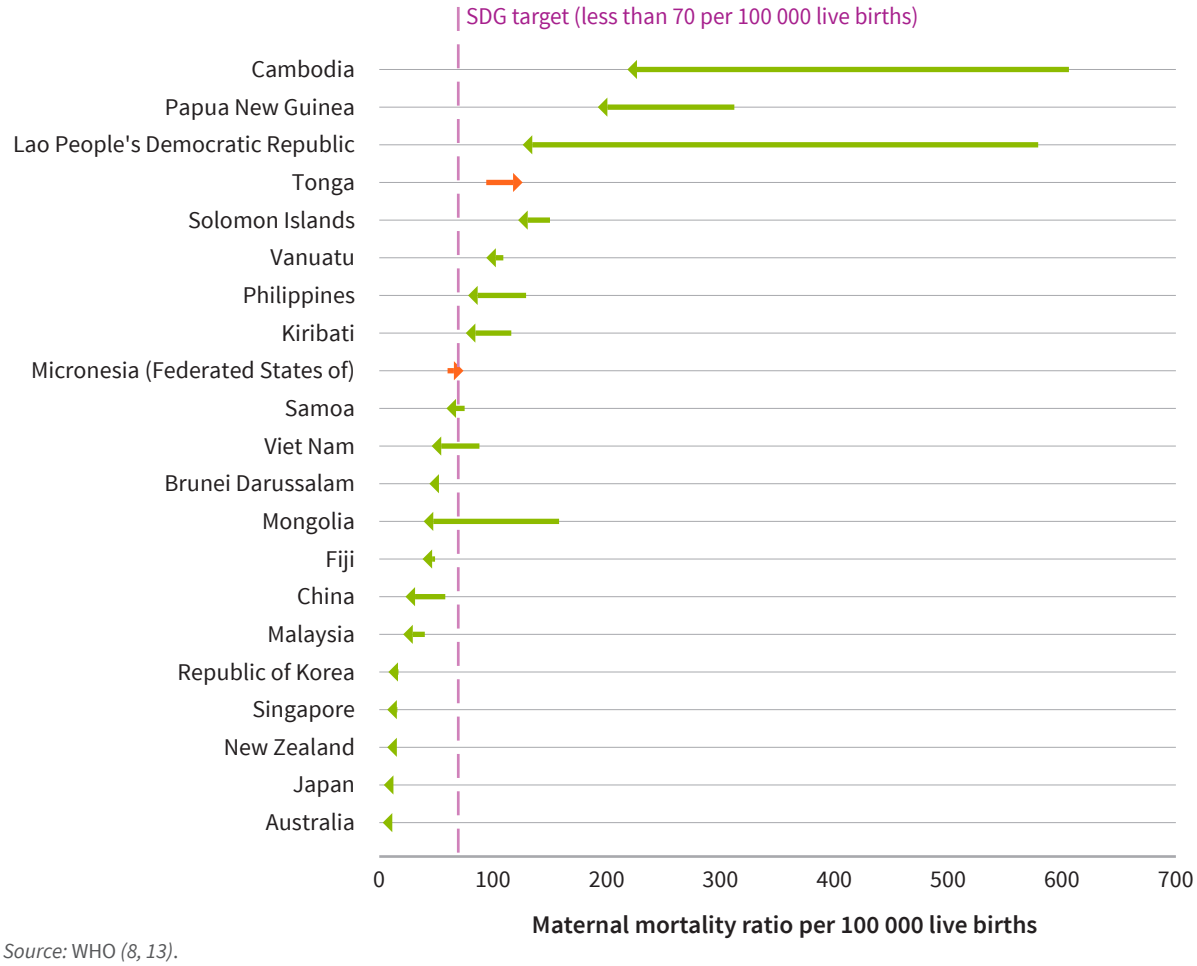
## Maternal mortality

> SDG target 3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100 000 live births
>
> - Indicator 3.1.1: Maternal mortality ratio

Maternal mortality – the death of a woman during pregnancy, childbirth or within 42 days of the end of pregnancy – serves as a crucial indicator of women's health and overall health system performance. In 2020, the Western Pacific Region reported an estimate of 44 maternal deaths per 100 000 live births, lower than the global estimate of 223 deaths per 100 000 live births. The Region has achieved significant reductions in the MMR, which decreased by 42% between 2000 and 2020.

Despite these advancements, nine Member States had not yet achieved the SDG target in 2020 (Fig. 18). Over the past two decades, 19 Member States witnessed a decline in MMR, with notable progress observed in Cambodia, the Lao People's Democratic Republic and Papua New Guinea. However, these countries still have the highest MMR, estimated at three to four times above the regional average. Notably, the Lao People's Democratic Republic ranked among the top 10 countries globally with the most significant percentage reduction in MMR between 2000 and 2020 *(13)*.

**Fig. 18** SDG 3.1.1 MMR per 100 000 live births, 2000 and 2020




*Source:* WHO *(8, 13)*.

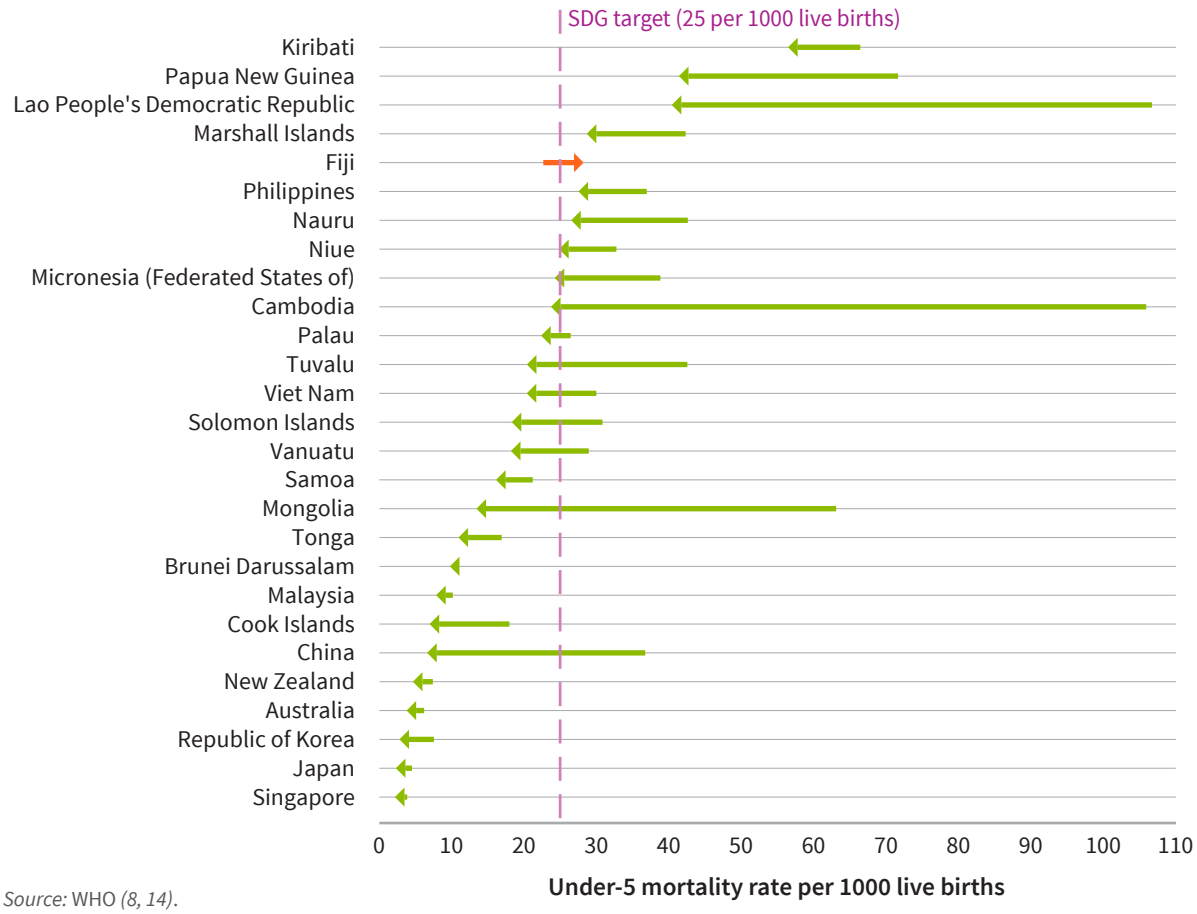
## Neonatal and under-5 mortality

> SDG target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births
>
> - Indicator 3.2.1: Under-5 mortality rate
> - Indicator 3.2.2: Neonatal mortality rate

In 2022, the regional estimate for under-5 mortality was 11.6 per 1000 live births, below the global estimate of 37.1 per 1000 live births, positioning the Region as the second lowest of the WHO regions. Twenty countries in the Region have achieved the SDG target on under-5 mortality by 2022. From 2000 to 2022, the under-5 mortality estimate decreased in 26 of the 27 Member States in the Western Pacific Region, with the most notable advancements observed in Cambodia, the Lao People's Democratic Republic and Mongolia (Fig. 19). Under-5 mortality rate increased in Fiji during this period, putting the country off-track to meet the SDG target.

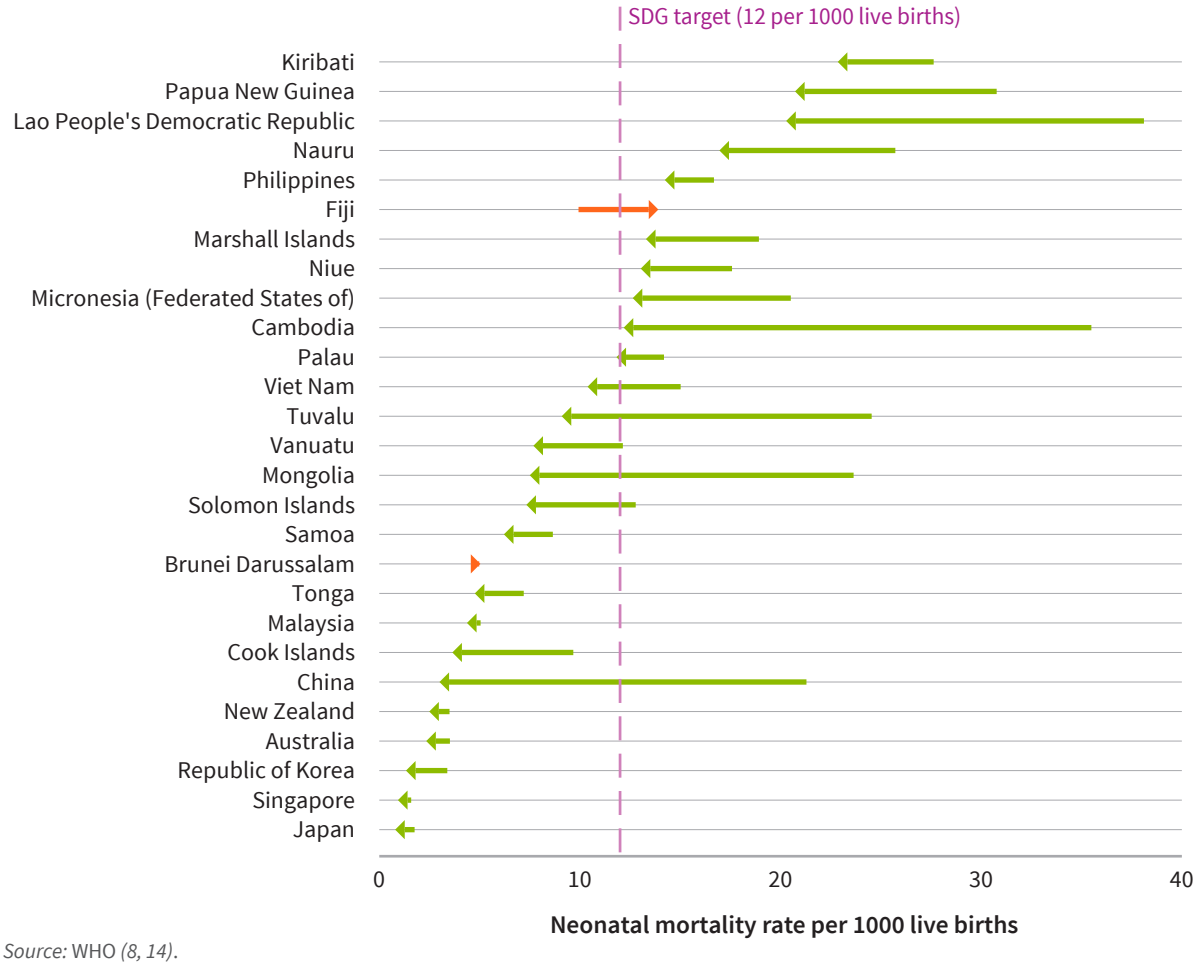
The regional neonatal mortality rate declined from 18.9 in 2000 to 5.7 per 1000 live births in 2022, positioning it below the global neonatal mortality rate of 17.3 per 1000 live births. In 2022, 17 Member States already achieved the SDG target to reduce neonatal mortality to at least as low as 12 per 1000 live births by 2030. Neonatal mortality trends mirrored those of under-5 mortality, with Fiji and also Brunei Darussalam being the only countries showing an increase, while the other 25 countries exhibited a decrease (Fig. 20). Noteworthy reductions occurred in Cambodia, China and the Lao People's Democratic Republic over the past two decades.

**Fig. 19** SDG 3.2.1 Under-5 mortality rate estimates per 1000 live births, 2000 and 2022




*Source:* WHO *(8, 14)*.

**Fig. 20** SDG 3.2.2 Neonatal mortality rate estimates per 1000 live births in the Western Pacific Region, 2000 and 2022




*Source:* WHO *(8, 14)*.

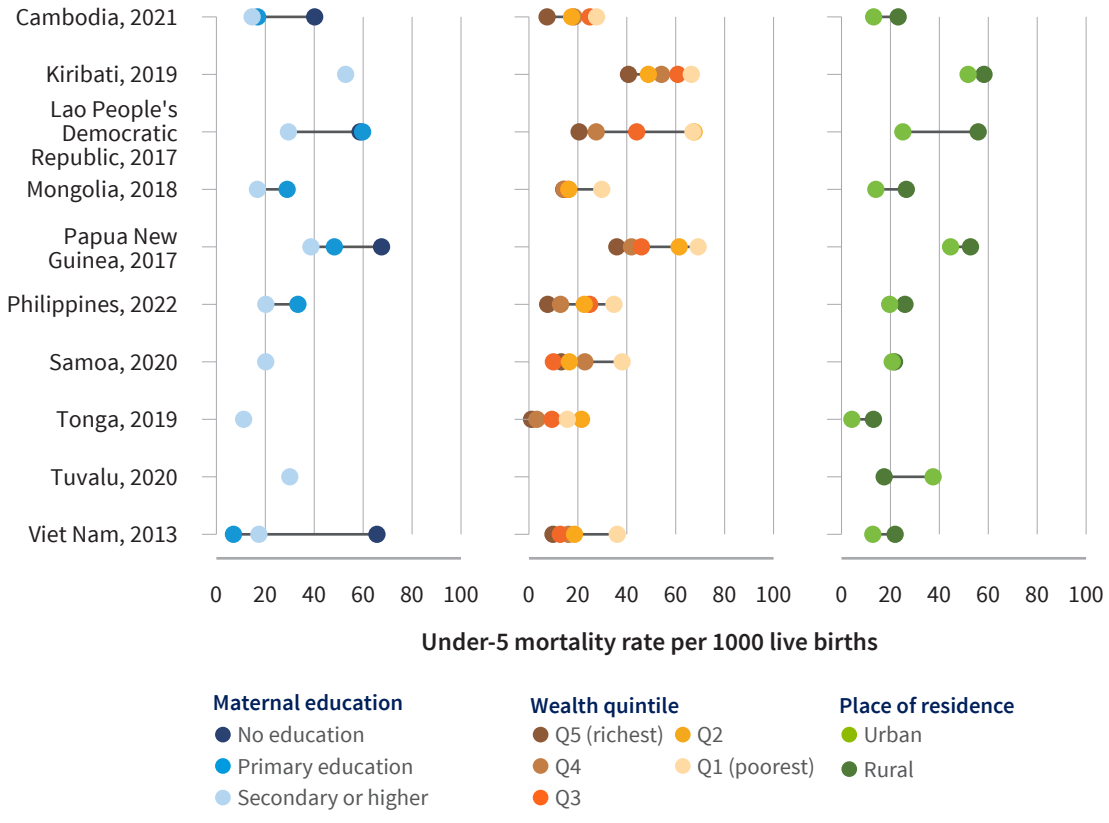
## **Box 3.** Inequalities in under-5 mortality

Within-country inequalities in under-5 mortality showed a clear and consistent pattern across levels of maternal education, place of residence and wealth quintile, though the extent of inequalities varied between countries.

Lower maternal education was consistently linked with higher under-5 mortality rates (Fig. 21). This trend was also evident when comparing the under-5 mortality rates of children whose mothers had high educational levels against the national averages (Fig. 19), revealing that the average mortality rate in the country was higher than that for children of mothers with high education. Regarding place of residence, rural areas consistently exhibited higher under-5 mortality compared to urban areas, with the exception of Tuvalu. In Cambodia, the Lao People's Democratic Republic, Mongolia, Tonga, Tuvalu and Viet Nam the rural mortality rate was approximately double that of urban areas.

Wealth-based inequalities also showcased similar variations across groups: higher wealth was consistently associated with lower under-5 mortality rates. For instance, in several countries, the richest quintiles had achieved the SDG target of 25 or fewer deaths per 1000 live births, whereas the poorest quintiles had higher under-5 mortality rates. This demonstrates that while a country may reach the SDG target, certain populations may be left behind. Targeted interventions are essential to ensure that no one is left behind.

**Fig. 21** Under-5 mortality rates per 1000 live births, by maternal education, place of residence and wealth quintile, most recent year

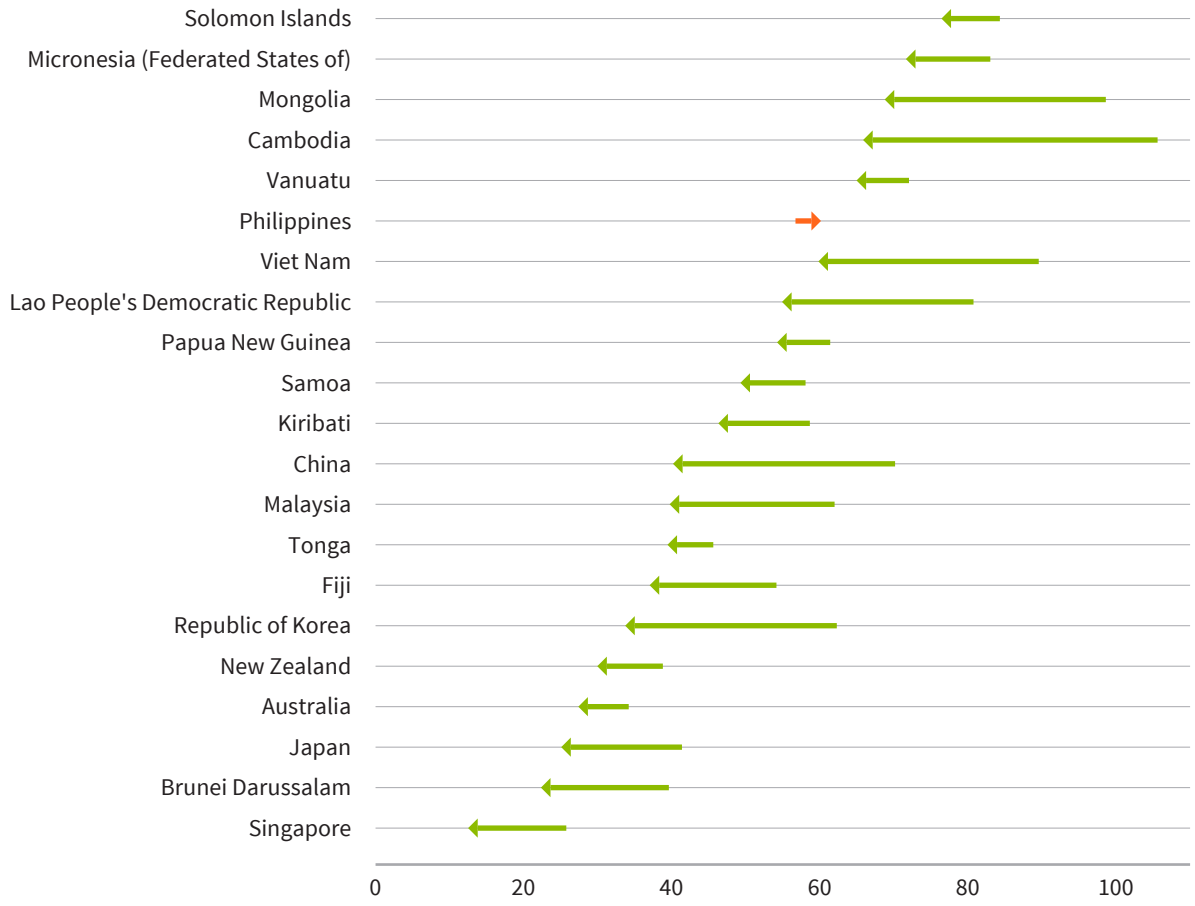



*Source:* WHO *(8)*.

# Deaths due to injuries

The data on injury-related death rates further reinforces the pattern of uneven progress across countries in the Western Pacific Region, as substantial differences in the overall levels of injury-related mortality rates exist between countries. All countries in the Region, except for the Philippines, had declines in mortality rates due to injuries, although with varying rates of change (Fig. 22). In contrast to the regional trajectory, the Philippines experienced a minor increase over this period.

**Fig. 22** Age-adjusted death rates due to injuries per 100 000 population, 2000 and 2021




*Source:* WHO *(10)*.

## Road traffic mortality

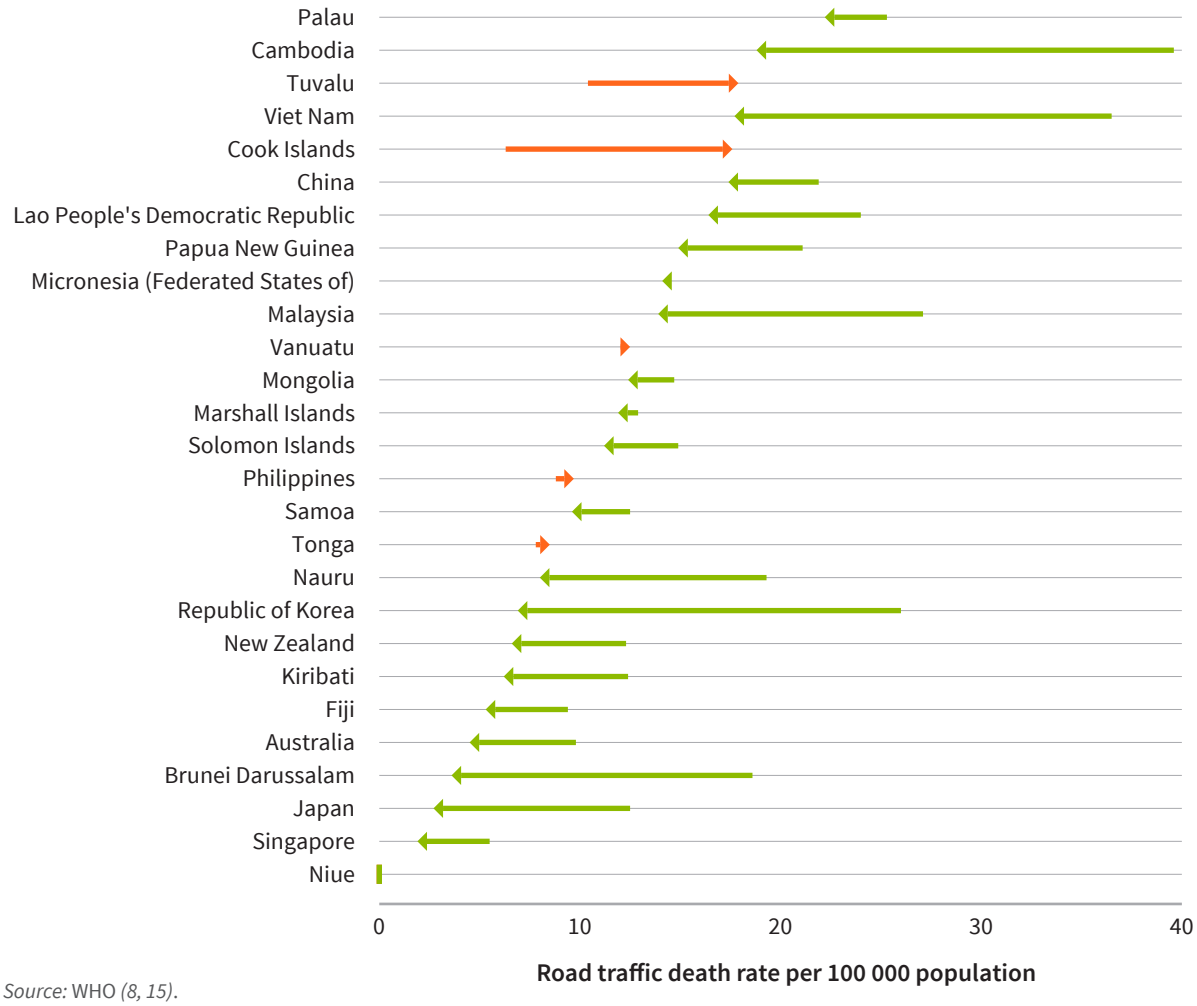
SDG target 3.6: By 2020, halve the number of global deaths and injuries from road traffic accidents

- Indicator 3.6.1: Death rate due to road traffic injuries

In 2021, there were an estimated 1.19 million deaths globally due to road traffic accidents, a 5% drop compared to 2010 *(15)*. Of the global road traffic deaths, 25% of deaths occurred in the Western Pacific Region. In 2021, the road traffic death rate in the Region was 15 deaths per 100 000 population, matching the global average. While in the Western Pacific Region there was a decrease in road traffic mortality by 16% between 2010 and 2021 *(15)*, the SDG target to halve the number of deaths from road traffic accidents by 2020 was not met. This same target was renewed in 2021, extending the deadline to 2030.

Twenty-one out of 27 countries witnessed a reduction in road traffic deaths between 2000 and 2021, with nine of these countries at least halving their road traffic death rate and Niue recording no road traffic deaths in both years (Fig. 23). However, achieving the SDG target by 2030 remains a challenge. Globally, nine out of 10 deaths occurred in low- and middle-income countries *(15)* – a similar pattern was observed in the Western Pacific Region, where road traffic death rates were also higher in middle-income countries (Fig. 23).

**Fig. 23** SDG 3.6.1 Road traffic death rate per 100 000 population, 2000 and 2021

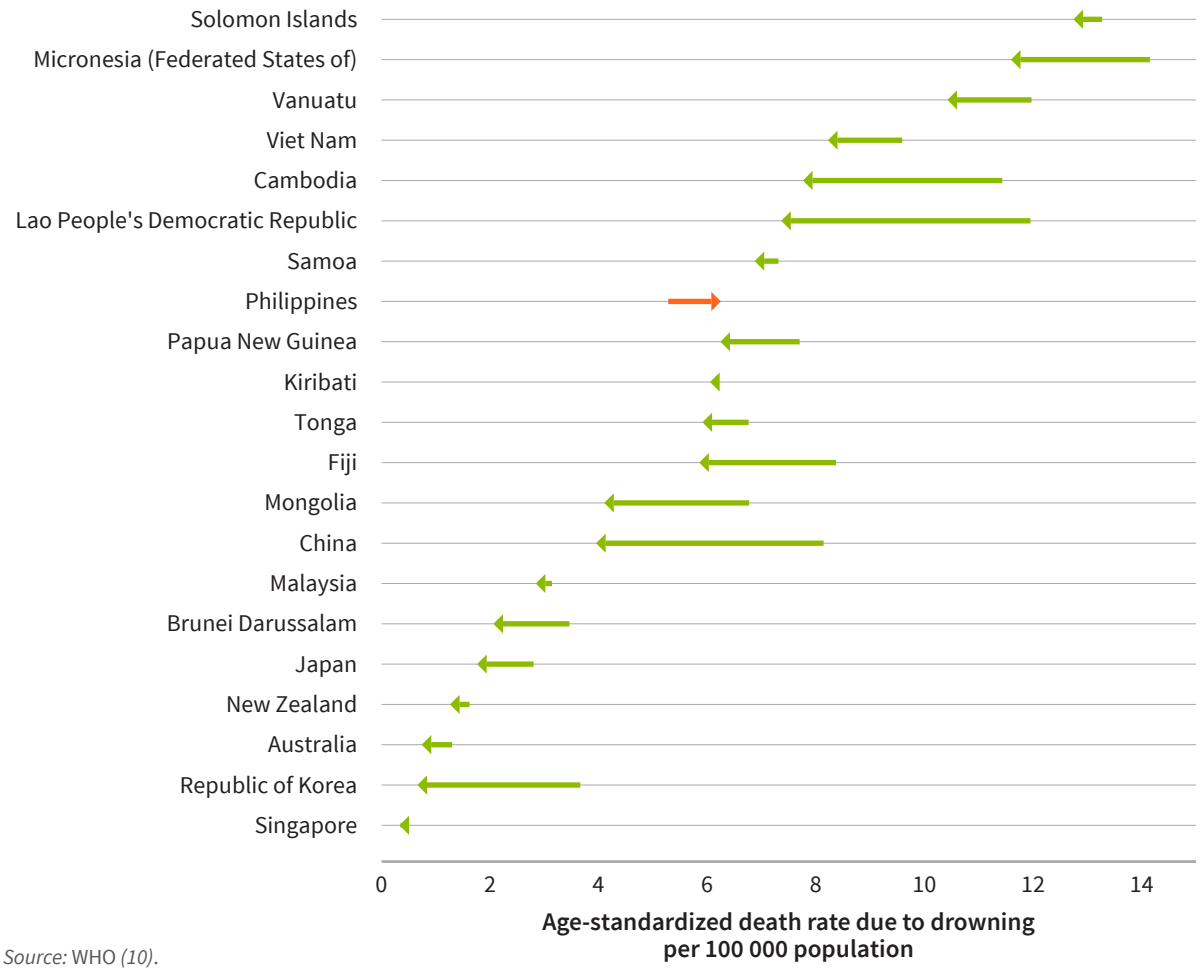



*Source:* WHO *(8, 15)*.

## Deaths due to drowning

The Western Pacific Region has made substantial progress in reducing mortality due to drowning during the past two decades *(16)*. Between 2000 and 2021, death rates due to drowning decreased in all countries in the Region except for one, the Philippines (Fig. 24). During this period, multiple countries have achieved substantial progress. Yet, some countries still have high mortality rates due to drowning. Stark disparities exist between countries, ranging from 0.3 to 12.7 per 100 000 population in 2021, warranting more commitment and interventions in this area.

**Fig. 24** Death rate due to drowning, 2000 and 2021




*Source:* WHO *(10)*.

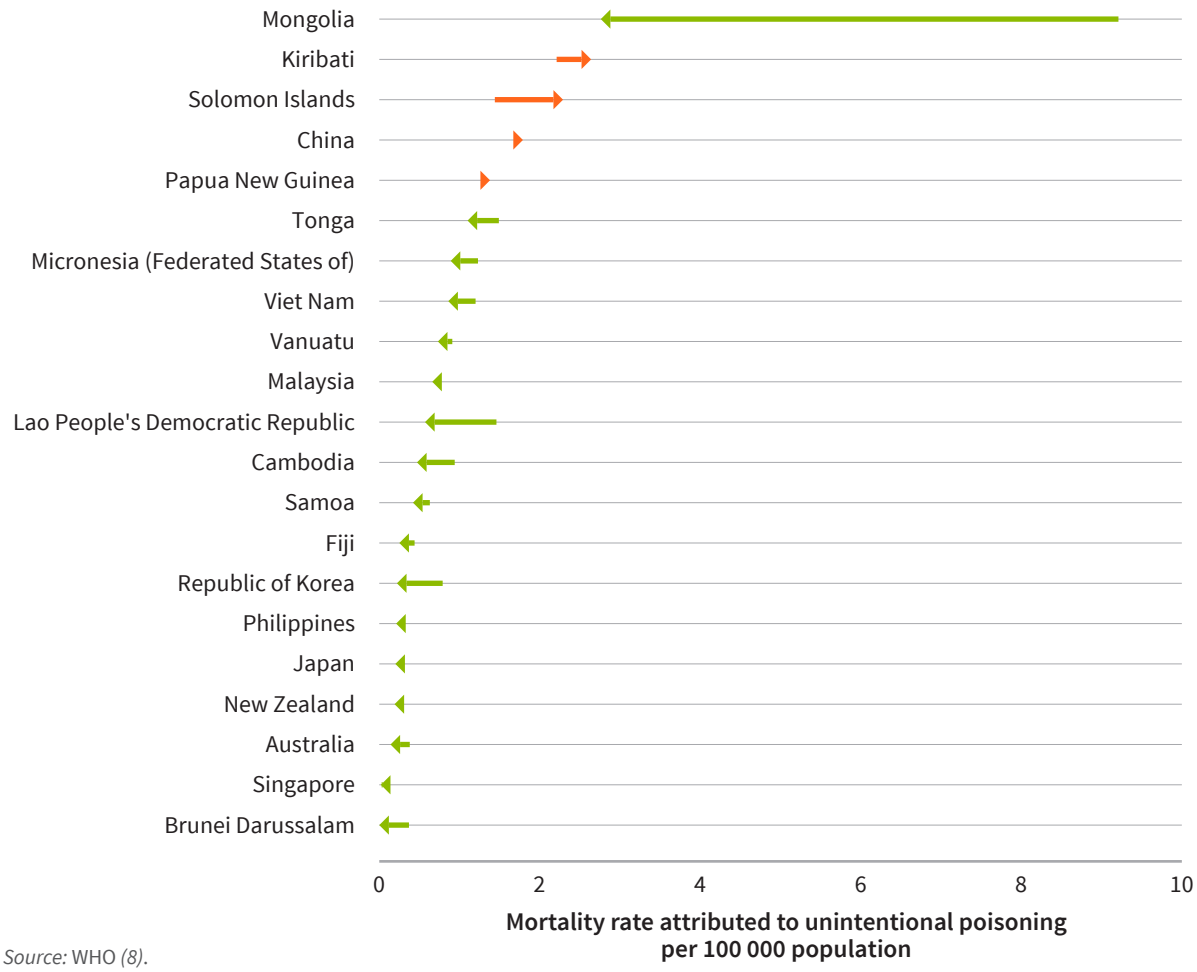
## Deaths attributed to unintentional poisoning

> SDG 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.
>
> - Indicator 3.9.3: Mortality rate attributed to unintentional poisoning

Unintentional poisoning can be caused by chemicals, pesticides, kerosene, carbon monoxide and medicines, as well as by environmental contamination or occupational chemical exposure. In 2019, the global mortality rate attributed to unintentional poisoning was 1.1 per 100 000 population, while the Western Pacific Region mortality rate was slightly higher, at 1.4 per 100 000 population.

Among the 21 countries with data on unintentional poisoning for the years 2000 and 2019, five countries reported a higher mortality rate attributed to unintentional poisoning than the global mortality rate in 2019, namely China, Kiribati, Mongolia, Papua New Guinea and Solomon Islands (Fig. 25). These countries were the only ones that experienced an increased death rate due to unintentional poisoning during this period, except Mongolia, where a major decrease was observed.

**Fig. 25** SDG 3.9.3 Mortality rate attributed to unintentional poisoning per 100 000 population, 2000 and 2019




*Source:* WHO *(8)*.

## Suicide mortality

> SDG 3.4: By 2030, reduce by one third premature mortality from NCDs through prevention and treatment and promote mental health and well-being
>
> - Indicator 3.4.2: Suicide mortality rate

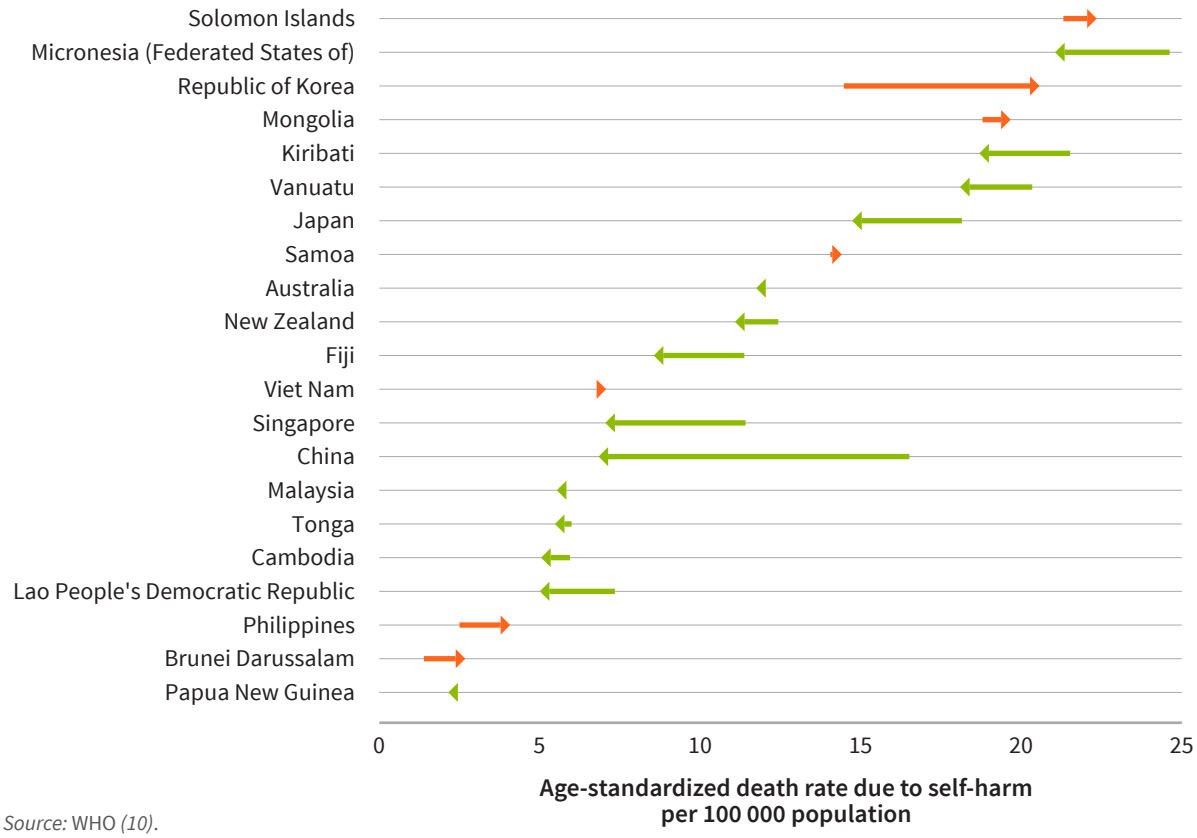
In 2021, approximately 722 000 people died due to suicide globally, with about one in four of these deaths occurring in the Western Pacific Region *(10, 17, 18)*. The Western Pacific Region had an age-standardized suicide rate of 7.5 deaths per 100 000 population in 2021, slightly below the global rate of 8.9 deaths per 100 000 population.

Suicide is a major public health issue across a wide range of settings, from highly developed countries to small PICs *(18)*. Between 2000 and 2021, suicide mortality per 100 000 population decreased in 14 countries in the Region but increased in seven others, among countries with available data (Fig. 26). Some countries in the Region – such as Mongolia, the Federated States of Micronesia, the Republic of Korea and Solomon Islands – had some of the highest suicide rates in the world. The risk of suicide is particularly concerning among young people in PICs, where for every death due to suicide, there can be 20 times as many suicide attempts *(18, 19)*. People of Indian descent in Fiji and Indigenous populations across PICs also bore a high burden of suicide and suicide attempts *(19)*.

Major differences in suicide mortality rates were observed both globally and within the Region, with males having substantially higher suicide rates than females. In 2021, the regional suicide rate for males was 9.8 per 100 000 population, while for females, it was 5.4 per 100 000 population. Globally, the suicide mortality rate was 12.3 per 100 000 population for males and 5.6 per 100 000 population for females. Thus, the regional suicide rates for both males and females were below the global sex-specific rates. The disparity was slightly smaller in the Region than observed globally. In all countries of the Western Pacific Region, the suicide mortality rate was higher among males than females (Fig. 27).

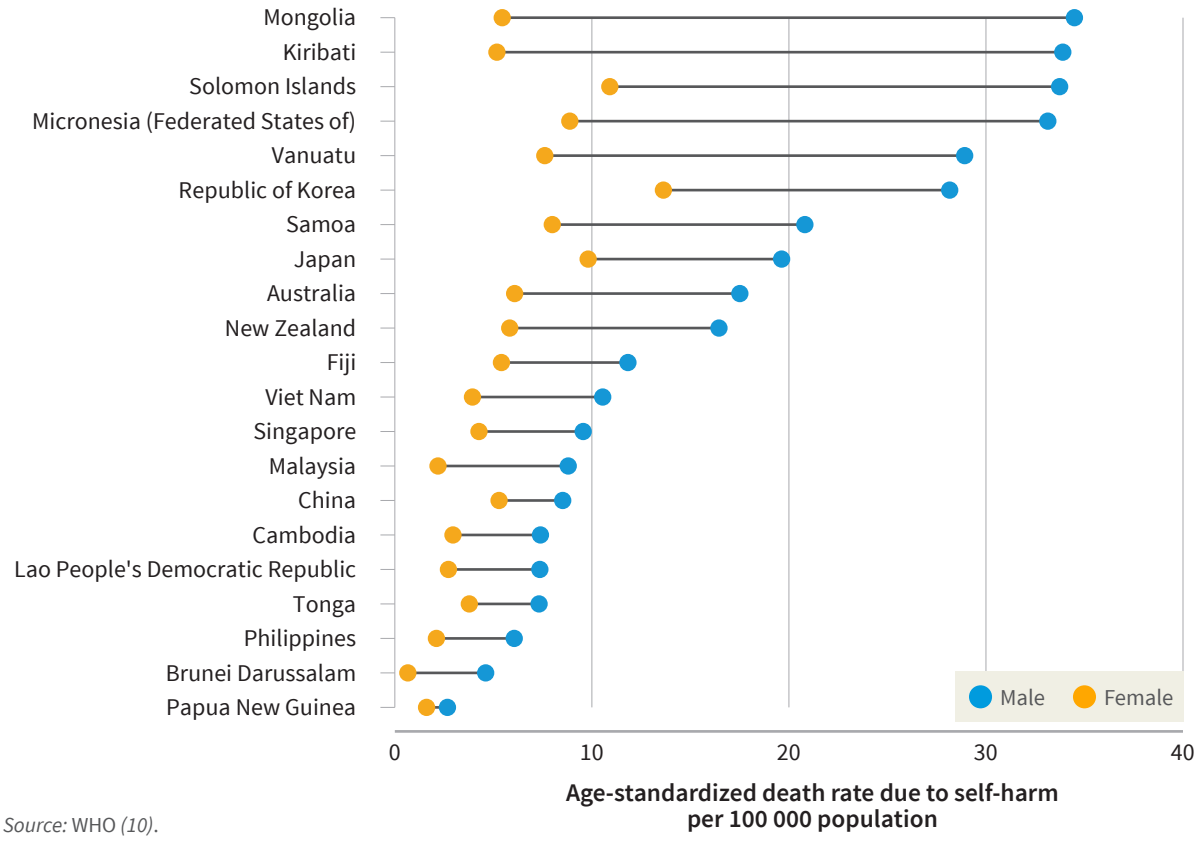
Suicide is a major public health problem, and lack of data due to absent or poor-quality information systems further contributes to it, particularly in terms of statistics on suicide attempts *(17, 18)*. Greater efforts are needed to achieve the global target of reducing the suicide rate by one third by 2030.

**Fig. 26** SDG 3.4.2 Suicide mortality rate per 100 000 population, 2000 and 2021




*Source:* WHO *(10)*.

**Fig. 27** SDG 3.4.2 Suicide mortality rate per 100 000 population, by sex, 2021




*Source:* WHO *(10)*.

# Deaths attributable to environmental risk factors

## Deaths attributed to air pollution

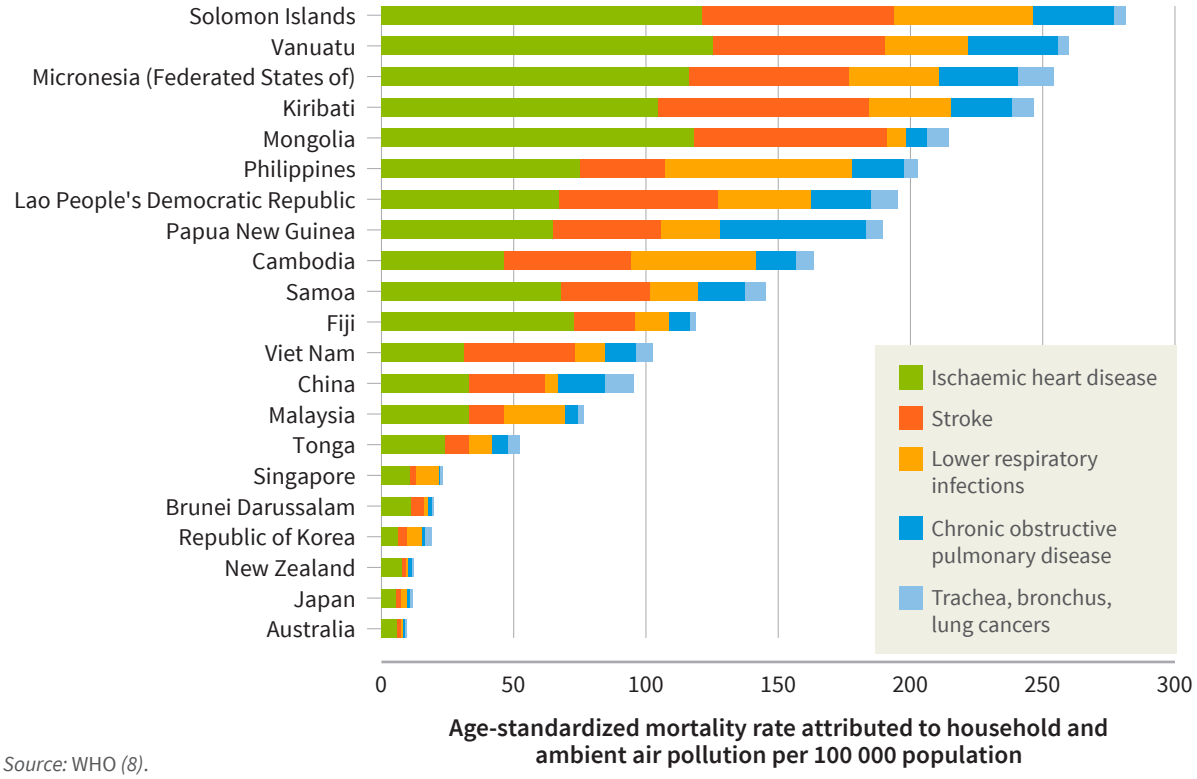
> SDG 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
>
> - Indicator 3.9.1: Mortality rate attributed to household and ambient air pollution

Air pollution is a major risk factor for premature death and disability due to respiratory, cardiovascular and other diseases *(5)*. Exposure to air pollution occurs indoors and outdoors, which are commonly measured, respectively, as household air pollution and ambient air pollution.

In 2019, in the Western Pacific Region, more than 2.3 million deaths were attributable to air pollution. Ambient air pollution accounted for 60.4% of these deaths (1.4 million deaths), and household air pollution accounted for the remaining 39.6% of deaths (900 000 deaths). Cardiovascular diseases, particularly ischaemic heart disease and stroke, emerged as the primary cause of death attributable to air pollution across countries in the Region (Fig. 28). Respiratory conditions, including lower respiratory tract infections and chronic obstructive pulmonary disease, constituted the second-leading cause of air pollution-related mortality. Additionally, deaths from trachea, bronchus and lung cancers were also attributed to air pollution across all Western Pacific Region countries.

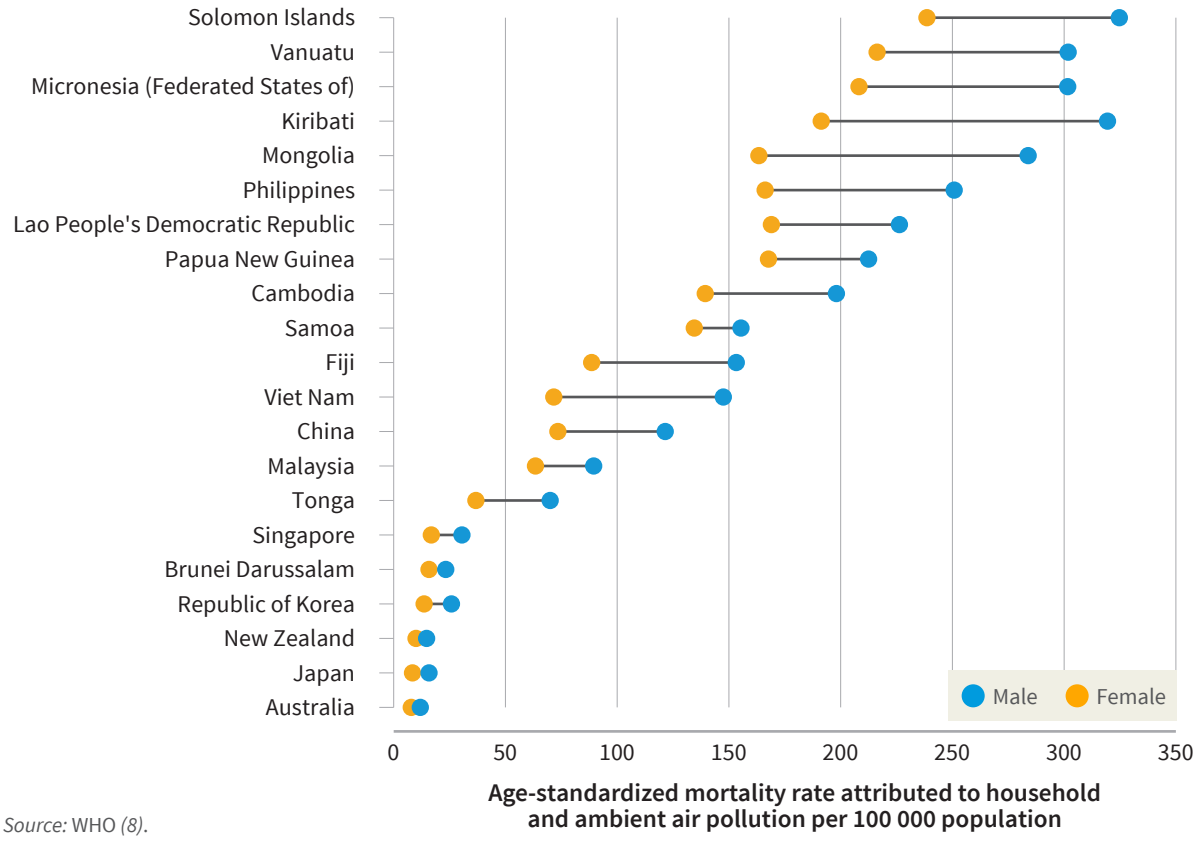
In 2019, the global death rate attributable to ambient and household air pollution was 103.6 per 100 000, with the Western Pacific Region slightly lower at 94.03 per 100 000. The mortality rates between the highest- and lowest-ranking countries in the Region displayed significant disparity. The Federated States of Micronesia, Solomon Islands and Vanuatu had the highest mortality rates, exceeding 250 per 100 000 population. High-income countries had the lowest mortality rates attributed to air pollution (Fig. 28). Across the Region, males experienced higher mortality rates than females, with high-income countries having the lowest differences between males and females (Fig. 29).

**Fig. 28** SDG 3.9.1 Mortality rate attributed to household and ambient air pollution per 100 000 population (age standardized) by cause of death, 2019




*Source:* WHO *(8)*.

**Fig. 29** SDG 3.9.1 Mortality rate attributed to household and ambient air pollution per 100 000 population (age standardized), by sex, 2019




*Source:* WHO *(8)*.

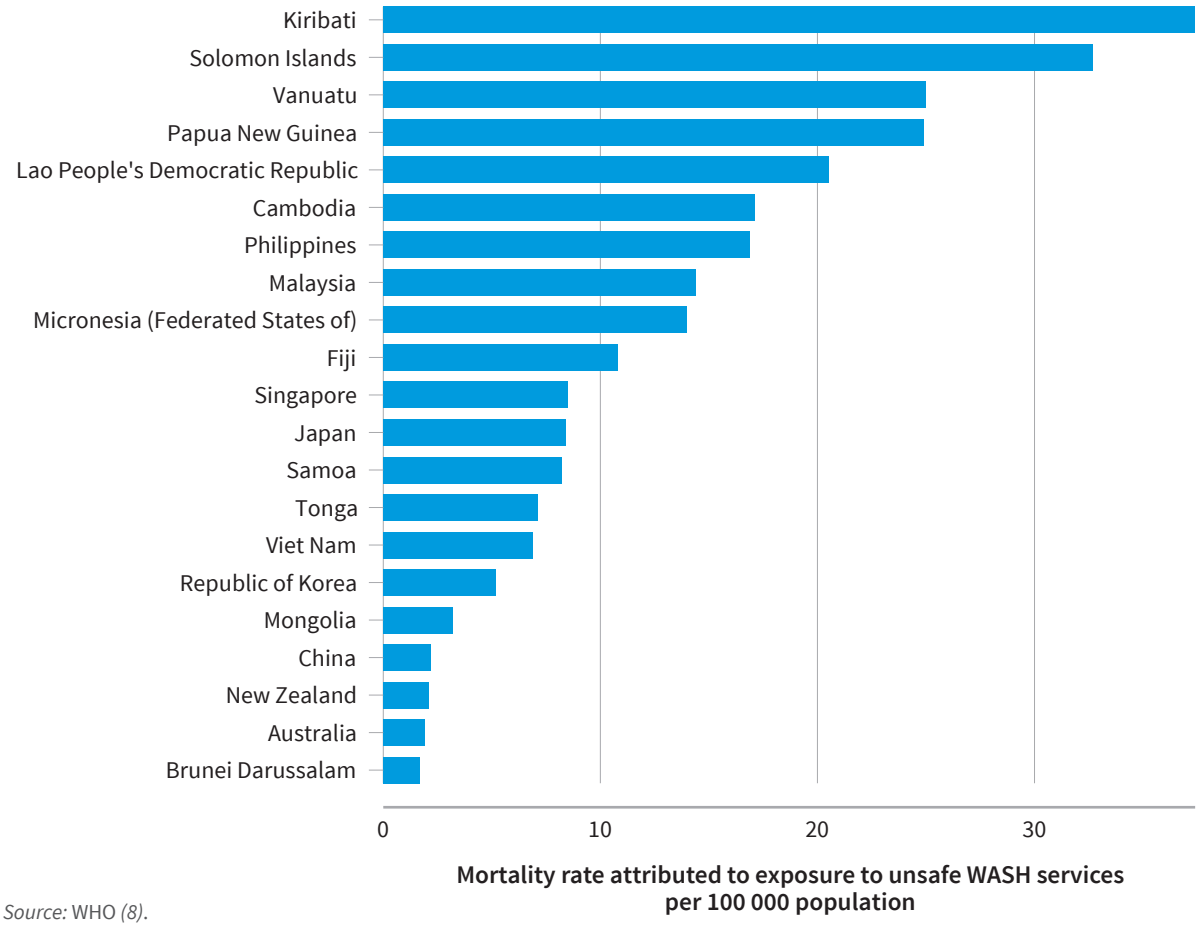
## Deaths attributed to unsafe WASH services

> SDG target 3.9.2: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals, and air, water and soil pollution and contamination
>
> - Indicator 3.9.2: Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene – exposure to unsafe water, sanitation and hygiene services

Exposure to unsafe drinking-water, sanitation and hygiene (WASH) is another risk factor for premature death and disability attributable to environmental risk factors due to its link to diarrhoeal diseases and protein-energy malnutrition, intestinal nematode infections, acute respiratory infections (ARI) and other diseases. In 2019, the global death rate attributable to unsafe WASH was 18.3 deaths per 100 000 population. Mortality due to unsafe WASH in the Western Pacific Region was substantially lower at 4.3 deaths per 100 000 population, with the Region having the second-lowest mortality among the WHO regions. Of the more than 1.4 million global deaths due to exposure to unsafe WASH, approximately 83 000 deaths occurred in the Western Pacific Region, representing just about 6% of the global figures.

However, the mortality rate due to unsafe WASH varied widely across Member States in the Region, ranging from less than 2 deaths per 100 000 in Brunei Darussalam and Australia to as high as 32.7 deaths in the Solomon Islands and 37.4 deaths in Kiribati (Fig. 30). Safe WASH could save thousands of lives in the Region, particularly among children under 5 years of age, for whom diarrhoeal diseases, malnutrition and ARI – all linked to exposure to unsafe WASH – are top causes of death *(14, 20)*.

**Fig. 30** SDG 3.9.2 Mortality rate attributed to exposure to unsafe WASH services per 100 000 population, 2019




*Source:* WHO *(8)*.

# 1.3 Disability-adjusted life years (DALYs)

### *Global and regional trends*

Following the trends in mortality, the leading causes of DALYs in the Western Pacific Region have also shifted towards a higher burden of NCDs, which account for the highest share of the burden of years of life lost due to early death and years lived in ill-health and disability. Between 2000 and 2019, the proportion of DALYs due to NCDs increased from 69.1% to 82.4% (Fig. 31). The regional proportion of DALYs due to NCDs surpassed the global proportion throughout the entire period, indicating that the Region had experienced an earlier shift towards a burden of disability dominated by NCD-related causes.

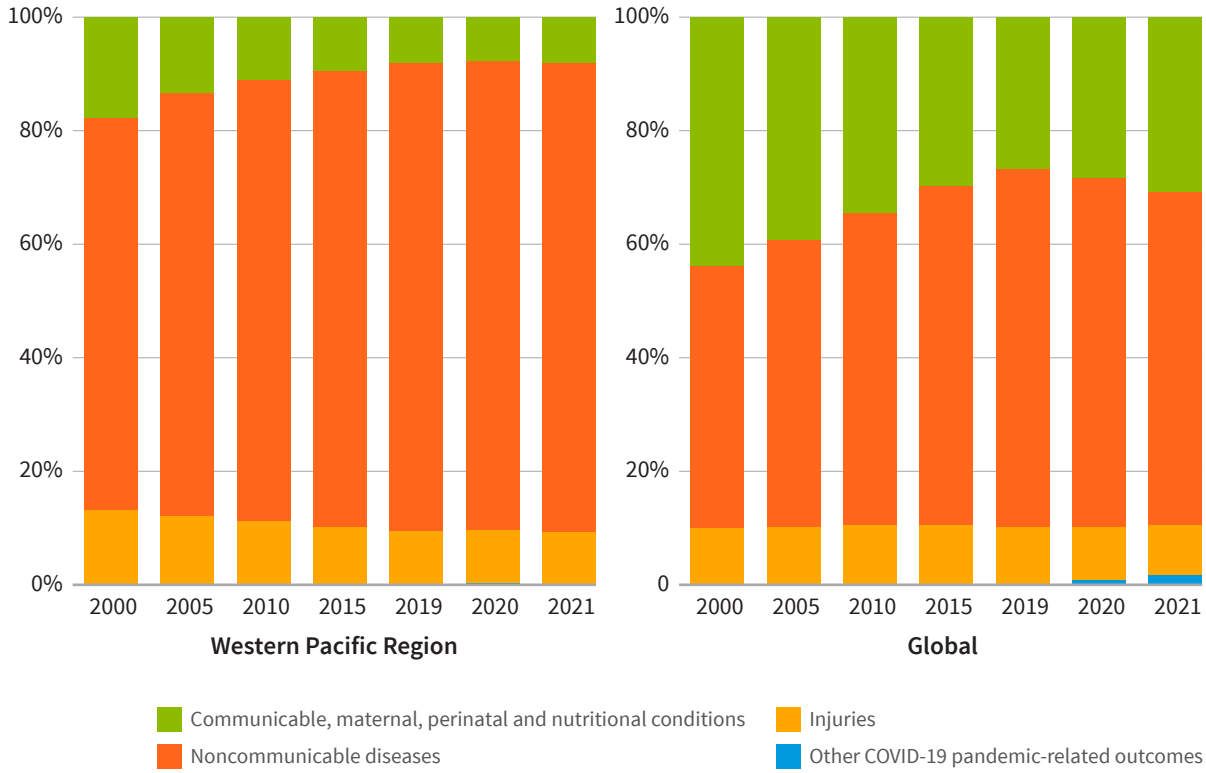
Conversely, over the period from 2000 to 2019, there was a notable decrease in the proportion of DALYs from CMPN conditions, with the decline more pronounced in the Western Pacific Region than globally, with the regional rate halving from 17.8% in 2000 to 8.1% in 2019 (Fig. 31). During this same period, the proportion of total DALYs due to injury-related causes also declined in the Western Pacific Region from 13.1% to 9.5%, aligning closely with the global figure in 2019 (Fig. 31). Globally, the proportion of DALYs from injuries remained relatively stable during this period.

The steady shift towards a burden of disability dominated by NCDs has changed since the emergence of the COVID-19 pandemic. The shifting trend stagnated in the Region during 2020 and 2021 but reversed globally in these same years (Fig. 31). These changes in the burden of disability followed the same trend as the burden of mortality, yet the impact was more pronounced in terms of deaths (see Section 1.2).

### *Trends in Member States*

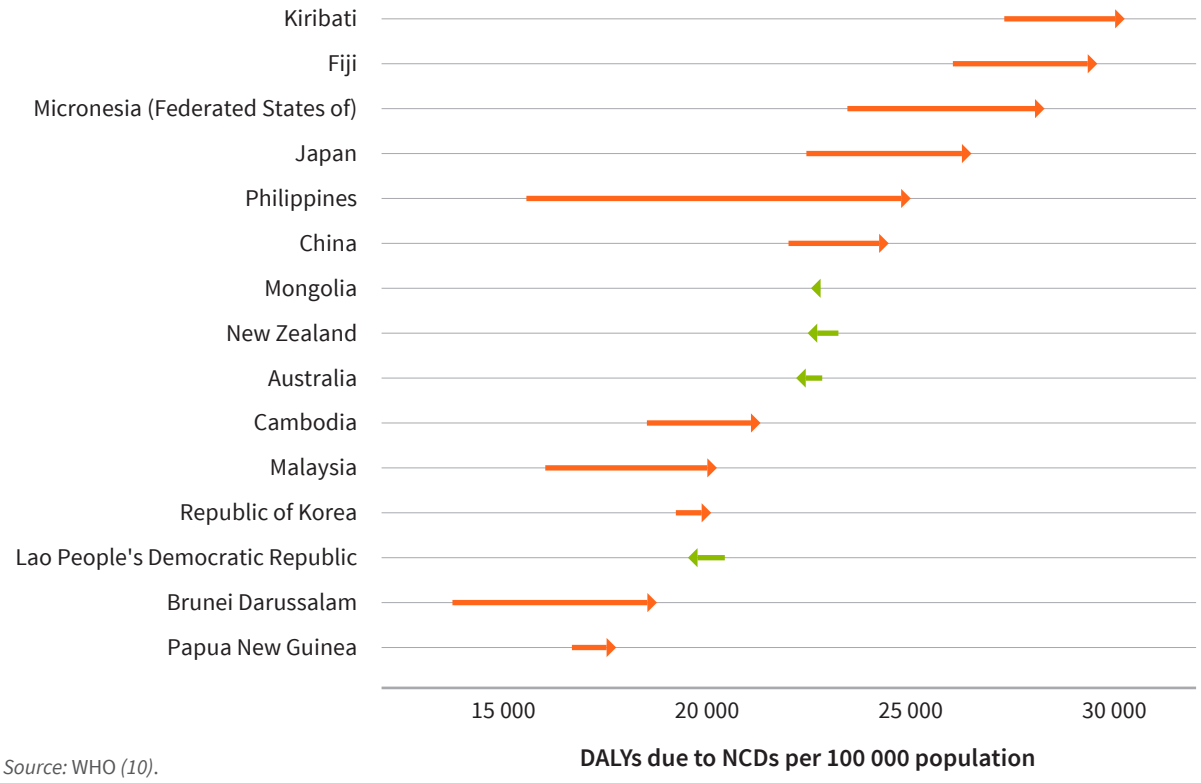
The shift towards a higher burden of NCD-related DALYs was evident across all countries in the Region. Most countries experienced increases in the rate per 100 000 of DALYs due to NCDs between 2000 and 2021, among countries with available data (Fig. 32). Many countries in the Western Pacific Region had notable successes in reducing disability from CMPN conditions, with decreasing trends in the rate of DALYs due to these conditions between 2000 and 2021 (Fig. 33). However, four countries experienced an increase in the rate per 100 000 of DALYs due to CMPN conditions over this period. Notably, all countries in the Region experienced a decline in the rate of DALYs due to injuries per 100 000 population (Fig. 34).

**Fig. 31** Composition of causes of DALYs: Proportion of DALYs by three broad categories of causes of DALYs, global and Western Pacific Region estimates, 2000–2021



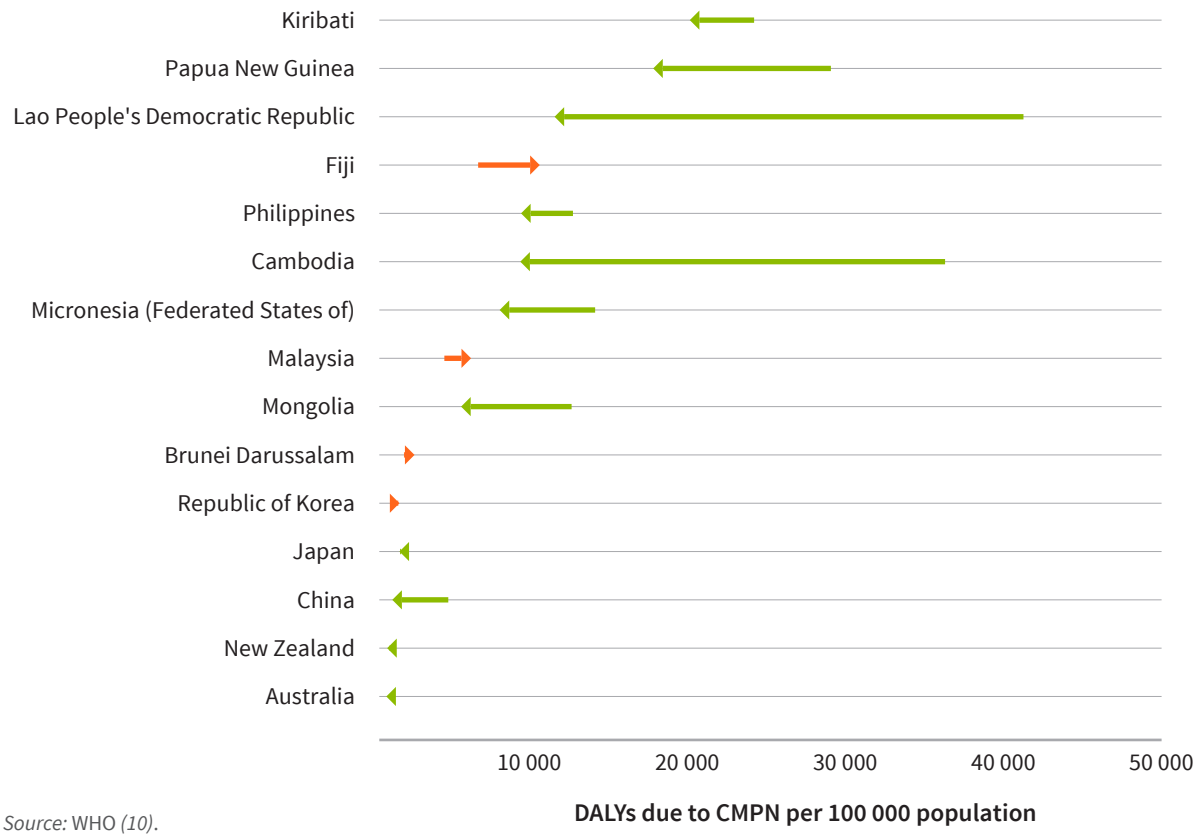

Note: Other COVID-19 pandemic-related outcomes capture the deaths that cannot be attributed to specific causes.
*Source:* WHO *(10)*.

**Fig. 32** DALYs due to NCDs, 2000 and 2021



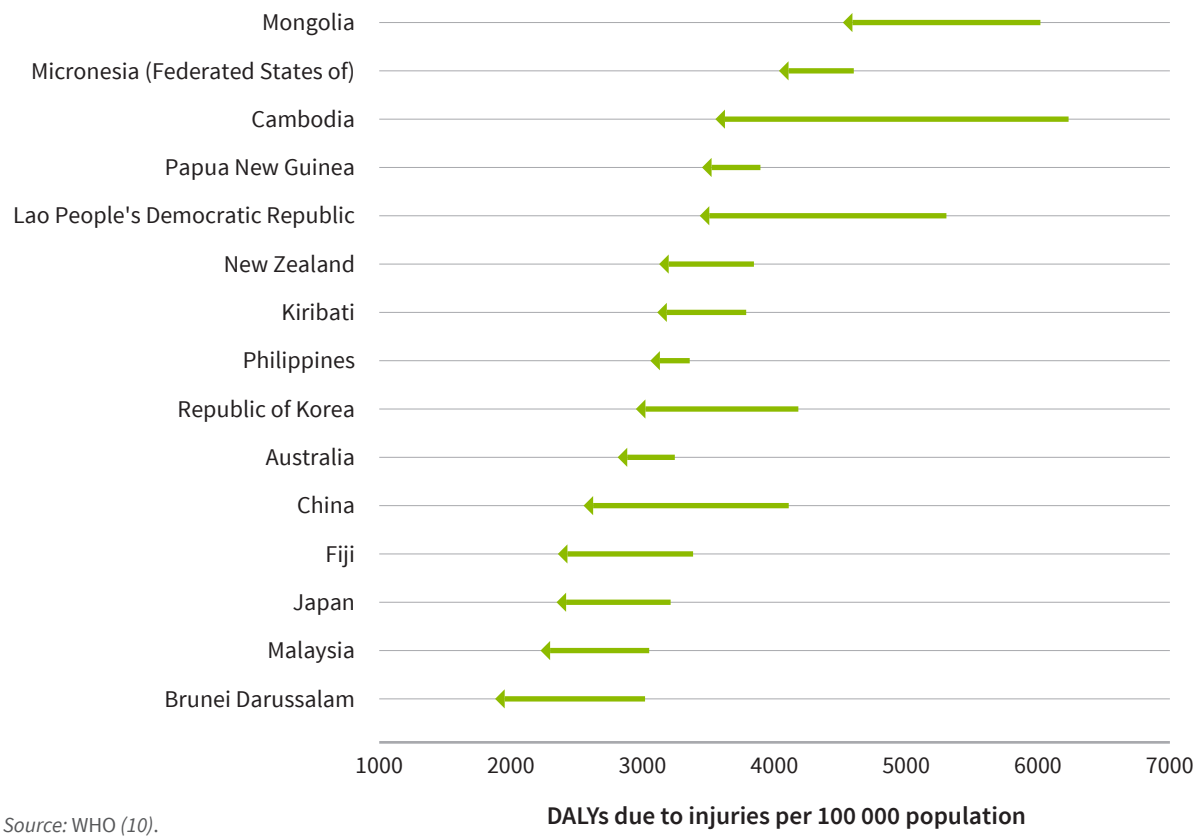

*Source:* WHO *(10)*.

**Fig. 33** DALYs due to CMPN conditions, 2000 and 2021




*Source:* WHO *(10)*.

**Fig. 34** DALYs due to injuries, 2000 and 2021




*Source:* WHO *(10)*.

# 1.4 Infectious disease burden

## HIV

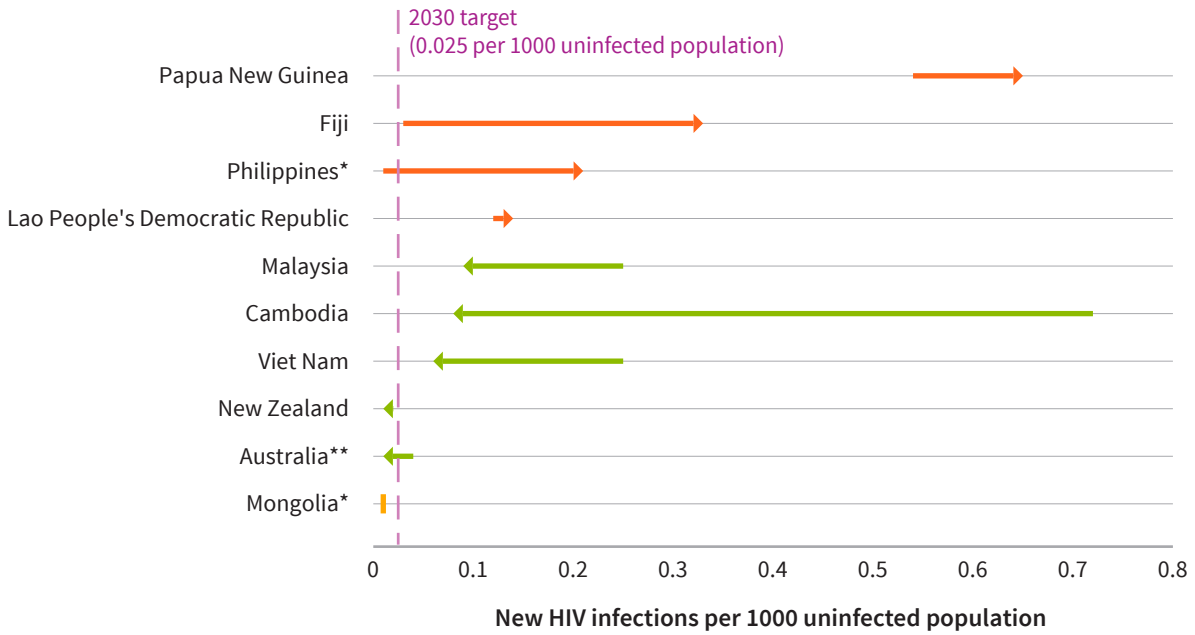
> SDG target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases
>
> - Indicator 3.3.1: Number of new HIV infections per 1000 uninfected population, by sex, age and key populations, or chronic respiratory disease
>
> Global health sector strategies on HIV, viral hepatitis and sexually transmitted infections for the period 2022–2030 *(21)*:
>
> - Target for HIV incidence is 0.05 per 1000 uninfected population by 2025 and 0.025 per 1000 uninfected population by 2030.

In 2022, there were 1.3 million new HIV infections globally, of which 140 000 occurred in the Western Pacific Region. The rate for new HIV infections was 0.07 per 1000 uninfected population in the Western Pacific Region, which was lower than the global rate of 0.17 in 2022. However, while HIV incidence has been declining globally, with a 32% reduction between 2015 and 2022, the Western Pacific Region has seen a 7% increase in the HIV incidence rate during this period *(9)*.

Data on new HIV infections are available for 10 Western Pacific countries, revealing positive trends in half of them. Cambodia showed a significant reduction from 0.72 to 0.08 new infections per 1000 uninfected population between 2000 and 2022. Substantial progress in reducing the HIV incidence rate have also been seen in Malaysia and Viet Nam. However, the HIV incidence rate increased in four countries – Fiji, the Lao People's Democratic Republic, Papua New Guinea and the Philippines – with Fiji experiencing the largest increase. Importantly, the rates in Fiji, Papua New Guinea and the Philippines surpassed the global estimate in 2022 (Fig. 35).

Concerted efforts are needed to reverse the increasing regional trend in new HIV infections to reach the global SDG and health sector targets, with a special focus on curbing the number of new HIV infections in key populations.

**Fig. 35** SDG 3.3.1 New HIV infections per 1000 uninfected population (all ages), 2000 and 2022




Note: * The estimate for Mongolia in 2000 and 2022 and the Philippines in 2000 is < 0.01. ** The values for Australia are based on years 2000 and 2021.
*Source:* UNAIDS *(22)*.

## Tuberculosis

SDG target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases

- Indicator 3.3.2: Tuberculosis incidence per 100 000 population

WHO *End TB Strategy* targets for TB incidence rates *(23)*:

- The 2030 target is an 80% reduction, and the 2035 target is a 90% reduction in TB incidence rates compared with 2015.
- Milestones towards the 2030 and 2035 targets: 20% reduction of TB incidence by 2020 and 50% reduction of TB incidence by 2025, relative to the 2015 baseline

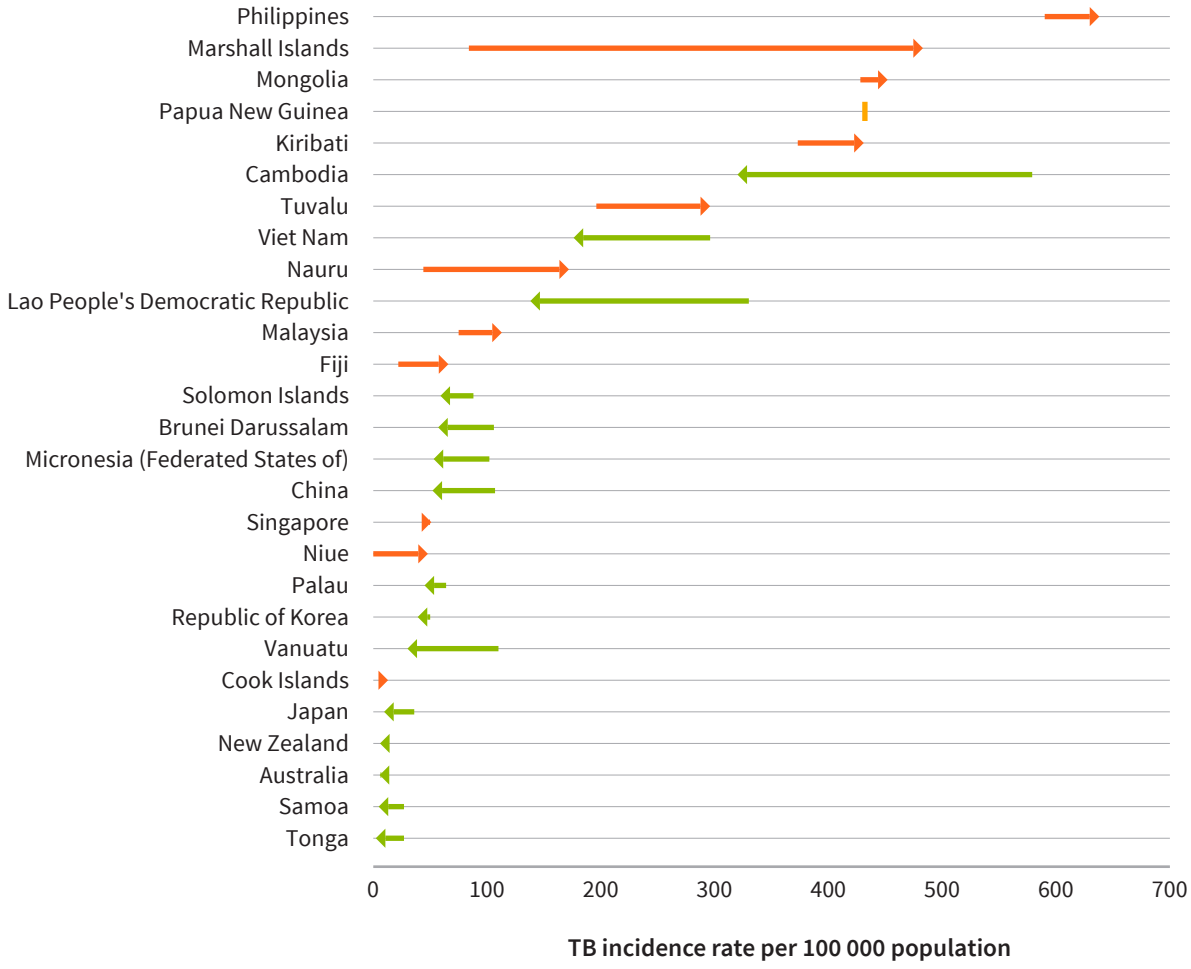
In 2022, the estimated TB incidence rate in the Western Pacific Region was 96 per 100 000 population, below the global estimate of 133 per 100 000. The Region experienced only a 4% reduction in the TB incidence rate, dropping from 100 per 100 000 in 2015 to 96 in 2022, slower than the 8.7% global reduction. The Western Pacific Region accounted for 18% of all global cases and included five of the 30 countries with a high TB burden: China, Mongolia, Papua New Guinea, the Philippines and Viet Nam.

TB incidence rates and trends varied substantially across countries in the Region: TB incidence increased in 11 countries, declined in 15, and stagnated in one between 2000 and 2022. The most notable increase occurred in the Marshall Islands, attributed to intensified case detection coupled with its small population. The Philippines recorded the highest incidence rate in 2022 at 638 per 100 00 population, marking an increase from 2000 and placing the country among those with the highest TB incidence rates in the world, accounting for 7% of the global TB cases.

Among the five high-burden TB countries, the incidence rate decreased in two (China and Viet Nam), remained the same in one (Papua New Guinea), and increased in the remaining two (Mongolia and the Philippines). Ten countries surpassed the global estimate for 2022, including Cambodia, Kiribati, the Lao People's Democratic Republic, the Marshall Islands, Mongolia, Nauru, Papua New Guinea, the Philippines, Tuvalu and Viet Nam, with a note that Nauru and Tuvalu reported less than 100 incident cases per year (Fig. 36).

Under the current trends, it is unlikely that the Region will achieve the global SDG target for TB or those of the *End TB Strategy*.

**Fig. 36** SDG 3.3.1 TB incidence per 100 000 population, 2000 and 2022




*Source:* WHO *(8, 24)*.

## Malaria

SDG target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases

- Indicator 3.3.3: Malaria incidence per 1000 population

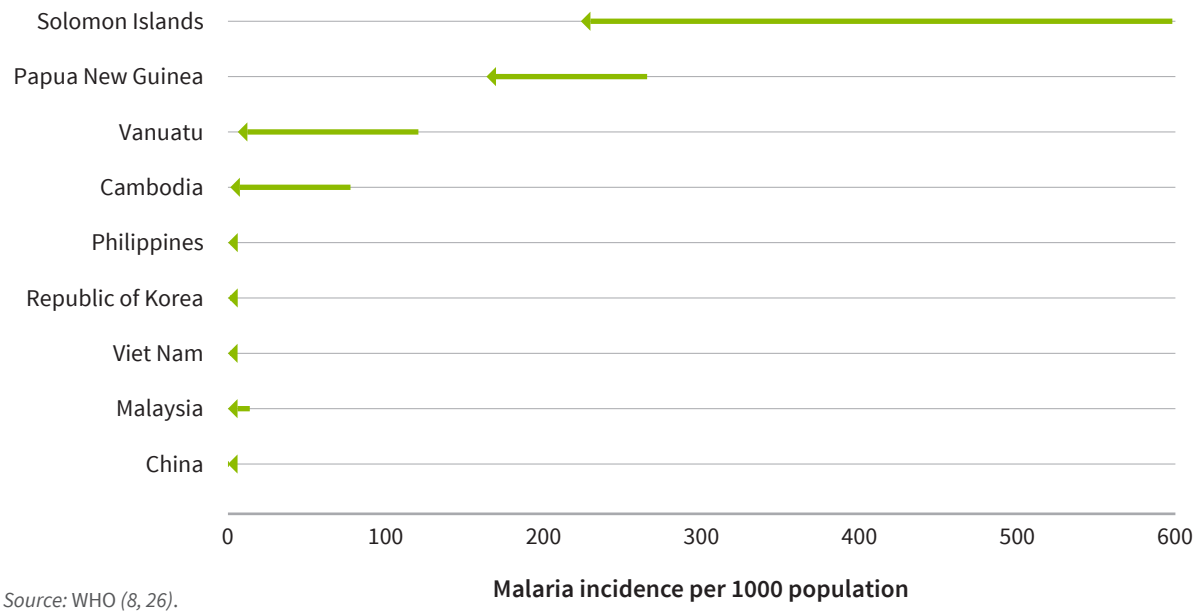
*Global Technical Strategy for Malaria 2016–2030 (25)*:

- The target of the Global Technical Strategy aims for a 90% reduction in case incidence by 2030 compared to 2015, with a 40% reduction milestone by 2020 and a 75% reduction milestone by 2025.
- It also calls for eliminating malaria in at least 35 countries by 2030 and preventing a resurgence of malaria in all countries that are malaria-free.

In the Western Pacific Region, malaria cases fell from 2.6 million in 2000 to 1.4 million in 2021 *(26)*. However, there was a 30% increase to 1.9 million in 2022 *(26)*. The case incidence dropped from 4.1 to 2.4 per 1000 people at risk between 2000 and 2022, much lower than the global incidence in 2022 of 58.4 per 1000 at-risk population. However, from the start of the SDG era in 2015 until 2022, malaria incidence in the Western Pacific Region has increased by 43.5% from 1.7 per 1000 people at risk in 2015. The Global Technical Strategy 2020 milestone was not achieved in the Region and, given the current trends, the 2025 milestone is also unlikely to be met, as in 2022 the regional case incidence fell short of the 2025 global target by 69% *(26)*.

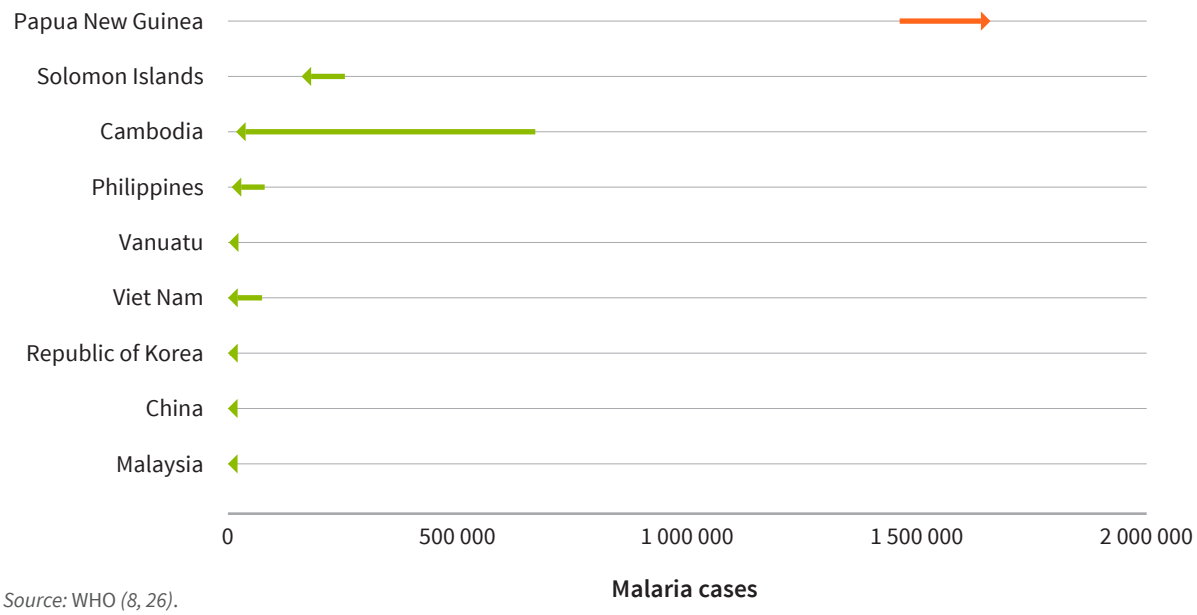
All 10 countries in the Region for which data are available experienced a decrease in malaria incidence since the turn of the millennium (Fig. 37), although Papua New Guinea showed an increase in absolute numbers (Fig. 38). However, since 2015, malaria incidence has steadily increased in the two countries with the highest incidence rates, namely Papua New Guinea and Solomon Islands. In 2022, Cambodia, Papua New Guinea, Solomon Islands and Vanuatu had higher incidence rates than the global estimate, even though Solomon Islands improved significantly from 598.1 cases per 1000 population in 2000 to 223.5 cases per 1000 people in 2022 (Fig. 37). China achieved malaria-free status in 2021, while Malaysia has remained free of indigenous cases since 2018 *(26)*. Despite these gains, the fight against malaria is encountering new challenges, as climate change and extreme weather conditions risk reversing years of progress.

**Fig. 37** SDG 3.3.3 Malaria incidence per 1000 population at risk, 2000 and 2022




*Source:* WHO *(8, 26)*.

**Fig. 38** Number of malaria cases, 2000 and 2022




*Source:* WHO *(8, 26)*.

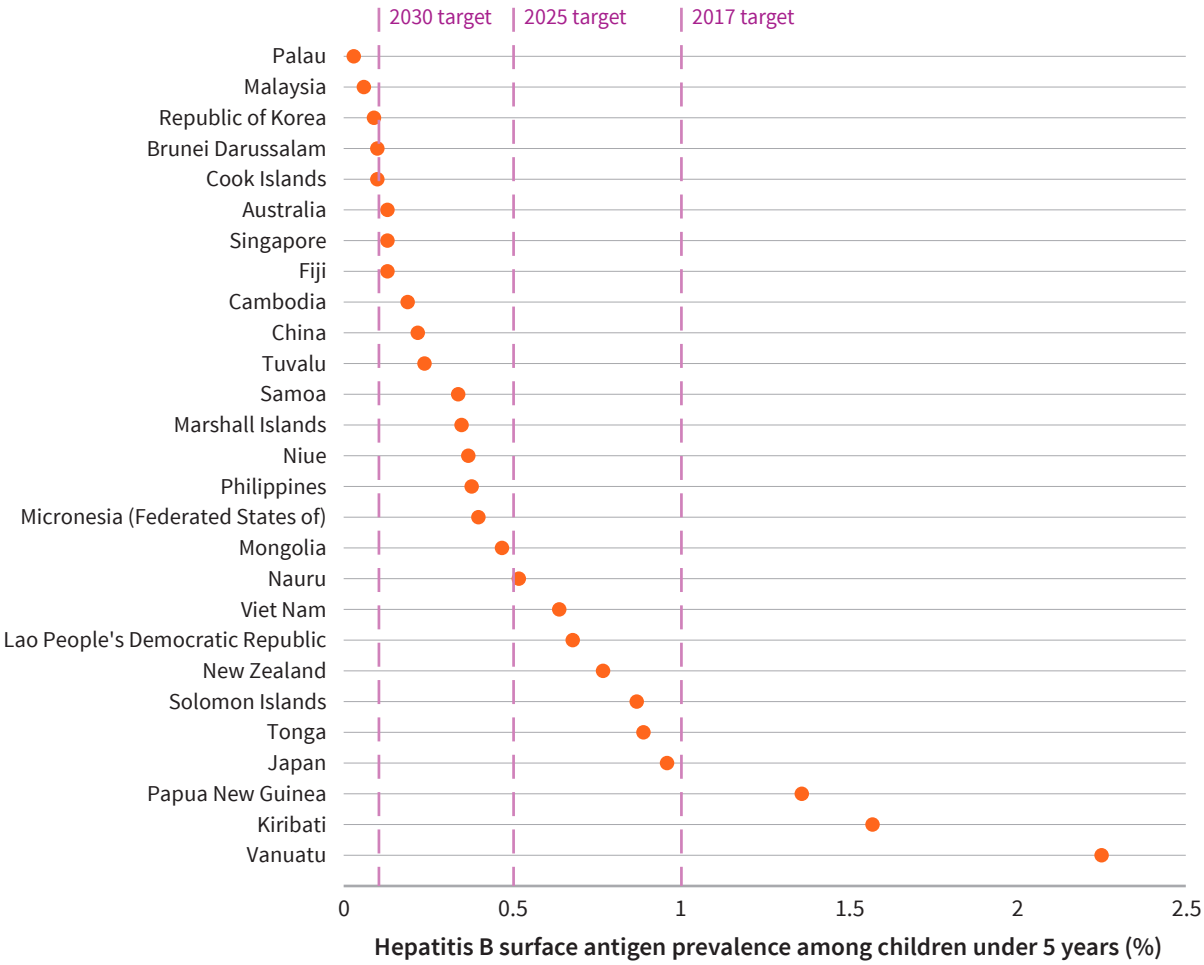
## Hepatitis B and C

> SDG target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases
>
> - Indicator 3.3.4: Hepatitis B incidence per 100 000 population
>
> *Global health sector strategies on HIV, viral hepatitis and sexually transmitted infections for 2022–2030 (21, 27)*:
>
> - Target for hepatitis B surface antigen (HBsAg) prevalence among children younger than 5 years old is 0.5% by 2025 and 0.1% by 2030.

Globally, an estimated 304 million people were living with hepatitis B and C in 2022, of which 103.9 million lived in the Western Pacific Region, where 96.8 million lived with hepatitis B and 7.1 million with hepatitis C (9, 28). In 2022, there were 83 000 new hepatitis B infections and 98 000 new hepatitis C infections in the Western Pacific Region. More than half a million deaths were caused by viral hepatitis, including 518 000 deaths due to hepatitis B and 43 000 due to hepatitis C *(28)*. The Western Pacific Region had eight of the 38 WHO focus countries for the viral hepatitis response: Cambodia, China, the Lao People's Democratic Republic, Mongolia, Niue, the Philippines, Vanuatu and Viet Nam. These eight countries accounted for 95% of total viral hepatitis infections, 86% of new viral hepatitis infections and 95% of the hepatitis-related deaths in the Region in 2022 *(28)*.

In 2020, the prevalence of HBsAg among children under 5 years old in the Western Pacific Region was 0.3%, about two thirds lower than the global estimate of 0.94%. In 2020, all but three countries – Kiribati, Papua New Guinea and Vanuatu – had reached the 2017 target, and 17 countries had already reached the 2025 target (Fig. 39). Progress needs to be intensified to reach the 2030 target in all countries in the Western Pacific.

**Fig. 39** SDG 3.3.4 proxy: Hepatitis B surface antigen prevalence among children under 5 years (%), 2020




*Source:* WHO *(8)*.

## Neglected tropical diseases

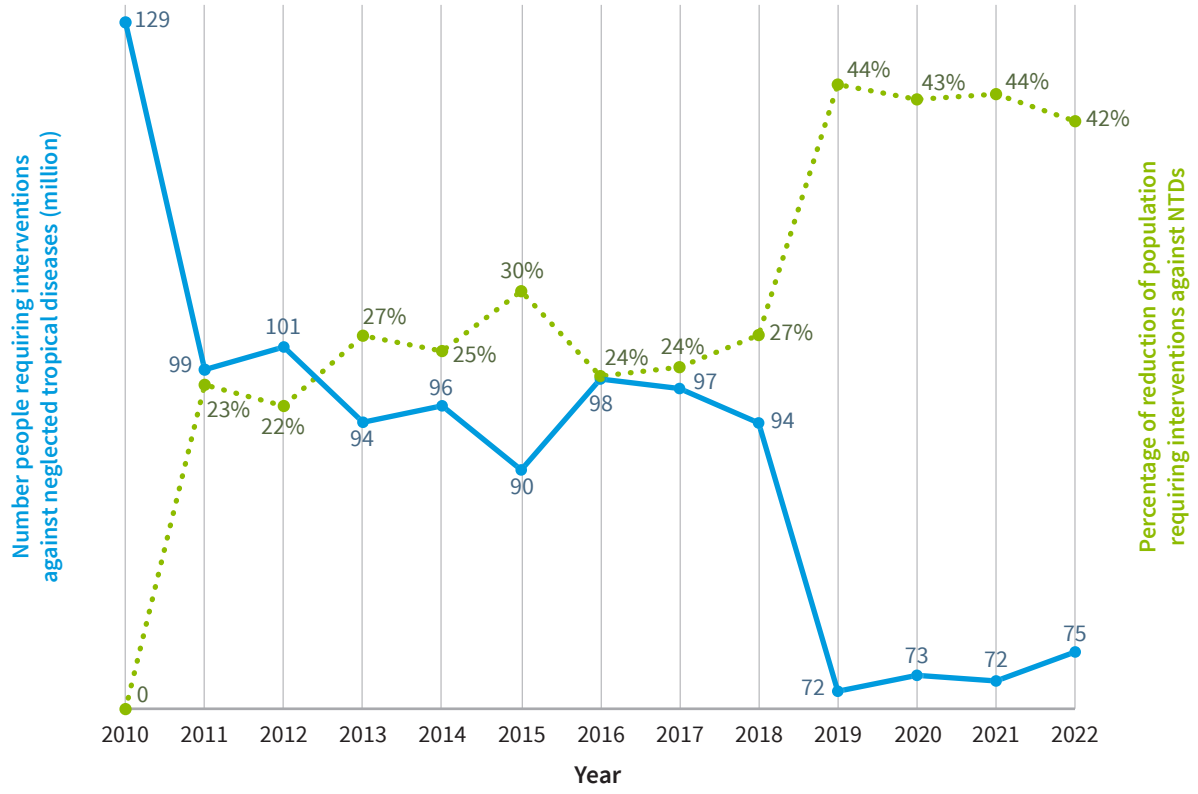
> SDG target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases
>
> - Indicator 3.3.5: Number of people requiring interventions against neglected tropical diseases
>
> *Ending the neglect to attain the Sustainable Development Goals: A road map for neglected tropical diseases 2021–2030 (29)*:
>
> - Includes a target calling for a 90% reduction in people requiring interventions against neglected tropical diseases between 2010 and 2030

In 2022, it was estimated that more than 1.6 billion people globally required curative and preventive interventions for neglected tropical diseases (NTDs), representing a 26% drop from the 2.2 billion people that required interventions in 2010 *(30)*. In the Western Pacific Region, the reported number of people requiring interventions for NTDs in 2022 was 75 million, corresponding to a 41.9% reduction compared to the 129 million people requiring interventions in 2010 (Fig. 40).

Between 2010 and 2022, the number of people requiring interventions against NTDs increased in 13 countries of the Western Pacific Region, decreased in 13 countries, and remained at zero in one country (Niue) (Fig. 41). The most notable decreases were in China and the Philippines. In 2022, three countries – Brunei Darussalam, Mongolia and Niue – achieved notable success, with no individuals requiring interventions against NTDs.

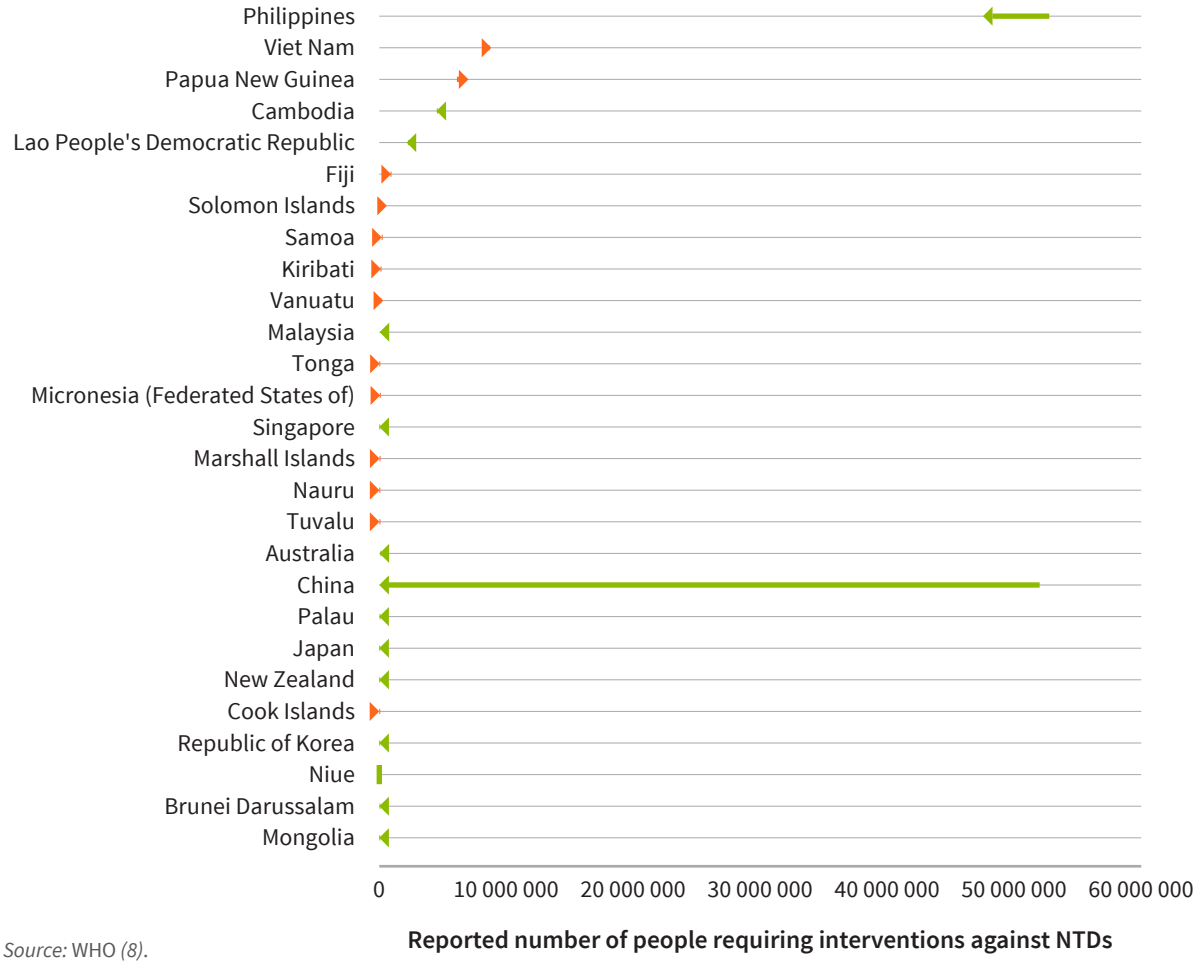
While the Region is progressing towards controlling and eliminating NTDs, efforts need to be intensified to reach the SDG and health sector targets for 2030. Particular attention needs to be placed on countries with high numbers of populations at risk and those with increasing numbers, especially in the face of the disruptions in NTD programmes during the COVID-19 pandemic and the impact of climate change on NTD risk and transmission *(9, 31)*.

**Fig. 40** SDG 3.3.5 Number of people requiring interventions against NTDs and percentage reduction in number of people requiring interventions against NTDs in the Western Pacific Region, 2010–2022




*Source:* WHO *(8)*.

**Fig. 41** SDG 3.3.5 Number of people requiring interventions against NTDs, 2010 and 2022




*Source:* WHO *(8)*.

# 1.5 Bloodstream infections due to antimicrobial-resistant organisms

SDG target 3.d: Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction, and management of national and global health risks

- Indicator 3.d.2: Percentage of bloodstream infections due to selected antimicrobial-resistant organisms

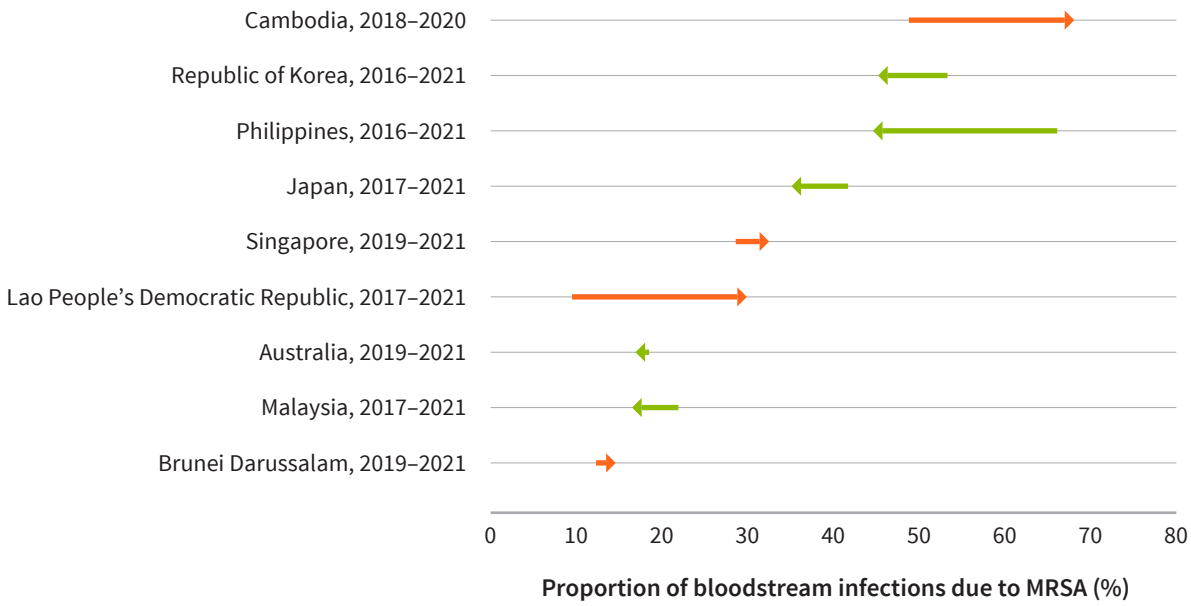
AMR is one of the top 10 global public health threats facing humanity. The emergence of drug-resistant pathogens threatens the use of currently available antimicrobials to treat common infections *(32)*. Globally, it is estimated that 1.27 million deaths were attributable to AMR in 2019, representing approximately an 80% increase from the 700 000 AMR-related deaths in 2014 *(32)*. In the Western Pacific Region, an estimated 5.2 million people may die as a result of AMR between 2020 and 2030, and result in a total excess economic cost of nearly US$ 150 billion *(32)*.

The WHO Global Antimicrobial Resistance and Use Surveillance System (GLASS) was launched in 2015 to provide a global surveillance system that promotes collectively working towards globally harmonized standards to capture and share information on AMR and antimicrobial consumption and that can inform local, regional and global strategies to contain AMR *(33)*. A total of 126 countries, territories and areas participate in the GLASS-AMR initiative, including 10 Member States from the Western Pacific Region (Australia, Brunei Darussalam, Cambodia, Japan, the Lao People's Democratic Republic, Malaysia, Papua New Guinea, the Philippines, the Republic of Korea and Singapore). GLASS-AMR provides data for the two new SDG AMR indicators under SDG target 3.d.2 that were introduced in 2020. These indicators monitor the proportion of bloodstream infections due to *Escherichia coli* resistant to third-generation cephalosporins and methicillin-resistant *Staphylococcus aureus* (MRSA).

The global median proportion of bloodstream infections caused by MRSA rose from 20.6% in 2016 to 32.1% in 2021. A similar trend was observed for the estimated global median proportion of bloodstream infections due to *Escherichia coli* resistant to third-generation cephalosporins, increasing from 35.8% in 2016 to 41.0% in 2021. Rates of AMR varied substantially among reporting countries in the Western Pacific Region, with some countries reporting values above, but others below, the global median. In 2020, the proportion of bloodstream infections due to MRSA ranged from 12.5% in Brunei Darussalam to 68.1% in Cambodia (Fig. 42) and due to *Escherichia coli* resistant to third-generation cephalosporins from 13.4% in Australia to 73.7% in Cambodia (Fig. 43).

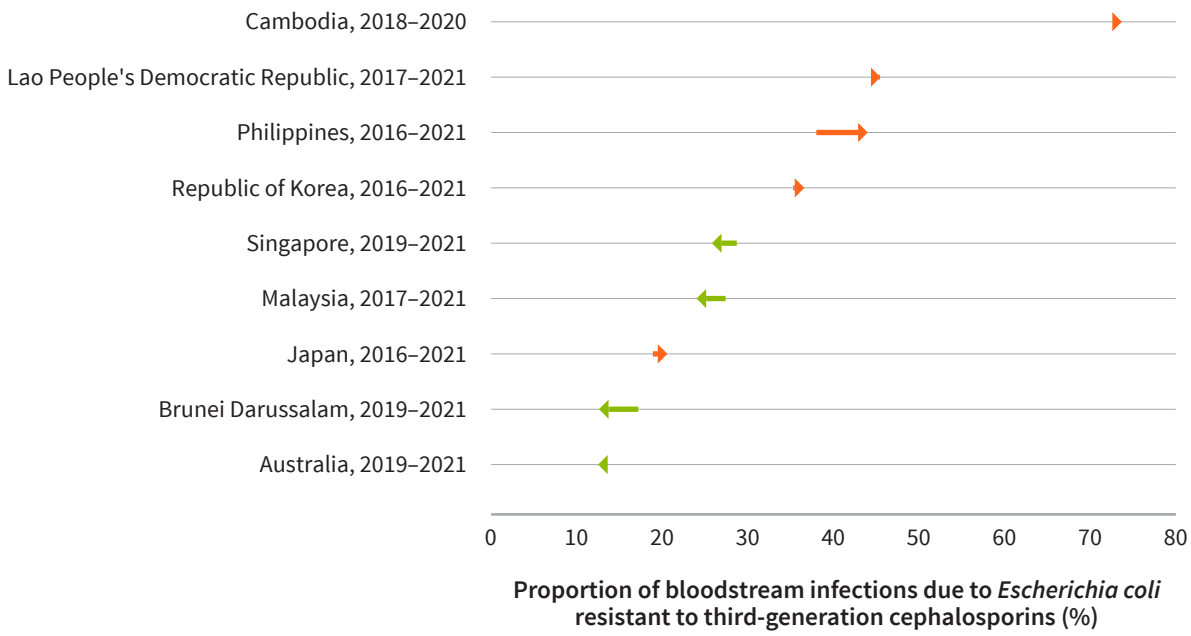
Trends over time were mixed across countries in the Region, as some countries observed increases in both indicators (Cambodia and the Lao People's Democratic Republic), while others only in one (Brunei Darussalam, Japan, the Philippines, the Republic of Korea and Singapore). Two countries (Australia and Malaysia) reported decreases in both indicators. Changes over time in the proportion of bloodstream infections due to *Escherichia coli* resistant to third-generation cephalosporins were small, with the Philippines reporting the largest increase and Brunei Darussalam the largest decrease (Fig. 43). Four out of nine countries reported progress for this indicator, including Australia, Brunei Darussalam, Malaysia and Singapore. Larger changes were observed in the reported proportion of bloodstream infections due to MRSA, with substantial increases in Cambodia and the Lao People's Democratic Republic (Fig. 42). Five out of the nine countries reported progress for this indicator, including Australia, Japan, Malaysia, the Philippines and the Republic of Korea.

**Fig. 42** SDG 3.d.2 Proportion of bloodstream infections due to MRSA (%), change over time




*Source:* WHO *(8)*.

**Fig. 43** SDG 3.d.2 Proportion of bloodstream infections due to *Escherichia coli* resistant to third-generation cephalosporins (%), change over time




*Source:* WHO *(8)*.

# 2 PROMOTE HEALTH – Healthier populations

Chapter 2 describes the health sector's response to climate change and indicators related to achieving healthier populations, including behavioural and metabolic risk factors for NCDs, environmental risk factors, nutrition and violence.

## Chapter highlights

- Nine countries from the Region participated in the WHO Health and Climate Change Global Survey in 2021. About half of the surveyed countries (five out of nine) had established national health and climate change plans or strategies, demonstrating a commitment to long-term planning.
- Since 2000, per capita total alcohol consumption in the Western Pacific Region rose by 40% However, from 2015 to 2019, a positive trend emerged as consumption decreased from 7.2 litres to 6.1 litres per capita.
- In the Western Pacific Region, tobacco use has also declined from a prevalence of 28.0% in 2000 to 22.5% in 2020. Despite these improvements, the regional prevalence remained above the global average in 2022.
- In the Western Pacific Region, 90.41% of health-care facilities have basic water services and 35.6% have basic hygiene services. However, data availability was insufficient to generate estimates for basic sanitation, health-care waste management and environmental cleaning at regional levels.
- The mean level of fine particulate matter (PM2.5) in the Western Pacific Region in urban areas decreased from 42.9 μg/m³ in 2010 to 35.1 μg/m³ in 2019. The largest reductions were observed in urban areas of China, Mongolia and the Republic of Korea.
- In the Western Pacific Region, an estimated 10.1 million stunted children under 5 years in 2022 marked a significant drop from 14.6 million in 2012, marking a 30.8% reduction.
- Between 2012 and 2022, the prevalence of overweight among children under 5 years of age increased in most countries in the Western Pacific Region.
- In the Western Pacific Region, progress on reducing anaemia in women aged 15–49 years is insufficient to meet the global nutrition target, with almost all countries experiencing worsening prevalence.
- In some Pacific countries, the lifetime prevalence of intimate partner violence among ever-married or partnered women and girls soars to nearly double the global average, ranging from 40% to 53%.

# 2.1 Health sector response to climate change

## National climate change and health capacity

Nine countries from the Western Pacific Region participated in the WHO Health and Climate Change Global Survey in 2021 *(34)*. While the Marshall Islands emerged as a standout with positive responses across indicators, indicating a proactive approach to integrating health and climate change considerations, other countries, notably Papua New Guinea, were identified as needing more support and strengthening in this area.

About half of the surveyed countries (five out of nine) had established national health and climate change plans or strategies, demonstrating a commitment to long-term planning. Operational multi-stakeholder mechanisms on health and climate change had been established in six countries, facilitating collaborative efforts and coordination. Five countries had conducted assessments on climate change and health vulnerability and adaptation, indicating proactive engagement in understanding and addressing the impacts. However, assessments for climate resilience and environmental sustainability of public health facilities remain limited in scope, conducted in only a few countries. Furthermore, while some countries have assessed the health co-benefits of climate change mitigation policies, this aspect is still underdeveloped in several others.

These findings underscore the importance of continued efforts to integrate health considerations into climate change planning and policies across the Region. Collaboration, capacity-building and targeted support will be crucial in advancing resilience and sustainability in the face of climate challenges, ensuring that health remains a priority in the context of a changing climate.

**Table 1** Indicators on national climate change and health capacity, 2021

| | National health and climate change plan/ strategy | Establishment of multi-stakeholder mechanism | Assessment of climate change and health vulnerability and adaptation | Assessment of public health-care facilities for climate resilience | Assessment of public health-care facilities for environmental sustainability | Assessment of health co-benefits of country's climate change mitigation policies |
|---|---|---|---|---|---|---|
| Brunei Darussalam | No | Yes | No | No | No | Yes |
| Cambodia | Yes | Yes | Yes | No | No | Under development |
| China | Yes | No | Yes | No | No | Yes |
| Marshall Islands | Yes | Yes | Yes | Yes | Yes | Yes |
| Micronesia (Federated States of) | Unknown | Yes | Unknown | Unknown | Unknown | Unknown |
| Palau | Yes | Yes | Yes | Yes | Yes | Unknown |
| Papua New Guinea | Under development | No | No | No | No | No |
| Philippines | Under development | Yes | Yes | Yes | Unknown | Under development |
| Vanuatu | Yes | No | No | No | No | No |

# 2.2 Behavioural and metabolic risk factors of NCDs

## Alcohol consumption

SDG target 3.5: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

- Indicator 3.5.2: Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol.

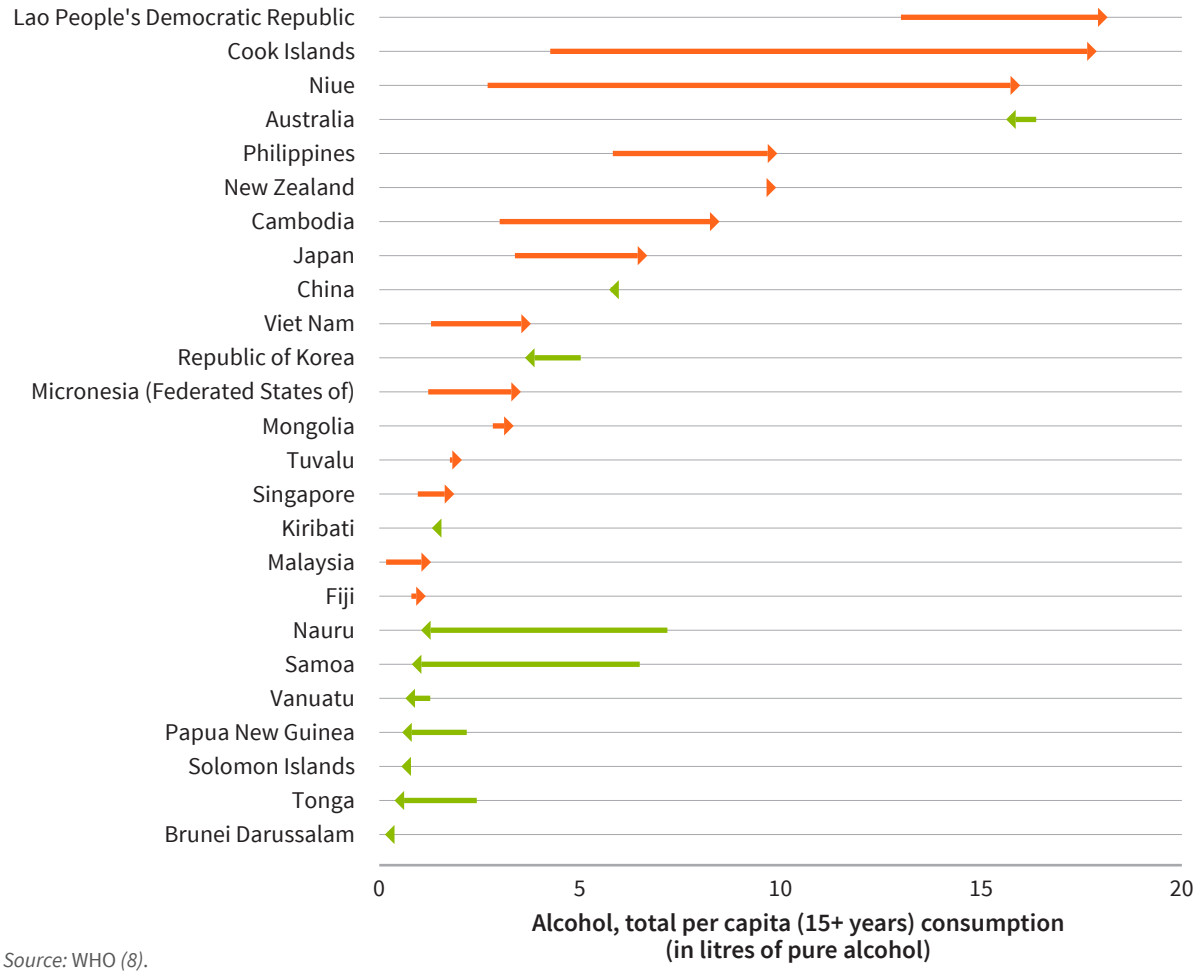
WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2030* and *WHO Discussion paper on the development of an implementation roadmap 2023–2030 for the WHO Global Action Plan for the Prevention and Control of NCDs 2023–2030 (35, 36)*:

- Target is a relative reduction of 20% in alcohol consumption by 2030 compared to 2010.

Globally, total alcohol consumption per capita (among people aged 15 years and older) has increased since 2000 (5.1 litres) but showed a relative decrease from 2015 (5.9 litres) to 2019 (5.5 litres). A notable disparity exists, with alcohol consumption among males in 2019 being four times higher than that of females. Since 2000, per capita total alcohol consumption in the Western Pacific Region rose by 40% *(4)*. However, from 2015 to 2019, a positive trend emerged as consumption decreased from 7.2 litres to 6.1 litres per capita. Despite the recent declines, both the world and the Western Pacific Region are falling short of meeting the revised objectives set in the Global Alcohol Action Plan *(37)*.

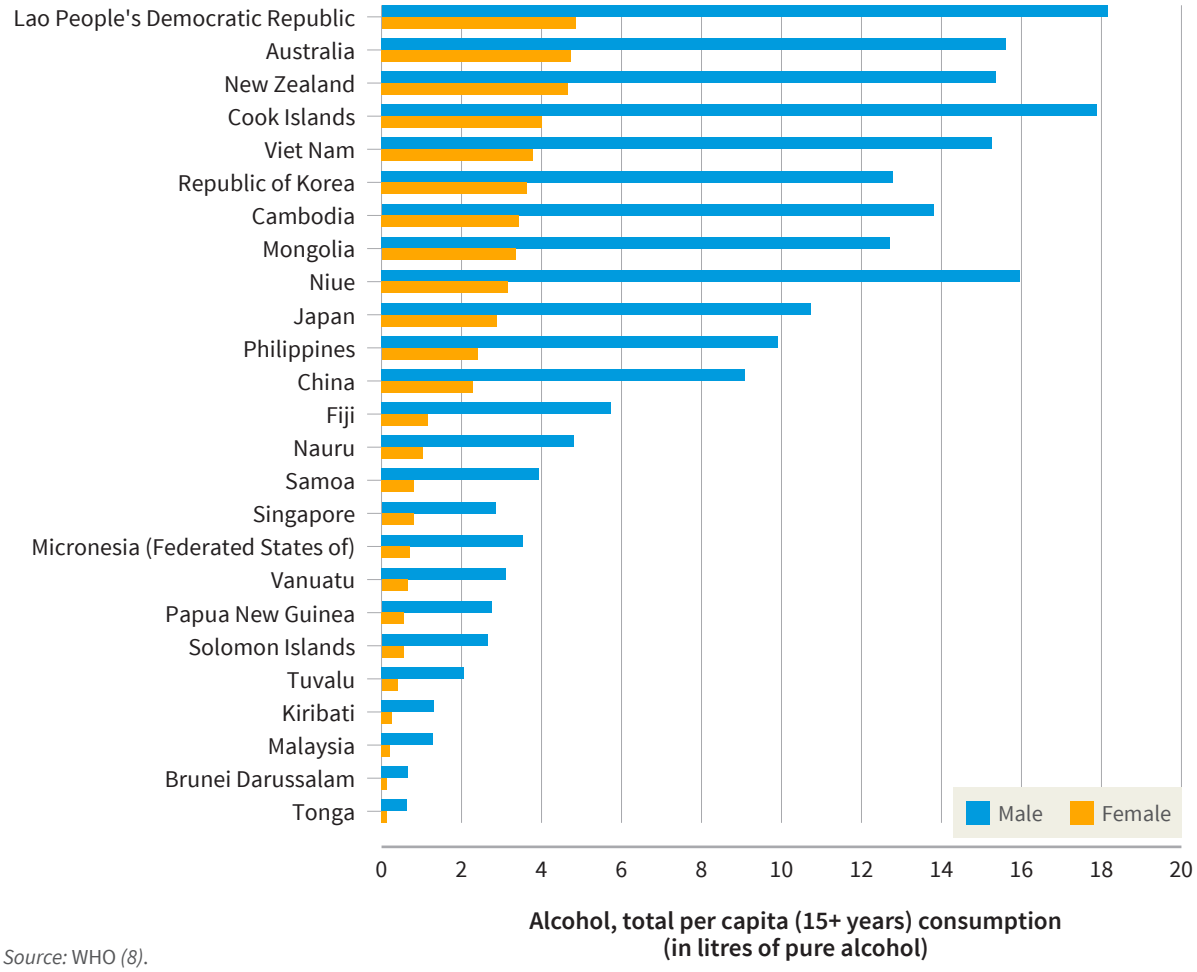
There was significant variation across countries in the Western Pacific Region, with alcohol consumption increasing in 11 countries and decreasing in 14 countries between 2000 and 2019 (Fig. 44). During this period, the reduction in alcohol consumption was more pronounced among males than females. Consistent with the global trend, in 2019, in the Western Pacific Region, alcohol consumption among males (9.6 litres) was nearly four times higher than that of females (2.5 litres). In line with global and regional patterns, males consumed more alcohol than females in every country of the Western Pacific (Fig. 45). The countries with the highest alcohol consumption were Australia, Cook Islands, the Lao People's Democratic Republic, New Zealand and Niue.

**Fig. 44** SDG 3.5.2 Alcohol, total per capita (15+ years) consumption (in litres of pure alcohol), 2000 and 2019




*Source:* WHO *(8)*.

**Fig. 45** SDG 3.5.2 Alcohol, total per capita (15+ years) consumption (in litres of pure alcohol), by sex, 2019




*Source:* WHO *(8)*.

## Tobacco use

SDG target 3.a: Strengthen the implementation of the WHO Framework Convention on Tobacco Control in all countries, as appropriate

- Indicator 3.a.1: Age-standardized prevalence of current tobacco use among persons aged 15 years and older

WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2030* and *WHO Discussion paper on the development of an implementation roadmap 2023–2030 for the WHO Global Action Plan for the Prevention and Control of NCDs 2023–2030 (35, 36)*:

- Target is a 40% relative reduction in the prevalence of current tobacco use by 2030 compared to 2010.

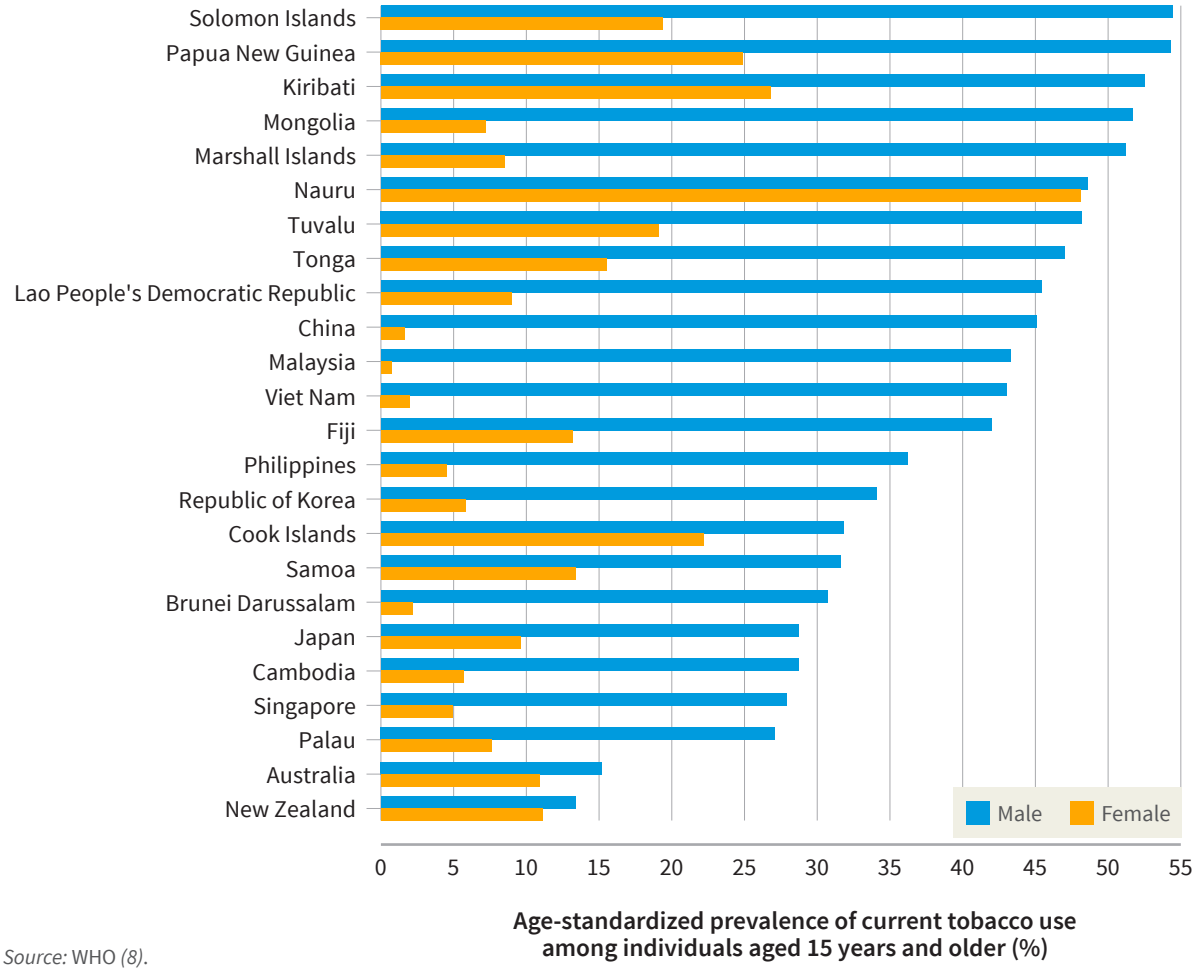
From 2000 to 2022, the global prevalence of tobacco use among individuals aged 15 years and older dropped from 32.7% to 20.9% (38, 39). In the Western Pacific Region, tobacco use has also declined from a prevalence of 28.0% in 2000 to 25.1% in 2010 and 22.5% in 2022 *(38, 39)*. Despite these improvements, the regional prevalence remained above the global average in 2022, indicating slower progress towards the global target compared to other regions.

Major gender inequalities exist in tobacco use; in 2022, the global prevalence among men was 34.4% compared to 7.4% among women *(38, 39)*. In the Region, the prevalence of tobacco use among women was 2.6%, while among men it was 42.4%. Notably, the Region had the highest male-to-female ratio throughout the two decades, rising from 9.8 in 2000 to 16.3 in 2022 *(40)*. This disparity highlights a significant challenge as current trends suggest that the Region may struggle to meet the global target of a 40% reduction in tobacco use since 2010, primarily due to the slow decline in smoking among men, while progress among women would be closer to meeting the target.

Among countries in the Region, the prevalence of tobacco use was higher in middle-income countries, with the highest rates observed in Kiribati, the Marshall Islands, Mongolia, Papua New Guinea and Solomon Islands (Fig. 46). In Australia, Cook Islands, Nauru and New Zealand, the gap in tobacco consumption between men and women was notably narrower compared to the rest of the countries within the Region.

While tobacco use in the Western Pacific Region has shown a steady decline among individuals aged 15 years and older, with 16 countries experiencing decreased prevalence, only six countries – Australia, Cambodia, Japan, Kiribati, New Zealand and the Republic of Korea – are on track to meet the global target of reducing tobacco use in this age group by 40% by 2030. Strengthened tobacco control is needed to accelerate the progress towards the SDG target (Box 4).

**Fig. 46** SDG 3.a.1 Age-standardized prevalence of current tobacco use among adults aged 15 years and older, 2022




*Source:* WHO *(8)*.

## **Box 4.** Tobacco control

The WHO Framework Convention on Tobacco Control and its guidelines provide the foundation for countries to implement and manage tobacco control *(41)*. The MPOWER[1] technical package comprises measures intended to assist in the country-level implementation of effective interventions to reduce the demand for tobacco, contained in the Convention *(41, 42)*.

Progress in tobacco control in the Western Pacific Region continues, but slowly. Six countries (Australia, Cambodia, Kiribati, the Lao People's Democratic Republic, Nauru and Vanuatu) improved their implementation of at least one MPOWER measure *(43)*. Currently, Australia, Brunei Darussalam, Cambodia, the Lao People's Democratic Republic, the Marshall Islands, Nauru, New Zealand, Niue and Papua New Guinea have implemented the best practices of complete smoke-free indoor public places, workplaces and public transport *(43)*.

Strong graphic health warnings are the most widely adopted policy in countries, with 14 countries with at least 50% graphic health warnings covering principal display areas of cigarette packaging *(43)*. Bans on tobacco advertising, promotion and sponsorship is the least adopted among MPOWER measures, with only six countries (Kiribati, the Lao People's Democratic Republic, Mongolia, Niue, Tuvalu and Vanuatu) implementing at the best-practice level *(43)*. Three countries (Australia, New Zealand and Vanuatu) impose tobacco taxes at the best-practice level that comprise at least 75% of retail price *(43)*.

## Raised blood pressure

> WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2030* and *WHO Discussion paper on the development of an implementation roadmap 2023–2030 for the WHO Global Action Plan for the Prevention and Control of NCDs 2023–2030 (35, 36)*:
>
> - The target is a 25% relative reduction in the prevalence of raised blood pressure by 2025 and a 33% reduction by 2030.

Hypertension (high blood pressure) is one of the key metabolic risk factors for NCDs. Hypertension is defined as systolic blood pressure ≥ 140 mmHg, diastolic blood pressure ≥ 90 mmHg or taking medication for hypertension.

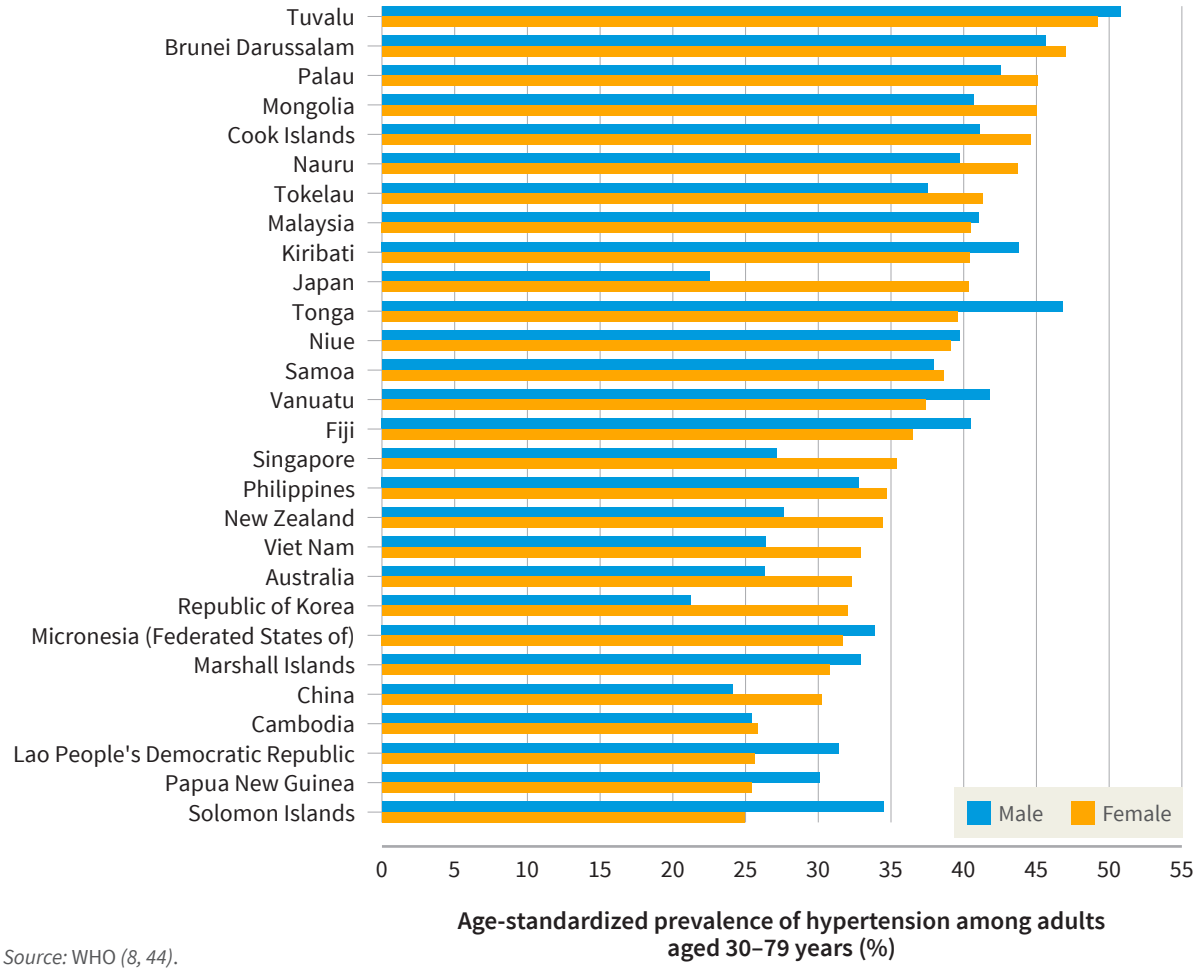
The global prevalence of hypertension among adults aged 30–79 has remained relatively stable over time, with minor fluctuations from 33.4% in 2000 to 34.3% in 2010 and 33.1% in 2019. A similar fluctuation was observed in the Western Pacific Region, as the age-standardized prevalence of

[1] MPOWER includes: **M**onitor tobacco use and prevention policies; **P**rotect people from tobacco smoke; **O**ffer help to quit tobacco use; **W**arn about the dangers of tobacco; **E**nforce bans on tobacco advertising, promotion and sponsorship; and **R**aise taxes on tobacco.

hypertension among adults aged 30–79 years old increased from 27.9% in 2000 to 30.2% in 2010, followed by a slight decrease to 28.3% in 2019. Yet, the overall trend over the entire reporting period was a slight increase in prevalence. Despite this minor increase, the Western Pacific Region had the lowest prevalence of hypertension among the WHO regions and was about 5 percentage points below the global average in 2019. It is unlikely that the global NCD target of a 25% relative reduction in the prevalence of raised blood pressure (uncontrolled hypertension) by 2025 (against a 2010 baseline) will be achieved, both in the Region and globally.

On average, the prevalence of hypertension in 2019 was slightly higher among males than females both at the global and regional levels, but in several countries in the Region, the prevalence was higher among women, particularly in PICs. The five countries with the highest prevalence rates of hypertension in 2019 were, in order, Tuvalu, Brunei Darussalam, Palau, Mongolia and Cook Islands (Fig. 47).

**Fig. 47** Age-standardized prevalence of hypertension among adults aged 30–79 years, 2019




*Source:* WHO *(8, 44)*.

# 2.3 Environmental risk factors

## Access to safe and affordable drinking-water

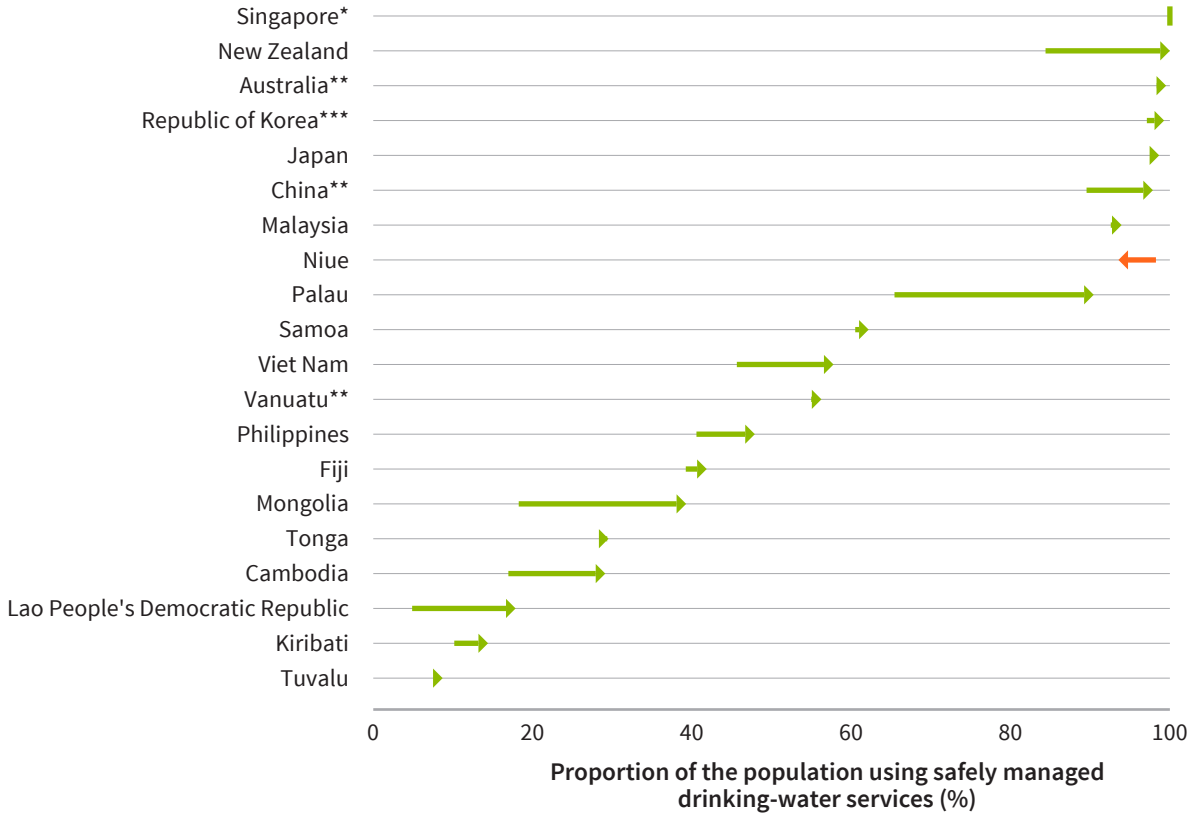
> SDG target 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking-water for all
>
> - Indicator 6.1.1: Proportion of population using safely managed drinking-water services

In 2022, 72.9% of the global population had access to safely managed drinking-water services, with coverage at 81.1% in urban areas and 62.2% in rural areas. The Western Pacific Region reported an urban access rate of 95.0%, but data for rural areas were unavailable.

Data from 20 countries in the Region indicate varying levels of access to safely managed water services, with most countries showing an increase in access over the past two decades, except for Niue, where a decrease was observed (Fig. 48). Singapore achieved 100% access by 2000, and New Zealand followed suit by 2022. The Republic of Korea (99.3%), Japan (98.7%) and Australia (99.5% in urban areas) were nearing the SDG target in 2022. However, countries such as Kiribati, the Lao People's Democratic Republic and Tuvalu face significant challenges, having the lowest proportion of their population with access to safely managed drinking-water services in the Region.

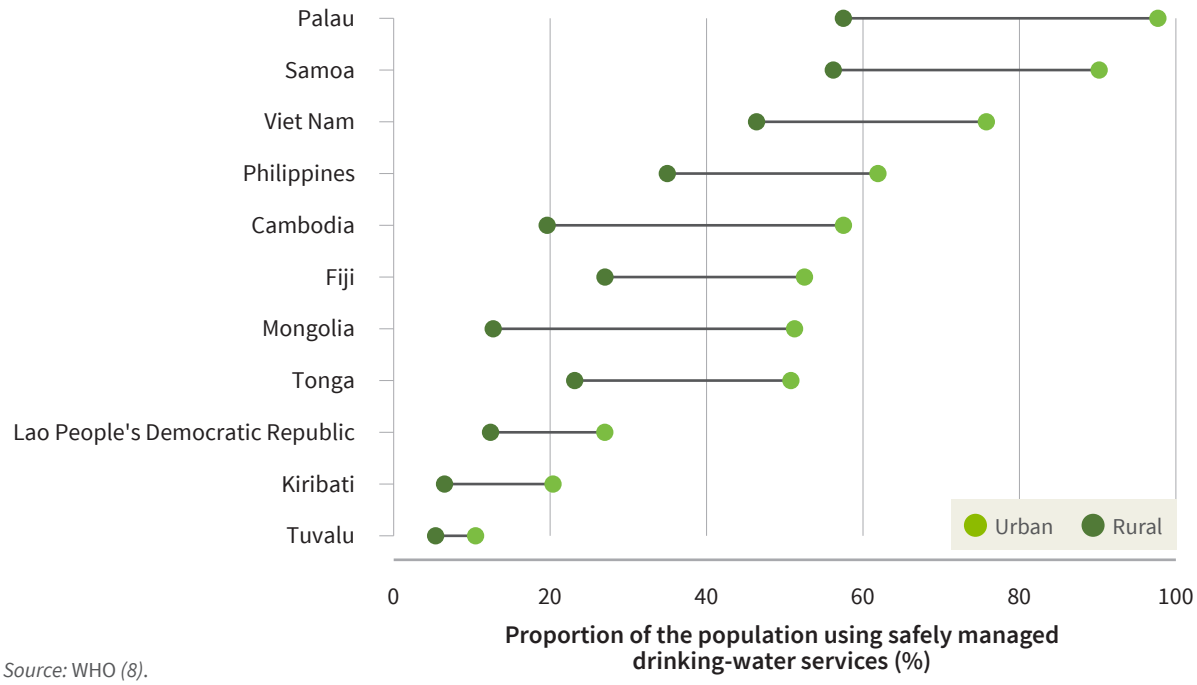
Access to safely managed drinking-water services was higher in urban areas across all Member States, with substantial disparities in countries such as Cambodia, Kiribati, the Lao People's Democratic Republic, Mongolia, Tonga and Tuvalu, where access in urban areas was at least double that in rural areas (Fig. 49).

**Fig. 48** SDG 6.1.1.(a) Proportion of population using safely managed drinking-water services (%), 2000 and 2022




Note: * The value for Singapore refers to urban areas only. ** The values for Australia, China and Vanuatu are the urban estimates, as rural and overall estimates are not available. *** The value for the Republic of Korea is based on 2002 and 2021
*Source:* WHO *(8)*.

**Fig. 49** SDG 6.1.1.(a) Proportion of population using safely managed drinking-water services (%), by place of residence, 2022




*Source:* WHO *(8)*.

## Access to adequate and equitable sanitation and hygiene

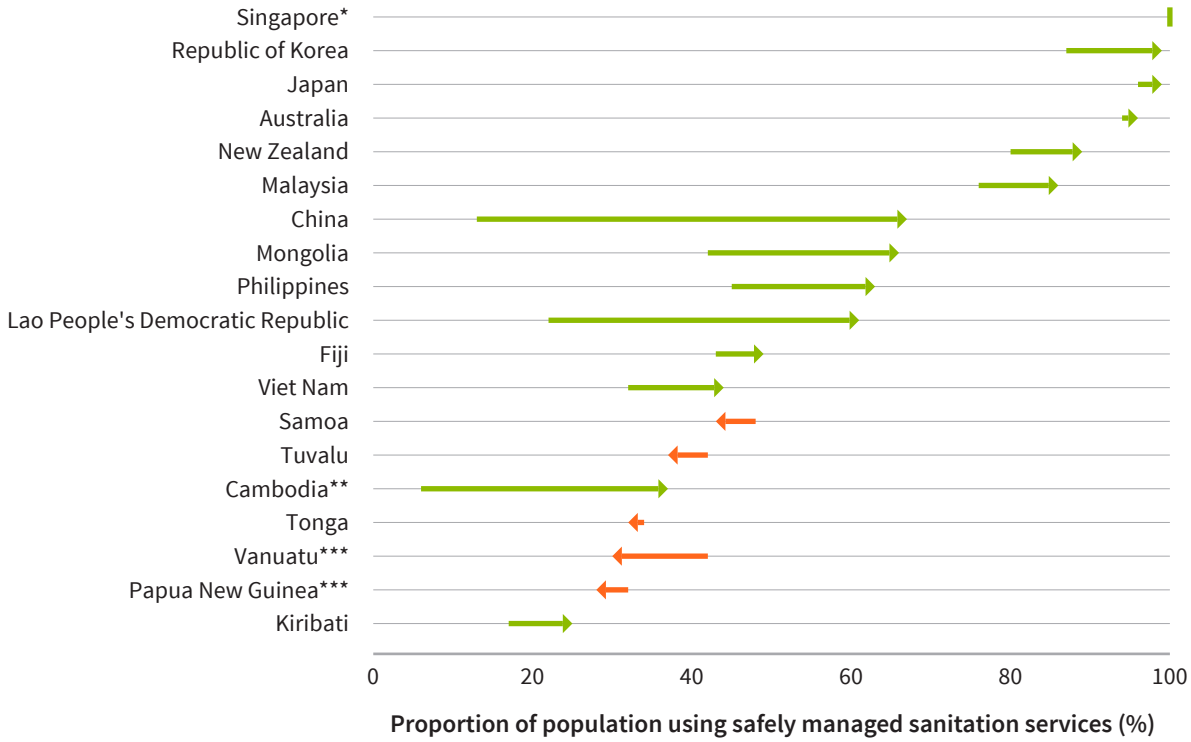
> SDG target 6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
>
> - Indicator 6.2.1: Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water.

Globally, the proportion of the population using safely managed sanitation services stood at 56.6% in 2022, with urban areas at 64.8% and rural areas at 45.9%. In the Western Pacific Region, the total estimate (68.3%) and urban estimate (83.1%) were higher, while the rural estimate (42.3%) was lower than the global estimate.

Data from 19 countries in the Region show varying levels of access to safely managed sanitation services, with improvements observed in most countries over time. Singapore achieved 100% access as early as 2000. The Republic of Korea (99.5%), Japan (99.1%) and Australia (95.8%) were also nearing the SDG target in 2022. Access to sanitation decreased in some countries such as Samoa, Tonga, Tuvalu and Vanuatu (urban population) and Papua New Guinea (urban population). Kiribati showed improvement since 2000 but still lags behind, with only 25% of the population accessing safely managed sanitation services (Fig. 50).

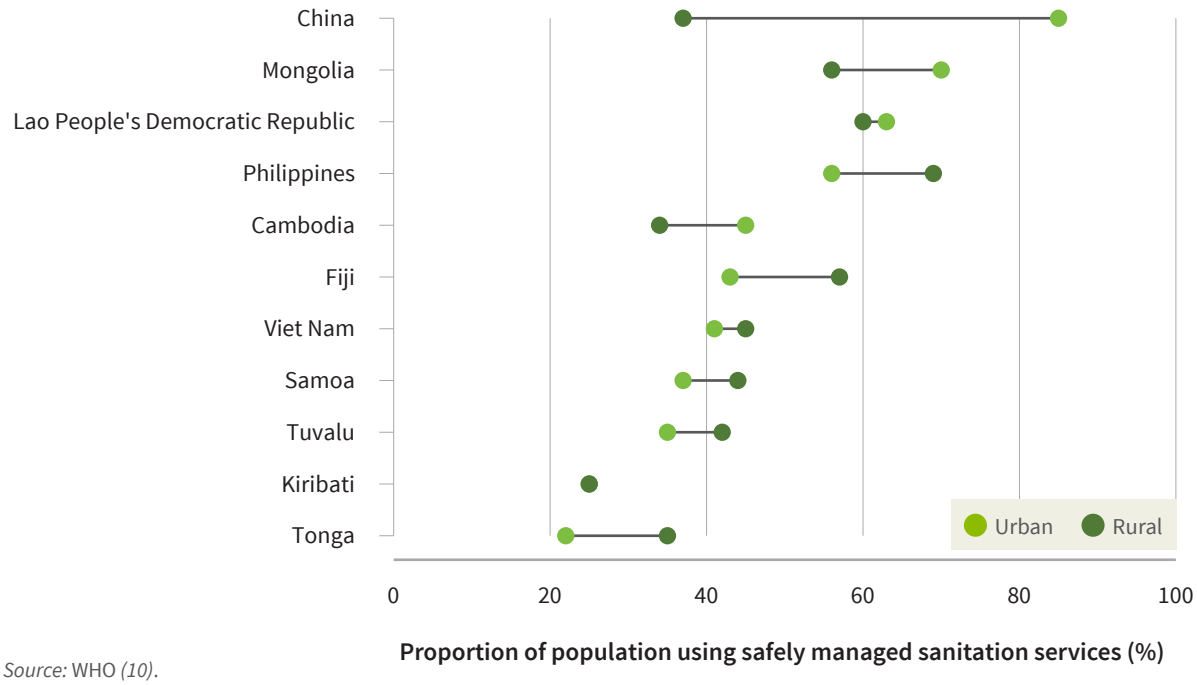
A significant urban–rural disparity exists in China, where urban areas have more than double the proportion of the population using safely managed sanitation services compared to rural areas. Conversely, in five PICs (Fiji, Kiribati, Samoa, Tonga and Tuvalu), as well as in the Philippines and Viet Nam, rural areas have higher access rates than urban areas (Fig. 51).

**Fig. 50** SDG 6.2.1 Proportion of population using safely managed sanitation services (%), 2000 and 2022




Note: * The value for Singapore refers to urban areas only. ** The values for Cambodia are based on years 2001 and 2022. *** The values for Papua New Guinea and Vanuatu are the urban estimates, as rural and overall estimates are not available.
*Source:* WHO *(8)*.

**Fig. 51** SDG 6.2.1 Proportion of population using safely managed sanitation services (%), disaggregated by place of residence, 2022




*Source:* WHO *(10)*.

## **Box 5.** WASH in health-care facilities in the Western Pacific Region

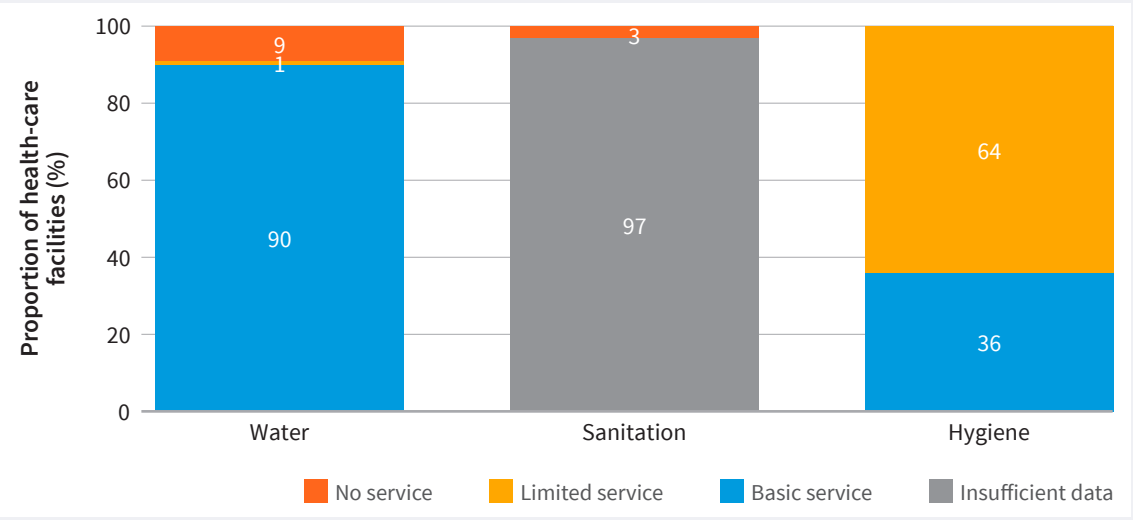
The provision of safe water, sanitation, hygiene, health-care waste management, environmental cleaning and electricity services is fundamental for improving quality care, saving lives (including ending preventable maternal and newborn deaths), reducing costs of health-care-associated infections and the spread of AMR. Such services are also essential for implementing infection prevention and control practices, improving patient safety, and improving the readiness and resilience of facilities and communities to prevent and control infectious disease outbreaks, including cholera.

In 2021, 77.94% of health-care facilities worldwide had basic water services, while 51.09% had basic hygiene services *(45)*. In the Western Pacific Region, 90.41% of health-care facilities had basic water services and 35.6% had basic hygiene services *(45)*. However, data availability was insufficient to generate estimates for basic sanitation, health-care waste management and environmental cleaning at the global and regional levels.

In the Western Pacific Region, 11 Member States had adequate data to estimate national coverage of basic water services in health-care facilities *(45)*. Coverage varied widely across the Region, ranging from over 90% in countries such as China, Cook Islands and Tonga to 39% in the Federated States of Micronesia *(45)*. Additionally, six countries had enough data to estimate national coverage of basic sanitation and basic hygiene services, while 10 countries had sufficient data for basic health-care waste management services *(45)*. Only three countries had sufficient data to estimate national coverage of basic environmental cleaning services in health-care facilities (Fig. 52).

Despite improvements in data coverage, significant gaps persist across the Region, hindering comprehensive reporting on essential WASH services and health-care waste management in health-care facilities. Data fragmentation remains a prevalent issue, particularly in countries lacking adequate data. Disparities in service availability and progress are notable across various settings, including urban versus rural areas, hospitals versus non-hospital facilities, and government versus non-government health-care facilities. Across all WASH services, hospitals are more likely to meet the criteria for basic services, and at higher levels of service, than at lower levels.

**Fig. 52** WASH in health-care facilities (%) at national level, 2021




*Source:* WHO *(45)*.

## Air pollution

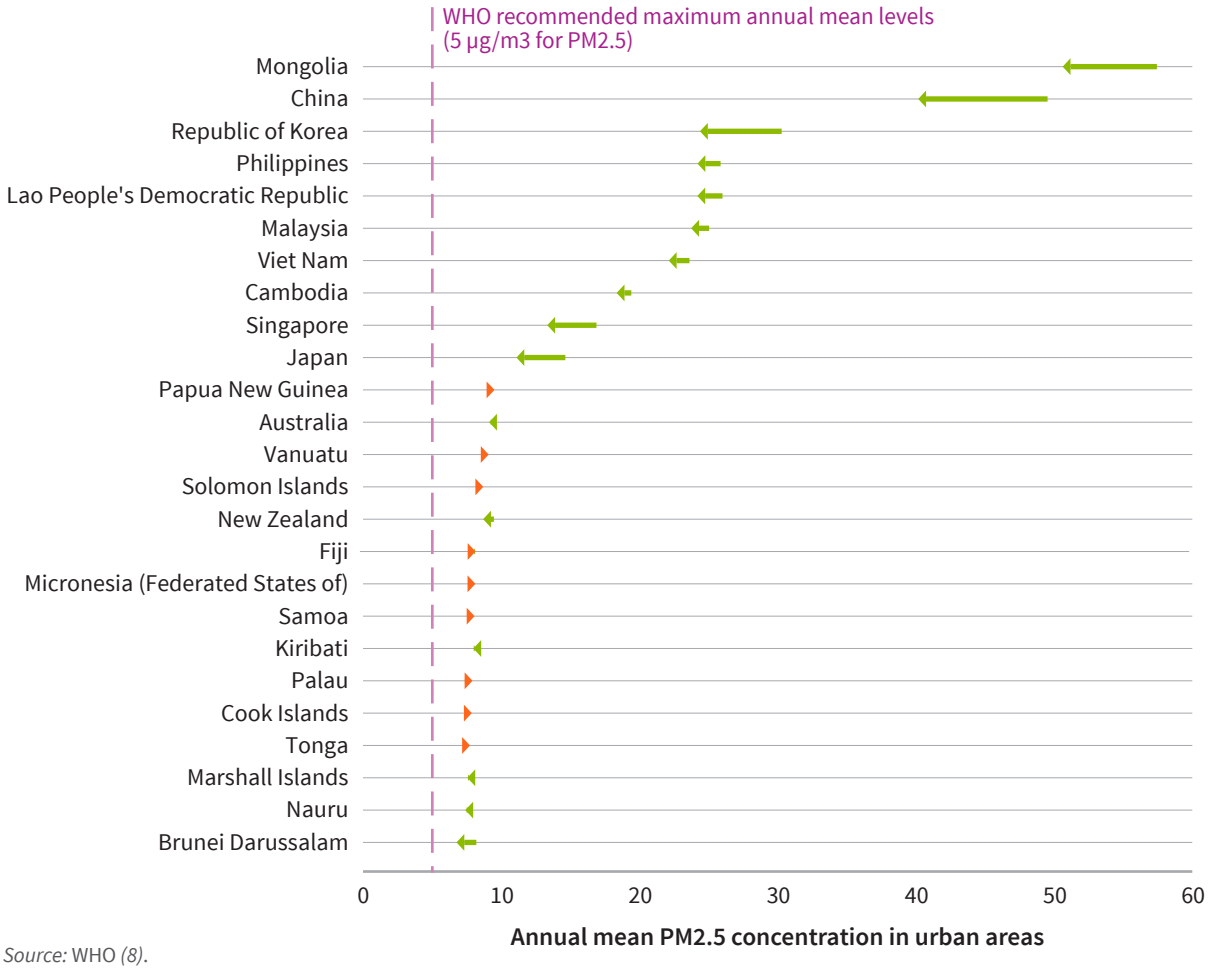
> SDG target 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
>
> - Indicator 11.6.2: Annual mean levels of fine particulate matter (for example, PM2.5 and PM10) in cities (population weighted).
>
> *WHO global air quality guidelines (46)*:
>
> - PM2.5 level below 5 µg/m³, with an interim target to reach levels below 35 µg/m³.

WHO-recommended air quality guidelines for protecting public health state that levels of PM2.5 should not be above 5 µg/m³. Nearly the entire world's population (99%) is exposed to unhealthy levels of fine particulate matter *(9, 40)*. In this context, WHO has set an interim target to reach levels below 35 µg/m³ *(46)*.

The global average population-weighted exposure to concentrations of fine particulate matter (PM2.5) in urban areas has decreased over time from 37.2 µg/m³ in 2010 to 31.7 µg/m³ in 2019. In the Western Pacific Region, the entire population in urban areas breathes unhealthy levels of fine particulate matter that are above the recommended air quality levels of 5 µg/m³. The Western Pacific was the WHO region that saw the largest reduction in the mean level of fine particulate matter (PM2.5) in urban areas *(9)*, which decreased from 42.9 µg/m³ in 2010 to 35.1 µg/m³ in 2019, having almost reached the WHO interim target but still far from the air quality guideline of reaching levels below 5 µg/m³.

At the country level, between 2010 and 2019, air quality, as measured by PM2.5 mean concentrations, improved in the countries with the most polluted urban areas. The largest reductions were observed in urban areas of China, Mongolia and the Republic of Korea, the top three countries with the most polluted urban areas (Fig. 53). Yet, between 2010 and 2019, some countries experienced minor increases in the mean level of PM2.5 in urban areas, all of them PICs.

**Fig. 53** SDG 11.6.2 Annual mean levels of PM2.5 in urban areas (population-weighted), 2010 and 2019




*Source:* WHO *(8)*.

# 2.4 Nutritional risk factors

SDG target 2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

- Indicator 2.2.1: Prevalence of stunting (height for age < −2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age
- Indicator 2.2.2: Prevalence of malnutrition (weight for height > +2 or < −2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)
- Indicator 2.2.3: Prevalence of anaemia in women aged 15 to 49 years, by pregnancy status (percentage).

WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2030 (35, 36)*:

- The target is to halt the rise in obesity by 2025.

Global Nutrition Targets 2025 *(47)* and the extension of the 2025 Maternal, Infant and Young Child Nutrition Targets to 2030 *(48)*:

- achieve a 50% reduction in the number of children under 5 who are stunted
- achieve a 50% reduction of anaemia in women of reproductive age
- reduce and maintain childhood overweight to less than 3%
- reduce and maintain childhood wasting to less than 3%.

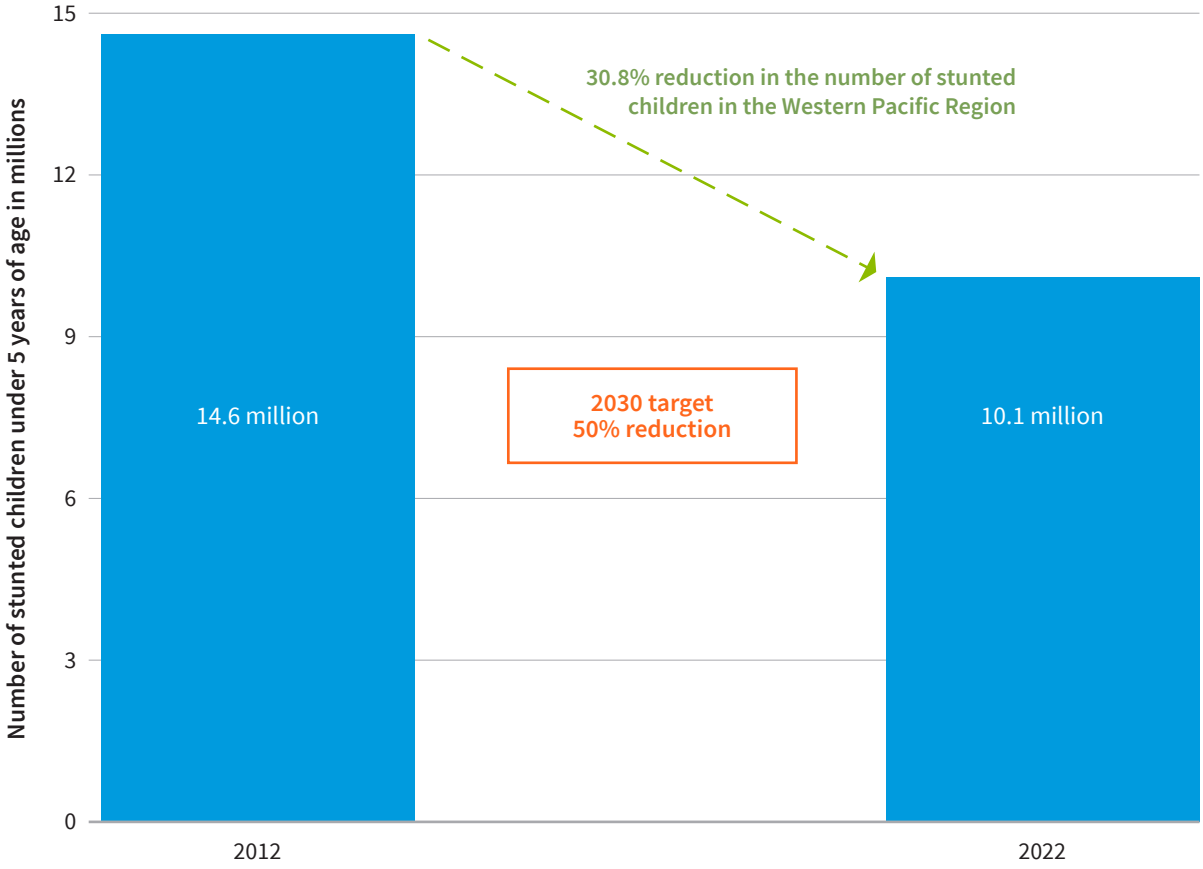
Almost all countries in the Western Pacific Region are facing a double burden of malnutrition, characterized by the coexistence of undernutrition (stunting, wasting and micronutrient deficiencies) along with overweight, obesity or diet-related NCDs among individuals, populations, and across the life course. The dynamics of economic growth, income inequalities, urbanization and globalization have collectively led to a significant transformation in the quality and quantity of human diets and nutrition-related epidemiology over the past few decades.

## Stunting

Childhood stunting[2] is indicative of chronic undernutrition and is a crucial measure of child growth. Globally, the number of stunted children under 5 years decreased from 177.9 million (prevalence 26.3%) in 2012 to 148.1 million (22.3%) in 2022. In the Western Pacific Region, an estimated 10.1 million stunted children under 5 years in 2022 marked a significant drop from 14.6 million in 2012, showcasing a 30.8% reduction in stunted children and substantial progress towards the global target (Fig. 54). Similarly, the estimated regional prevalence decreased from 11.8% in 2012 to 10.0% in 2022.

Eight countries, namely Cambodia, the Lao People's Democratic Republic, Malaysia, the Marshall Islands, Papua New Guinea, the Philippines, Solomon Islands and Vanuatu, continue to record high stunting rates, with prevalence surpassing 20% (Fig. 55). Notably, Cambodia and the Lao People's Democratic Republic had the largest reductions, while Malaysia, Papua New Guinea and Vanuatu experienced increases during this period.

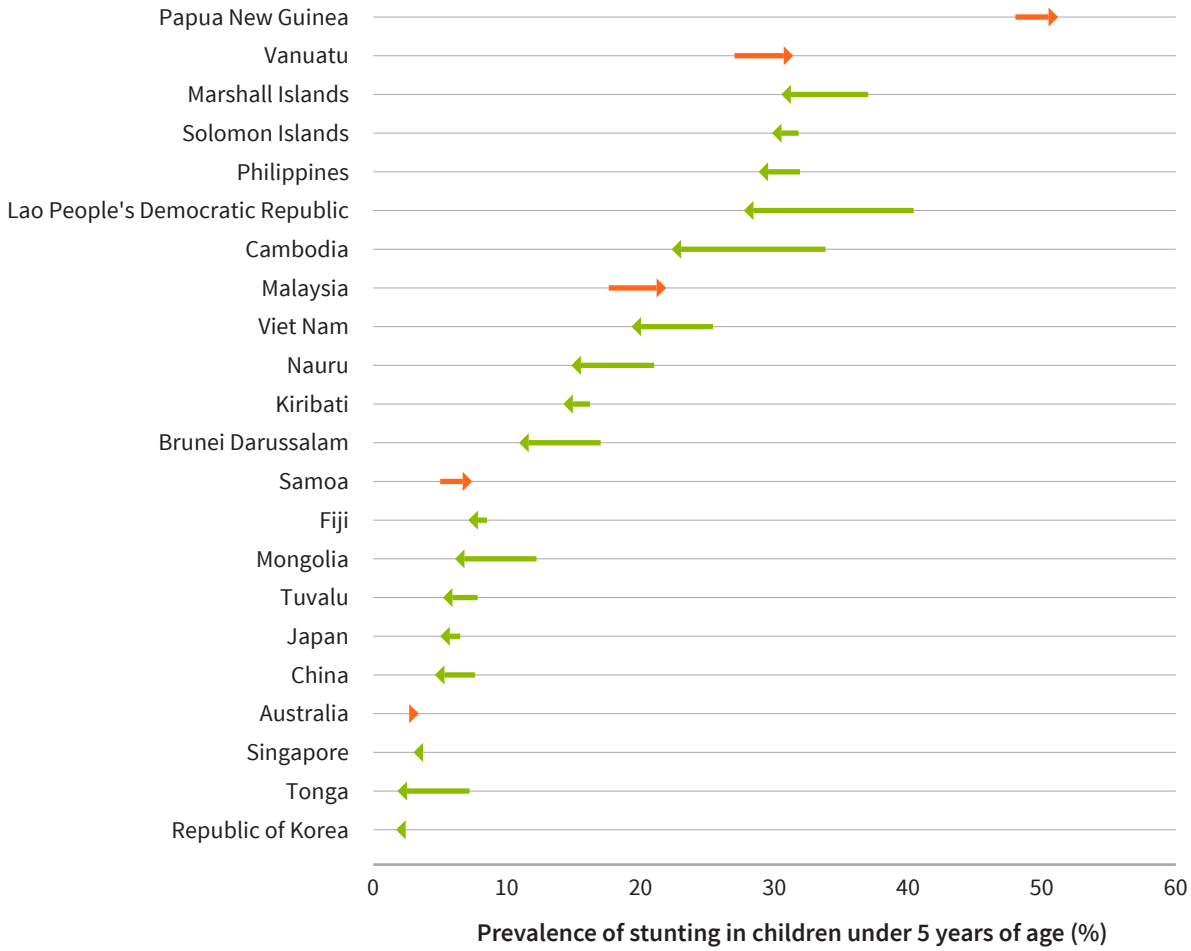
**Fig. 54** Number of stunted children under 5 years of age (in millions) in the Western Pacific Region, 2012 and 2022




Note: Model-based estimates.
*Source:* WHO/UNICEF/World Bank *(8, 49)*.

[2] Stunting is defined as below −2 standard deviations of the WHO Child Growth Standards median for height-for-age.

**Fig. 55** SDG 2.2.1 Prevalence of stunting in children under 5 years of age (%), 2012 and 2022




Note: Model-based estimates.
*Source:* WHO/UNICEF/World Bank *(8, 49)*.

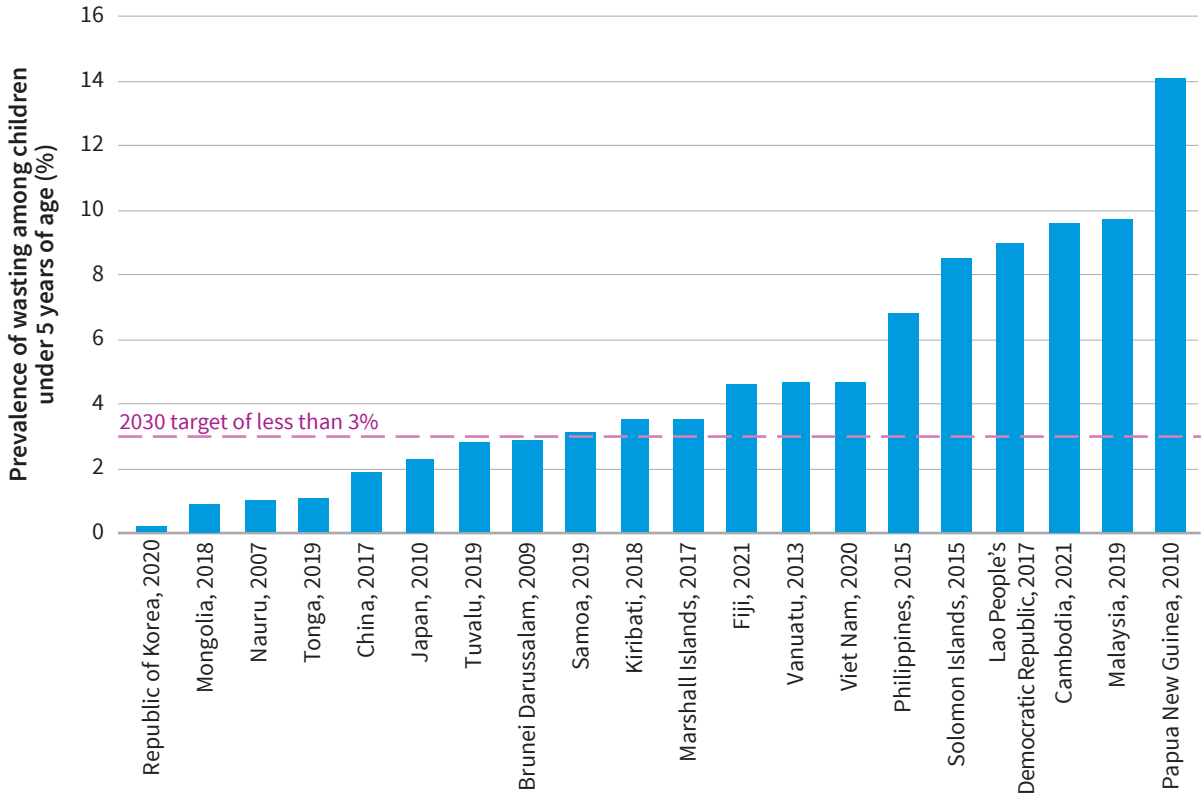
## Wasting

Wasting is an alarming sign of acute malnutrition in children aged under 5 years, manifesting as either moderate or severe wasting[3,4] based on the weight-for-height growth chart. This usually results from a recent and severe weight loss or failure to gain weight due to reduced dietary intake and/or underlying medical conditions such as diarrhoea. If left untreated, this impacts long-term development, causing developmental delays, weakens immunity, imposes higher morbidity risks on children and exposes them to life-threatening conditions.

In 2022, the global prevalence of wasting in children was estimated at 6.8%, highlighting an ongoing public health concern. Within the Western Pacific Region, the prevalence of wasting in children under 5 years was reported at 1.9%. Of the 45 million children affected worldwide, approximately 2 million resided in this Region.

Despite varying prevalence rates across countries within the Western Pacific Region, all countries with available data reported instances of child wasting. However, data availability is very inconsistent across countries, and for some, data are outdated. Notably, 12 countries reported wasting prevalence rates exceeding 3%. Very high prevalence rates were observed in Papua New Guinea (14.1%), Malaysia (9.7%), Cambodia (9.6%), the Lao People's Democratic Republic (9.0%), Solomon Islands (8.5%) and the Philippines (6.8%), underscoring the need for targeted interventions (Fig. 56).

**Fig. 56** SDG 2.2.2 Prevalence of wasting among children under 5 years of age (%), latest year




Note: Country survey results.
*Source:* WHO/UNICEF/World Bank *(8, 49)*.

[3] Moderate wasting is defined as below −2 standard deviations of the WHO Child Growth Standards median for weight-for-height, while severe wasting is below −3 standard deviations.

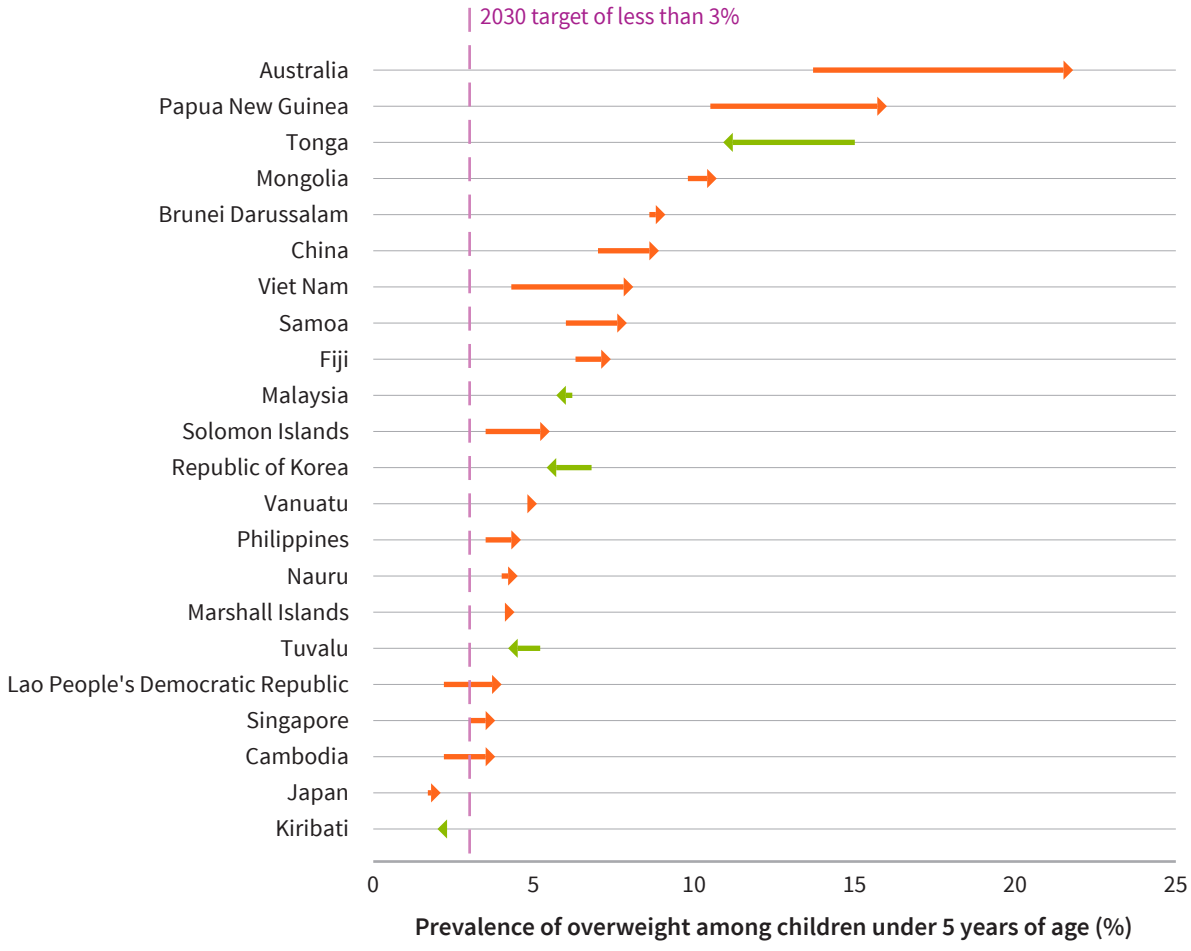
[4] Wasting is a short-term condition that is difficult to capture. National survey data are used to monitor this indicator; however, cross-sectional survey data only reflect the cases of wasting at a given time. Limited data availability precludes trend analysis for this indicator.

## Overweight and obesity

Childhood overweight[5] is one of the most serious global public health challenges of the 21st century, affecting almost every country in the Western Pacific Region. The epidemic has been growing most rapidly in low- and middle-income countries, particularly in PICs. While the estimated global prevalence of overweight for children under 5 years of age remained fairly stable between 2012 (5.5%) and 2022 (5.6%), the Western Pacific Region experienced the fastest growth, from 6.3% to 8.1% over the same decade. In 2022, an estimated 8.2 million children under 5 years of age were overweight in the Western Pacific Region, an increase from 7.7 million in 2012.

Between 2012 and 2022, the prevalence of overweight among children under 5 years of age increased in most countries in the Western Pacific Region (Fig. 57). Five countries experienced decreasing trends in overweight prevalence, with Tonga experiencing the highest reduction, but the prevalence remains high. Australia led the highest increase in the prevalence of childhood overweight, followed by Papua New Guinea and Viet Nam. All but two countries had prevalence rates above the global target of less than 3% prevalence of overweight among children under 5 years of age.

**Fig. 57** SDG 2.2.2 Prevalence of overweight among children under 5 years of age (%), 2012 and 2022

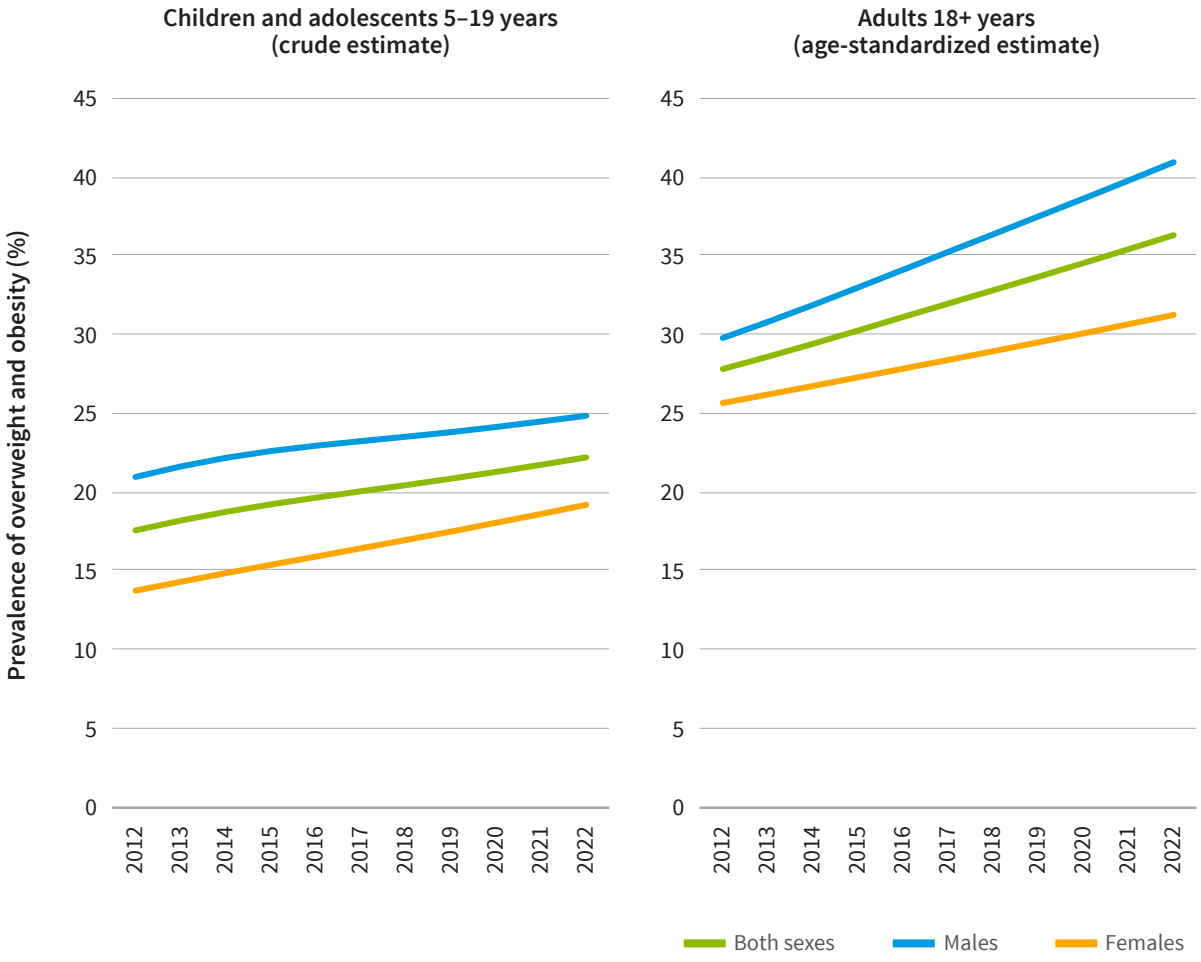



Note: Model-based estimates.
*Source:* WHO *(8, 49)*.

[5] Overweight in children under 5 years of age is defined as above +2 standard deviations of the WHO Child Growth Standards median for weight-for-height·

Regional upward trends of overweight and obesity were also prevalent in other age groups (Fig. 58). Childhood and adolescent overweight and obesity rates have increased substantially across most Member States, posing a major public health challenge in the 21st century. It was estimated that nearly one out of four children and adolescents (22.2%) and more than one out of three adults (36.3%) in the Region were overweight or obese in 2022. Notably, sex-based inequalities were evident. Among children and adolescents aged 5–19 years, the prevalence of overweight and obesity is higher in males compared to females. Similarly, among adults aged 18 years and older, males also exhibit higher prevalence rates than females. These disparities highlight the need for targeted interventions that address the unique needs of different demographic groups to effectively combat the growing obesity epidemic.

**Fig. 58** Prevalence of overweight and obesity among children, adolescents, and adults in the Western Pacific Region (%), 2012–2022




Note: Model-based estimates.
*Source:* WHO *(8, 49)*.

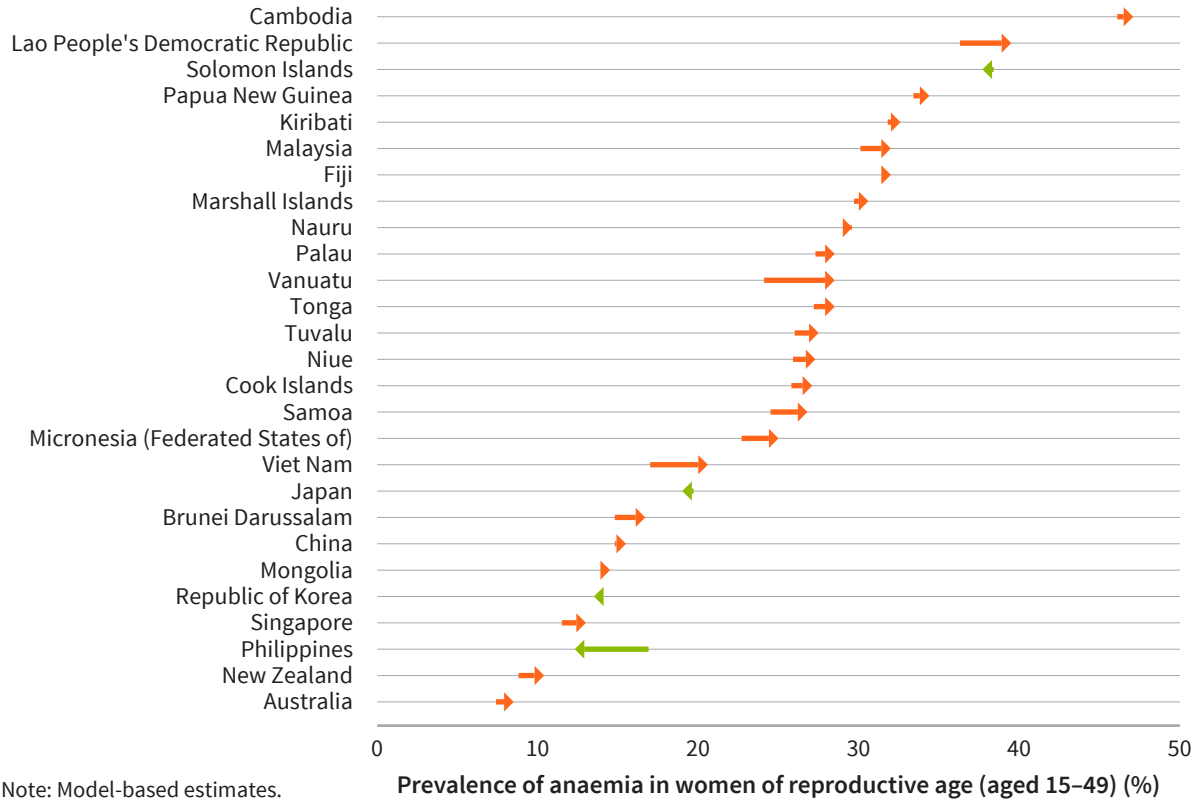
## Anaemia in women of reproductive age

Progress in reducing the prevalence of anaemia among women of reproductive age has been stagnant over the last decade. Globally, 570.8 million women of reproductive age (15–49 years old) were estimated to have anaemia in 2019, with roughly 76.7 million living in the Western Pacific Region. The global prevalence of anaemia increased from 28.5% in 2012 to 29.9% in 2019. A similar pattern was observed in the Western Pacific Region, where the prevalence of anaemia among women of reproductive age was estimated to have risen from 15.8% in 2012 to 16.4% in 2019.

Almost all countries worldwide were not on track to reach the global nutrition target of reducing by 50% anaemia in women of reproductive age. At the country level in the Western Pacific Region, progress on anaemia in women aged 15–49 years is also insufficient to meet the global nutrition target, with almost all countries experiencing worsening prevalence (Fig. 58). Three countries saw reductions in the prevalence of anaemia, but most were negligible, except the Philippines, which recorded some progress. In 2019, Cambodia (47.1%) had the highest prevalence of anaemia among women of reproductive age, followed by several countries that recorded over 30% prevalence, including Fiji, Kiribati, the Lao People's Democratic Republic, Malaysia, the Marshall Islands, Papua New Guinea and Solomon Islands.

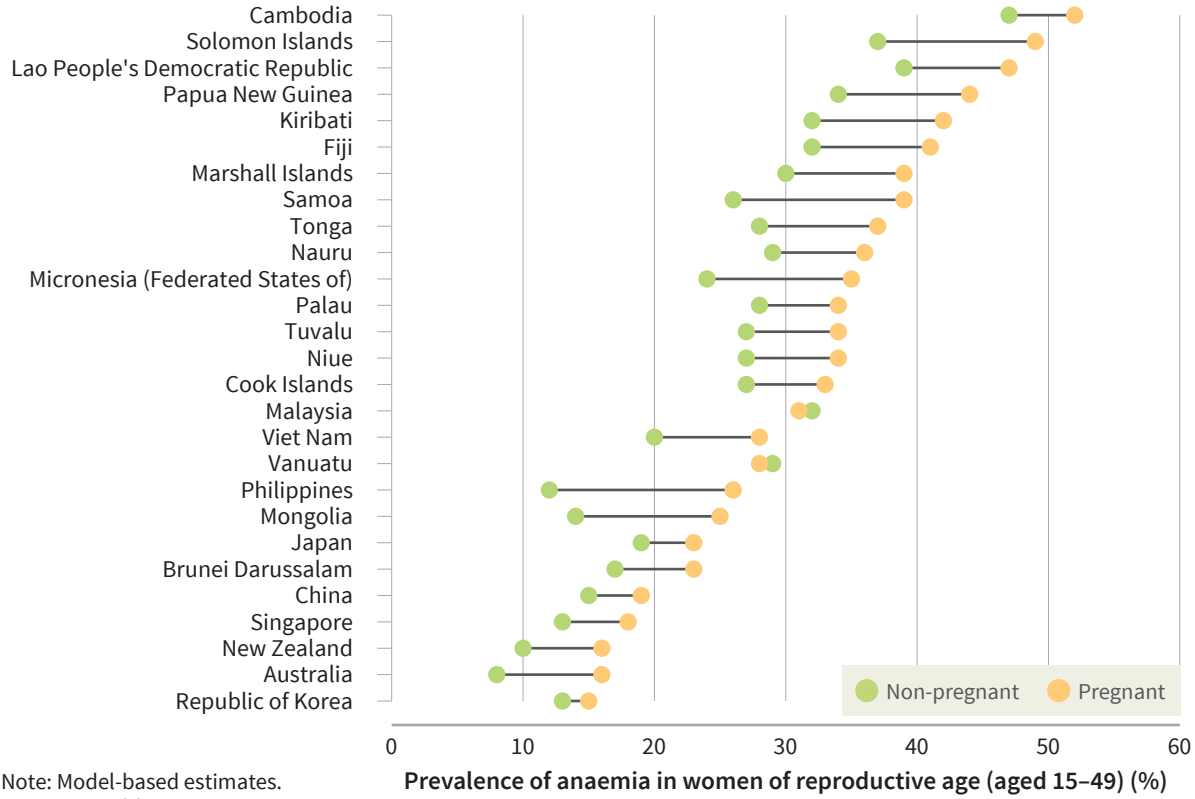
Almost all countries in the Western Pacific Region recorded a higher prevalence of anaemia in pregnant women compared with non-pregnant women (Fig. 60). Most countries in the Region experienced high levels of prevalence of mild and moderate anaemia in 2019. The prevalence of severe anaemia was generally low, suggesting some progress in spite of the total prevalence of anaemia remaining high in almost all countries (Fig. 61). Renewed efforts are needed to better understand the causes of anaemia in each country's context, with particular attention given to the severity of anaemia, and to ensure the quality implementation of effective multisectoral strategies to address those causes.

**Fig. 59** SDG 2.2.3 Prevalence of anaemia in women of reproductive age (aged 15–49) (%), 2012 and 2019



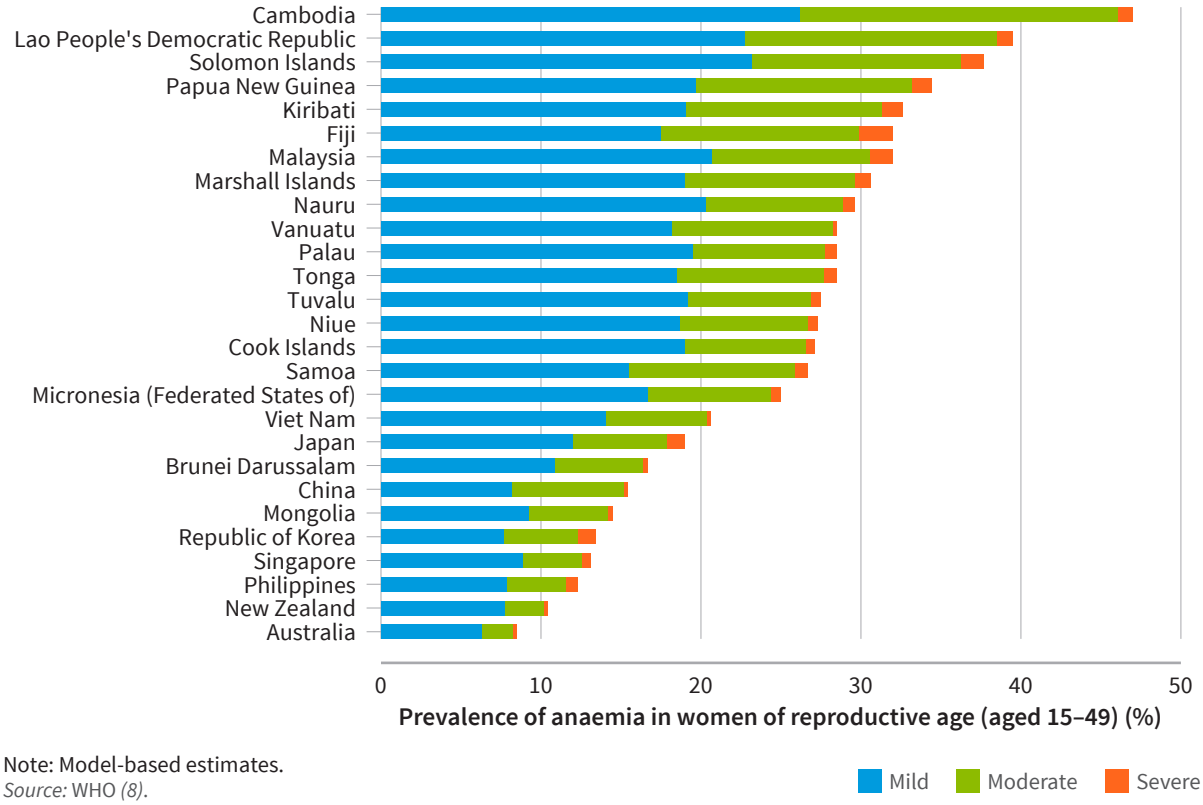

Note: Model-based estimates.
*Source:* WHO *(8)*.

**Fig. 60** SDG 2.2.3 Prevalence of anaemia in women of reproductive age (aged 15–49) (%) by pregnancy status, 2019




Note: Model-based estimates.
*Source:* WHO *(8)*.

**Fig. 61** SDG 2.2.3 Prevalence of anaemia in women of reproductive age (aged 15–49) (%) by anaemia severity status, 2019




Note: Model-based estimates.
*Source:* WHO *(8)*.

# 2.5 Violence against women and children

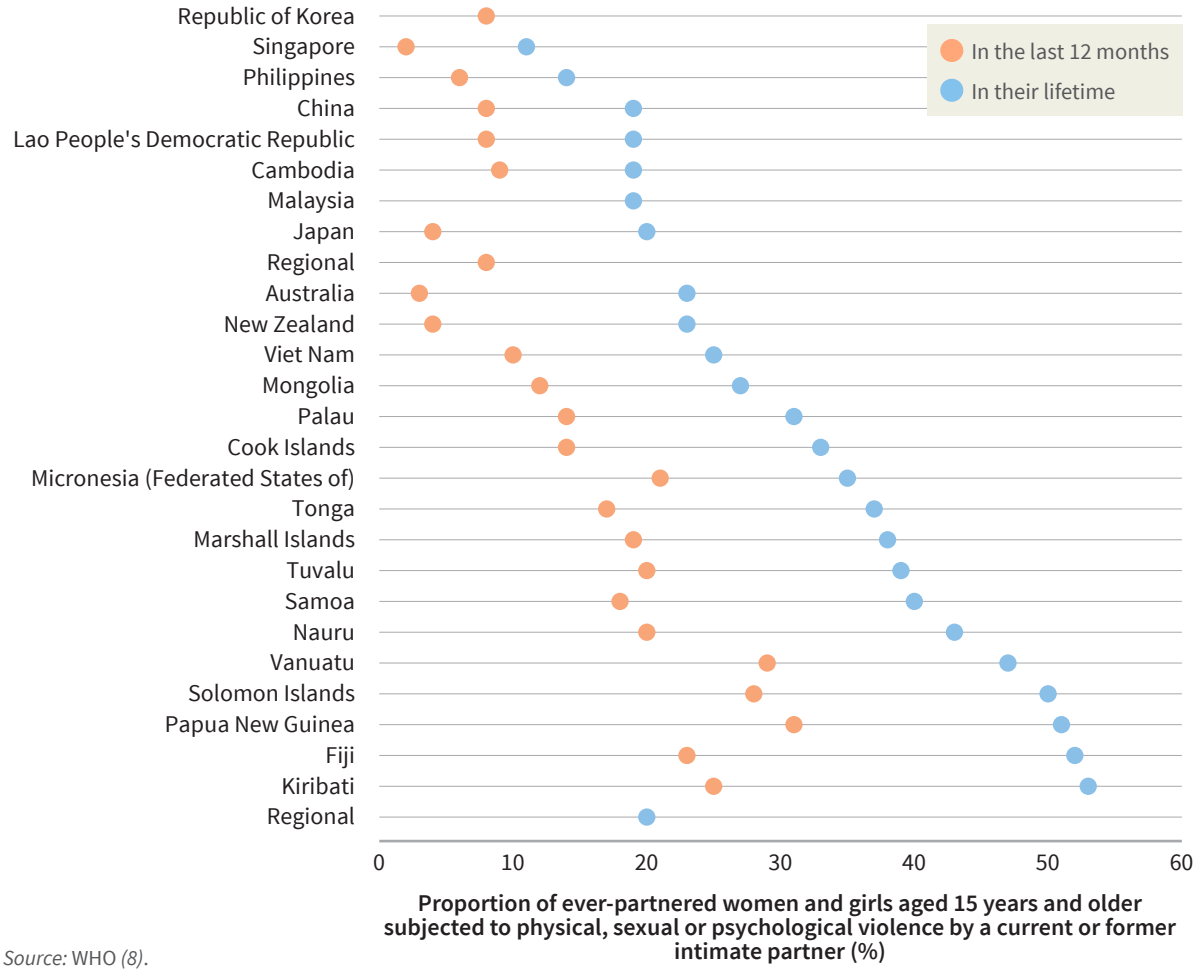
## Violence against women

> SDG target 5.2: Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation
>
> - Indicator 5.2.1: Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age
> - Indicator 5.2.2: Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence.

Based on WHO's most recent prevalence estimates in 2018, 13% of ever-married or partnered women and girls globally and 8% in the Western Pacific Region had experienced physical, sexual or psychological violence by a current or former intimate partner in the past 12 months. Of concern, more than one out of four of these women and girls had endured such violence in their lifetime. Specifically, 27% of ever-married or partnered women and girls worldwide had at some point been subjected to physical and/or sexual violence by an intimate partner, with the Western Pacific Region still reporting a troubling 20%. However, the disparities within the Region are stark: in some Pacific countries, the lifetime prevalence of intimate partner violence among ever-married or partnered women and girls soars to nearly double the global average, ranging from 40% to 53% (Fig. 62).

Although data on the prevalence of violence against women continue to be limited, reports have indicated a dramatic surge in domestic violence cases globally since the COVID-19 outbreak. This increase is attributed to lockdowns during the pandemic and its consequences, including the social and economic impacts *(51)*. According to various sources, an increase from 25% to 300% of domestic violence calls were reported to police stations and/or local women's organizations in certain countries across the Western Pacific Region within the initial months after the curfews and lockdowns were implemented, compared to the number of calls within the same time in the previous year *(51–53)*.

**Fig. 62** SDG 5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in their lifetime and in the previous 12 months (%), 2018




*Source:* WHO *(8)*.

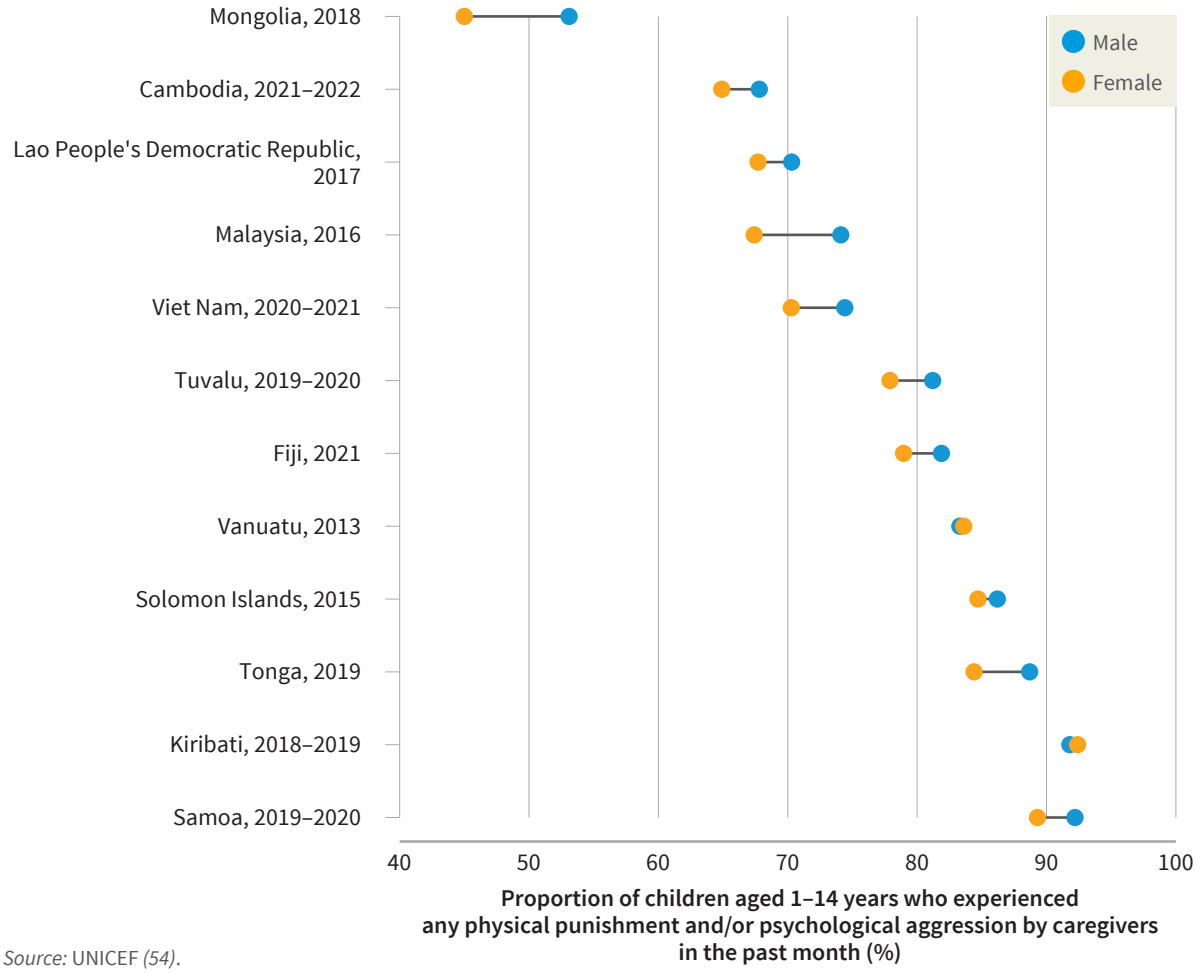
## Violence against children

SDG target 16.2: End abuse, exploitation, trafficking and all forms of violence against and torture of children

- Indicator 16.2.1: Proportion of children aged 1–17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month

Twelve countries in the Region had data on the proportion of children aged 1–14 who experienced physical punishment and/or psychological aggression by caregivers in the past month. In these countries, between 49% and 92% of children experienced physical punishment and/or psychological aggression (Fig. 63). Additionally, the percentage of boys who experienced any physical punishment and/or psychological aggression by caregivers in the past month was slightly higher than the percentage of girls.

**Fig. 63** SDG 16.2.1 Proportion of children aged 1–14 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month (%) (proxy)




*Source:* UNICEF *(54)*.

3

# PROVIDE HEALTH – Benefit from universal health coverage without financial hardship

This chapter covers indicators on access to essential services, which includes the universal health coverage (UHC) service coverage index and thematic indicators on: 1) reproductive, maternal, newborn and child health (RMNCH); 2) infectious diseases; 3) noncommunicable diseases (NCDs); and 4) service capacity and access. Furthermore, it provides an overview of health expenditures in the Region, including financial protection in access to health and the joint progress towards UHC between access to essential services and financial protection.

## Chapter highlights

- The Western Pacific Region shows mixed progress towards UHC, with positive gains in essential service coverage but increased catastrophic health spending, with varying progress across Member States.
- Over the past 20 years, the regional UHC service coverage index has substantially improved, increasing from 49 points in 2000 to 79 points in 2021. However, progress has slowed and stagnated since the inception of the SDG era, particularly since 2019.
- The UHC service coverage index varied considerably across countries in the Region, with values in 2021 ranging from 30 points to 89 points in the lowest- and highest-scoring countries.
- The regional UHC service coverage sub-index on NCDs showed marginal improvement from 52 points in 2000 to 58 points in 2010, with no progress between 2010 and 2021. Of concern, despite the growing burden of NCDs, service coverage remained low, especially in PICs.
- Between 2000 and 2019, coverage of treatment for hypertension increased in most countries in the Western Pacific Region, yet some countries made larger progress while others had very small or negligible increases.
- The regional UHC service coverage sub-index on infectious diseases displayed remarkable growth, surging from 18 points in 2000 to 82 points in 2021.
- The regional UHC service coverage sub-index on RMNCH steadily increased from 76 points in 2000 to 89 points in 2021.
- Between 2000 and 2023, immunization coverage for DTP3 (three doses of the combined diphtheria, tetanus toxoid and pertussis–containing vaccine) showed mixed trends: While it increased in 15 Member States, a decrease was observed in eight Member States and four experienced no change in their coverage levels.
- The regional UHC service coverage sub-index on service capacity and access remained consistently high throughout the entire period, increasing marginally from 90 in 2000 to 93 in 2021.
- While health worker density has been on the rise in most countries since 2000, with increasing numbers of medical doctors and nurses and midwives, the Region exhibited a diverse distribution of health workforce density across countries, posing challenges in some countries in health-care delivery and accessibility.
- The average current health expenditures per capita tripled in the Western Pacific Region from US$ 382.7 in 2000 to US$ 1336.0 in 2021, corresponding to a share of gross domestic product (GDP) of 6.6% in 2000 and 8.2% in 2021.
- The proportion of the population in the Region incurring catastrophic health spending has increased over time. From 2000 to 2019, households spending over 10% of their budget on out-of-pocket (OOP) health costs rose from 9.9% to 19.8%, while those spending over 25% increased from 2.2% to 5.3%.

# 3.1 Access to essential services

SDG target 3.8: Achieve universal health coverage, 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

- Indicator 3.8.1: Coverage of essential health services.

The UHC service coverage index is calculated as the geometric mean of 14 tracer indicators under four sub-indices that include: 1) NCDs; 2) infectious diseases; 3) RMNCH; and 4) service capacity and access *(55–57)*. The index and sub-indices are reported on a scale from 0 to 100, which is computed as the geometric mean of, respectively, the four sub-indices and the tracer indicators within each sub-index. The higher the essential service coverage, the better the coverage. The UHC service coverage index is population-weighted and, therefore, partly driven by populous countries.

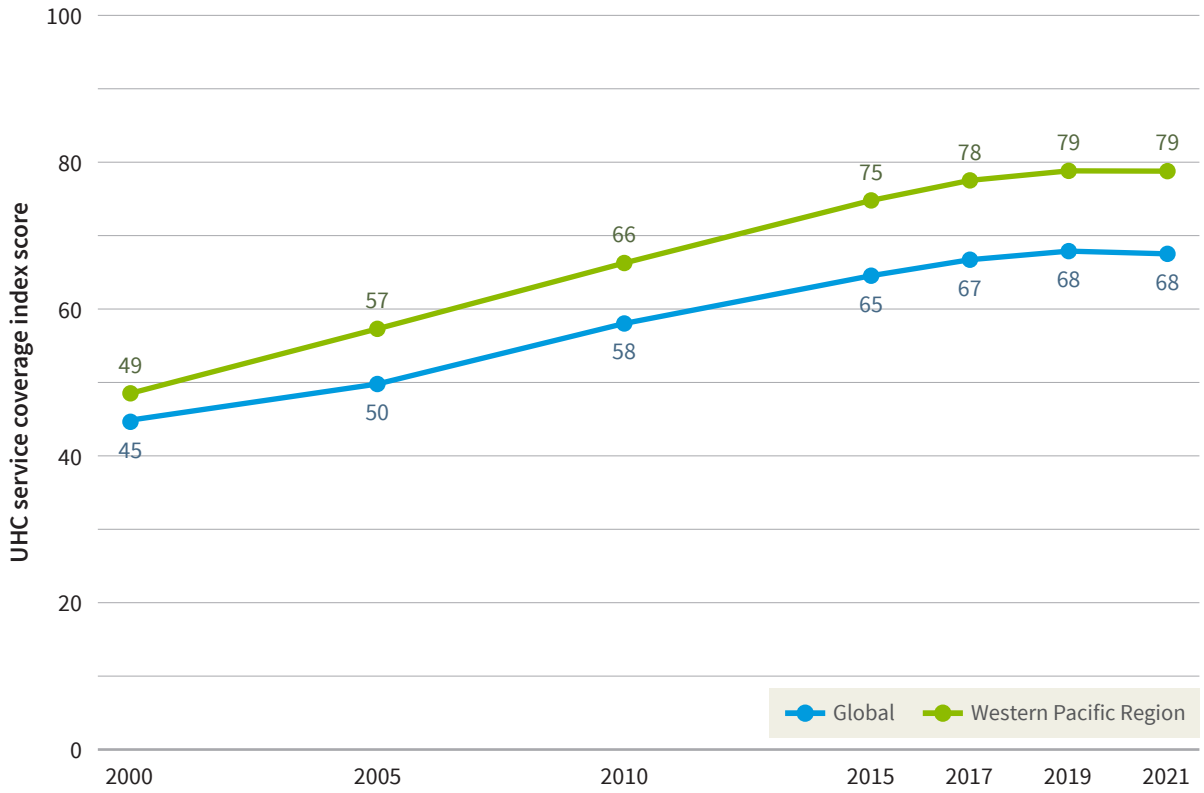
Over the past 20 years, the UHC service coverage index in the Western Pacific Region has substantially improved, increasing from 49 points in 2000 to 79 points in 2021 (Fig. 64). This progress is noteworthy compared to the global increase from 45 to 68 points during the same period, ranking the Western Pacific Region second among the six WHO regions in 2021. However, progress has slowed and stagnated since the inception of the SDG era, particularly since 2019.

In the Western Pacific Region, the number of countries with a UHC service coverage index above 60 points rose from five in 2000 to 16 countries in 2019 (Fig. 65). However, this number dropped to 12 countries in 2021, likely due to the impact of the COVID-19 pandemic on the continuity of essential services *(31)*. In 2021, fewer countries in the Region had a UHC service coverage index above 60 points compared to the inception of the SDG era in 2015.

The UHC service coverage index varied considerably across countries in the Region, with values in 2021 ranging from 30 points in Papua New Guinea to 89 points in the Republic of Korea and Singapore (Fig. 66). Between 2000 and 2021, the UHC service coverage index improved in all countries except Cook Islands. However, the rate of increase also showed considerable variation between countries.

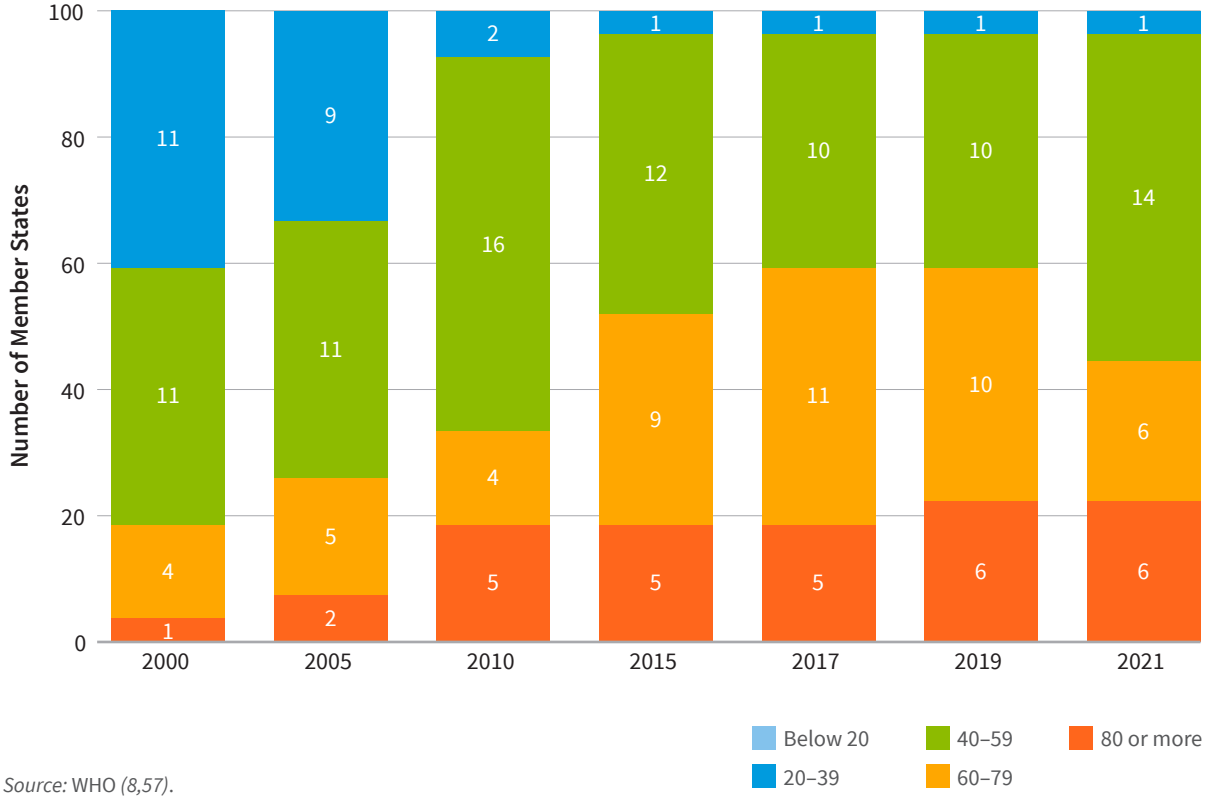
Moreover, the overall progress observed in the essential service coverage between 2000 and 2021 has been uneven across different health areas. While service coverage for RMNCH, as well as infectious disease control, improved substantially during this period, NCD control and health systems service capacity and access remained stagnant.

**Fig. 64** SDG 3.8.1 UHC service coverage index in the Western Pacific Region and globally, 2000–2021



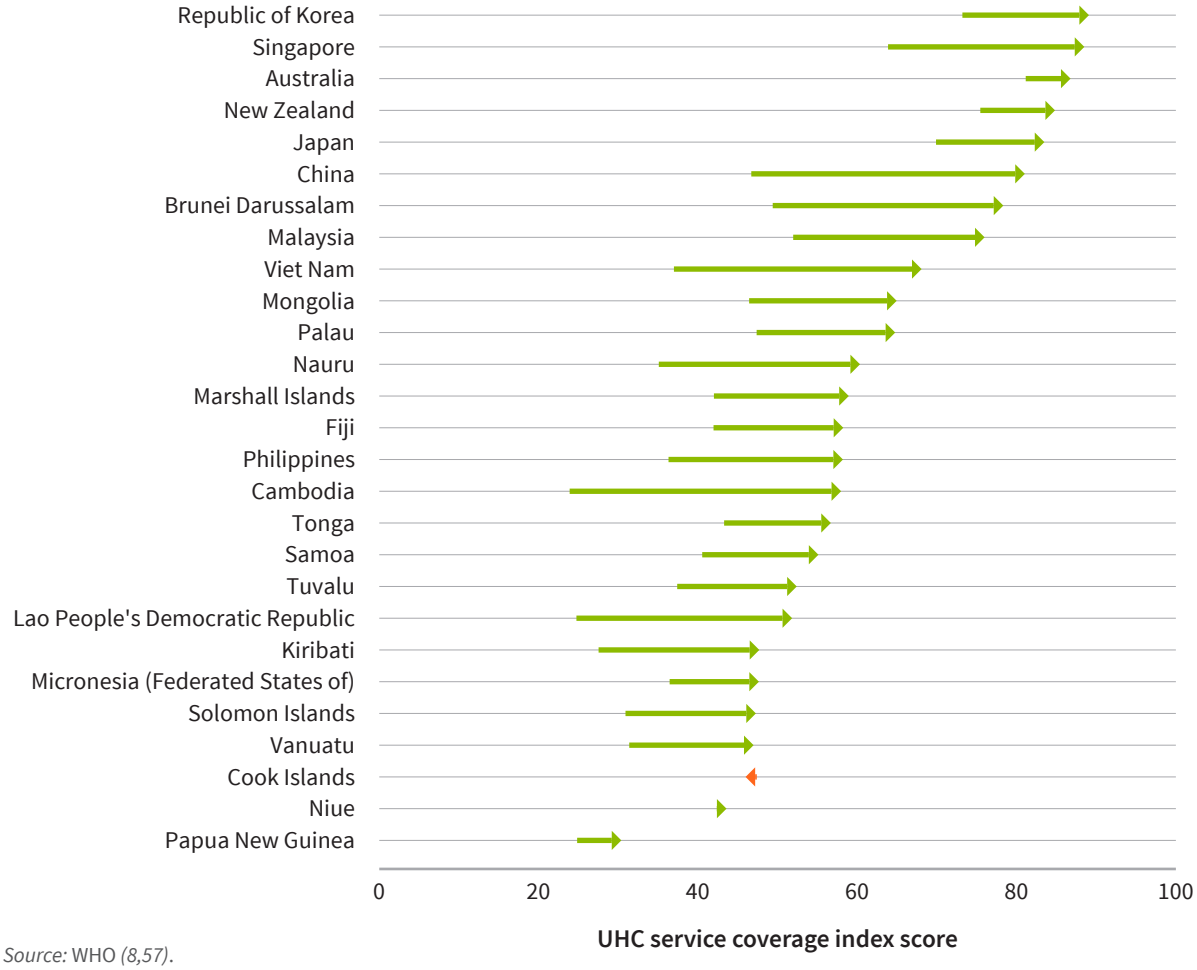

*Source:* WHO *(8,57)*.

**Fig. 65** Number of Member States in the Western Pacific Region by UHC service coverage index group, 2000–2021




*Source:* WHO *(8,57)*.

**Fig. 66** SDG 3.8.1 UHC service coverage index, 2000 and 2021




*Source:* WHO *(8,57)*.

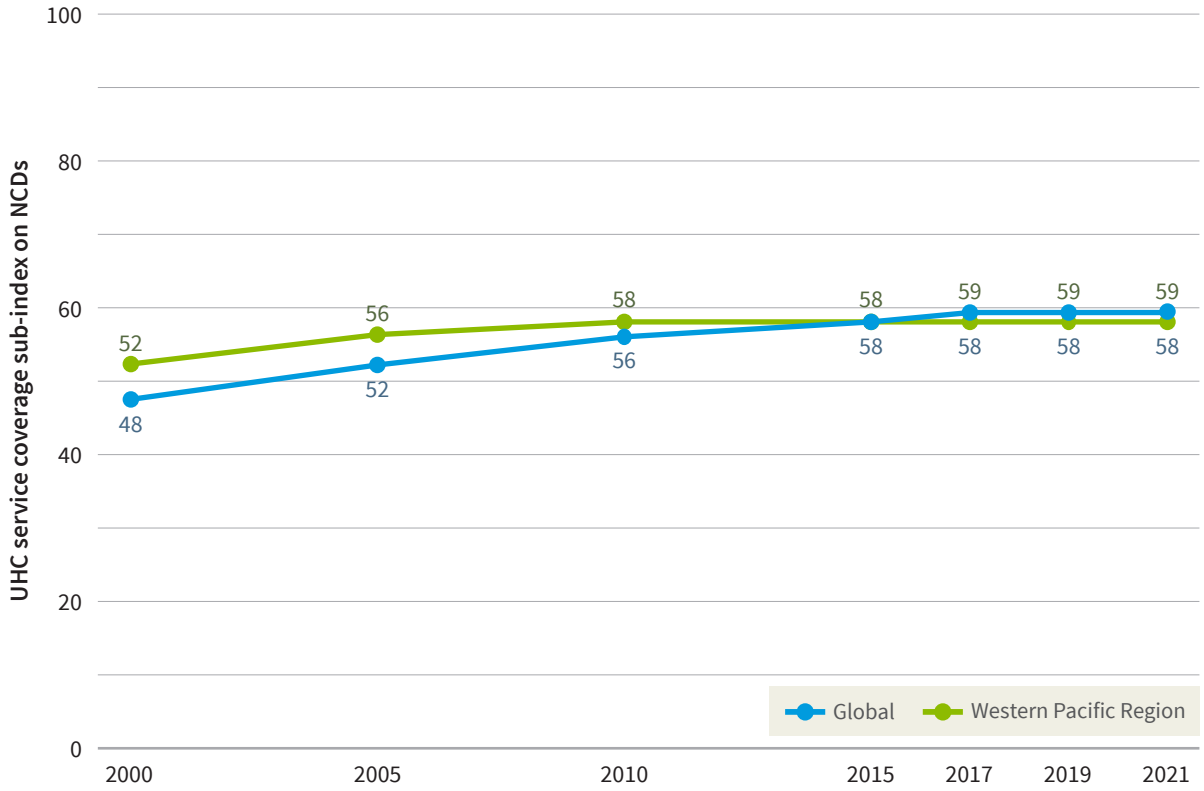
# Access to NCD treatment and prevention

The UHC service coverage sub-index on NCDs measures NCD prevention, management and control. The index includes three indicators, one of which directly measures service coverage, namely the prevalence of treatment for hypertension. The two other indicators are proxy indicators for the management of diabetes and tobacco control, measured as mean fasting plasma glucose (FPG) and tobacco use (see Chapter 2 data on tobacco). Proxy indicators are used due to limited availability of global data to directly measure service coverage.

In the Western Pacific Region, the UHC service coverage sub-index on NCDs showed marginal improvement from 52 points in 2000 to 58 points in 2010, with no progress between 2010 and 2021. In 2021, the Western Pacific Region ranked fourth among the six WHO regions (Fig. 67).

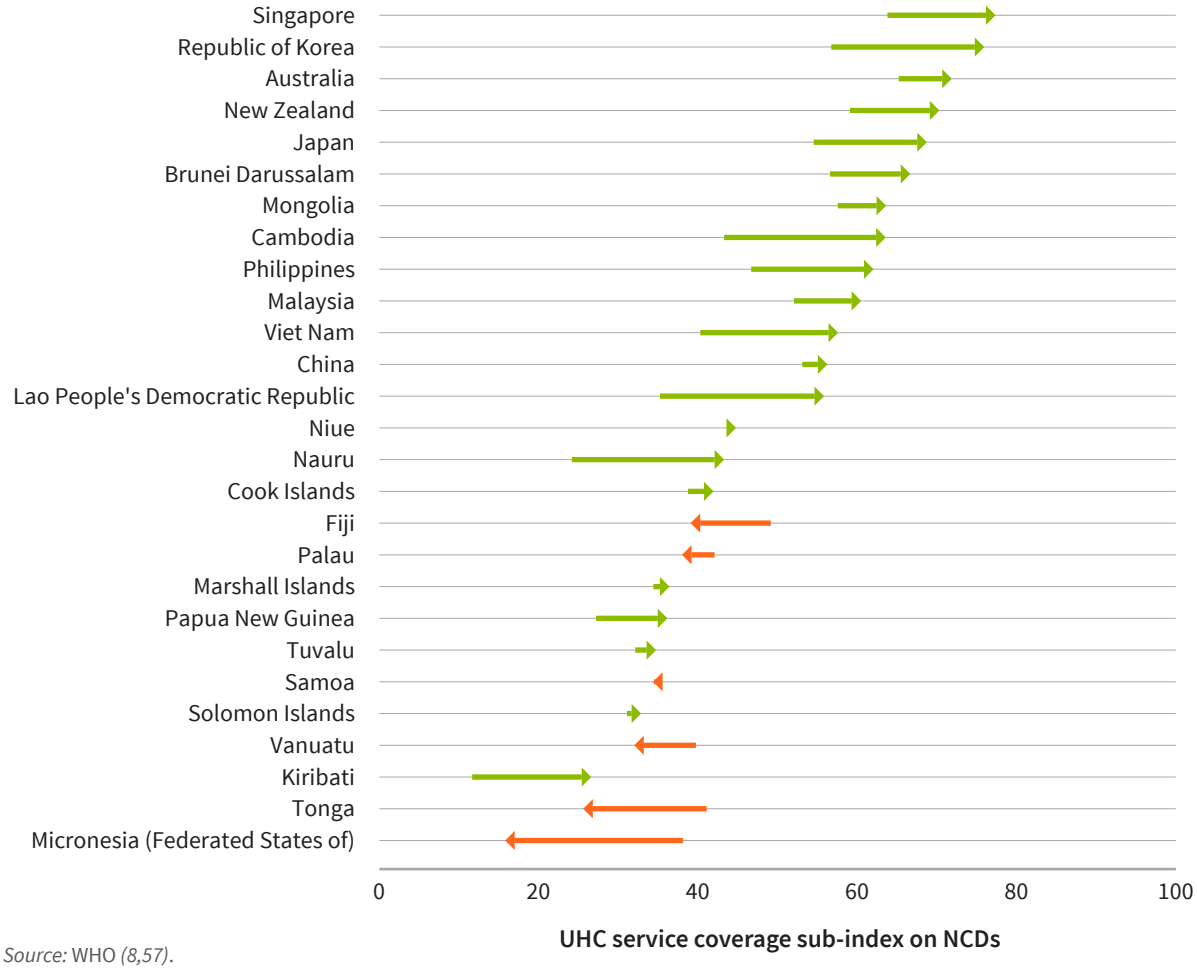
Of concern, despite the growing burden of NCDs, service coverage remained low, especially in PICs (Fig. 68). Six countries experienced a decrease in the UHC service coverage sub-index on NCDs, all of which were PICs and some of which were among the countries with the lowest values for the sub-index, namely the Federated States of Micronesia and Tonga.

**Fig. 67** SDG 3.8.1 UHC service coverage sub-index on NCDs in the Western Pacific Region and globally, 2000–2021




*Source:* WHO *(8,57)*.

**Fig. 68** SDG 3.8.1 UHC service coverage sub-index on NCDs, 2000 and 2021



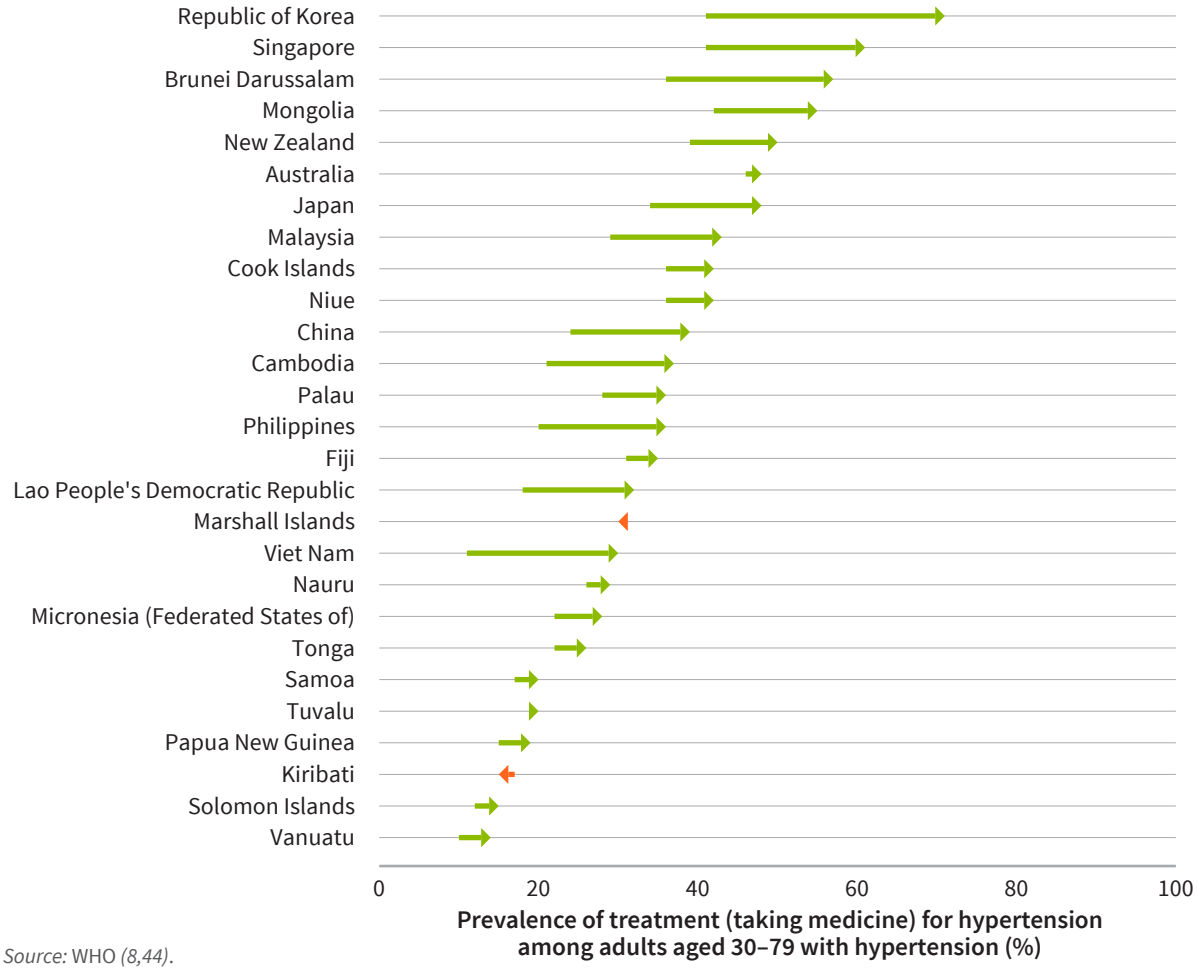

*Source:* WHO *(8,57)*.

## Hypertension treatment

In 2019, 53.7% of adults aged 30–79 years old in the Western Pacific Region were diagnosed with hypertension. Of these, 41.0% were on medication for hypertension, an increase from 26.7% receiving treatment in 2000. Despite this improvement, the prevalence of hypertension treatment in the Western Pacific Region was slightly below the global average of 42.4% in 2019.

Between 2000 and 2019, coverage of treatment for hypertension increased in all countries in the Western Pacific Region except for Kiribati and the Marshall Islands, where coverage decreased slightly. Countries across the Region had different levels of improvement in treatment coverage, with some countries making greater progress and others having very small or negligible increases (Fig. 69).

**Fig. 69** Age-standardized prevalence of treatment (taking medicine) for hypertension among adults aged 30–79 with hypertension (%), 2000 and 2019




*Source:* WHO *(8,44)*.

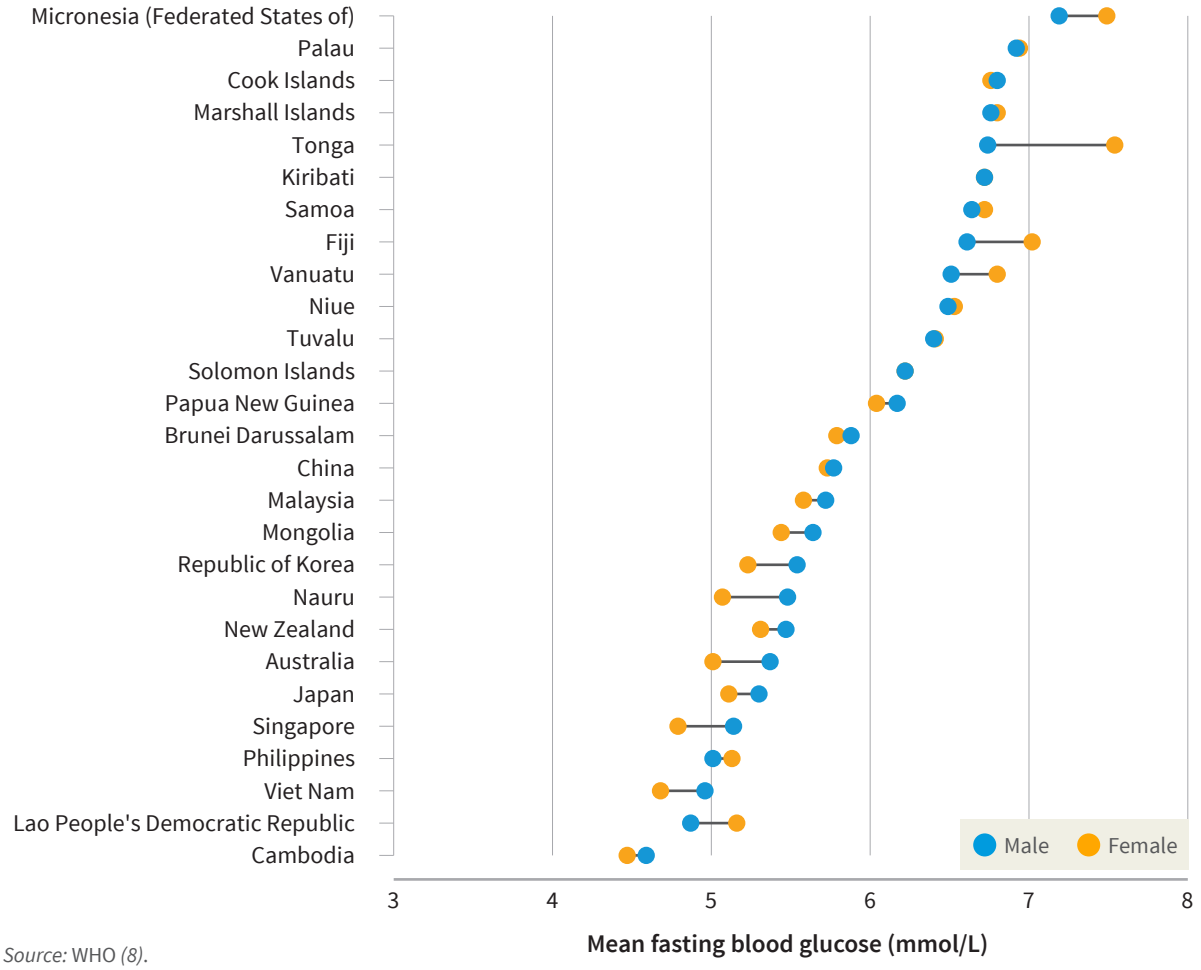
## Management of diabetes

The population mean fasting blood glucose or FPG in mmol/L serves as a proxy for monitoring the management of diabetes. Mean FPG can indicate both the presence of non-diabetic healthy individuals as well as the effectiveness of glucose-lowering treatments in diabetic individuals. Increased mean FPG levels across a population suggest a higher risk of diabetes and highlight the need for national public health interventions, including the promotion of healthy diets and behaviours and the treatment of diabetes.

Several countries had FPG levels that were in the range where lifestyle changes and monitoring are recommended (5.6 to 6.9 mmol/L) (Fig. 70). Additionally, there were countries with FPG levels that indicate a high prevalence of diabetes (7 mmol/L or higher), indicating the urgent need for comprehensive lifestyle changes and to implement diabetes treatment for disease control and prevention of complications associated with diabetes.

However, data on FPG levels were only available for the year 2014, highlighting the need for enhanced monitoring. Without more current and consistent monitoring of FPG levels, the implementation of effective, informed public health strategies in diabetes care remains challenging.

**Fig. 70** Population mean fasting blood glucose in mmol/L, by sex, 2014



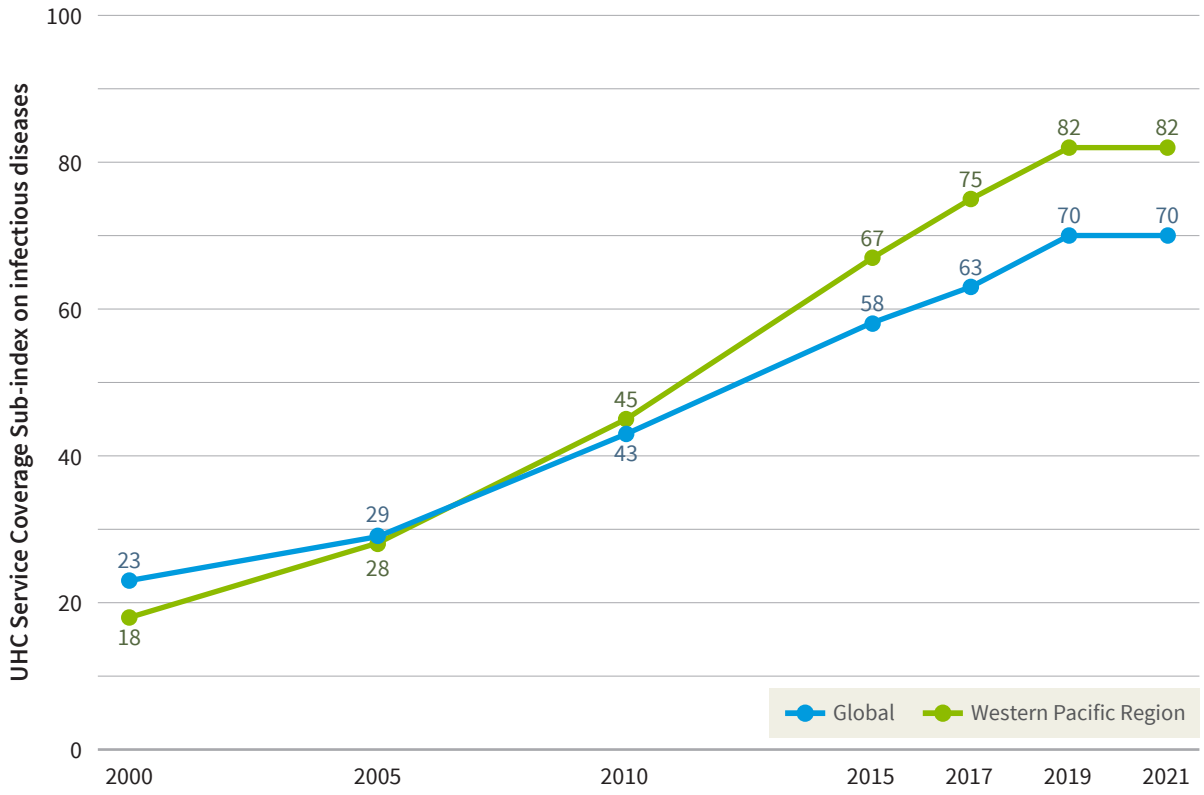

*Source:* WHO *(8)*.

# Access to infectious disease control

The UHC service coverage sub-index on infectious diseases includes indicators measuring service coverage for tuberculosis (TB) treatment, HIV treatment, malaria prevention (an indicator not included in the UHC service coverage sub-index for countries in the Western Pacific Region) and sanitation services (see Chapter 2 for details).

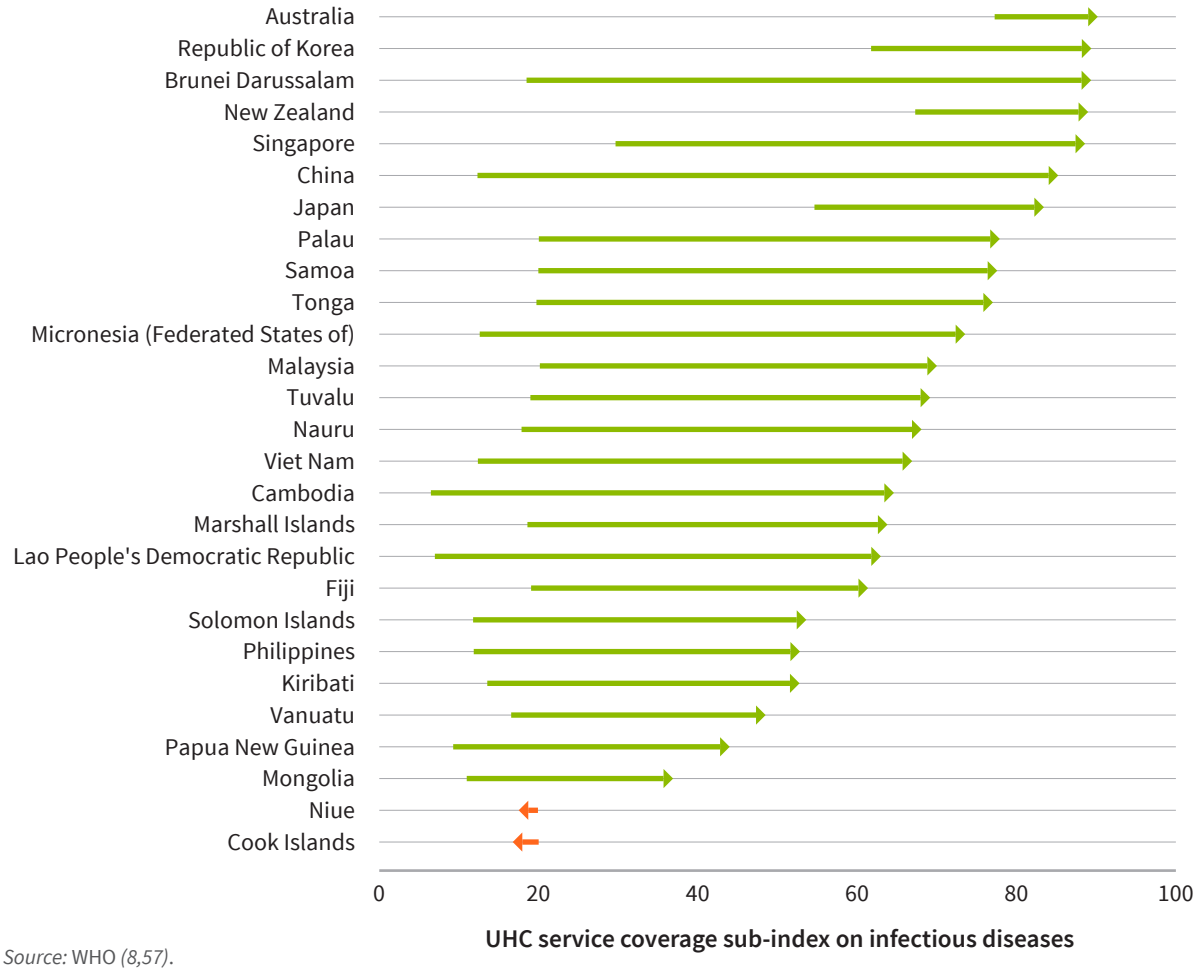
The UHC service coverage sub-index on infectious diseases in the Western Pacific indicated remarkable progress, surging from 18 points in 2000 to 82 points in 2021, outpacing global progress (Fig. 71). Despite regional stagnation between 2019 and 2021, the Western Pacific Region co-led progress among the WHO regions in 2021. Most countries experienced substantial increases, but Cook Islands and Niue saw declines, mainly due to low TB treatment coverage (Fig. 72).

**Fig. 71** SDG 3.8.1 UHC service coverage sub-index on infectious diseases in the Western Pacific Region and globally, 2000–2021




*Source:* WHO *(8,57)*.

**Fig. 72** SDG 3.8.1 UHC service coverage sub-index on infectious diseases, 2000 and 2021

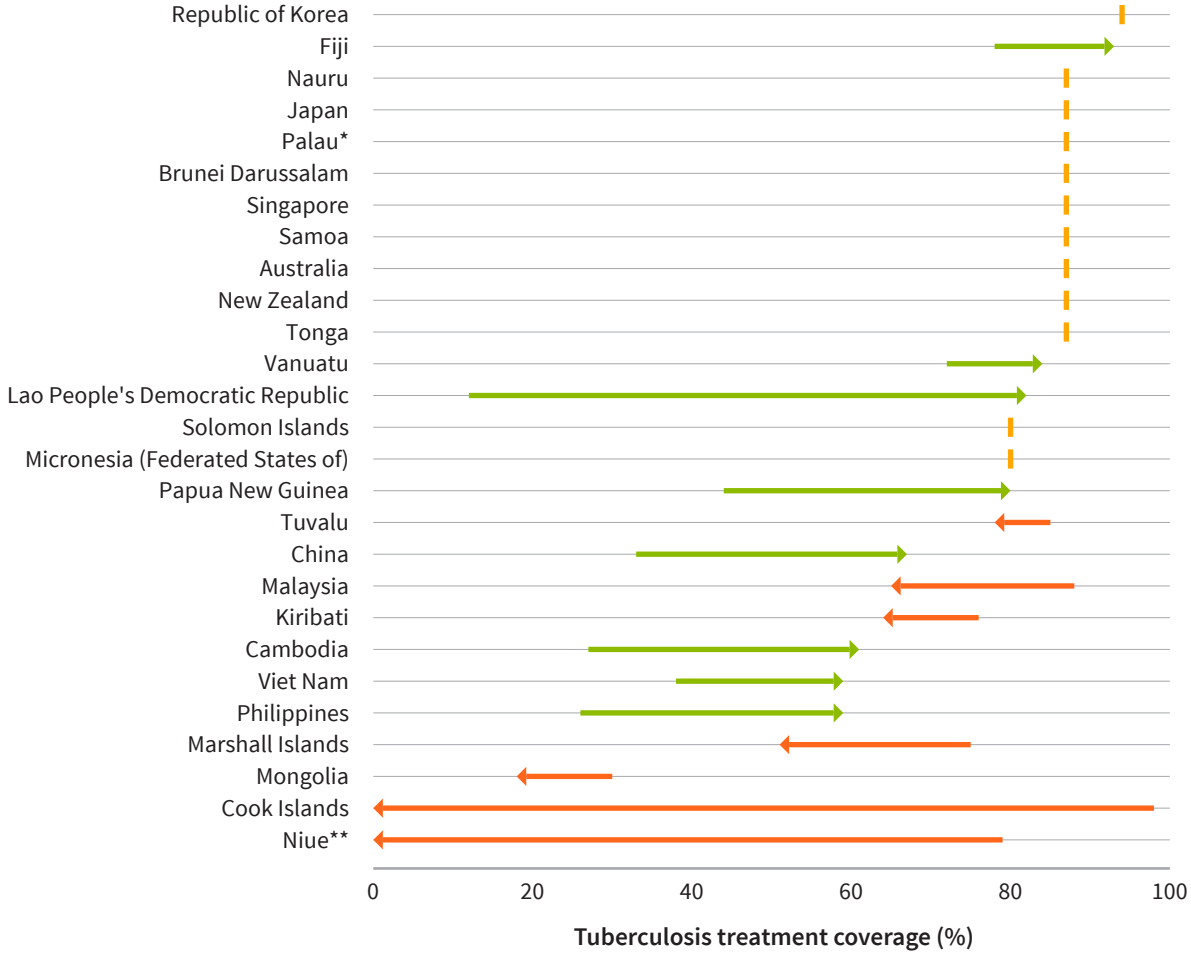



*Source:* WHO *(8,57)*.

## TB treatment coverage

The estimated TB treatment coverage in the Western Pacific Region increased from 35% in 2000 to 63% in 2022. Globally, the coverage also increased substantially, from 34% in 2000 to 70% in 2022. At the country level, the Region experienced mixed trends in TB treatment coverage, as it increased in eight Member States, decreased in seven Member States and was stagnant in 12 Member States (Fig. 73). The most recent estimate of TB treatment coverage ranged from 94% to 0%. It should be noted that this indicator is highly dependent on the number of cases. The two countries where TB treatment coverage was estimated at 0% also had a very low estimated number of TB cases, with one in Niue in 2021 and two in Cook Islands in 2022.

**Fig. 73** TB treatment coverage, 2000 and 2022



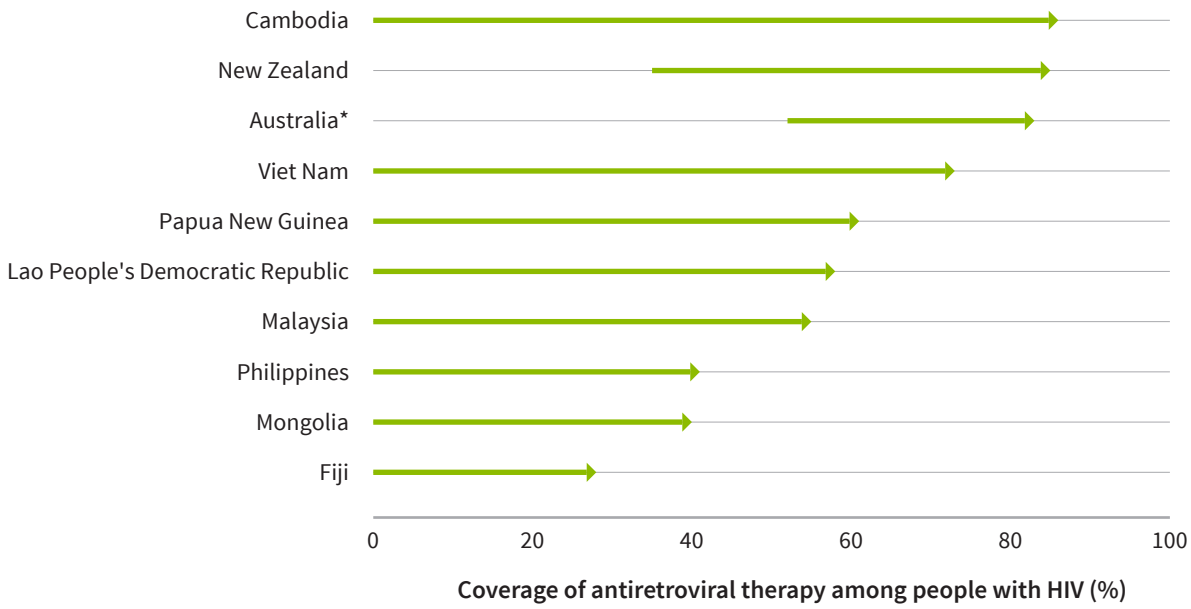

Note: * The values for Palau are based on years 2002 and 2022. ** The values for Niue are based on years 2000 and 2021.
*Source:* WHO *(8, 24)*.

## HIV treatment coverage

Improvements in antiretroviral therapy (ART) coverage are behind most of the increase in the UHC service coverage sub-index on infectious diseases *(23)*. The estimated ART coverage among people living with HIV in the Western Pacific Region increased tremendously, rising from 1% in 2000 to 73% in 2022. This coverage, although slightly lower than the global estimate of 76%, positioned the Western Pacific Region with the second-highest ART coverage among the six WHO regions in 2022.

While ART coverage has increased in all 10 countries with recent available data, major differences in the level of coverage exist across countries (Fig. 74). Fiji, Mongolia and the Philippines had the lowest ART coverage in the Region in 2022, where less than half of the population living with HIV were taking treatment. Major progress needs to be made in these and several other countries of the Region if the SDG targets and those of the United Nations Joint Programme on HIV/AIDS are to be met (Box 4).

**Fig. 74** Coverage of ART among people living with HIV (%), 2000 and 2022




Note: * The values for Australia are based on years 2000 and 2021.
*Source:* WHO *(8)*.

## **Box 6.** HIV care cascade

The *UNAIDS Global AIDS Strategy 2021–2026* has set "95–95–95" targets to be met by 2030 *(58)*. Aiming for 95% of people who are living with HIV to know their HIV status, 95% of people who know that they are living with HIV to be on life-saving ART, and 95% of people who are on treatment to be virally suppressed. Previously, "90–90–90" targets were set to be met by 2020 *(58)*. According to the most recent data, Australia was the only country in the Western Pacific Region with available data that met the three 2020 targets (Fig. 75). Two out of three targets (ART coverage and viral suppression) were reached in Cambodia and New Zealand. The Lao People's Democratic Republic and Viet Nam only reached the target for the third "90" on viral suppression. None of the targets for which there were available data were met in Fiji, Malaysia, Papua New Guinea and the Philippines. Intensified efforts are needed in diagnosing HIV to ensure everyone with HIV knows their status and, in turn, that the additional targets of the HIV care cascade and SDG target can be met.

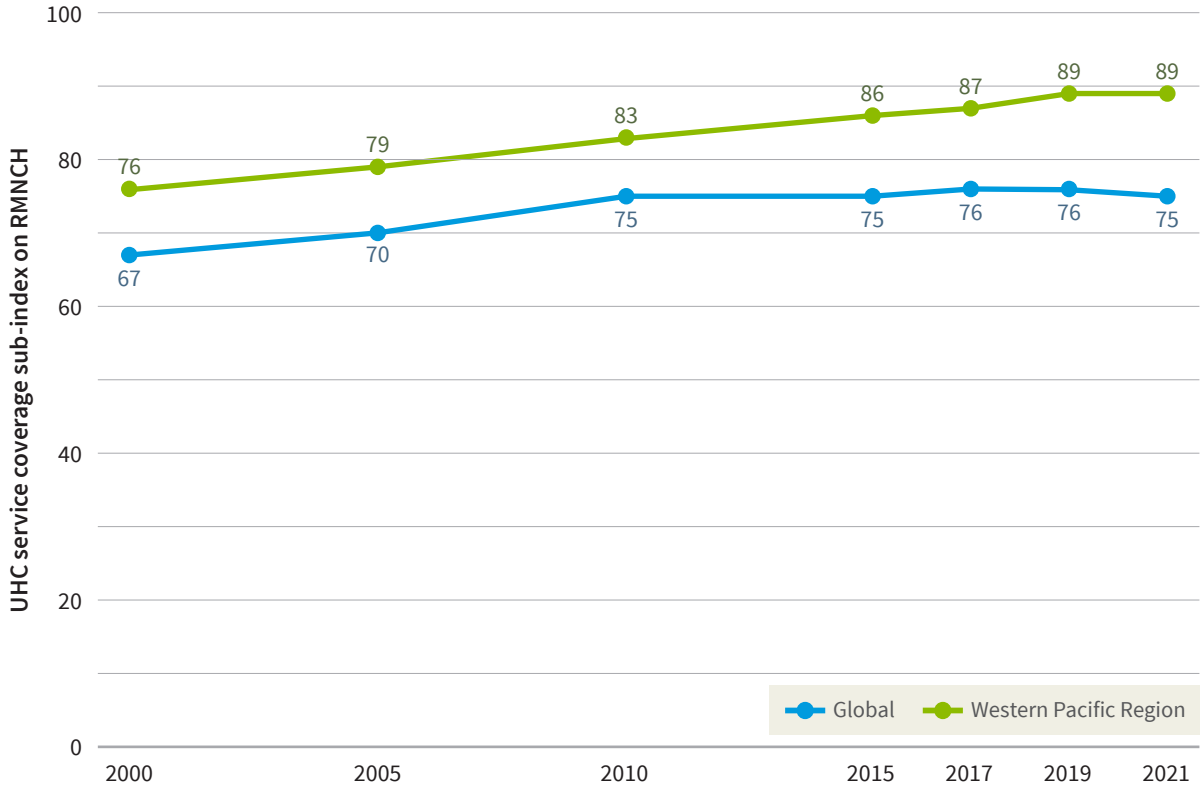
**Fig. 75** HIV care cascade for UNAIDS "90–90–90" targets for 2020 and "95–95–95" targets for 2030, latest year


*Source:* UNAIDS *(22)*.

# Access to reproductive, maternal, newborn and child health services

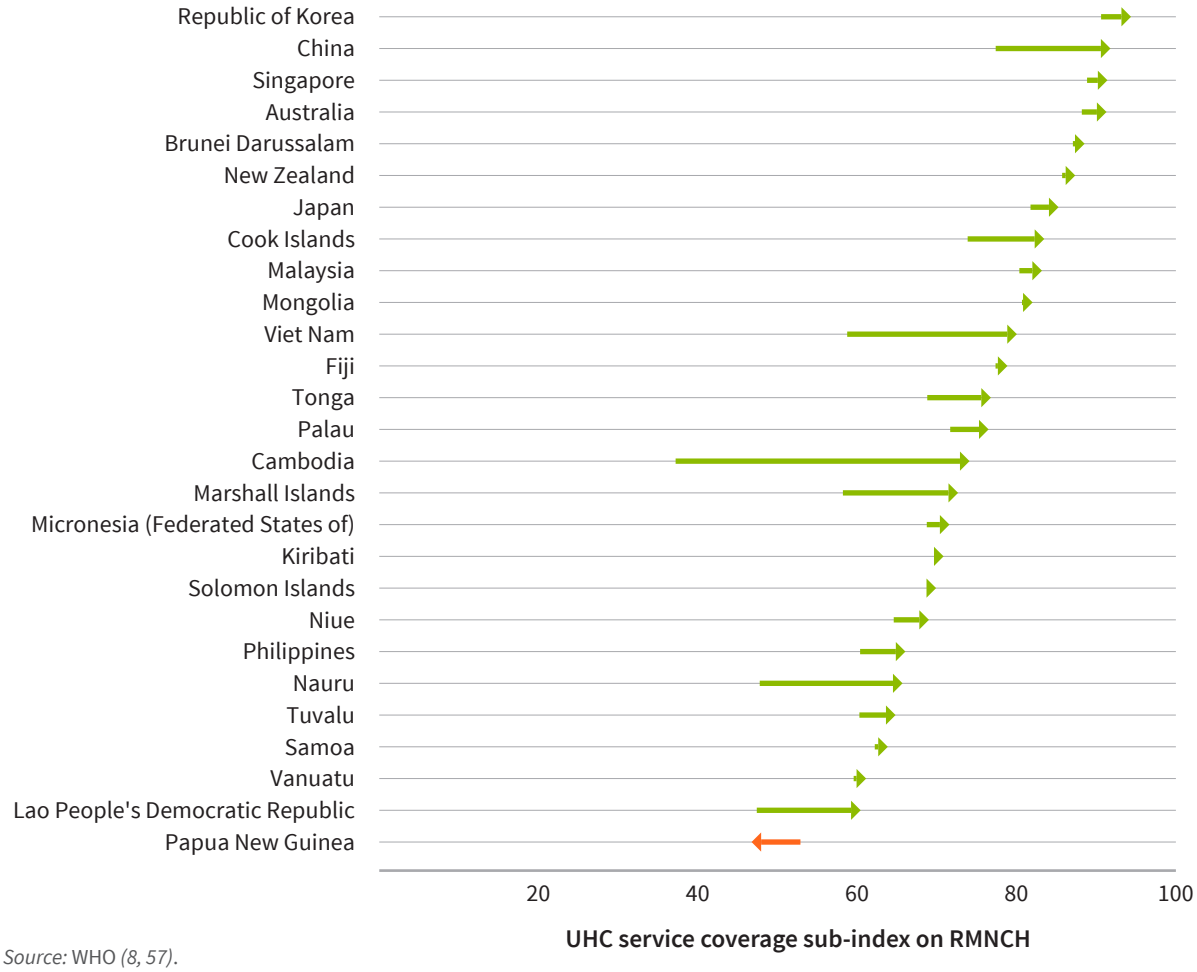
The UHC service coverage sub-index on RMNCH includes indicators measuring service coverage for family planning, antenatal care, child immunization and child treatment. The RMNCH sub-index in the Western Pacific Region steadily increased from 76 points in 2000 to 89 points in 2021, consistently outperforming the global average. Notably, the Region surpassed global estimates, showing improvement until 2019, with a slight stagnation between 2019 and 2021 (Fig. 76). In 2021, the Western Pacific Region excelled compared to other WHO regions. Significant improvements were seen in Cambodia, Nauru and Viet Nam, while Papua New Guinea witnessed a decrease (Fig. 77).

**Fig. 76** SDG 3.8.1 UHC service coverage sub-index on RMNCH in the Western Pacific Region and globally, 2000–2021




*Source:* WHO *(8, 57)*.

**Fig. 77** SDG 3.8.1 UHC service coverage sub-index on RMNCH, 2000–2021




*Source:* WHO *(8, 57)*.

## Family planning

> SDG target 3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes
>
> - Indicator 3.7.1: Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods
>
> Accelerate progress towards reducing maternal, newborn and child mortality in order to achieve SDG targets 3.1 and 3.2 *(59)*:
>
> - By 2030, achieve a high level (> 75%) of need for family planning satisfied by modern methods

Family planning empowers women and couples to decide whether, when and how many children they want through the use of contraceptive methods and treatments for infertility. The use of contraception prevents pregnancy-related health risks for women, especially adolescent girls, promoting better health outcomes for mothers and their children by allowing for spaced and desired pregnancies.

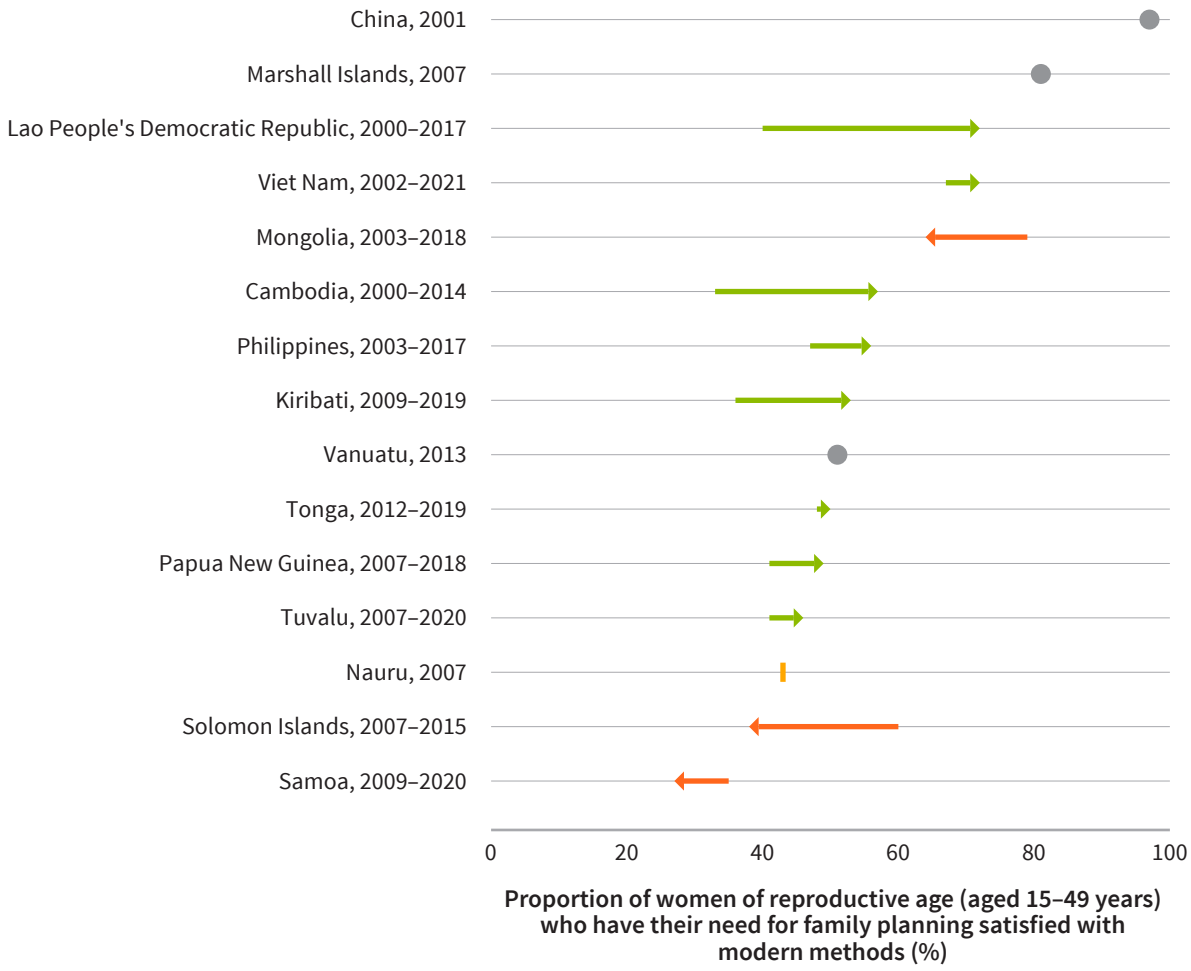
Data on family planning are scarce, with only 15 countries in the Western Pacific Region having data, and for some countries, the latest data point is from before the beginning of the SDG era. Yet, these data serve as a baseline for modelling estimates to provide a regional picture.

The Western Pacific Region has the highest proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods across WHO regions. In 2022, this proportion was 87.3%, 10 percentage points above the global average of 77.5%. About nine out of 10 women of reproductive age in the Western Pacific Region had their family planning needs satisfied with modern methods. Therefore, by 2020, the Region had already achieved a high level (> 75%) of the need for family planning satisfied by modern methods.

However, there was major disparity across countries in coverage of family planning services with modern methods, with the value for some countries substantially deviating from the regional average. While China reported almost complete satisfaction of family planning needs using modern methods, in other countries, such as Samoa, only 30% of women of reproductive age reported their family planning needs to be satisfied with modern methods (Fig. 78). No country in the Region, except for China and the Marshall Islands, had achieved a high level (> 75%) of family planning satisfied with modern methods.

While many countries in the Western Pacific Region showed increasing access to modern family planning methods, a few countries experienced a decline, including Mongolia, Samoa and Solomon Islands, which further emphasizes the heterogeneous nature of family planning dynamics across the Region. These disparities may be attributed to a myriad of factors, including cultural norms, accessibility to health-care resources, governmental policies, education levels and socioeconomic conditions, among others.

**Fig. 78** SDG 3.7.1 Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods (%), change over time




Note: Year may indicate the first year of a two-year reporting period.
*Source:* WHO *(8)*.

## Adolescent birth rates

> SDG target 3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes
>
> - Indicator 3.7.2: Adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1000 women in that age group

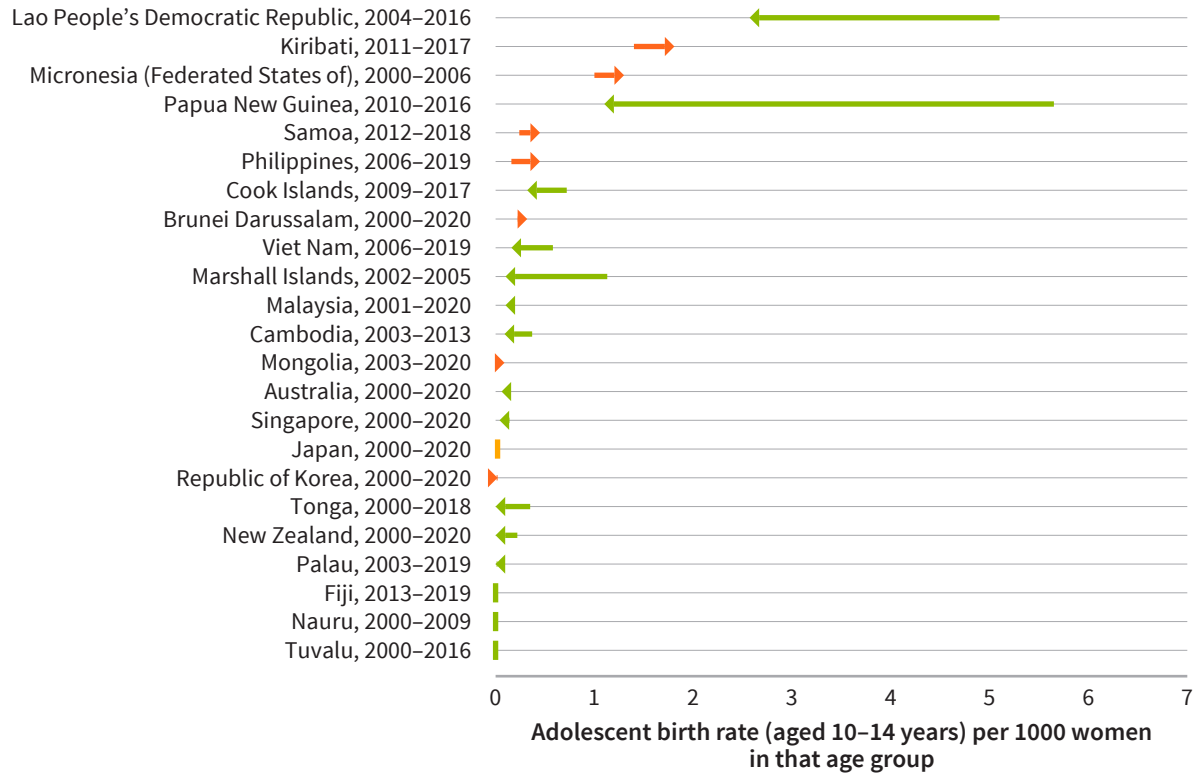
Adolescent pregnancies have a direct impact on health, education and gender equality. Monitoring and reducing adolescent birth rates contribute to improving maternal and child health, ensuring equitable access to education for young women, and promoting the social and economic well-being of adolescents. Adolescent birth rates also provide indirect evidence of access to reproductive health services by the youth, particularly among unmarried adolescent women, who often experience difficulties in accessing them.

The Western Pacific Region had the second-lowest regional adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1000 women in that age group across WHO regions. The Western Pacific regional birth rate was 0.3 live births per 1000 women aged 10–14 years and 16.9 live births per 1000 women aged 15–19 years. Global values were 5.3 and 2.5 times higher, respectively, as global adolescent birth rates at ages 10–14 and 15–19 were 1.5 per and 41.9 per 1000 births in the respective age group.

Similar to maternal and reproductive health indicators, indicators for adolescent birth rates indicate a substantial variability between countries, with adolescent birth rates in some countries deviating significantly from the regional average rate. Adolescent birth rates among women aged 10–14 years were generally low. Some countries like Fiji, Nauru, New Zealand, Palau, Tonga and Tuvalu reported no pregnancies, while others, including Australia, Cambodia, Japan, Malaysia, the Marshall Islands, Mongolia, the Republic of Korea and Singapore, had very low rates, at nearly zero (Fig. 79). In contrast, Kiribati, the Lao People's Democratic Republic, the Federated States of Micronesia and Papua New Guinea had higher rates, matching or exceeding the global average. Notably, the Lao People's Democratic Republic and Papua New Guinea made substantial progress in reducing birth rates among girls aged 10–14, unlike Kiribati and the Federated States of Micronesia, where rates had increased.

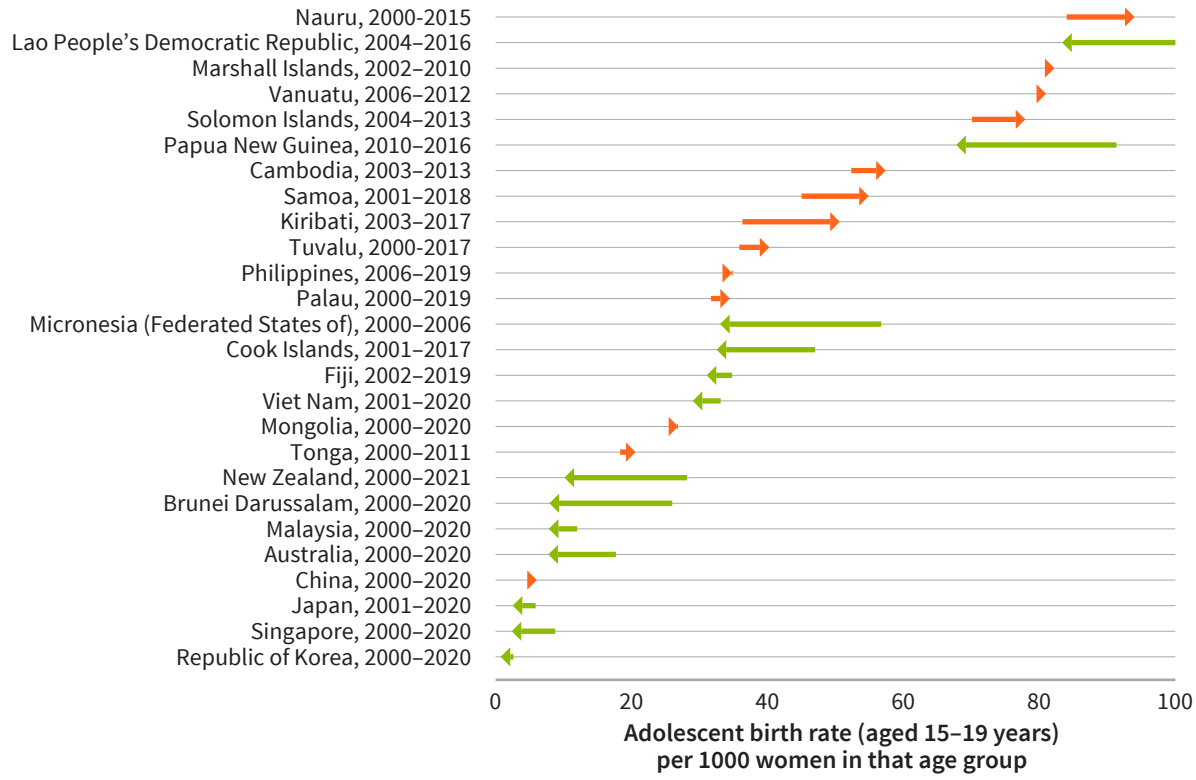
For women aged 15–19, there was also considerable variation across the Western Pacific Region in adolescent birth rates, with some countries experiencing much higher rates than others (Fig. 81). Nauru, the Lao People's Democratic Republic, the Marshall Islands, Solomon Islands and Vanuatu had the highest rates, exceeding 80 births per 1000 women. On the other hand, Japan, the Republic of Korea and Singapore reported exceptionally low rates, below 2.5 per 1000 women aged 15–19. National trends also differed widely, with half of the countries seeing increases and the other half seeing declines in adolescent birth rates. Increases were predominantly observed in countries with the highest rates and in PICs, highlighting areas where adolescent birth rates remain a significant concern in the Western Pacific.

**Fig. 79** SDG 3.7.2 Adolescent birth rate (aged 10–14 years) per 1000 women in that age group




Note: Year may indicate the first year of a two-year reporting period.
*Source:* WHO *(8)*.

**Fig. 80** SDG 3.7.2 Adolescent birth rate (aged 15–19 years) per 1000 women in that age group

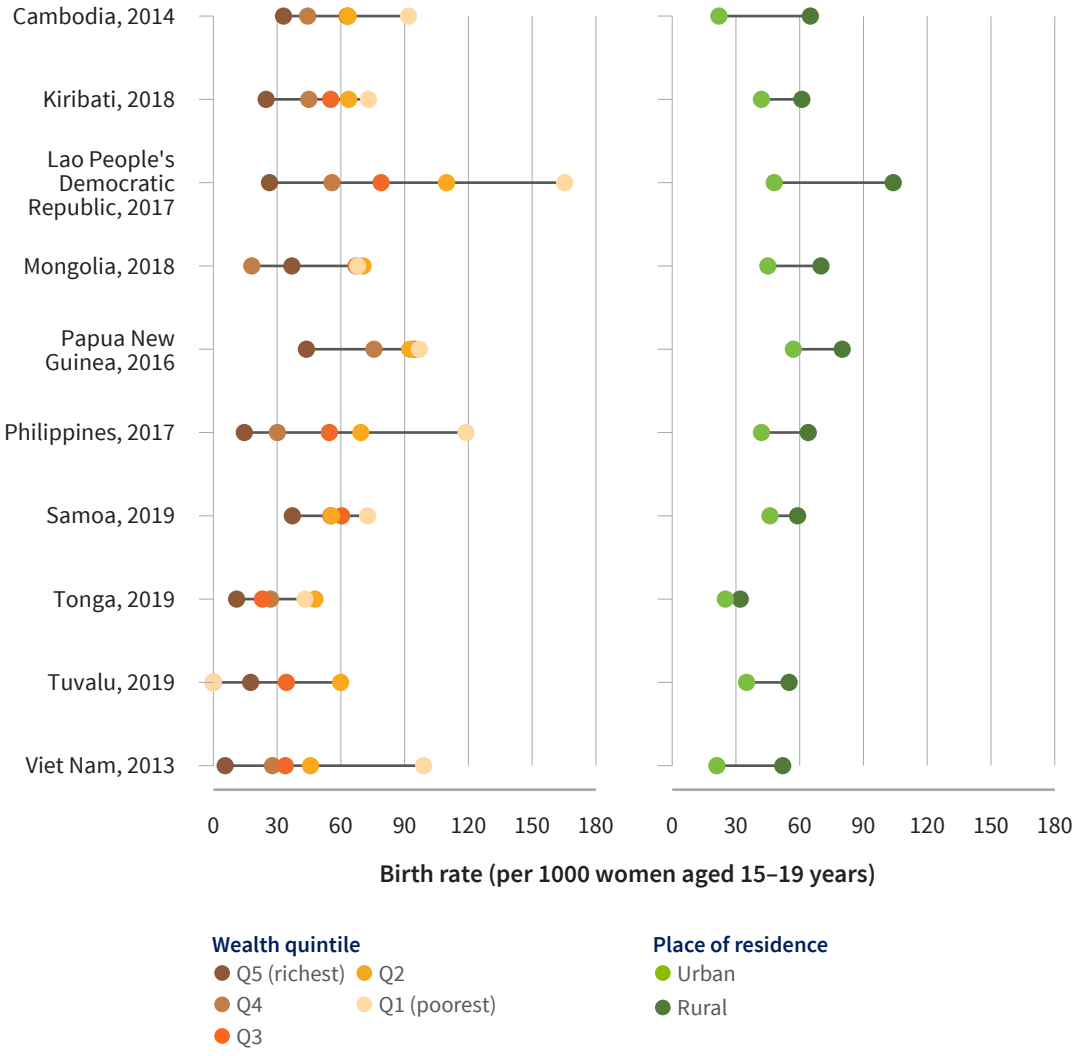



Note: Year may indicate the first year of a two-year reporting period.
*Source:* WHO *(8)*.

## **Box 7.** Inequalities in adolescent birth rates in the Western Pacific Region

Wealth quintile and place of residence are two significant sources of disparity in adolescent birth rates across countries in the Western Pacific Region. When examining birth rates by wealth quintile, there was an inverse relationship between the level of wealth and adolescent birth rates: adolescents from lower wealth quintiles experienced higher birth rates compared to those in wealthier quintiles (Fig. 81). While this pattern held for all countries, inequalities between wealth groups were greater in some countries such as the Lao People's Democratic Republic, the Philippines and Viet Nam. Further, disparities based on place of residence were equally telling. In all countries, in urban areas lower adolescent birth rates were reported in comparison to rural areas.

**Fig. 81** SDG 3.7.2 Adolescent birth rate (aged 15–19 years) per 1000 women in that age group by wealth quintile and place of residence, 2013–2019



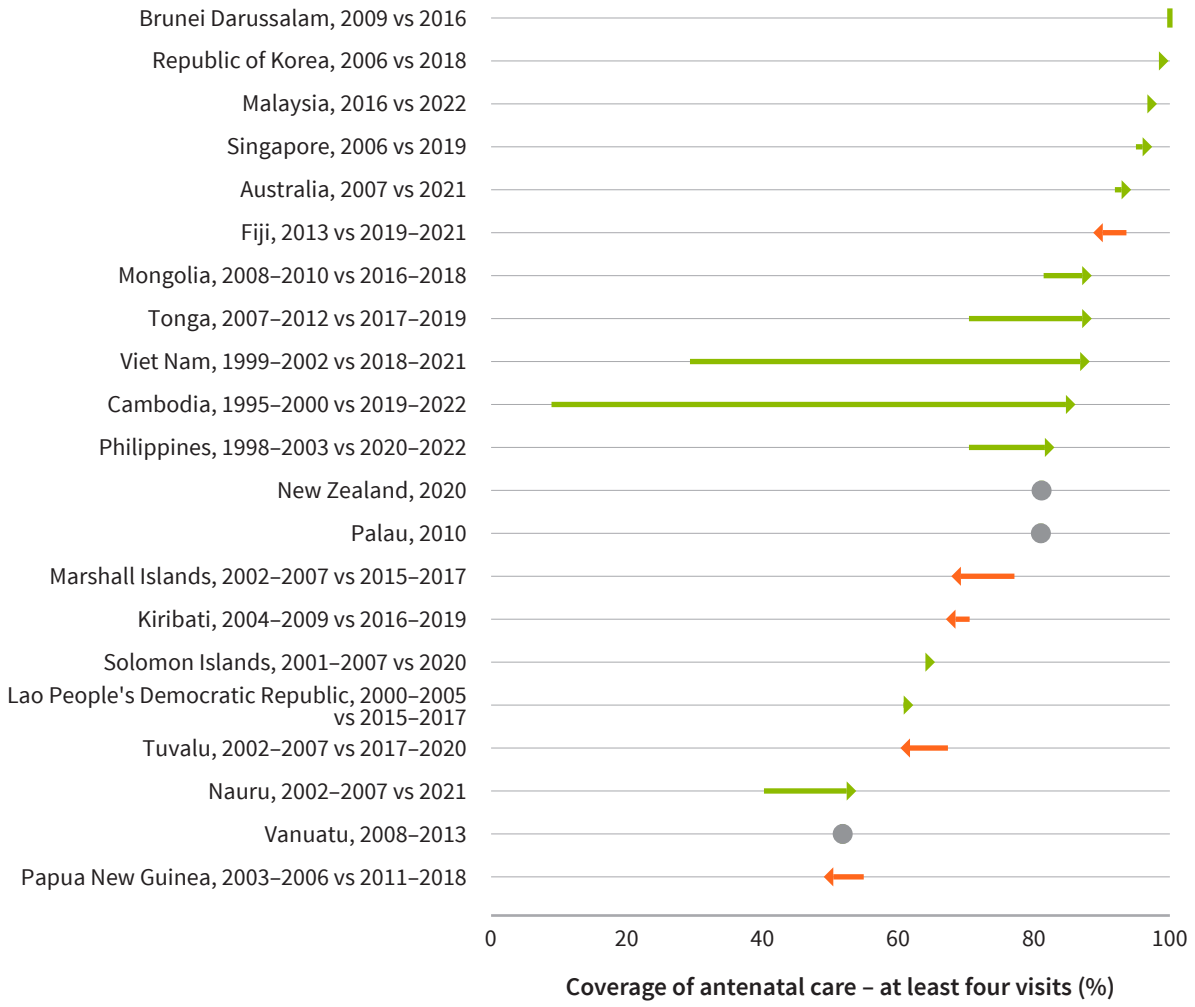

*Source:* WHO *(8)*.

## Antenatal care

Antenatal care (ANC) coverage is an indicator of health-care access and use during pregnancy. Receiving antenatal care at least four times (ANC4+) increases the likelihood of interventions that are vital to pregnant women's health and well-being and that of their infants. Data availability on ANC4+ is inconsistent across countries in the Western Pacific Region in terms of the number of data points and time period, making comparisons among Member States difficult.

Despite these limitations, the regional data reveal significant disparities in ANC4+ coverage among countries. Several countries showed positive progress with an upward trend in ANC4+ coverage (Fig. 82). However, the extent of the increase varied substantially among countries, with some showing modest gains and others, such as Cambodia and Viet Nam, displaying substantial improvement in the last two decades. Conversely, some countries, including Fiji, Kiribati, the Marshall Islands, Papua New Guinea and Tuvalu saw a decrease in ANC4+ coverage.

**Fig. 82** Coverage of ANC at least four visits, change over time




Note: Value for Brunei Darussalam is 100% coverage in both years.

*Source:* WHO *(8)*.

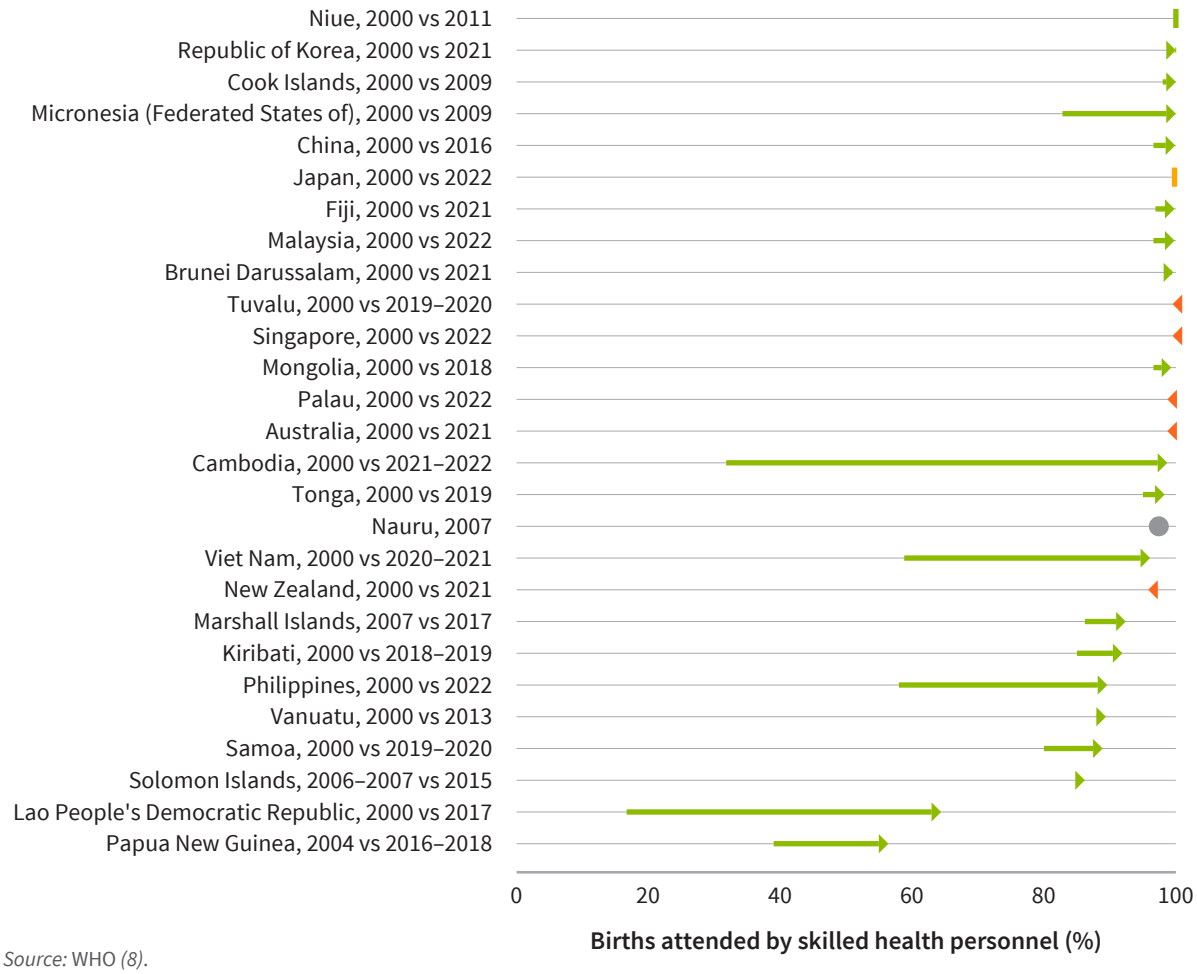
## Births attended by skilled birth personnel

> Accelerate progress towards reducing maternal, newborn and child mortality in order to achieve SDG targets 3.1 and 3.2 *(59)*:
>
> - By 2025, 90% births attended by skilled health personnel.

Skilled birth attendance is a critical intervention for reducing maternal mortality and improving other health outcomes in childbirth. Between 2000 and 2023, the regional average for skilled birth attendance as a percentage of births increased from 90% to 98%, which was above the global average of 61% in 2000 and 86% in 2023. However, there has been a slowdown in the pace of progress since 2015 at the regional and global levels.

Data on skilled birth attendance was available for all 27 countries in the Western Pacific Region, although at different time points. Across the Region, most countries experienced an increase in the proportion of births attended by skilled health personnel, with several countries nearing universal coverage (Fig. 83). Major improvements were observed in a few countries, including Cambodia, the Lao People's Democratic Republic, the Federated States of Micronesia, Papua New Guinea, the Philippines and Viet Nam. However, skilled birth attendance experienced a minor decrease in five countries and stagnated in two. These countries must accelerate progress to achieve the global target of 90% coverage by 2025.

**Fig. 83** SDG 3.1.2 Proportion of births attended by skilled health personnel (%), change over time

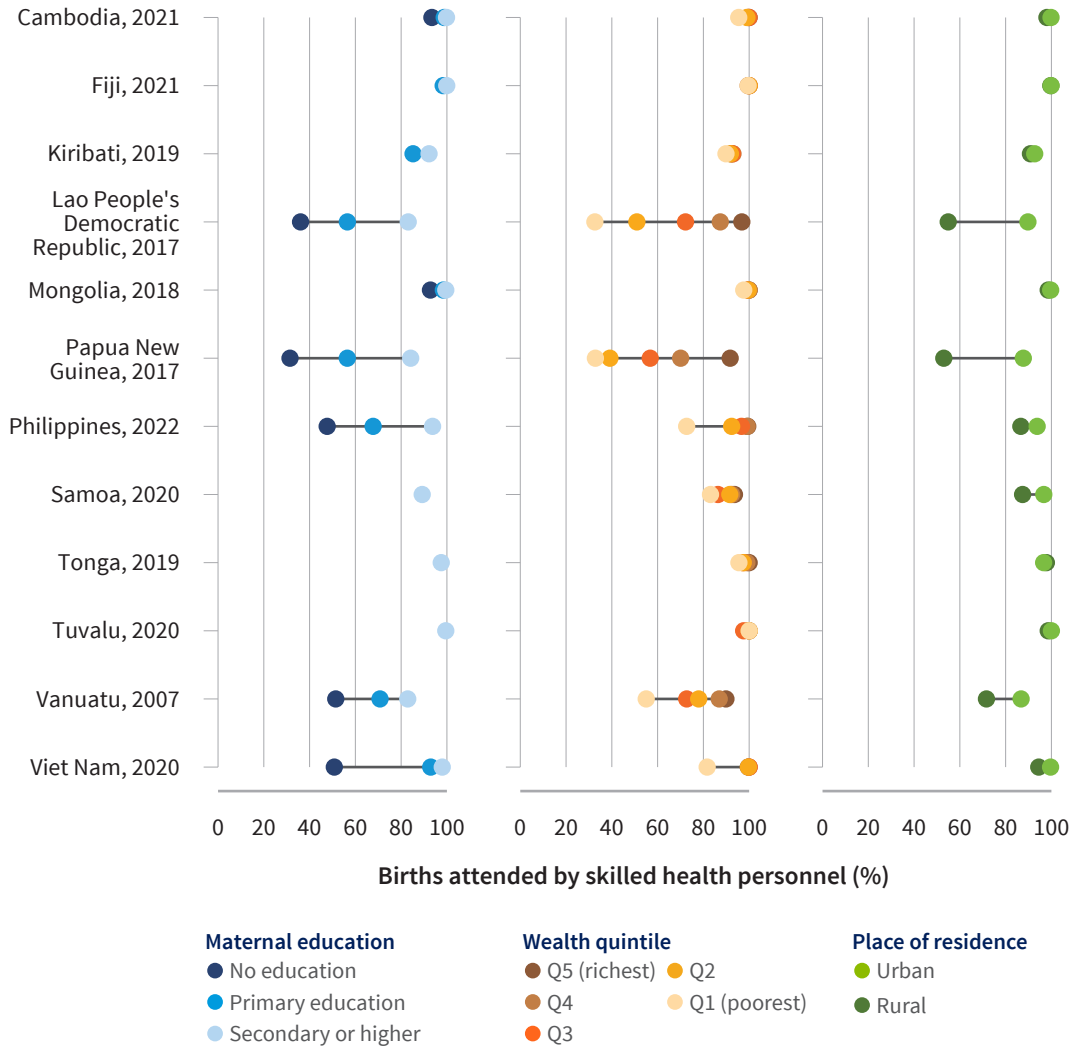



*Source:* WHO *(8)*.

## **Box 8.** Inequalities in skilled birth attendance in the Western Pacific Region

In several countries within the Region, the proportion of births attended by skilled health personnel substantially varied based on maternal educational level, wealth quintile and place of residence. Women with higher educational levels, those in wealthier quintiles and urban residents were more likely to have skilled health personnel present at childbirth (Fig. 84). The Lao People's Democratic Republic and Papua New Guinea had large disparities in skilled birth attendance across educational levels, wealth quintiles and place of residence. Similarly, the Philippines, Vanuatu and Viet Nam also had large inequalities based on educational level and wealth quintile. Targeted interventions are needed to reach these women to address these disparities and promote equity in childbirth.

**Fig. 84** SDG 3.1.2 Proportion of births attended by skilled health personnel (%), by maternal education, wealth quintile and place of residence




Note: Proportion of births attended by skilled health personnel in the two or three years preceding the survey.
*Source:* WHO *(8)*.

## Child immunization

> SDG target 3.b: Support the research and development of vaccines and medicines for communicable and noncommunicable diseases that primarily affect developing countries, and provide access to affordable essential medicines and vaccines in accordance with the Doha Declaration on the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and public health, which affirms the right of developing countries to use the TRIPS provisions regarding flexibilities to protect public health, and, in particular, provide access to medicines for all
>
> - Indicator 3.b.1: Proportion of the target population covered by all vaccines included in their national programme.
>
> Immunization Agenda 2030 *(60)*:
>
> - The target is to achieve 90% global coverage for three doses of the combined diphtheria, tetanus toxoid and pertussis containing vaccine (DTP3), two doses of measles containing vaccine (MCV2), pneumococcal conjugate vaccine (PCV3), and human papillomavirus complete series (HPVc).

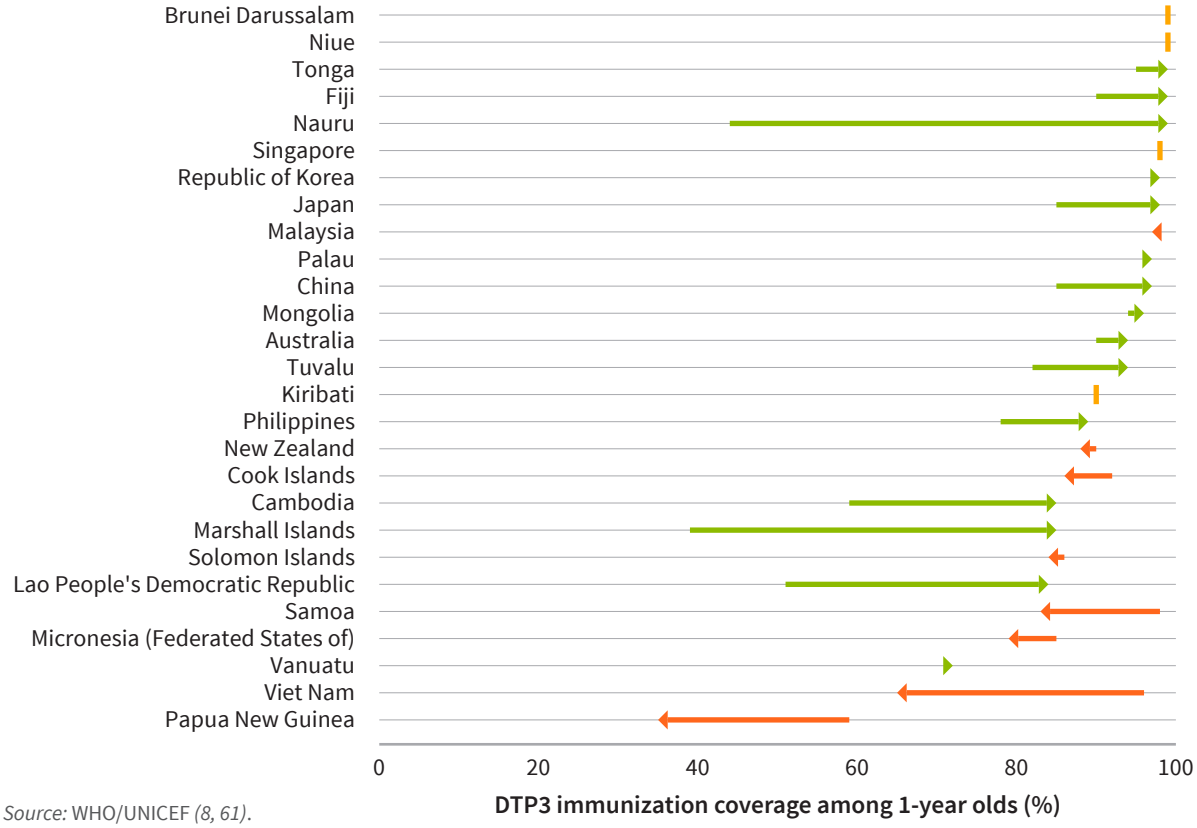
Immunization estimates are used to monitor coverage of immunization services, which are an essential intervention for reducing child mortality and supporting disease elimination and eradication efforts. Every year, vaccines save millions of lives in the Western Pacific Region. Over time, the Region has seen an increase in immunization coverage. The coverage for receiving three doses of the DTP3 among 1-year-olds rose from 85% in 2000 to 92% in 2023. Similarly, the coverage for receiving MCV2 increased dramatically from 2% in 2000 to 90% in 2023, following updated recommendations and national eligibility criteria. In 2023, immunization coverage for both DTP3 and MCV2 in the Western Pacific was substantially higher than the global averages, with coverage rates of 84% and 74%, respectively.

Between 2000 and 2023, DTP3 coverage increased in 15 Member States, whereas a decrease was observed in eight Member States and four experienced no change in their coverage levels (Fig. 85). However, 12 Member States did not yet achieve the Immunization Agenda 2030 target of at least 90% coverage in 2023, with Papua New Guinea (35%) and Viet Nam (65%) having the lowest coverage. The largest decreases in coverage occurred in these two countries, with a decrease of 24 percentage points in Papua New Guinea and 31 percentage points in Viet Nam. Coverage rates of DTP3 also had notable drops in Cook Islands, the Federated States of Micronesia and Samoa. The largest improvements in DTP3 coverage rates occurred in Cambodia, the Lao People's Democratic Republic, the Marshall Islands and Nauru.

For MCV2 immunization coverage, the baseline year of data availability differed between countries due to varying timelines for its national introduction. Most countries in the Region saw an increase in MCV2 coverage rates, yet some experienced decreased coverage, such as New Zealand, Samoa, Singapore, Solomon Islands and Tuvalu (Fig. 86). Half of Member States in the Region had already reached the target of at least 90% coverage contained in the Immunization Agenda 2030 while another 14 Member States had not yet reached this target.

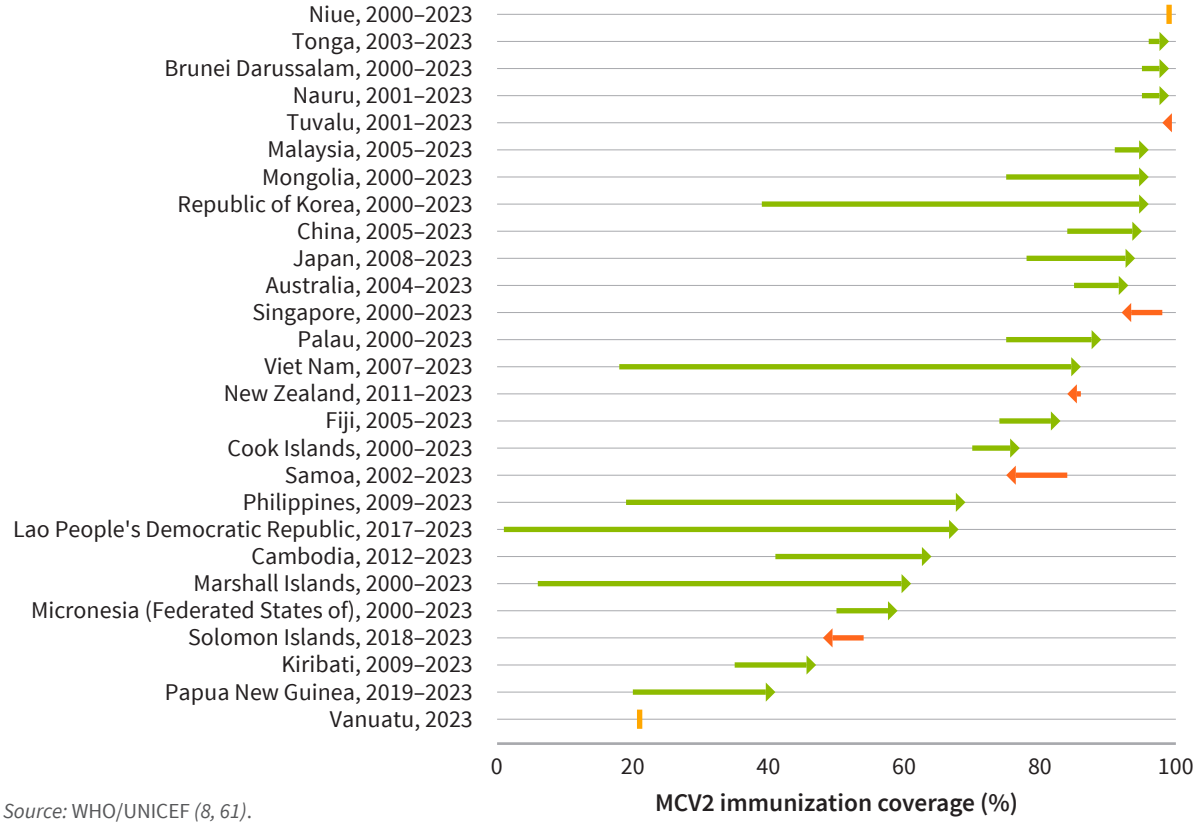
Strengthened immunization services are needed to achieve immunization rates of at least 90% by 2030 as set in the Immunization Agenda, focusing particularly on countries lagging behind and experiencing decreasing trends.

**Fig. 85** SDG 3.b.1 DTP3 immunization coverage among 1 year olds (%), 2000 and 2023




*Source:* WHO/UNICEF *(8, 61)*.

**Fig. 86** SDG 3.b.1 MCV2 immunization coverage by nationally recommended age (%), change over time

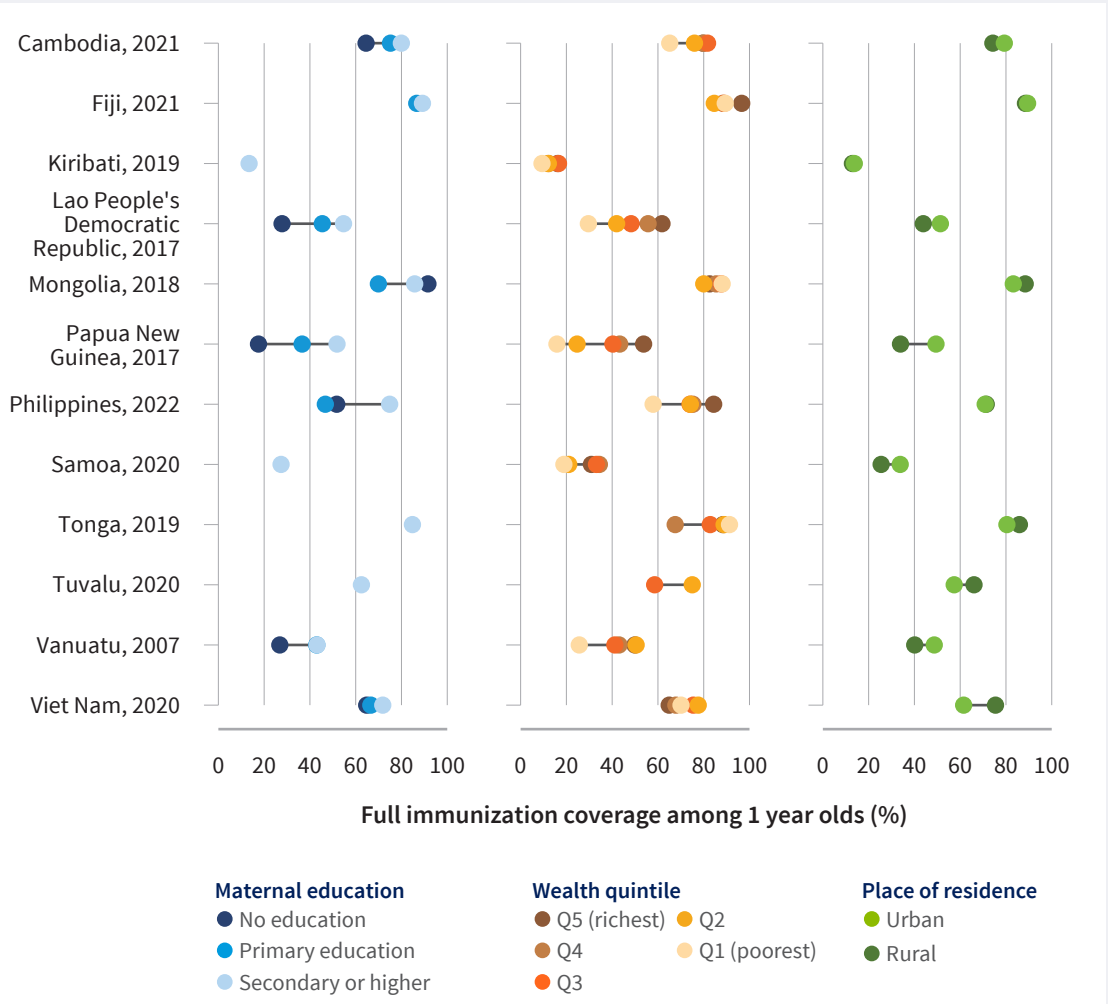



*Source:* WHO/UNICEF *(8, 61)*.

## **Box 9.** Inequalities in immunization coverage

Inequitable access to vaccination remains a major problem in many countries in the Western Pacific Region. Vaccination coverage inequalities are observed by maternal educational level, wealth quintile and place of residence (Fig. 87). Generally, immunization rates were lower among children from lower wealth quintiles and whose mothers had lower educational levels. In some countries, the differences between groups were substantial. For instance, in Papua New Guinea, immunization coverage among children in the richest wealth quintile was triple that of those in the poorest quintile. A similar inequality was observed in the Philippines, where children whose mothers had the highest educational level had immunization rates nearly double those of children whose mothers had no education. Disparities in immunization rates in terms of place of residence were mixed: in some countries children in rural areas had higher immunization rates, while in others higher rates were reported for children in urban settings.

**Fig. 87** SDG 3.b.1 Full immunization coverage among 1 year olds (%), by maternal education, place of residence and wealth quintile, latest year




Note: Full immunization coverage refers to the percentage of 1 year olds who have received one dose of Bacille Calmette-Guérin vaccine, three doses of polio vaccine, three doses of the DTP3 vaccine, and one dose of measles vaccine.

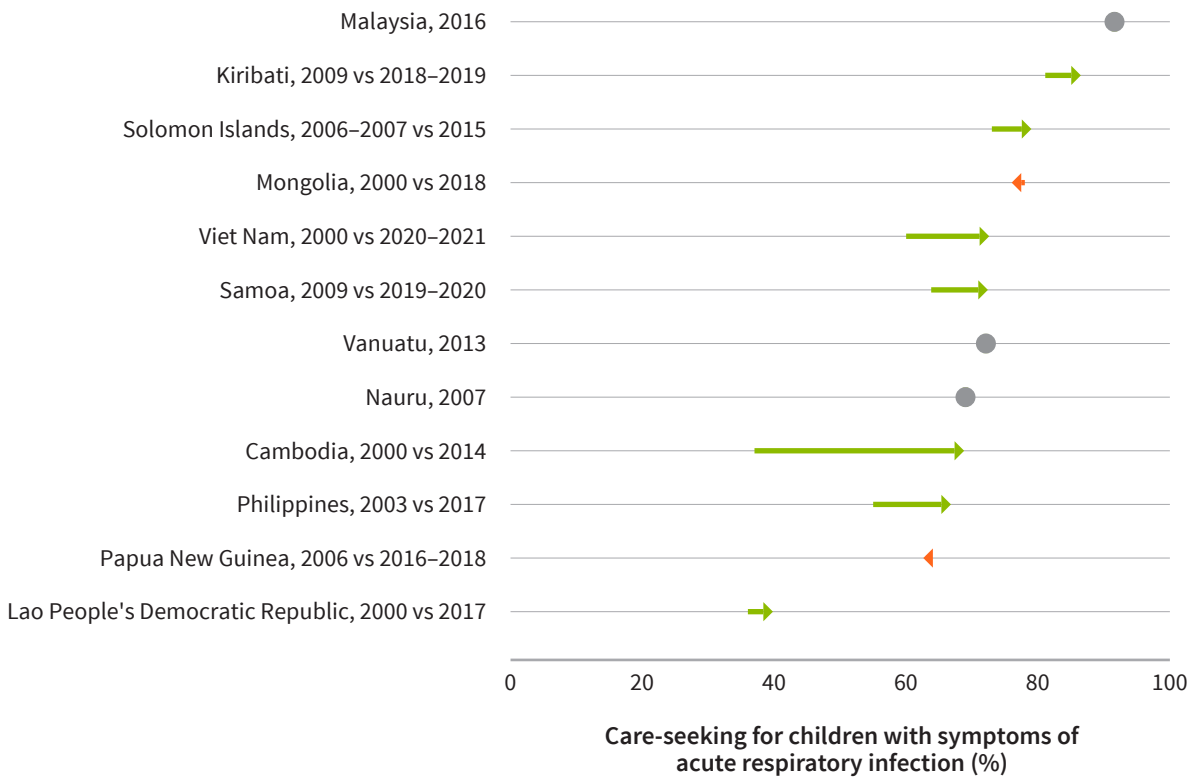
*Source:* WHO *(8)*.

## Care-seeking for children with symptoms of acute respiratory infection

Acute respiratory infections (ARI) constitute a leading cause of mortality among children under 5 years of age globally. Consequently, the percentage of children under 5 years of age with suspected ARI who are taken to a health-care provider and receive care serves as an indicator of the extent of intervention coverage, as well as the propensity for seeking health-care services.

The availability of data on care-seeking behaviour for children with suspected ARI in the Western Pacific Region is inconsistent, making comparisons among Member States challenging. Among the countries with available data, there was a general trend of improvement in care-seeking behaviour for children with symptoms of ARI, except for two countries, Mongolia and Papua New Guinea (Fig. 88). For the latest available year across countries, the proportion of children with suspected ARI for whom care from a health provider was sought ranged between 36.0% and 91.6%. Notably, care-seeking behaviour for suspected ARI among children under 5 years of age improved drastically in Cambodia over the last two decades. While marginal improvement is observed in the Lao People's Democratic Republic, the most recent estimates only reached 36.0% coverage, which was the lowest in the Region.

**Fig. 88** Care-seeking for children with symptoms of acute respiratory infection, change over time




*Source:* WHO *(8)*.

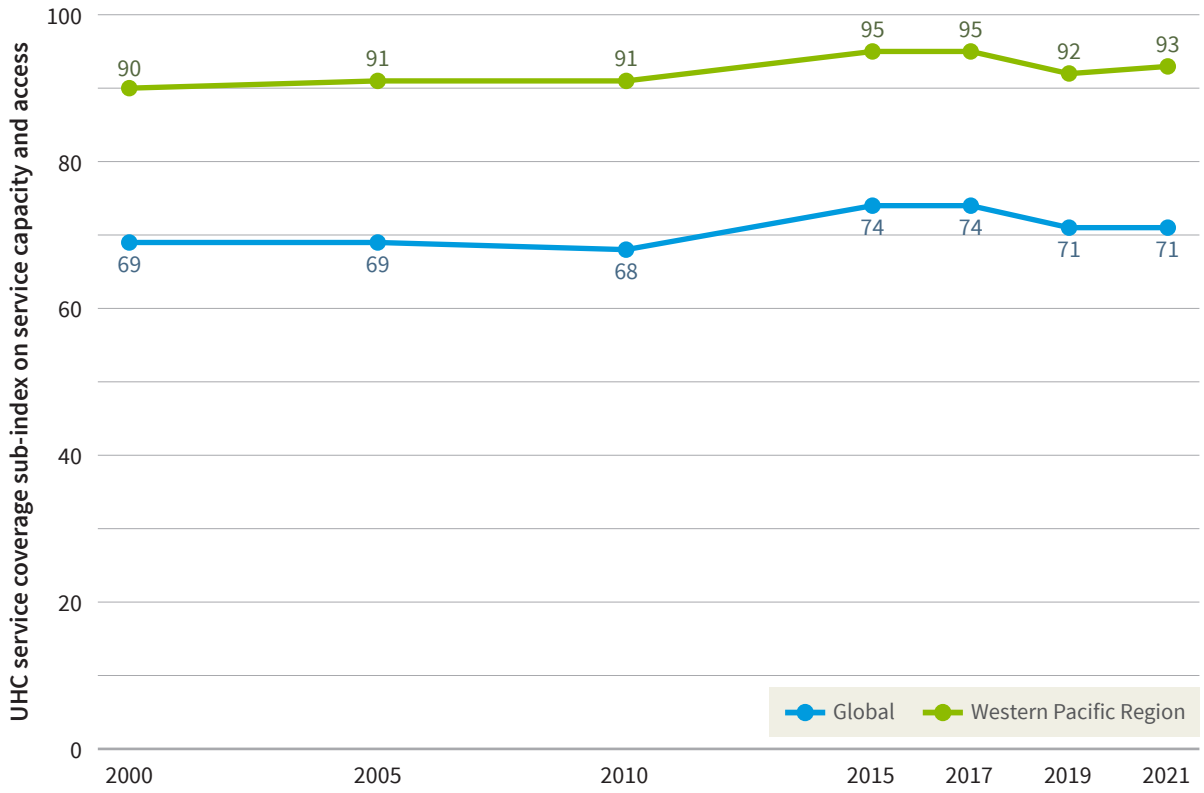
# Service capacity and access

The UHC sub-index on service capacity and access is measured through three proxy indicators, namely health worker density, hospital beds density and the International Health Regulations (2005), also known as IHR (2005), core capacity index (for the latter, see Chapter 4 for details and regional progress for this indicator).

The regional UHC sub-index on service capacity and access remained consistently high throughout the entire period, increasing marginally from 90 in 2000 to 93 in 2021 (Fig. 89). Despite a decline between 2015 and 2021, the Western Pacific Region ranked second highest among WHO regions in 2021.

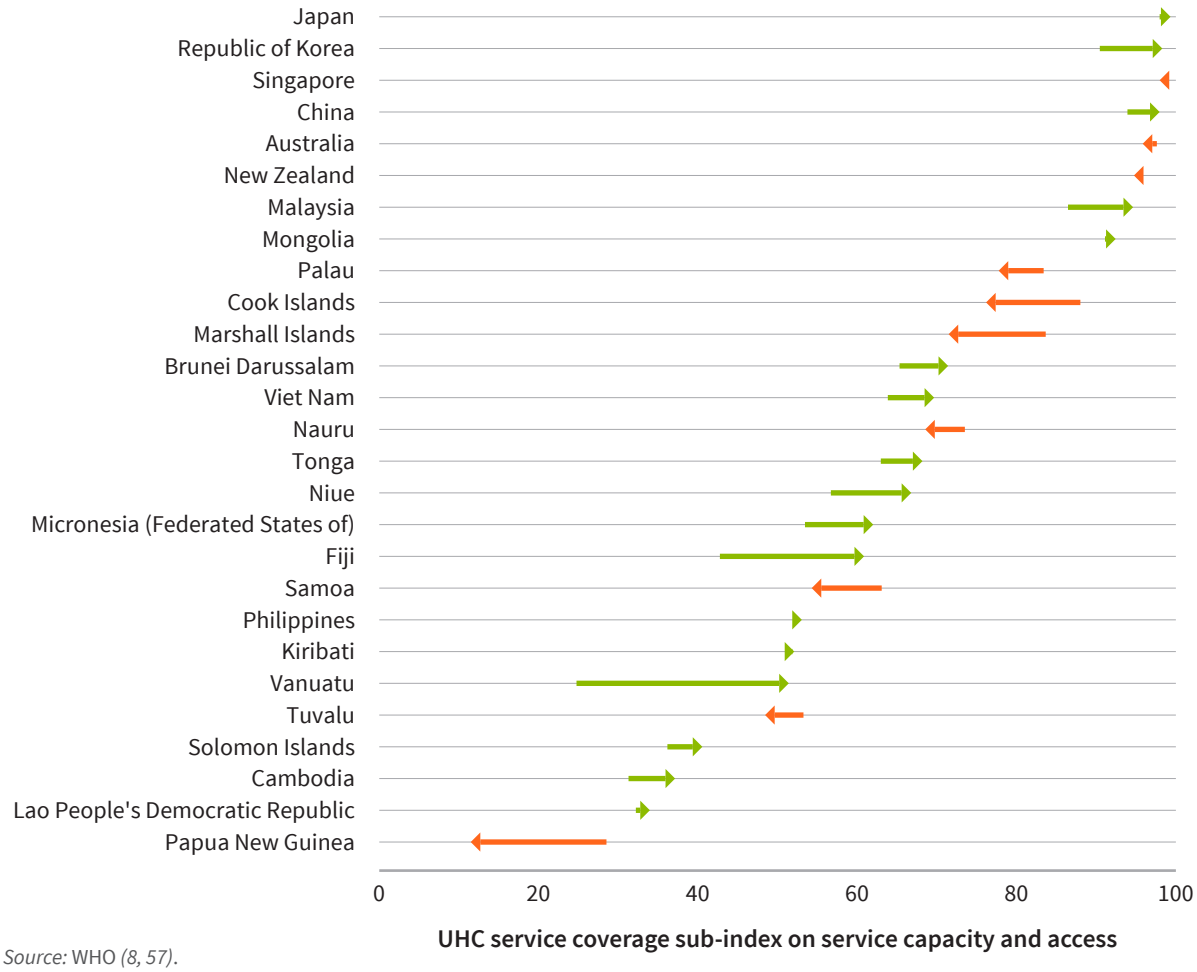
At the country level, countries had mixed trajectories. In 10 countries, the UHC service coverage sub-index on service capacity and access deteriorated, while in 17 countries, it improved (Fig. 90). Papua New Guinea, the country with the lowest initial value in the sub-index, was the country that experienced the largest decline.

**Fig. 89** SDG 3.8.1 UHC service coverage sub-index on service capacity and access in the Western Pacific Region and globally, 2000–2021




*Source:* WHO *(8, 57)*.

**Fig. 90** SDG 3.8.1 UHC service coverage sub-index on service capacity and access, 2000 and 2021




*Source:* WHO *(8, 57)*.

## Health workforce

> SDG target 3.c: Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least-developed countries and small island developing states
>
> - Indicator 3.c.1: Health worker density and distribution.

The health workforce is fundamental to the functioning of health-care systems, as it encompasses the range of professionals who deliver essential health services, from doctors and nurses to allied health professionals and support staff.

Globally, between 2014 and 2021,[6] the health worker density per 10 000 population was 16.3 medical doctors, 39.4 nurses and midwives, 3.3 dentists and 4.7 pharmacists *(40)*. The Western Pacific Region had higher densities for all health worker groups except for pharmacists, which was just

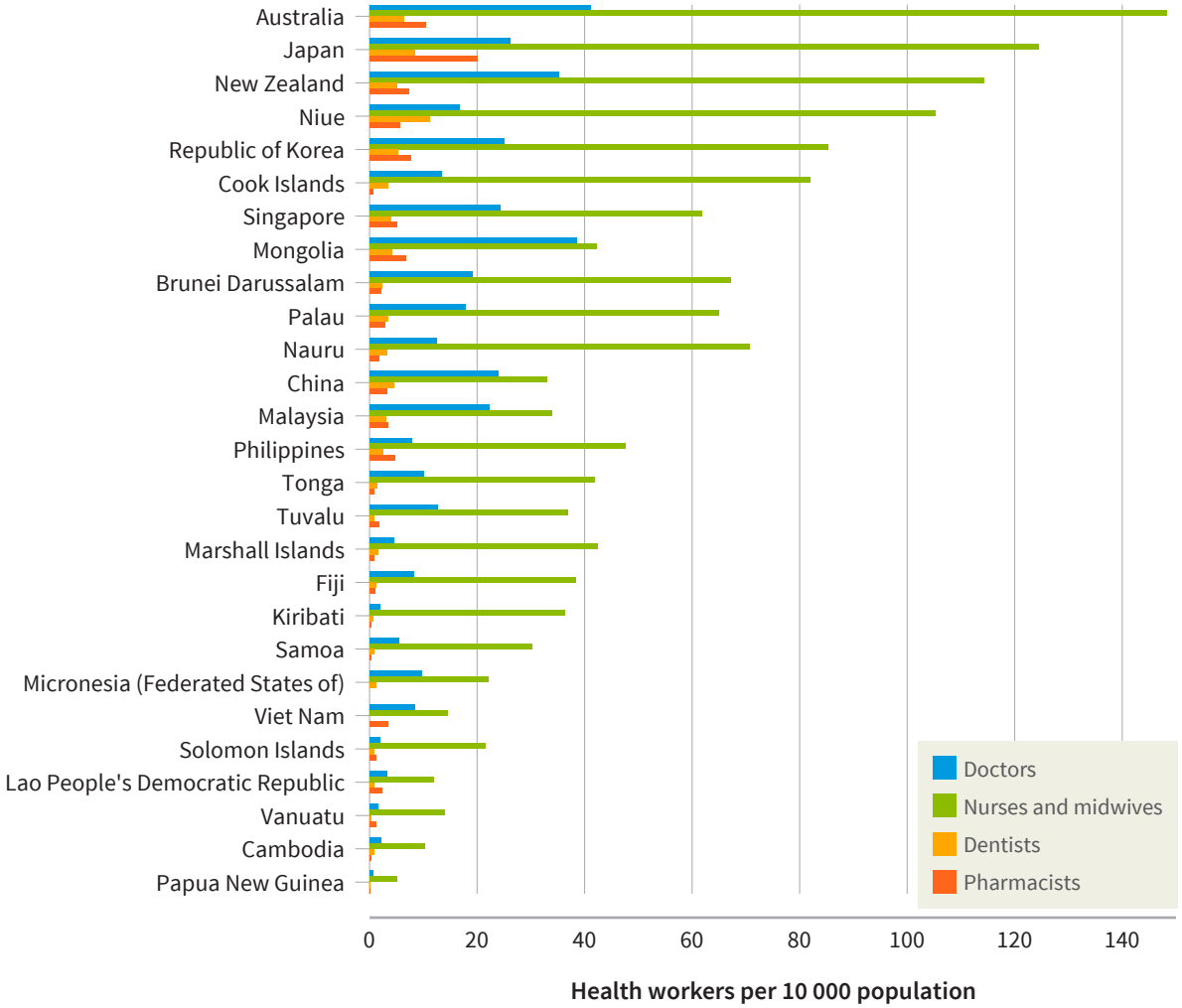
[6] Global and regional aggregates were calculated using country data between 2014 and 2021. Country comparisons are affected by differences in the occupations included. Refer to the source for country-specific definitions and other descriptive metadata. Global Health Workforce Statistics [online database]. Global Health Observatory data. Geneva: World Health Organization (https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/health-workforce, accessed 21 March 2024).

below the global value. The regional densities of medical doctors, nurses and midwives, dentists and pharmacists per 10 000 population were 20.9, 40.0, 4.5 and 4.4, respectively *(40)*. Although the global and regional health workforce shortage has declined over time, multiple challenges remain, including persistent shortages, maldistribution and inequities across countries and locations, gender segregation and disparities in occupations *(62)*.

The Western Pacific Region exhibited a diverse distribution of health workforce density across countries (Fig. 91), implying varying levels of health-care accessibility, quality and system maturity across the Region. Countries such as Australia, Japan and New Zealand showcased a high density of health workers per 10 000 population, indicating robust human resources for health and potentially better health-care accessibility. Conversely, countries like Cambodia, Papua New Guinea and Vanuatu had fewer health workers per 10 000 individuals, which could signify challenges in health-care delivery and accessibility.

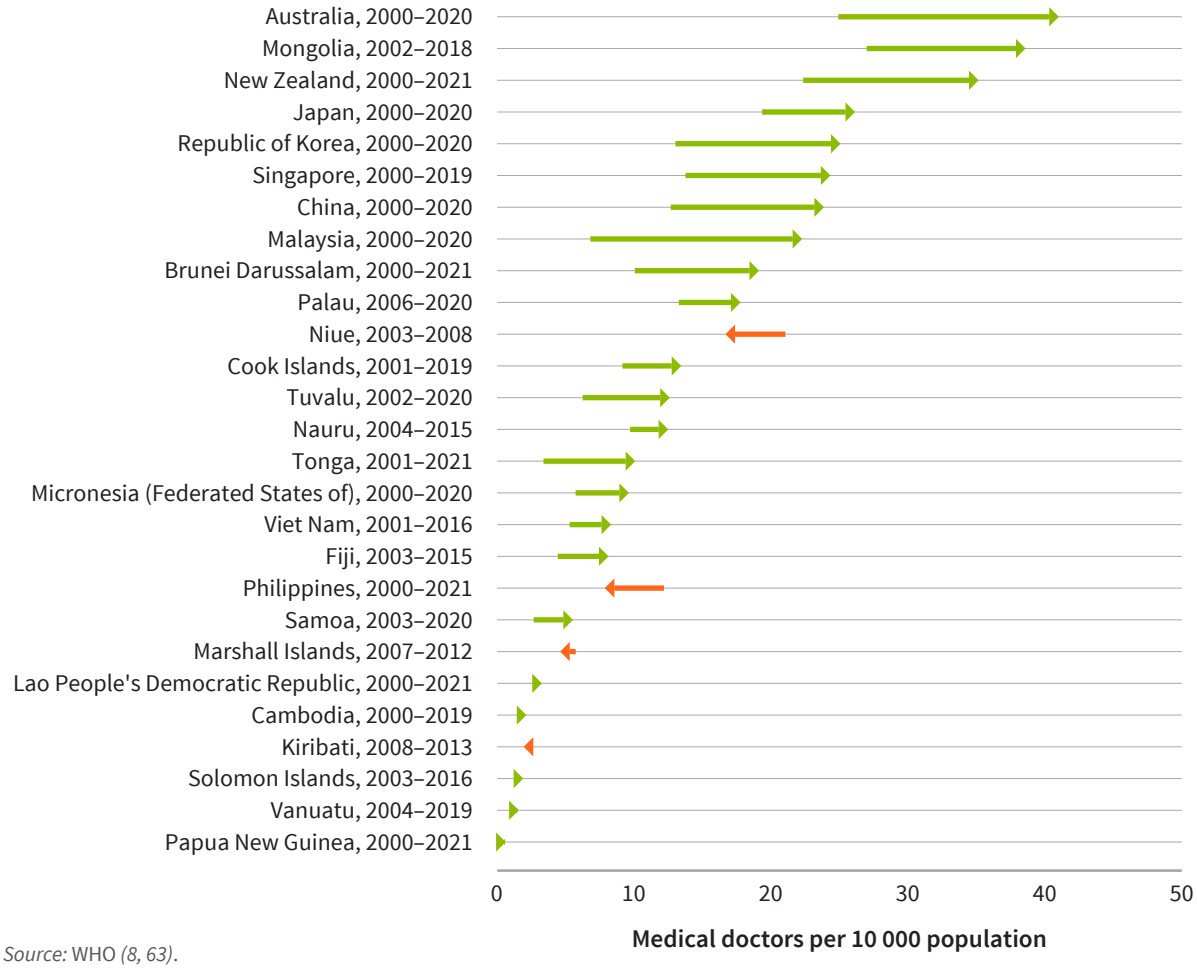
Despite this diversity, the health worker density has been on the rise in most countries, including medical doctors (Fig. 92) and nurses and midwives (Fig. 93), with the largest increases occurring in high- and upper-middle-income countries. Several PICs experienced negligible increases or even slight decreases in health worker density. These trends highlight the challenges in achieving SDG 3.c in the Western Pacific Region and the need for investment in the health workforce.

**Fig. 91** SDG 3.c Health workforce (medical doctors, nurses and midwives, dentists, and pharmacists) per 10 000 population, latest year



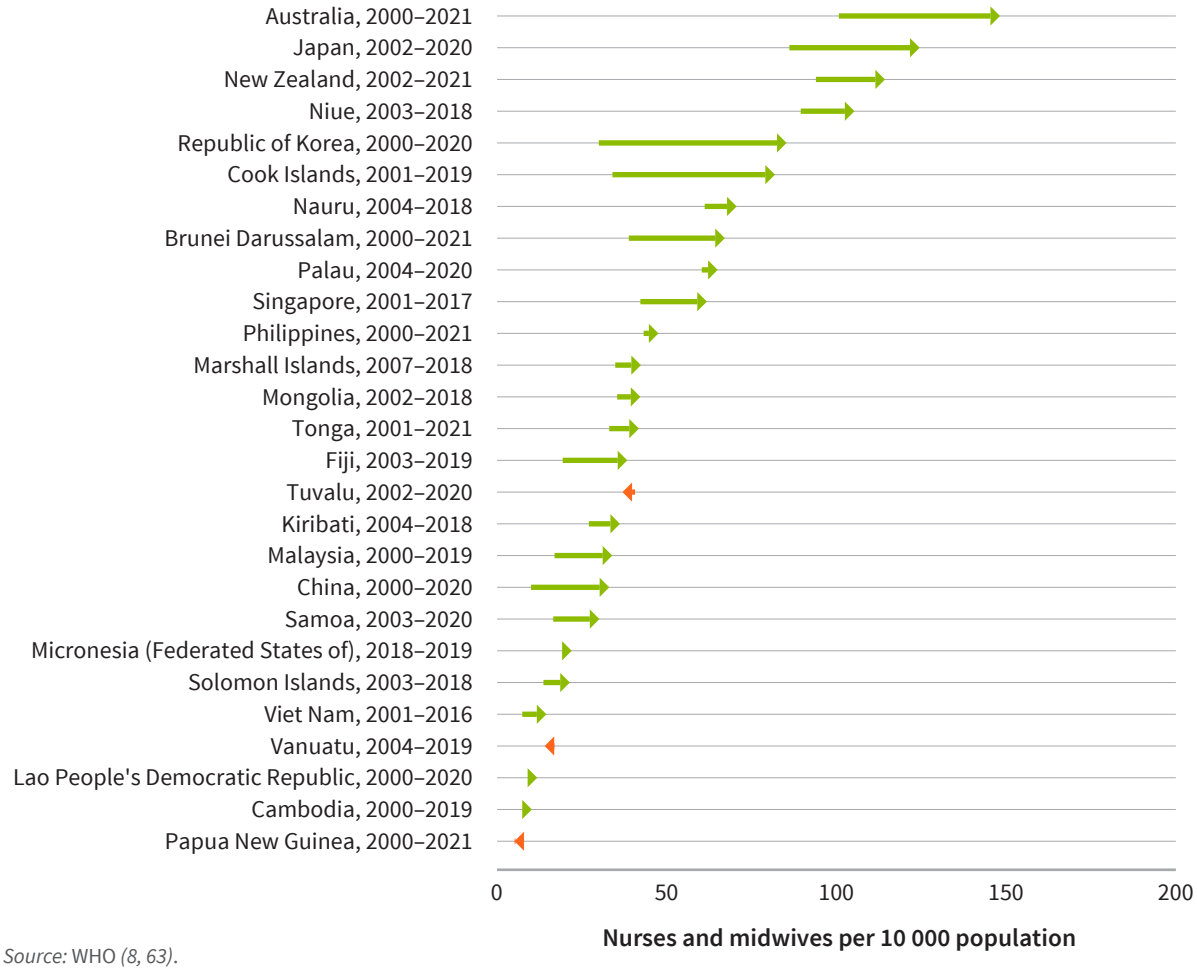

*Source:* WHO *(8, 63)*.

**Fig. 92** SDG 3.c.1 Medical doctors per 10 000 population, change over time




*Source:* WHO *(8, 63)*.

**Fig. 93** SDG 3.c.1 Nurses and midwives per 10 000 population, change over time



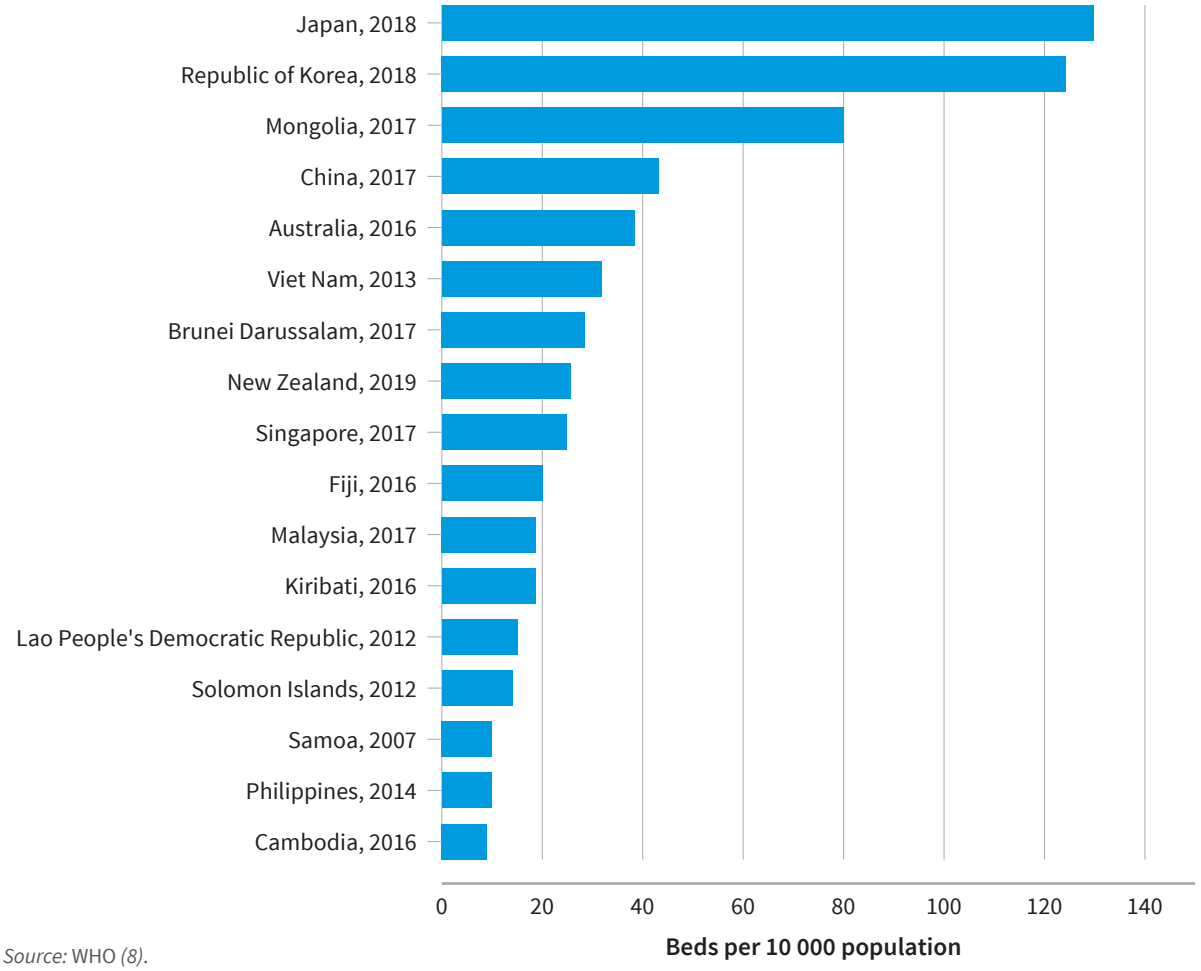

*Source:* WHO *(8, 63)*.

## Hospital bed density

The number of hospital beds available per 10 000 population is commonly used as a proxy measure for the capacity and readiness of a health system to provide inpatient services and its potential to manage surges in demand, especially during public health emergencies when a sudden influx of patients may require hospitalization. This indicator can give insights into the overall infrastructure and resource allocation of the health system, as well as the ability of a country to provide adequate care for its population.

The hospital bed density in the Western Pacific Region showcased a wide range of disparities among different countries. Japan and the Republic of Korea had a very high bed density, surpassing other countries in the Region, signalling robust health-care infrastructure and emphasis on inpatient care (Fig. 94). Cambodia, the Philippines, Samoa and Solomon Islands, with bed densities of between nine and 10 beds per 10 000 population, might face substantial challenges in accommodating patients during surges in demand, as well as a significant volume of foregone care. While some countries in the Western Pacific Region had built strong health-care infrastructure, others still had room for improvement to ensure that inpatient care can be effectively delivered, especially during times of crisis.[7]

**Fig. 94** Number of hospital beds available per 10 000 population, latest year




*Source:* WHO *(8)*.

[7] Additional estimates can be found here: https://www.oecd-ilibrary.org/sites/c7467f62-en/1/3/5/4/index.html?itemId=/content/publication/c7467f62-en&_csp_=7833549493210d580956ebc7a786363c&itemIGO=oecd&itemContentType=book.

# 3.2 Health financing

## Health expenditures

> SDG 1.a: Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least-developed countries, to implement programmes and policies to end poverty in all its dimensions.
>
> - Indicator 1.a.2: Proportion of total government spending on essential services (education, health and social protection)

Health expenditures provide insight into the capacity and commitment of countries, governments and external partners to invest in the health sector, as well as what proportion of total health expenditure is shouldered by households and by individual OOP spending.

### *Global and regional trends*

Between 2000 and 2021, the financial resources allocated to health on a per-person basis and as a share of GDP increased globally and in the Western Pacific Region. The average current health expenditures (CHE) per capita tripled in the Western Pacific Region during this period, increasing from US$ 382.7 in 2000 to US$ 1336.0 in 2021, corresponding to a share of GDP of 6.6% in 2000 and 8.2% in 2021. The Region's per capita CHE in 2021 was below the global average of US$ 1383.1, yet health expenditure as a share of GDP was above the global average, which was 7.1% in 2021.

In terms of financing from public sources in the Western Pacific Region, domestic general government health expenditure (GGHE-D) as a share of general government expenditure (GGE) marginally decreased from 10.5% in 2000 to 10.2% in 2021. However, per capita GGHE-D rose substantially, from US$ 272.2 in 2000 to US$ 916.2 in 2021. By comparison, the global average GGHE-D in 2021 was 11.2% of GGE, or US$ 980.5 per capita.

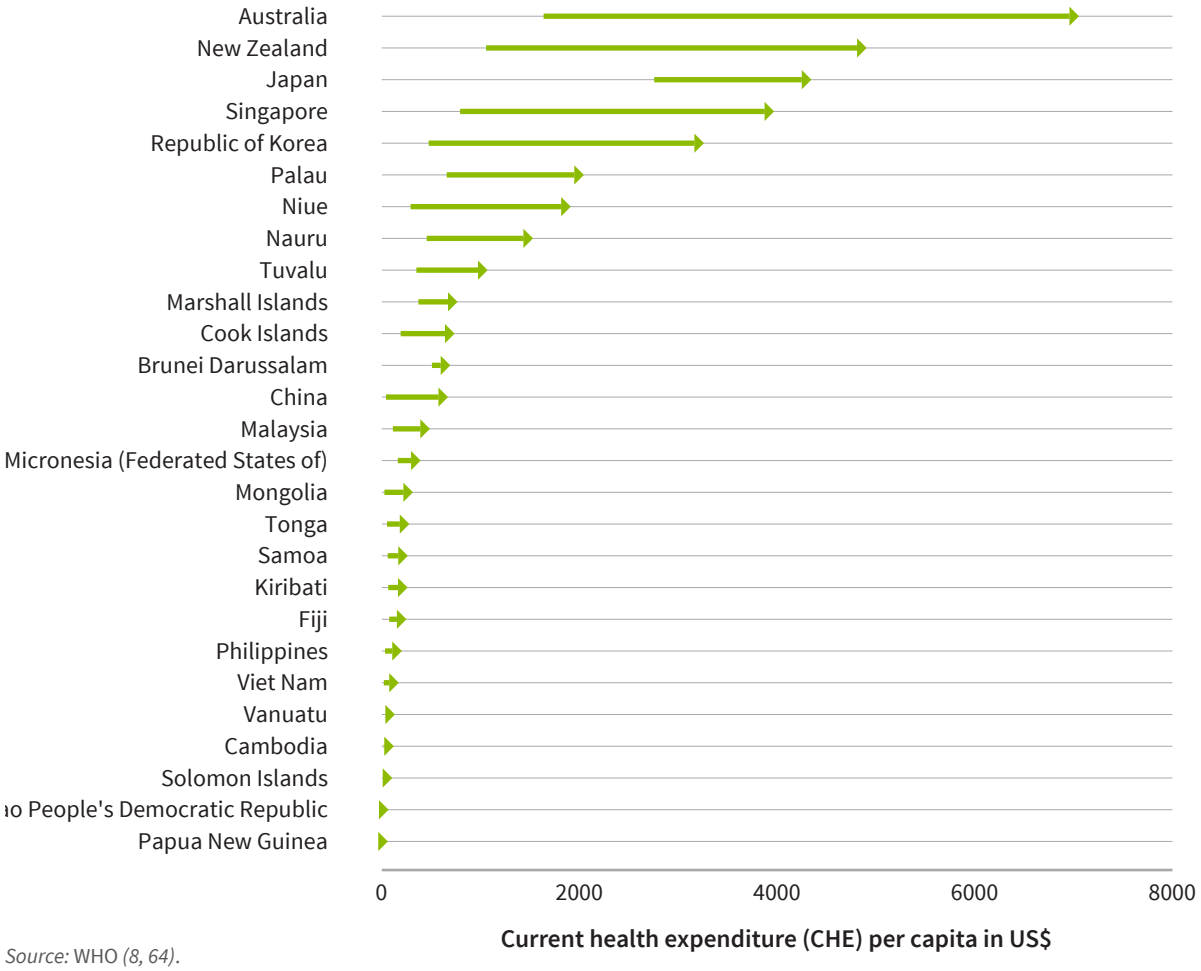
### *Trends in Member States*

At the country level, between 2000 and 2021, per capita CHE and the GGHE-D in US dollars increased across all countries (Fig. 95 and 96). However, there was a great disparity in overall health expenditures and change over time across countries. In some countries, the increases in per capita health expenditures were marginal or nearly negligible. These countries had the lowest per capita CHE and GGHE-D in both 2000 and 2021, and all were lower-middle-income countries, including some countries with the lowest GDP per capita across the Region. The countries where per capita CHE and GGHE-D increased the most over this period were mainly high- or upper-middle-income countries that had the highest health expenditures at the beginning of the period.

However, health expenditures as a share of GDP did not experience the same increased trend in all countries in the Western Pacific Region. Between 2000 and 2021, CHE as a share of GDP increased in most countries, but some experienced decreases (Fig. 97). Similarly, the proportion of health expenditures from public sources as a share of GGE increased in half of the countries in the Region and decreased in the other half (Fig. 98). Eleven out of 14 countries that experienced decreases in GGHE-D as a percentage of GGE were PICs.

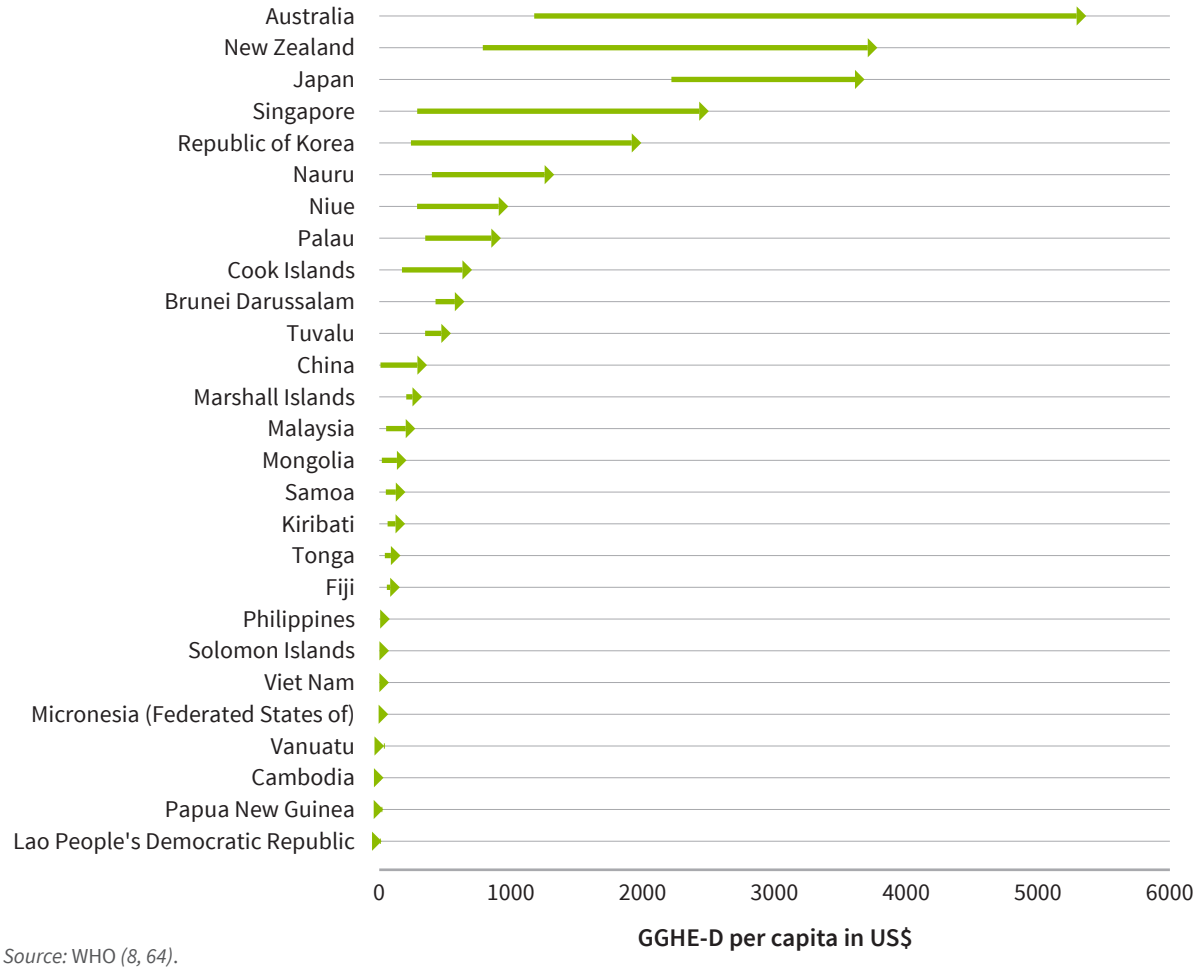
Despite GGHE-D as a share of GGE decreasing over time in some countries, in several of these countries, and many others, public sources of financing were still the main source of CHE (Fig. 99). In 21 out of the 27 Member States in the Region, GGHE-D financed more than 50% of the total CHE; and in 12 countries, government public funding was above 75% of the total CHE. The other two most common sources of financing were direct OOP payments by users and external health expenditures from development assistance. External financing was a substantial source of financing in some countries, particularly PICs.

**Fig. 95** CHE per capita in US$, 2000 and 2021



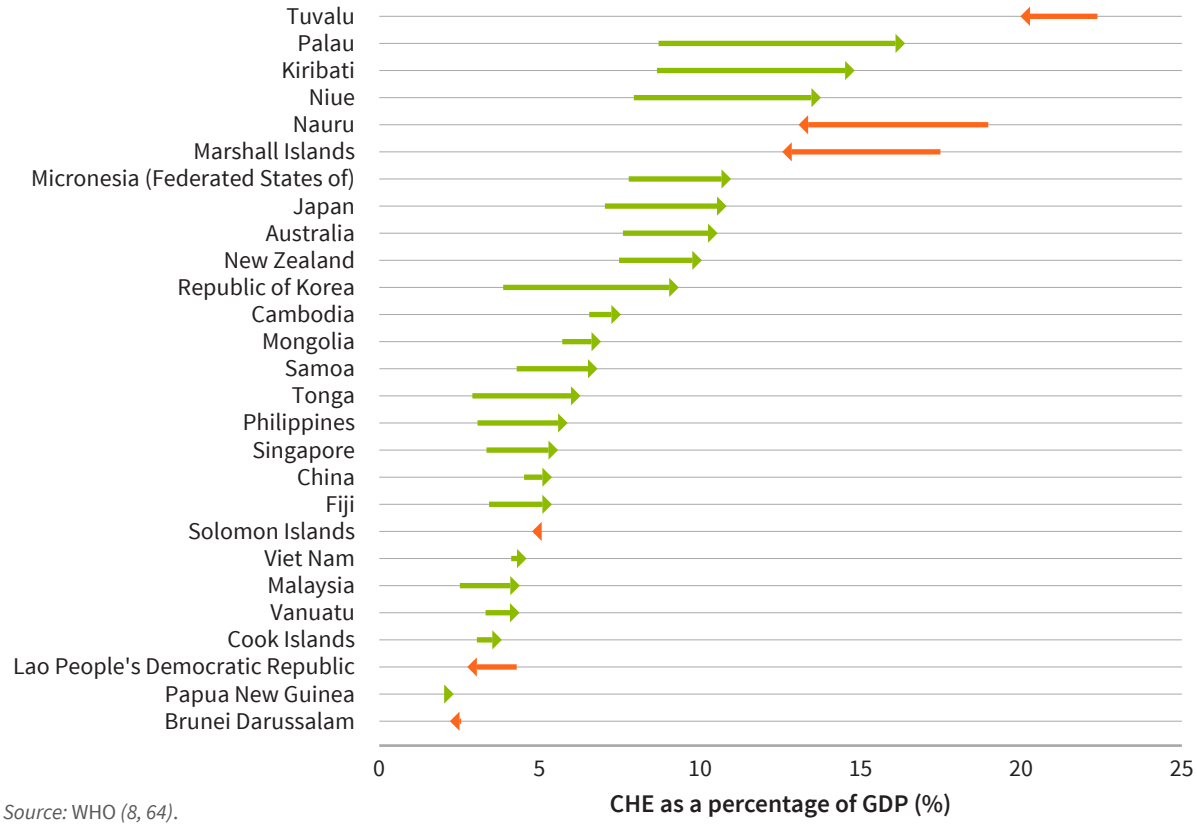

*Source:* WHO *(8, 64)*.

**Fig. 96** GGHE-D per capita in US$, 2000 and 2021



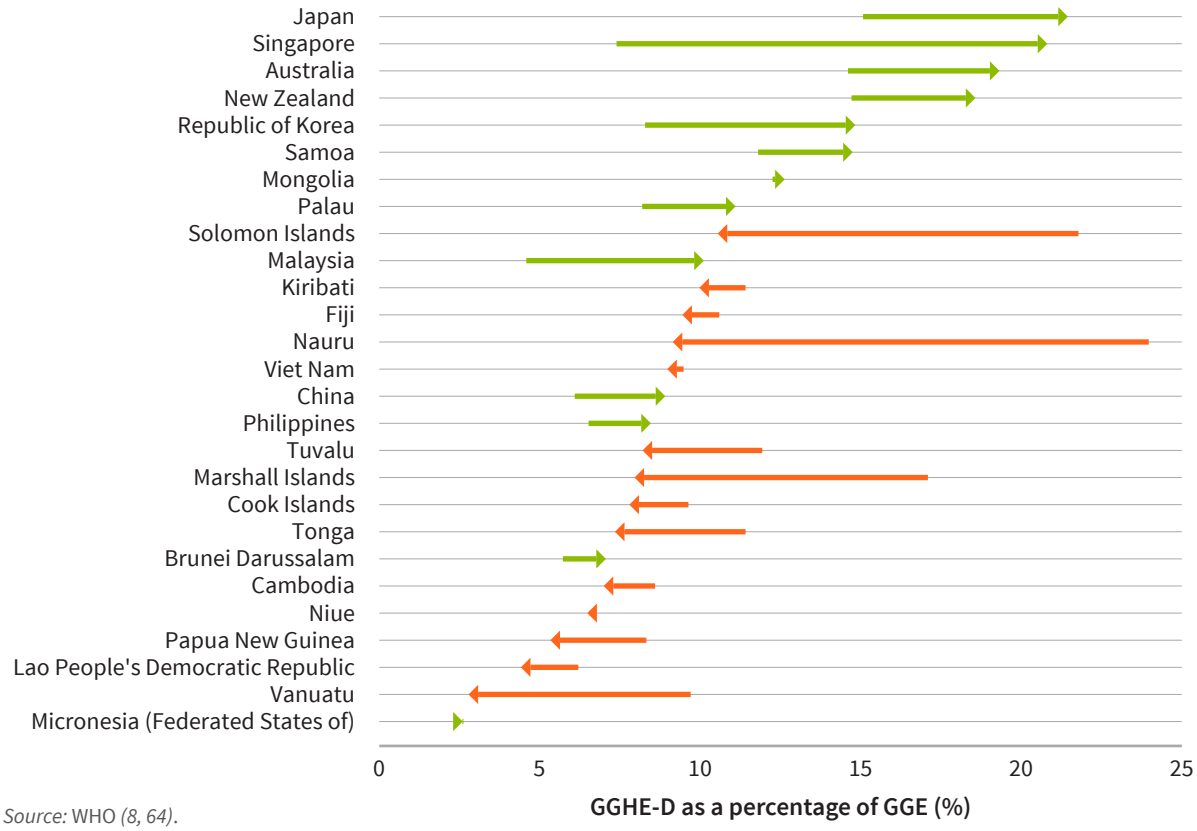

*Source:* WHO *(8, 64)*.

**Fig. 97** CHE as a percentage of GDP (%), 2000 and 2021



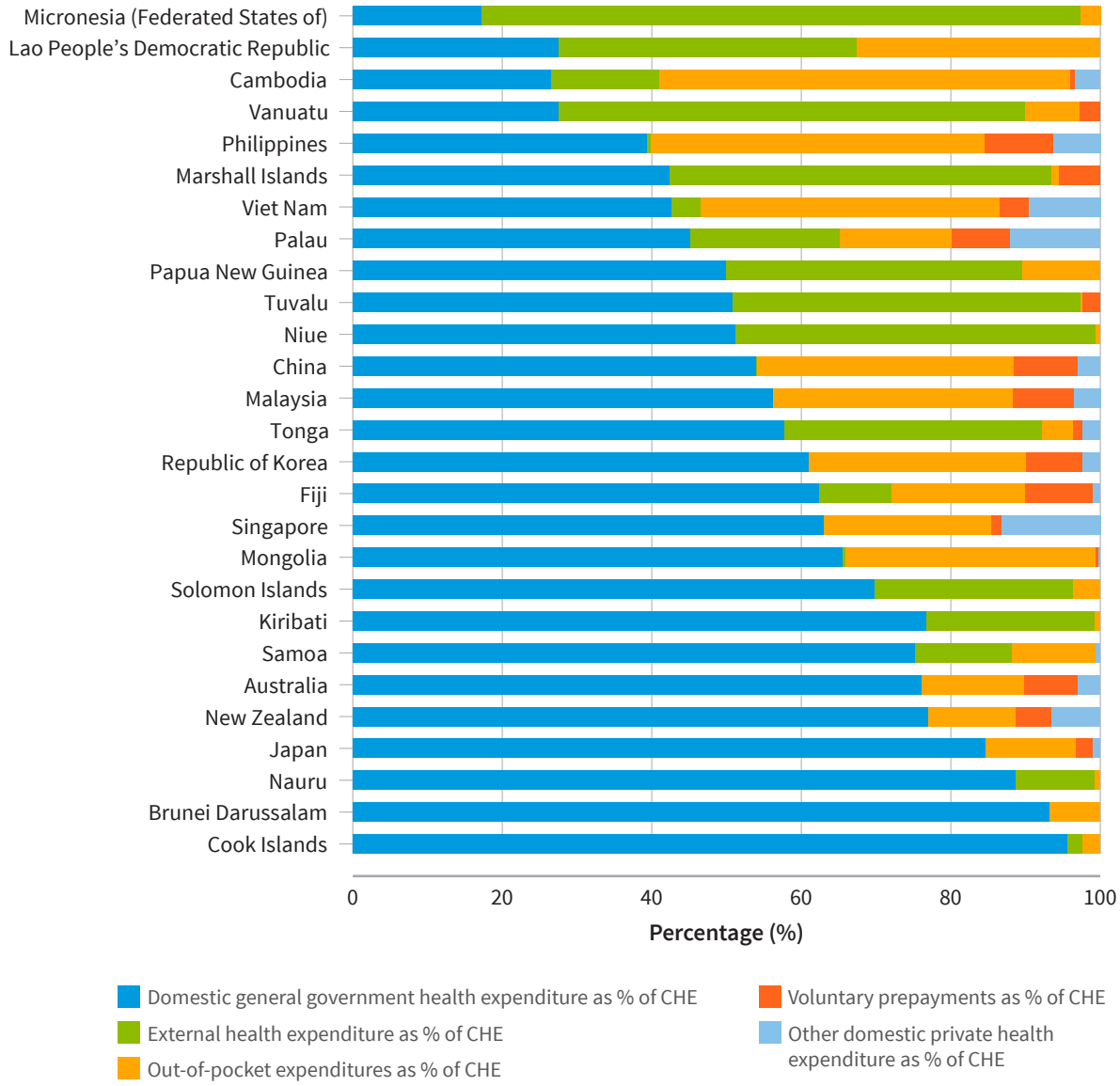

*Source:* WHO *(8, 64)*.

**Fig. 98** SDG 1.a.2 GGHE-D as a percentage of GGE (%), 2000 and 2021




*Source:* WHO *(8, 64)*.

**Fig. 99** CHE by source, 2021




*Source:* WHO *(8, 64)*.

## Financial protection

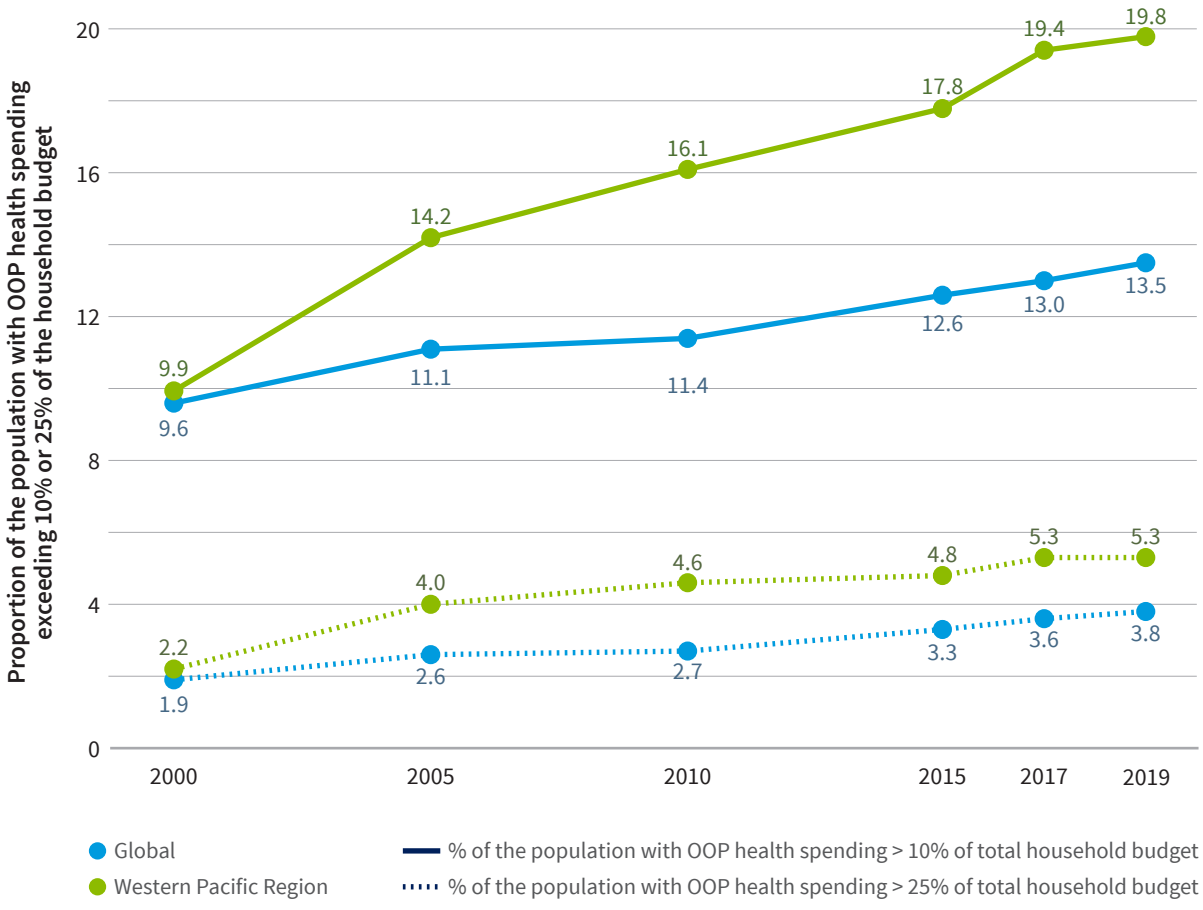
> SDG target 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
>
> - Indicator 3.8.2: Proportion of population with large household expenditures on health as a share of total household expenditure or income

Financial risk protection is a key tenet of the essential right to health. The lower the population with large household expenditures on health, the lower the financial burden it is for households to access health. Large household expenditures on health are defined using two thresholds: OOP health expenditures greater than 10%; and those greater than 25% of the total household expenditures or income.

In the Western Pacific Region, the trend in the proportion of the population experiencing catastrophic health spending has consistently increased over time, with the percentage of households incurring more than 10% of their budget to OOP health spending doubling from 9.9% in 2000 to 19.8% in 2019, and those spending over 25% rising from 2.2% to 5.3% in 2019 over the same period (Fig. 100) *(57)*. The pace of growth in catastrophic health spending in the Region outpaced the global average, signalling an urgent issue with high catastrophic health spending. Approximately 376 million individuals in the Western Pacific Region faced catastrophic health spending at the 10% threshold in 2019, representing 36% of the global population and ranking the Region as the highest worldwide in terms of the proportion of the population incurring financial hardship in access to health *(57)*.

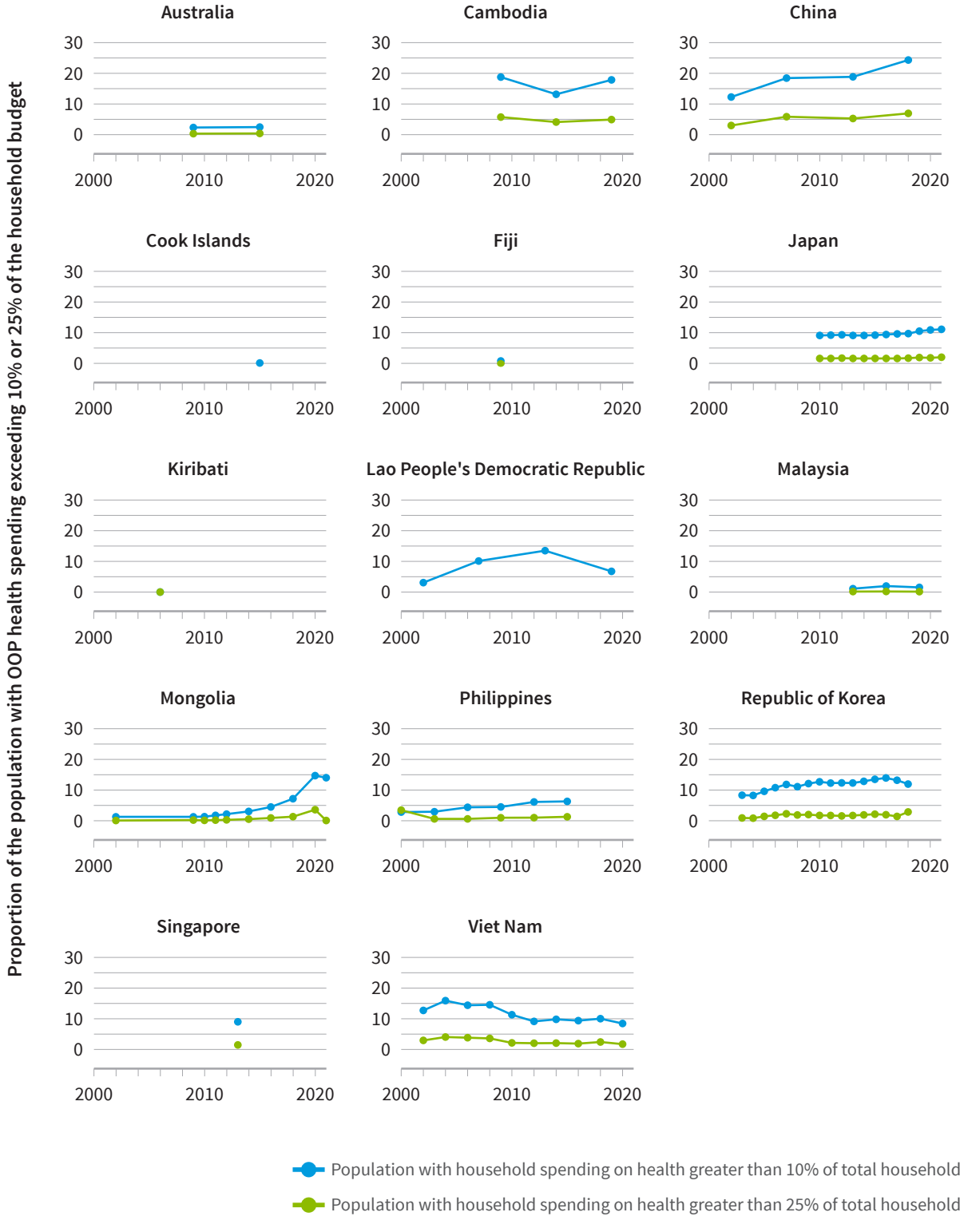
At the national level, the increased incidence of catastrophic health spending was predominantly observed in the Asian countries of the Region, while PICs displayed either a lower incidence or a lack of data (Fig. 101). Additionally, the disparity in catastrophic health spending between rural and urban residents varied across countries. The difference was very small in half of the countries with available data, including Australia, Cook Islands, Kiribati, the Lao People's Democratic Republic, Malaysia and the Philippines. However, the difference between urban and rural areas was noticeable in the other half of countries, including in Cambodia, China, Mongolia, the Republic of Korea and Viet Nam (Fig. 102).

**Fig. 100** SDG 3.8.2 Proportion of the population with household OOP expenditures on health greater than 10% and 25% of total household expenditure or income in the Western Pacific Region and globally (%), 2000–2019



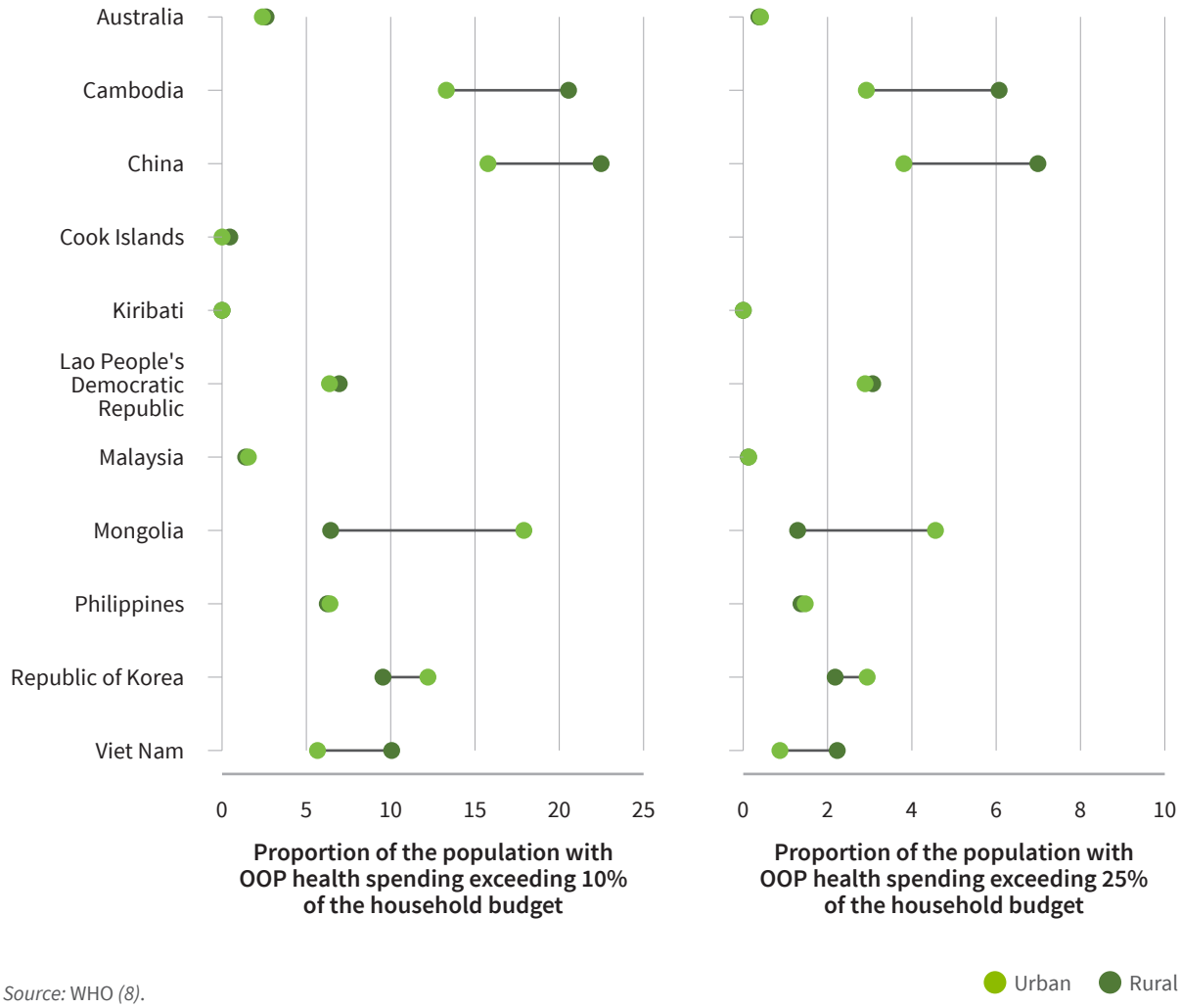

*Source:* WHO *(8, 57)*.

**Fig. 101** SDG 3.8.2 Proportion of the population with household OOP spending on health greater than 10% and 25% of the total household budget or income (%), change over time




*Source:* WHO *(8, 57)*.

**Fig. 102** Proportion of the population with household spending on health greater than 10% (left) and 25% (right) of total household budget (%), by place of residence, latest data




*Source:* WHO *(8)*.

# 3.3 Joint progress between access to essential services and financial protection in health

## Health expenditures

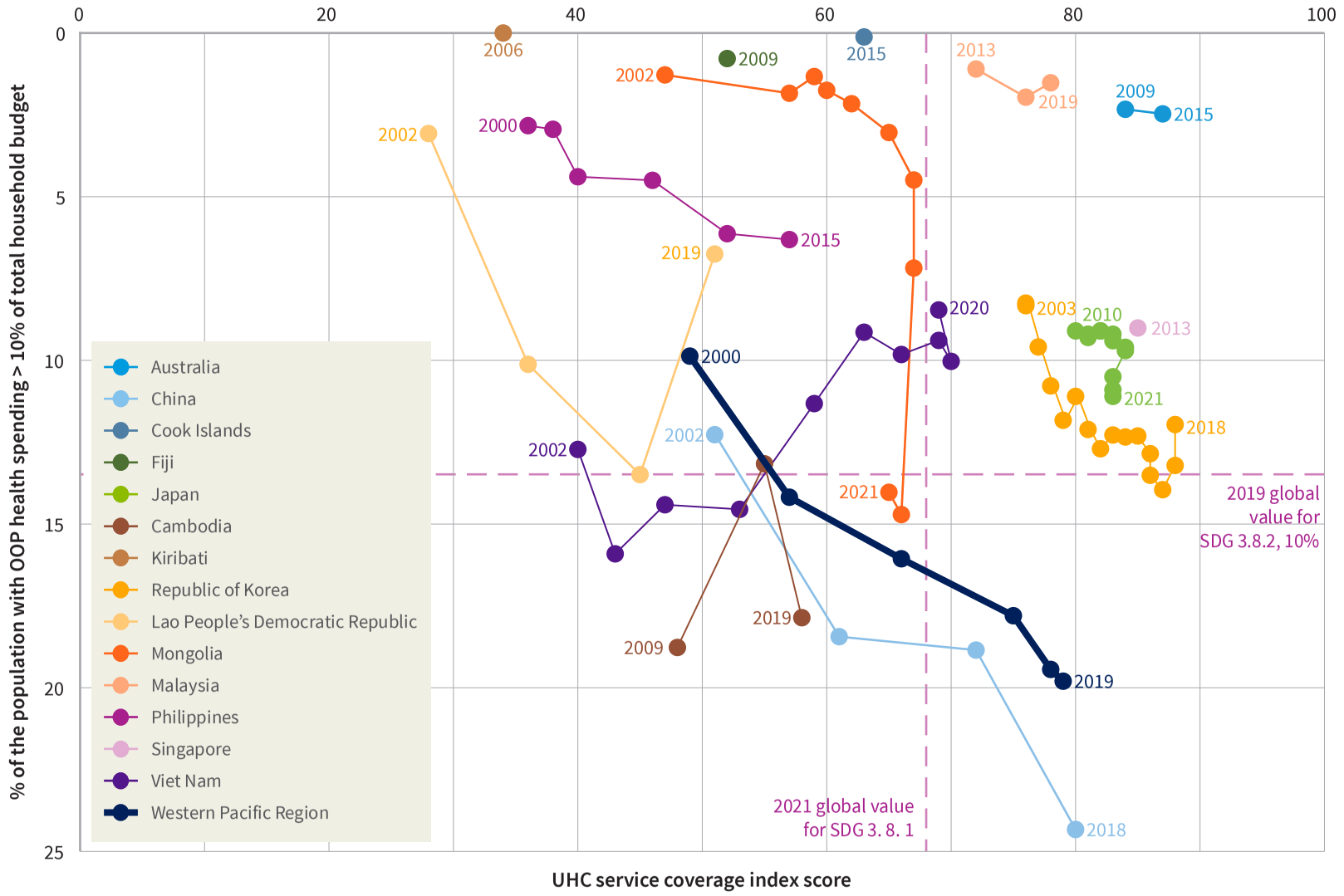
> SDG target 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services, and access to safe, effective, quality and affordable essential medicines and vaccines for all
>
> - Indicator 3.8.1: Coverage of essential health services
> - Indicator 3.8.2: Proportion of population with large household expenditures on health as a share of total household expenditure or income

The combined progress of the UHC service coverage index for essential services (SDG 3.8.1) and catastrophic health spending (SDG 3.8.2) in the Western Pacific Region shows mixed results towards achieving the UHC target (Fig. 103). While progress in essential service coverage in the Region has been positive, there has been a lack of progress in financial protection as the Region experienced an increase in the incidence of catastrophic health spending *(57)*.

At the country level, progress has been varied across Member States. While most countries experienced improvements in UHC essential service coverage between 2000 and 2021, the trajectories of countries regarding catastrophic health-care spending have been mixed. Most countries experienced a worsened or stagnated level of financial protection, yet a few experienced reduced catastrophic health spending (Fig. 103).

While the Western Pacific Region has made notable progress in expanding essential health services, substantial gaps remain in achieving full financial protection for its population. The rise in catastrophic health spending highlights that even with improved access to services, many households are still vulnerable to financial hardship due to OOP health costs. This suggests that further efforts are needed to enhance financial risk protection mechanisms and ensure that improvements in service coverage are accompanied by equitable access to affordable care for all.

**Fig. 103** Joint progress between SDG 3.8.1 (UHC service coverage index) and SDG 3.8.2 (Catastrophic health expenditure), change over time




Note: Each dot represents the combined observation for SDG 3.8.1 and SDG 3.8.2 for a given year.
*Source:* WHO *(8, 57)*.

# 4 PROTECT HEALTH

Chapter 4 includes indicators for protecting health using information from the International Health Regulations (2005) States Parties Self-assessment Annual Reporting (SPAR) tool.

## Chapter highlights

- The Western Pacific Region demonstrated strong performance across most core capacities of the IHR (2005) SPAR, exceeding the global average in all core capacities, except for zoonotic diseases and radiation emergencies.
- Member States reported highest capacities in surveillance, health emergency management, health services provision, and risk communication and community engagement.
- Member States in the Western Pacific had average IHR (2005) SPAR scores ranging from the high 30s to the high 90s, reflecting varying degrees of IHR (2005) capabilities across the Region.

# 4.1 International Health Regulations (2005) capacity

SDG target 3.d: Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

- Indicator 3.d.1: IHR (2005) capacity and health emergency preparedness

States Parties to IHR (2005) report annually to the World Health Assembly on the implementation of the IHR (2005) using the SPAR tool *(65, 66)*. Under IHR (2005), States Parties are obliged to develop and maintain minimum core capacities for surveillance and response in order to detect, assess, notify and respond to potential public health events of international concern. Updated in 2021, the SPAR tool currently includes 35 indicators for 15 identified IHR (2005) core capacities.

Despite the challenges posed by the COVID-19 pandemic, countries have continued to make strides in enhancing their health security capacities and bolstering preparedness for and response to health emergencies. In 2023, 26 out of 27 countries in the Western Pacific Region submitted their (2005) SPAR report. When compared to the global average for 2023 IHR (2005) SPAR score, countries in the Western Pacific Region generally outperformed in most core capacities, except for zoonotic diseases (C12 below) and radiation emergencies (C15). Within the Region, Member States reported highest capacities in surveillance (C5), health emergency management (C7), health services provision (C8), and risk communication and community engagement (C10) (Fig. 104).

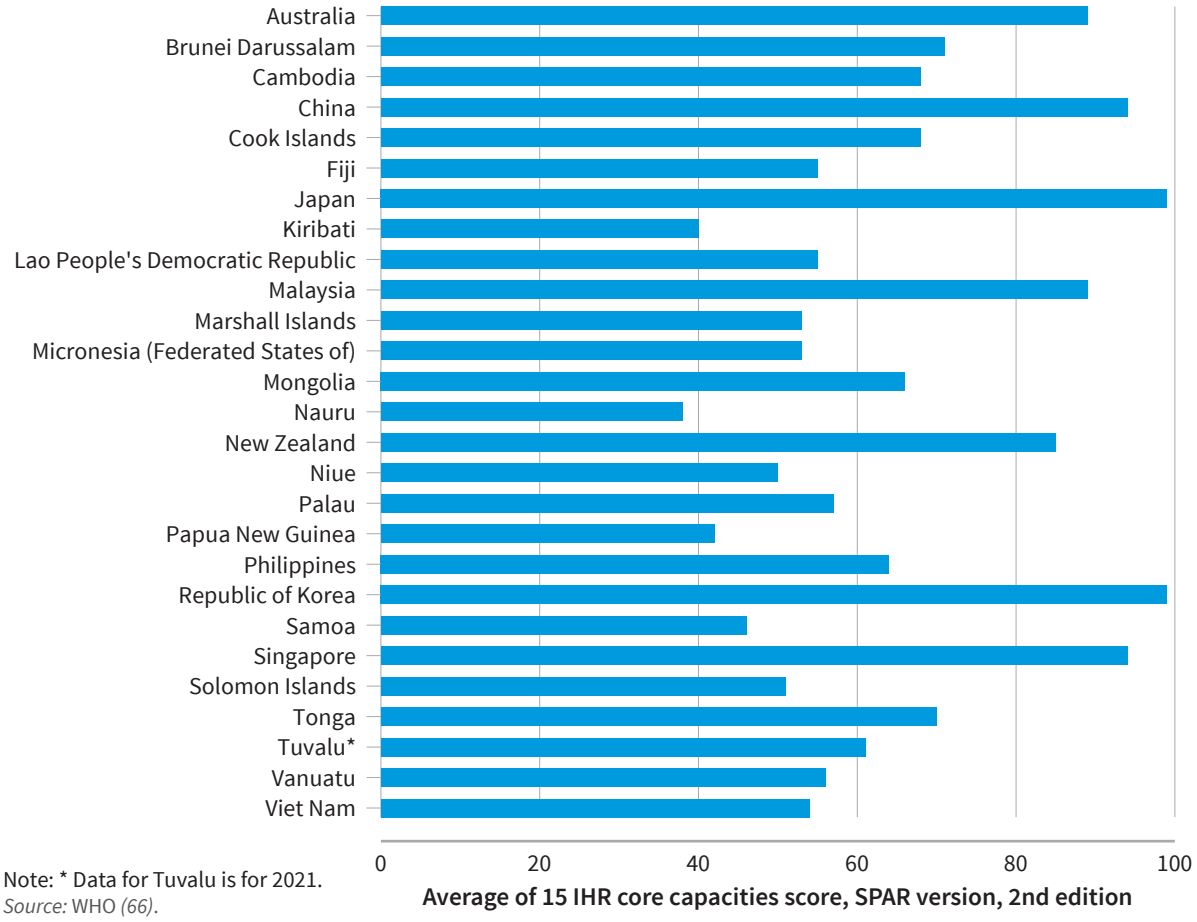
Countries in the Western Pacific had average IHR (2005) core capacities scores ranging from the high 30s to the high 90s, reflecting varying degrees of IHR (2005) capabilities (Fig. 105). Australia, China, Japan, Malaysia, New Zealand, the Republic of Korea and Singapore demonstrated stronger average performance and better adherence to the standards outlined by the IHR (2005) framework, with all of them achieving average scores above 85.

**Fig. 104** SDG 3.d.1 Regional and global scores for IHR (2005) core capacities (SPAR version, 2nd edition) by capacity, 2023


C1. Policy, Legal and normative Instruments to implement IHR
C2. IHR (2005) coordination, Nation IHR (2005) Focal Point functions and advocacy
C3. Financing
C4. Laboratory
C5. Surveillance
C6. Human resources
C7. Health emergency management
C8. Health services provision
C9. Infection prevention and control (IPC)
C10. Risk communication and community engagement (RCCE)
C11. Points of entry (PoEs) and border health
C12. Zoonotic diseases
C13. Food safety
C14. Chemical events
C15. Radiation emergencies

*Source:* WHO *(66)*.

**Fig. 105** SDG 3.d.1 Average of 15 IHR (2005) core capacity scores (SPAR version, 2nd edition), 2023




Note: * Data for Tuvalu is for 2021.
*Source:* WHO *(66)*.

## **Box 10.** Capacity-building on emergency preparedness and response in the Region

### *Joint External Evaluations*

The Joint External Evaluation (JEE) serves as another tool for evaluating IHR (2005) core capacities. It is a voluntary, collaborative and multisectoral process aimed at assessing country capacities across 19 technical areas. The insights gained from the JEE assist countries in identifying their strengths and critical gaps within their human and animal health systems. This enables them to prioritize investments effectively to enhance their preparedness and response to public health emergencies.

From 2016 to 2023, a total of 17 countries in the WHO Western Pacific Region conducted JEEs. In 2023, Mongolia and Samoa each conducted a JEE; for Mongolia this was its second JEE. No JEEs were conducted in 2020, 2021 and 2022 due to the COVID-19 pandemic. In 2019, JEEs were conducted in Brunei Darussalam, Malaysia, the Marshall Islands and Palau. Five countries conducted JEEs in 2018: Japan, the Federated States of Micronesia, New Zealand, the Philippines and Singapore. In 2017, the evaluation was carried out in Australia, the Lao People's Democratic Republic, Mongolia and the Republic of Korea. Finally, in 2016, Cambodia and Viet Nam conducted JEEs.

### *Emergency Medical Teams*

The Emergency Medical Teams (EMT) initiative aims to improve the quality, timeliness and effectiveness of clinical surge response to emergencies. As of May 2024, 12 international EMTs across seven Member States in the Western Pacific Region have achieved WHO EMT classification, demonstrating their adherence to established minimum principles and standards. Fourteen EMTs in the Region are currently progressing towards WHO classification. WHO and partners also work with ministries of health across the Region to support the establishment of national EMTs to engage in domestic emergency response. Across the Western Pacific, 18 countries and areas, including 13 PICs, have either established or are in the process of developing national EMTs, bolstering their capacities to respond to health emergencies and reducing their reliance on international assistance. EMTs from the Western Pacific have responded to events within the Region, such as measles and COVID-19, as well as tropical cyclones, earthquakes, volcanic eruptions and tsunamis. Several EMTs from the Western Pacific have also extended their support beyond the Region, responding to emergencies around the world.

### *Global Outbreak Alert and Response Network (GOARN)*

The Global Outbreak Alert and Response Network (GOARN) is a global technical partnership, established by WHO as a key mechanism to engage the resources of technical agencies beyond the United Nations for rapid identification, confirmation and response to public health emergencies of international concern. As of May 2024, GOARN has over 300 partners, with 77 located in the Western Pacific Region. Between 1 January 2020 and 5 May 2023, 72 experts deployed on 89 missions through GOARN to 14 countries in the Region to support the COVID-19 pandemic response. This was the largest number of experts deployed to support any response within the Western Pacific Region. More than 450 public health professionals have participated in the GOARN training programme. GOARN remains committed to strengthening in-country capacity of ready-to-respond public health emergency staff to meet the needs for any outbreak response.

5

# POWER HEALTH – Harnessing the power of data and digital technologies

The fifth and final chapter presents two main topics: Firstly, it explores health information systems (HIS) capacity based on the results of the implementation of the SCORE for Health Data Technical Package survey; and secondly, it examines the state of CRVS in the Western Pacific Region.

## Chapter highlights

- The results from the SCORE for Health Data Technical Package assessments showed that, compared to global findings, the Western Pacific Region had well-developed HIS capacities for surveying populations and health risks; counting births, deaths and causes of death; and reviewing progress and performance.
- The SCORE results also showed the Region had only a moderate capacity for optimizing health service data and enabling data use for policy and action.
- Member States in the Region exhibited varying degrees of HIS capacity based on the SCORE assessments, with some Member States presenting only moderated, limited or nascent capacities in most of the assessed areas.
- The Western Pacific Region is far from achieving universal birth registration. While some countries have achieved universal birth registration, in other countries millions of children remain unregistered, lacking a legal identity. Countries like Papua New Guinea and Vanuatu had considerably lower percentages.
- It is unlikely that the Western Pacific Region will achieve the death registration target of 80%. Only a limited number of countries in the Region are likely to meet this target of death registration rates of over 80%. Even among some of the countries meeting this target, reliable cause-of-death data are unavailable. Furthermore, data on death registration rates of countries in the Region are outdated and need to be updated.

# 5.1 Health information systems capacity

A robust HIS is integral to effective health-care delivery and public health management. By providing accurate and timely data on disease patterns, patient demographics and health service utilization, robust HIS support data-driven decision-making for policy-makers and health-care managers.

The SCORE for Health Data Technical Package was developed by WHO and partners to assess the performance of HIS in Member States in order to identify gaps and take actions *(67)*. The first round of the SCORE assessment was implemented in 2019–2020, with 12 Member States of the Western Pacific Region participating in self-assessments and eight other approving desk reviews performed by WHO. A global report was produced assessing the results from 133 countries *(67)*.

The assessment of HIS capacity in the Region revealed a mixed picture, with varying levels of capacity across countries and compared to global results (Table 3). Overall, the Region had a higher proportion of countries with well-developed and sustainable capacities than the global results. Specifically, the Region outperformed global results in three components, fell short in one, and showed equivalent results in another *(67)*.

First, 60% of countries in the Region demonstrated a well-developed and sustainable capacity in population surveys and health risk assessment, while globally this figure stood at 53% of countries included in the global assessment report. Second, in terms of counting births, deaths and causes of death, the Region also surpassed global performance, with 50% of its countries showing well-developed and sustainable capacities, compared to 43% globally. Third, the Region also outperformed in enabling data use for policy and action, with 40% of countries with well-developed and sustainable capacities, compared to 32% globally.

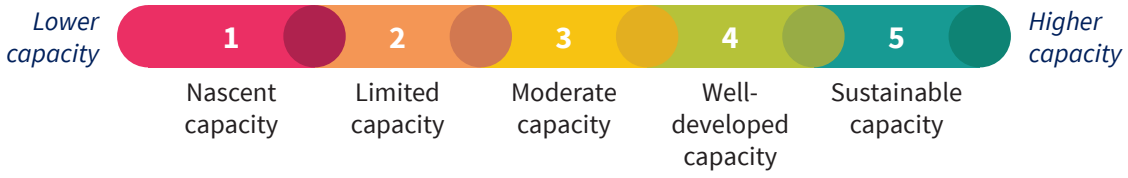
However, the Region showed lower or equivalent capacities in the remaining two components. In the fourth component, the proportion of countries with well-developed and sustainable capacities in reviewing progress and performance was 60% both in the Region and globally. Finally, the Region lagged in optimizing health service data, with only 30% of countries having well-developed and sustainable capacities, compared to 35% countries globally.

Regarding HIS capacity by country income level, lower-middle-income countries exhibited larger capacity gaps across all measured aspects of HIS capacity compared to high- and upper-middle-income countries. Whether it was the ability to conduct comprehensive population surveys, effectively monitor health risks or utilize data for strategic decision-making, lower-middle-income countries within the Western Pacific Region fell below global levels.

Although the Region outperformed global results in certain areas, its overall performance still fell short of achieving robust HIS capabilities regionally and in many countries in the Region. These findings underscore the critical need for targeted investments and support in strengthening HIS across the Western Pacific Region. By addressing these capacity gaps, countries can enhance their ability to respond to health challenges efficiently and effectively, ultimately improving health outcomes for their populations.

**Table 2** SCORE for Health Data Technical Package components average score, Round 1, 2018–2021

| Country | Survey population and health risks | Count births, deaths and causes of death | Optimize health service data | Review progress and performance | Enable data use for policy and action |
|---|---|---|---|---|---|
| **Western Pacific Region**º | 3.7 | 3.3 | 3.0 | 3.6 | 3.7 |
| Australia | 5 | 5 | 5 | 5 | 4 |
| Brunei Darussalam | 4 | 5 | 3 | 3 | 2 |
| Cambodia* | 4 | 2 | 4 | 4 | 3 |
| China* | 4 | 4 | 5 | 5 | 4 |
| Fiji* | 3 | 3 | 3 | 4 | 3 |
| Japan | 4 | 5 | 4 | 5 | 4 |
| Kiribati* | 4 | 4 | 1 | 2 | 2 |
| Lao People's Democratic Republic | 3 | 1 | 3 | 3 | 4 |
| Malaysia | 4 | 4 | 4 | 5 | 4 |
| Micronesia (Federated States of)* | 3 | 3 | 1 | 1 | 2 |
| Mongolia | 4 | 4 | 2 | 3 | 3 |
| Papua New Guinea* | 3 | 1 | 3 | 4 | 4 |
| Philippines | 4 | 4 | 3 | 4 | 4 |
| Republic of Korea | 5 | 4 | 4 | 5 | 5 |
| Samoa* | 4 | 3 | 2 | 2 | 2 |
| Singapore* | 3 | 4 | 2 | 2 | 1 |
| Solomon Islands | 3 | 2 | 3 | 4 | 3 |
| Tonga* | 3 | 3 | 1 | 1 | 1 |
| Vanuatu | 3 | 3 | 3 | 4 | 3 |
| Viet Nam | 4 | 2 | 3 | 4 | 3 |




º Simple average across the 20 countries included in the table.
* Approved desk review assessment
*Source:* WHO *(67)*.

# 5.2 Civil registration and vital statistics

CRVS play a crucial role in in any society by recording vital events such as births and deaths and by providing essential data for governance and policy-making. These systems are particularly crucial for health as they offer invaluable insights into population health trends and needs, aiding in the effective planning and delivery of health services and interventions *(68)*. Moreover, CRVS systems are a cornerstone in the effective monitoring and realization of numerous SDG targets and indicators, providing critical data that shape policy and action across diverse areas of sustainable development.

## Birth registration

> SDG target 16.9: By 2030, provide legal identity for all, including birth registration
> - Indicator 16.9.1: Proportion of children under 5 years of age whose births have been registered with a civil authority, by age
>
> SDG target 17.19: By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement GDP, and support statistical capacity-building in developing countries
> - Indicator 17.19.2: Proportion of countries that have achieved 100% birth registration and 80% death registration

Civil registration of children at birth is the first step in ensuring their legal identity, providing protective advantages and safeguarding their rights *(69)*. For instance, lacking formal identification, children might be excluded from accessing health care or education. Despite the crucial role of birth registration, the Western Pacific Region is far from achieving universal birth registration.

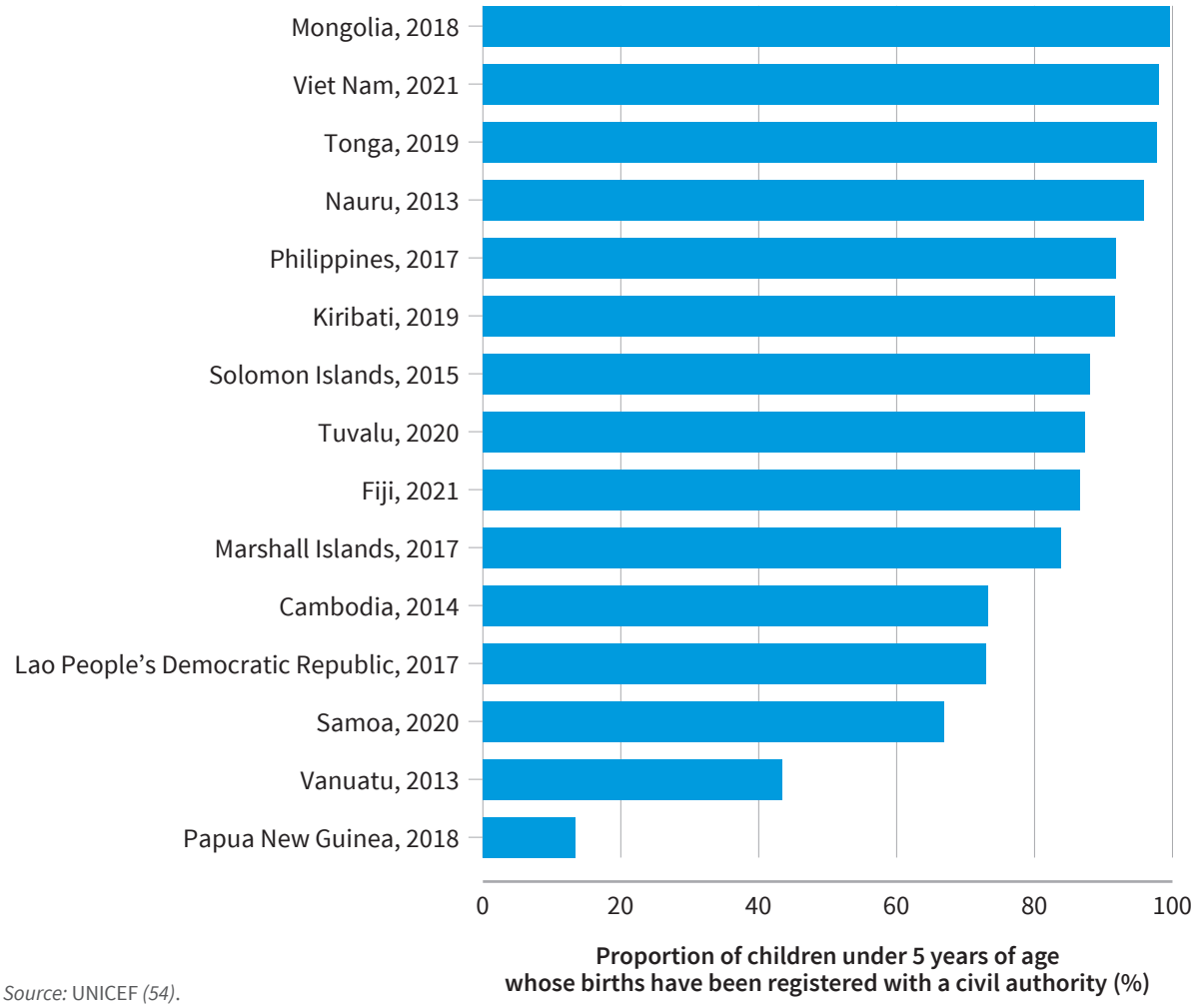
Data on the proportion of children under 5 years of age whose births had been registered with a civil authority were available for 21 countries in the Western Pacific Region, from 2013 to 2023. Only three countries had achieved universal birth registration (100% completeness), with three nearly reaching that threshold (more than 99%). In 14 other countries where data are available, millions of children remain unregistered, lacking legal identity. While some countries had birth registration rates over 80% or 90%, other countries like Papua New Guinea (13.4%) and Vanuatu (43.4%) had considerably lower percentages, indicating that challenges remain in achieving universal birth registration across the entire Region (Fig. 106).

Further, in some countries in the Region, a slightly higher proportion of boys or girls are registered, with no consistent gender bias across the Region as the variation is not uniformly skewed in favour of one gender across the analysed countries (Fig. 107). Yet, the observed gender disparities in some countries underscore the importance of continually monitoring and assessing birth registration systems to ensure that no unintentional biases emerge and that every child, regardless of gender,

has their birth officially recognized. This gender parity in registration is crucial for ensuring equal rights, access to services and opportunities for all children as they grow.

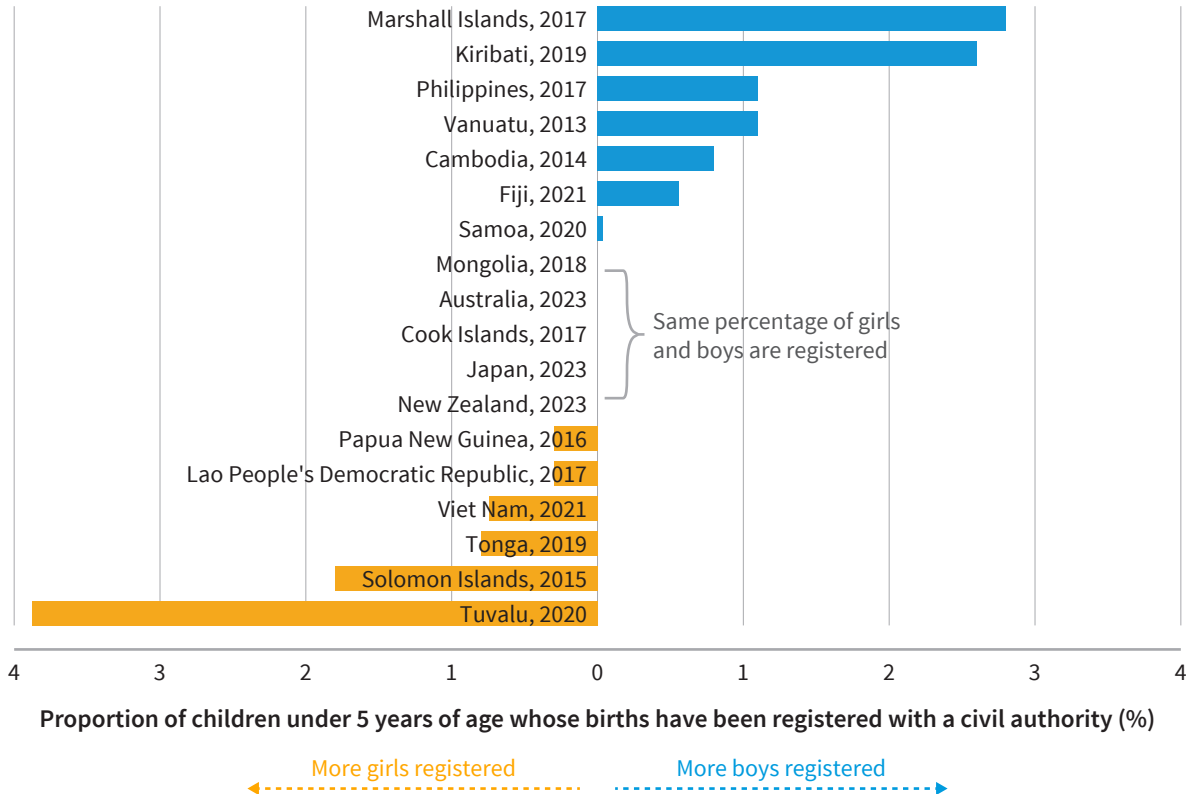
While most registered infants have their registration completed during their first year of life, a significant proportion are registered between their first and fifth years of life, highlighting that many children do not get registered promptly (Fig. 108). The two leading countries in the Region where this occurred were Fiji and Samoa, but the age gap in registration was also observed in all other countries with available data. In most countries, the difference between registration at under 1 year of age and 5 years was small, indicating that prompt registration is correlated with how many children are registered at under 5 years. Promoting timely registration at birth is crucial for ensuring children's rights are recognized and protected from the outset.

**Fig. 106** SDG 16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority (%), latest year 2013–2023



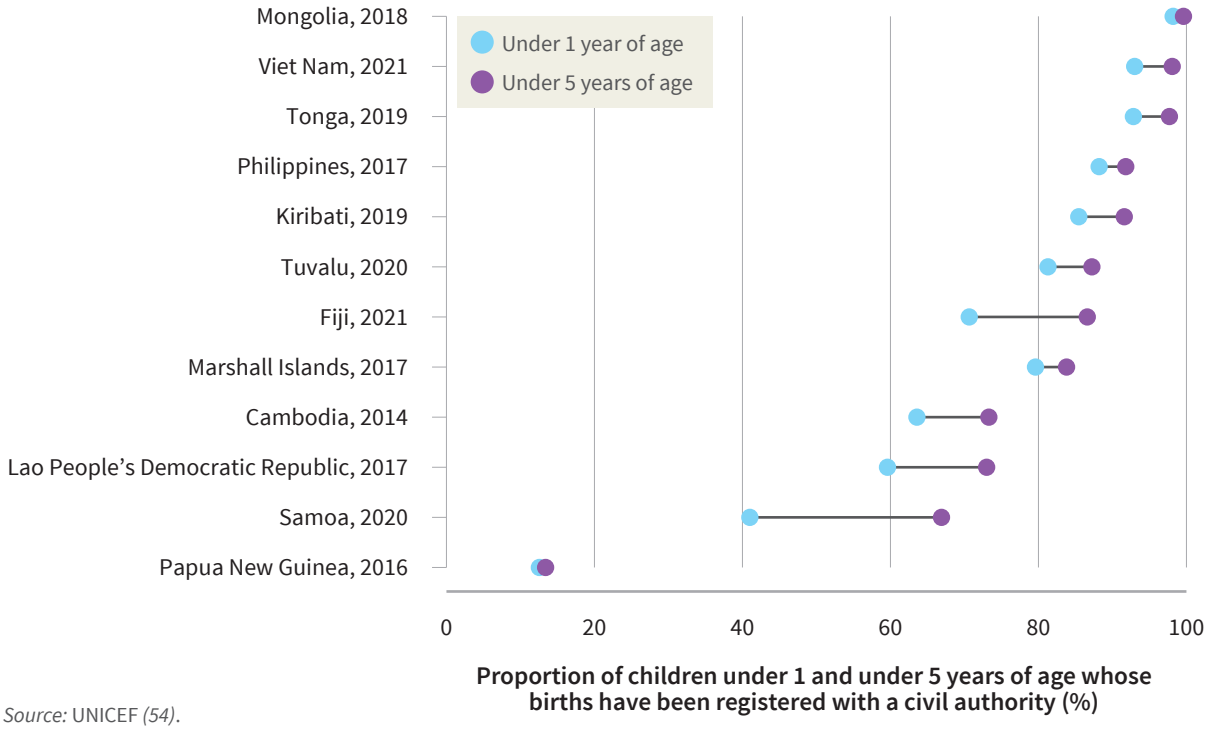

*Source:* UNICEF *(54)*.

**Fig. 107** Registration by gender: SDG 16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority (%), by gender, 2013–2023




*Source:* UNICEF *(54)*.

**Fig. 108** Age at registration: Proportion of children under 1 and under 5 years of age whose births have been registered with a civil authority (%), 2014–2021




*Source:* UNICEF *(54)*.

## Death registration

> SDG target 17.19: By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement GDP, and support statistical capacity-building in developing countries
>
> - Indicator 17.19.2: Proportion of countries that have achieved 100% birth registration and 80% death registration.

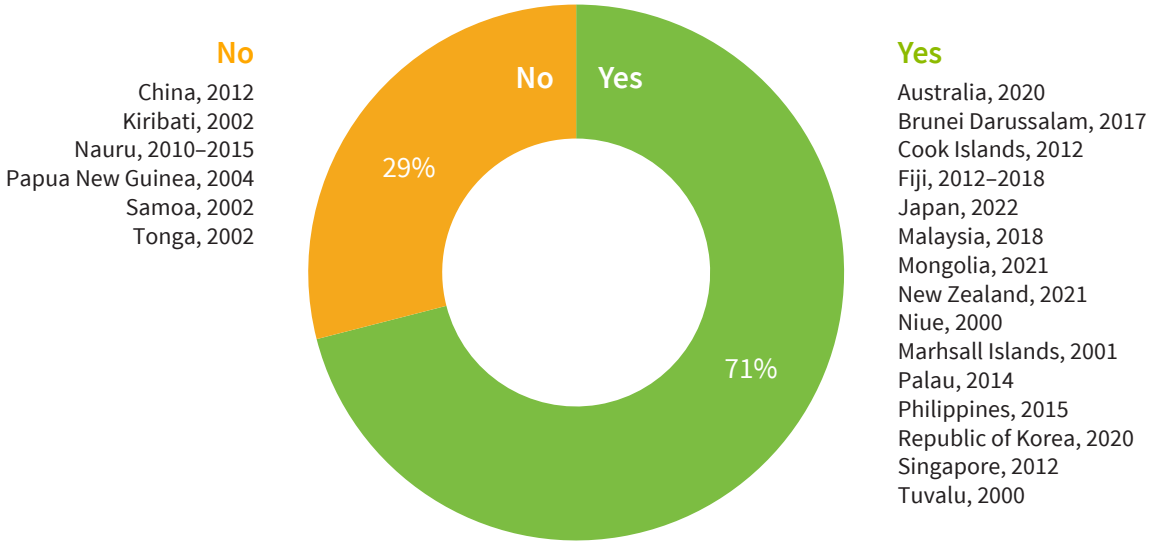
Death registration, particularly capturing the cause of death, is crucial for health progress assessments, including assessing progress towards the SDGs. Cause-of-death registration allows for tracking maternal mortality rates, under-5 mortality rates and other significant causes of death, which are essential for tailoring health-care policies and interventions.

Data for death registration completeness are available for 21 Western Pacific Member States between 2000 and 2022. While most countries had achieved death registration data over the 75% threshold, death registration completeness in six countries was below the 75% threshold (Fig. 109). Yet, a completeness threshold of 75% may still leave many deaths uncounted.

Next in importance after counting and registering deaths is ascertaining and registering the cause of those deaths. Data availability on completeness of cause of death is very limited, with only 13 countries in the Western Pacific having data and all of the data from 2016 or earlier. About half of the countries with available data had 100% complete cause-of-death registration (Fig. 110). Several other countries had a substantial amount of deaths with unregistered causes of death. However, these estimates must be taken with caution since they are outdated, often from decades past. Also, variations in reporting standards across countries exist, including potential under-reporting or misclassification of causes of death. Even countries with fully comprehensive cause-of-death registration face difficulties in accurately recording death causes, specifically in assigning codes to causes of death that are categorized as ill-defined, according to reports to WHO (Fig. 111).

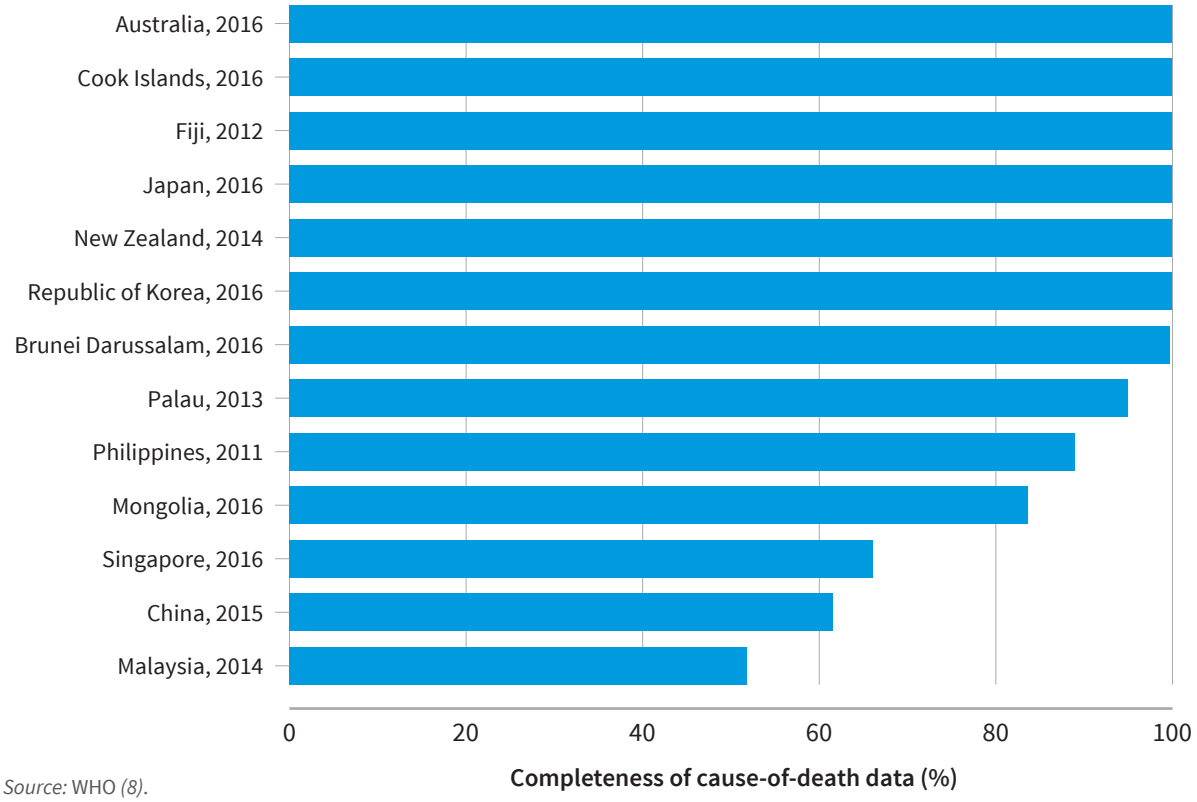
Strengthening CRVS systems Region-wide, including targeted interventions in specific countries, is essential for ensuring accurate data and subsequently informed health policy decisions.

**Fig. 109** SDG 17.19.2(b) Countries with death registration data that are at least 75%* complete, 2000–2022



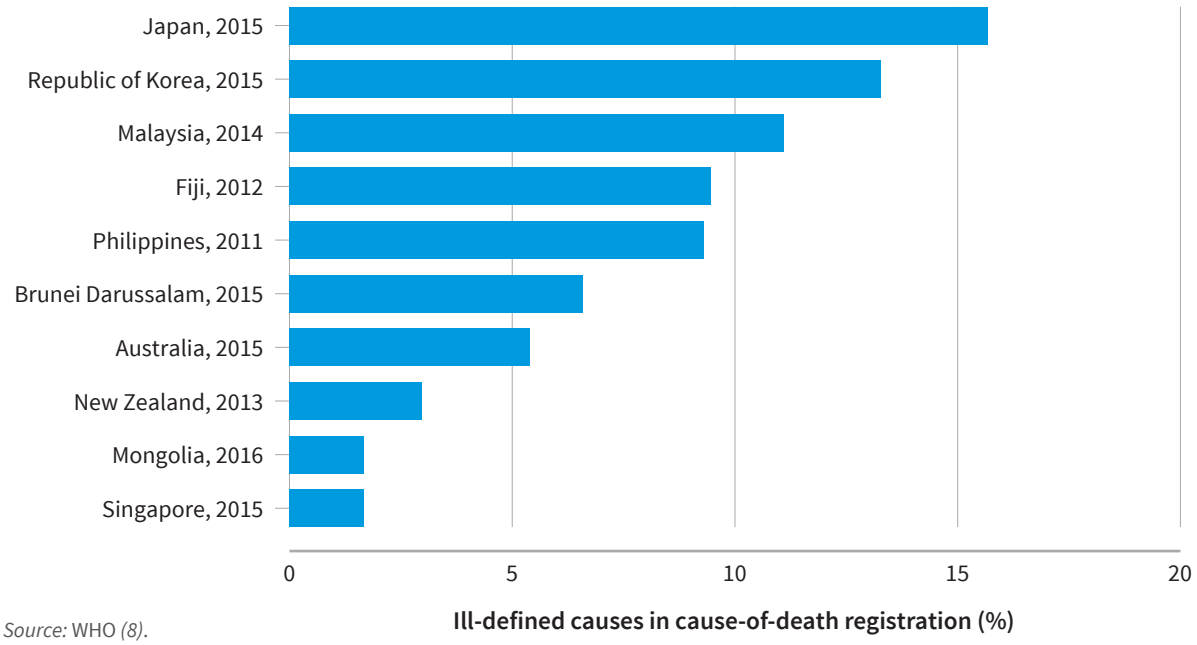

Note: * At the present time, the thresholds used for compiling the data for the indicator 17.19.02b are 90% for birth registration and 75% for death registration, due to the classification that has been used in the Demographic Yearbook metadata questionnaire on vital statistics.
*Source:* UNSTATS *(70)* .

**Fig. 110** SDG 17.19.2(b) Completeness of cause-of-death data (%), 2011–2016




*Source:* WHO *(8)*.

**Fig. 111** Ill-defined causes in cause-of-death registration (%), 2011–2016




*Source:* WHO *(8)*.

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