

# World Health Statistics 2023

Monitoring  
health for the  
**SDGs**

Sustainable Development Goals



World Health  
Organization



HEALTH  
FOR ALL



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75<sup>+</sup>  
HEALTH  
FOR ALL

World health statistics 2023: monitoring health for the SDGs, Sustainable Development Goals

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## • Foreword



In the two decades prior to the COVID-19 pandemic, the world achieved remarkable advances in health. From 2000 to 2019, global life expectancy increased from 67 years to 73 years, due primarily to the fall in child and maternal mortality and the decline in incidence and mortality from many infectious diseases. Expansions in access to health and related services, including improvements in prevention and treatment for noncommunicable diseases, was also a significant factor.

However, even before the COVID-19 pandemic, beginning in 2015, progress against many global health indicators had slowed or stagnated. The pandemic set things back even further, overwhelming health systems and badly disrupting essential health services. The pandemic is estimated to have resulted in nearly 15 million excess deaths in 2020 and 2021. Inequalities both within and between countries persist, as the most vulnerable populations face elevated risks of illness and death from preventable conditions. The unfolding climate crisis also presents significant risks to health, particularly for the most vulnerable populations. For the world to attain the targets of the Sustainable Development Goals (SDGs) by 2030, a substantial increase in focus and investment – of both financial and political capital – is essential.

The World health statistics 2023 documents successes and challenges in public health, with a focus on the SDG indicators and trends. To meet the SDG targets by 2030, it is imperative to accelerate progress. As evident from the country success stories highlighted in this report, acceleration is possible

with concerted efforts from local communities, governments and international organizations, including WHO.

With many people still lacking access to essential health services, it is imperative to address inequality, along with the environmental, commercial and other determinants of health, to progress towards our shared goal of Health for All and achieving the SDG targets. Countries must take urgent action to anticipate and respond to health challenges – especially to protect vulnerable population groups and those living in areas with high disease burdens. Timely, reliable, and disaggregated data and forecasts are of paramount importance to guide effective public health policy setting and programme implementation.

The world must heed the lessons of the last two decades, including the tragedy of these pandemic years. One of the most important of those is the knowledge that we have it in our power to avoid unnecessary deaths and illness, and create stronger, more equitable and resilient health systems and societies.



Dr Tedros Adhanom Ghebreyesus  
Director-General  
World Health Organization

## ● Abbreviations and acronyms

ABR	adolescent birth rates	MRSA	methicillin-resistant <i>Staphylococcus aureus</i>
AIDS	acquired immunodeficiency syndrome	NAP	national adaptation plan
AMR	antimicrobial resistance	NCD	noncommunicable disease
ANC	antenatal care	NDC	nationally determined contribution
ARI	acute respiratory infection	NHWA	national health workforce accounts
ARR	average annual rate of reduction	NICU	neonatal intensive care unit
ART	antiretroviral therapy	NMR	neonatal mortality rate
AST	antimicrobial susceptibility test	NTD	neglected tropical disease
ATACH	Alliance for Transformative Action on Climate Change and Health	ODA	official development assistance
BSI	bloodstream infection	OOP	out of pocket (expenditure)
COVID-19	coronavirus disease 2019	PCV3	pneumococcal conjugate vaccine (3 doses)
DALY	disability-adjusted life-year	PM	particulate matter
DTP3	diphtheria, tetanus toxoid and pertussis-containing vaccine (3 doses)	RMNCH	reproductive, maternal, newborn and child health
EENC	early essential newborn care	SAE	small area estimation
GLASS	Global Antimicrobial Resistance and Use Surveillance System	SDG	Sustainable Development Goal
GPW 13	Thirteenth General Programme of Work (WHO)	TB	tuberculosis
GTS	Global technical strategy for malaria	U5MR	under-five mortality rate
HIC	high-income country	UHC	universal health coverage
HIV	human immunodeficiency virus	UI	uncertainty interval
HPV	human papillomavirus	UMIC	upper-middle-income country
IHR	International Health Regulations	UNDESA	United Nations Department of Economic and Social Affairs
IQR	interquartile range	UNFCCC	United Nations Framework Convention on Climate Change
KMC	kangaroo mother care	UNICEF	United Nations Children's Fund
LIC	low-income country	WASH	water, sanitation and hygiene
LMIC	lower-middle-income country	WHO	World Health Organization
MCV2	measles-containing vaccine (2 doses)	WPV	wild poliovirus
MDG	Millennium Development Goal	YLL	years of life lost

# • Introduction

The *World health statistics* report is the annual compilation of health and health-related indicators which has been published by the World Health Organization (WHO) since 2005. WHO's Division of Data, Analytics and Delivery for Impact produces this report in collaboration with WHO technical departments, and regional and country offices.

The 2023 edition reviews more than 50 health-related indicators from the Sustainable Development Goals (SDGs) and WHO's Thirteenth General Programme of Work (GPW 13). The report consists of three chapters, complemented by an annex table presenting the latest available data.

Chapter 1 discusses key issues and trends in global health, including the latest trends in maternal and child mortality; major noncommunicable diseases (NCDs) and the related risk factors; the COVID-19 pandemic; and climate change and health. Chapter 2 summarizes global and regional trends in the health-related SDGs in areas of infectious diseases; child malnutrition and anaemia among women; injuries and violence; environmental risks; and universal health coverage (UHC) and health systems. In chapters 1 and 2, country-focused stories are presented to highlight efforts undertaken to address various health issues. Chapter 3 then looks to the future through the lens of global life expectancy and NCDs.

The information presented in *World health statistics 2023* is based on data available from global monitoring as of late April 2023. These data have been compiled primarily from databases managed by WHO or United Nations partner entities and supplemented with data and analyses from peer-reviewed publications.

## ● Key messages

Since the beginning of the millennium, the world has seen notable improvements in population health globally. As child mortality halved, maternal mortality fell by a third, the incidence of many infectious diseases – including HIV, tuberculosis (TB) and malaria – dropped, and the risks from dying prematurely from NCDs and injuries declined, global life expectancy at birth rose from 67 years in 2000 to 73 years in 2019. These achievements are consistent with the progress made in areas that influence health – from improved access to essential health services to reduced exposure to health risks, including tobacco use, alcohol consumption and child undernutrition.

However, the rapid progress commonly observed for many of these indicators in the era of the Millennium Development Goals (MDGs) has markedly stalled since 2015, challenging the timely attainment of the SDG targets by 2030. This is evidenced by the falling annual rate of reduction in indicators such as the maternal mortality ratio, under-five and neonatal mortality rates, premature mortality from major NCDs, and suicide and road traffic mortality rates. Almost halfway through the SDG era, some of these indicators are far from reaching the midpoint of the required trajectories to reach their respective SDG targets.

In addition, despite reduction in exposure to many health risks – such as tobacco use, unsafe water and sanitation, and child stunting – progress is inadequate. Risk exposure remains high, especially for factors such as alcohol consumption and hypertension where declines began only in recent years. Alarming, the entire global population (99%) breathes unhealthy levels of fine particulate matter (PM), and the prevalence of obesity is moving in the wrong direction with no immediate sign of reversion.

Expansion of access to essential health services has slowed compared to pre-2015 gains, and there has been no significant progress in reducing financial hardship due to health care costs. Inequalities persist, with disadvantaged populations having lower levels of access to health and related services but higher levels of exposure to health risks and higher levels of associated mortality. People living in less-resourced settings continue to have less access to a wide range of services, from the assistance of skilled health personnel during childbirth to clean cooking fuels and technology. Inequalities impede progress in responding to global crises, as has been shown during the COVID-19 pandemic.

The COVID-19 pandemic has led to 14.9 million excess deaths and cost 336.8 million years of life lost globally in 2020 and 2021. This means that, on average, each death directly or indirectly attributed to the COVID-19 pandemic by the end of 2021 led to a loss of more than 22 years of life – equivalent to over 5 years of life loss every second. The pandemic has also put many health-related indicators further off-track. As a result of service disruptions, the increasing trend in immunization coverage (including against measles, human papillomavirus (HPV), and diphtheria, tetanus and pertussis) and the declining trend in incidence of malaria and TB were both reversed, and fewer people were treated for neglected tropical diseases (NTDs). The COVID-19 pandemic has exposed inequalities both between countries and within them, including inequalities in access to COVID-19 vaccines, with populations with lower educational levels and in low- and middle-income countries less likely to have received a COVID-19 vaccine.

The COVID-19 pandemic is a stark reminder that infectious diseases can emerge or re-emerge to cause harm – potentially to everyone. Infectious diseases that were previously under control may surge as a result of antimicrobial resistance (AMR), setting back progress. Meanwhile, climate change continues to degrade the environmental and social determinants of physical and mental health, posing enormous risks to us all.

The world has witnessed rapid demographic and epidemiological transitions throughout WHO's 75 years of history. The share of deaths caused annually by NCDs has grown to nearly three quarters of all deaths and, if the trend continues, is projected to reach about 86% globally by WHO's 100th anniversary in 2048. The United Nations projects that total annual deaths will reach nearly 90 million globally in 2048; consequently, 77 million of these will be NCD deaths – a nearly 90% increase in absolute numbers over 2019.

To respond to these challenges, and to meet the SDG targets by 2030, it is crucial to scale up efforts and accelerate progress. Global, regional and national priorities should be set and interventions targeted to end deaths from preventable injuries and deaths of mothers and children, to further postpone NCD deaths by lowering their underlying risk factors, and to increase equitable access to essential health services while containing the risks of facing catastrophic costs. It is critical to have timely, reliable and disaggregated data, estimates and forecasts to inform policy and guide actions at all levels in order to maximize health gains and eliminate inequalities.







01.

# Key issues and trends in global health

The world's population experienced increased survival in recent times, with global life expectancy increasing since the 1950s up until 2019 (see Chapter 3 on building on past achievements to face future challenges in health). This trend reflected the epidemiological transition from an era characterized by high mortality in childhood and a high burden associated with infectious diseases and maternal, perinatal and nutritional conditions, to an era with a high burden from NCDs. This chapter looks at the most recent trends in maternal and child mortality, as well as in NCDs and the major risk factors. It also discusses the striking changes in the global mortality pattern brought about by the COVID-19 pandemic. Lastly, it presents a section on climate change and how it relates to population health.

## 1.1 Trends in maternal and child mortality

Improvement of maternal and child health has been high on the global development agenda since the turn of the millennium. Reductions in both maternal and child mortality were among the targets of the MDGs, declared in 2000, that the world strived to achieve by 2015. They continue to be among the global targets in the SDG era that spans from 2015 to 2030.

### Maternal mortality

Pregnancy, childbirth and the postnatal period should bring positive experiences, ensuring that women and their babies reach their full potential for health and well-being. Unfortunately, these stages of life still carry considerable risks to women and their families, as women in many parts of the world lose their lives due to related complications and inadequate health care. The SDG target calls for a reduction of the global maternal mortality ratio to less than 70 maternal deaths per 100 000 live births by 2030.

#### Levels and trends in maternal mortality

Much progress was achieved in the MDG era, as the global maternal mortality ratio dropped by a third between 2000 and 2015, from 339 (UI: 319–360)<sup>1</sup> deaths per 100 000 live births to 227 (UI: 211–246) deaths per 100 000 live births, representing a 2.7% (UI: 2.0–3.2%) average annual rate of reduction (ARR). The number of maternal deaths globally fell by 30% during the period, from an estimated 447 000 (UI: 426 000–481 000) deaths in 2000 to 313 000 (UI: 300 000–350 000) deaths in 2015 (1).

Such progress, however, has so far not been sustained in the SDG era as the ARR of the global maternal mortality

<sup>1</sup> Maternal mortality statistics are presented here with 80% uncertainty intervals.

ratio plummeted to -0.04% (UI: -1.6–1.1%) between 2016 and 2020, indicating stagnation. An estimated 287 000 (UI: 273 000–343 000) women lost their lives due to largely preventable causes related to pregnancy and childbirth in 2020 – approximately 800 women every day – equivalent to 223 (UI: 202–255) deaths per 100 000 live births that year.

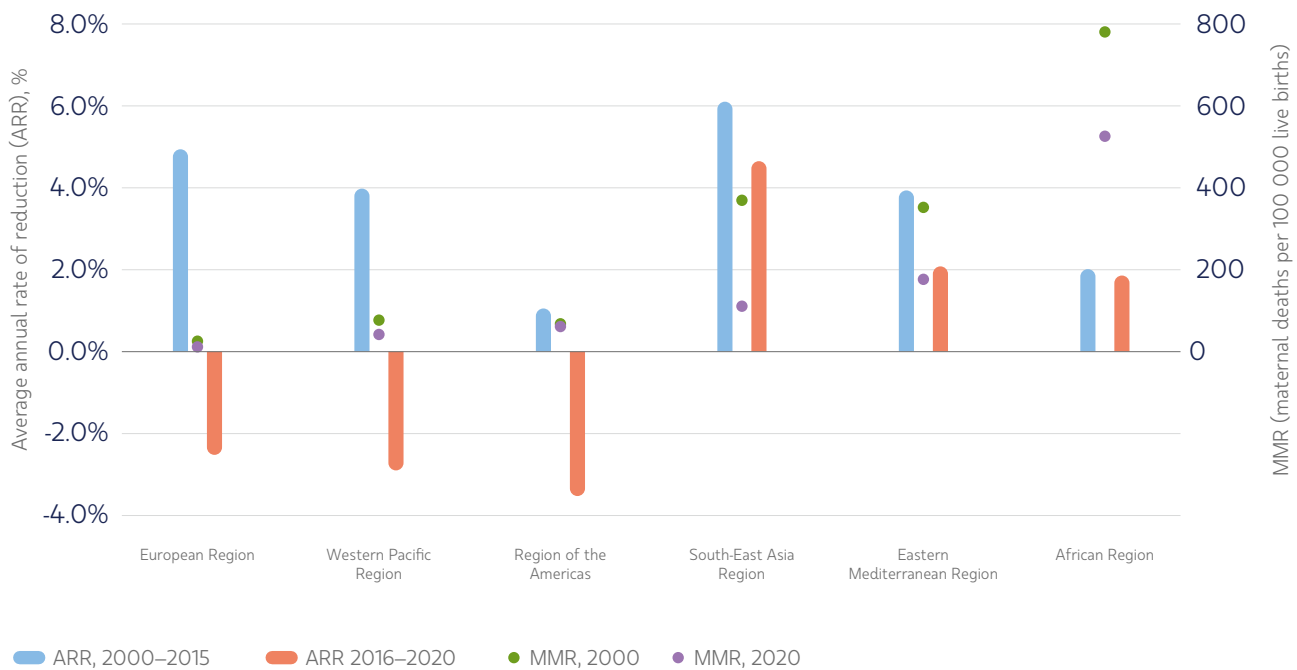
The maternal mortality ratio levels, as well as the rates of progress and slowdown, have been uneven across WHO regions (Figure 1.1). The WHO South-East Asia Region maintained the fastest reduction rate during the MDG era and the first five years of the SDG era, reducing the maternal mortality ratio from 372 (UI: 336–423) deaths per 100 000 live births in 2000 to 117 (UI: 106–133) deaths per 100 000 live births in 2020. The African Region, while keeping the ARR relatively stable at 2.0% for the past two decades, continued to have the highest maternal mortality ratio. The Region of the Americas, the Western Pacific Region and the European Region saw a trend reversal, with the maternal mortality ratio levels increasing

between 2016 and 2020 after having decreased during the MDG era. However, the levels of the maternal mortality ratio have remained low (below 100 deaths per 100 000 maternal deaths) since 2000.

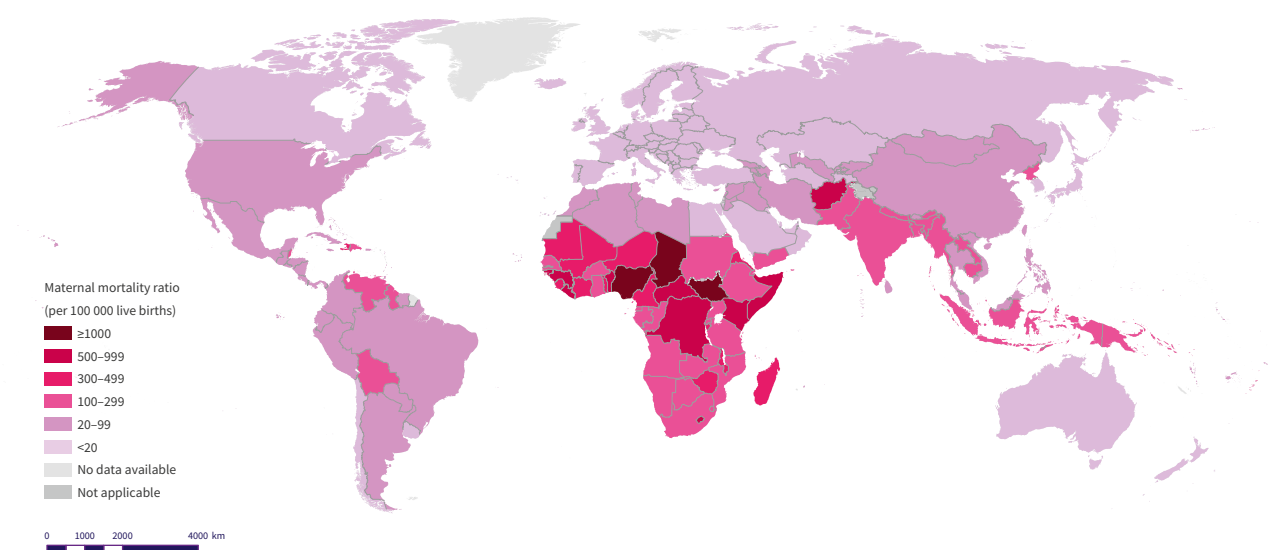
Figure 1.2 shows countries and areas for which estimates are available. In 2020, 13 countries had a maternal mortality ratio that was very high (between 500 and 999) or extremely high (over 1000). Of these countries, 11 are in the African Region and two are in the Eastern Mediterranean Region. In total, 117 countries and areas had a maternal mortality ratio below 100 deaths per 100 000 live births, 60 of which had a very low maternal mortality ratio (below 20).

Disparities may also occur within countries, with maternal mortality ratio levels varying across subnational regions and places of residence, or by socioeconomic status such as income and educational levels, and by other social determinants such as race and ethnicity.

**Figure 1.1** Maternal mortality ratio and the average annual rate of reduction by WHO region, 2000–2020



Note: ARR = average annual rate of reduction; MMR = maternal mortality ratio.  
Source: Ref. (1).

**Figure 1.2** Maternal mortality ratio by country/area, 2020

Source: Ref. (1).

## Interventions to prevent maternal deaths

To achieve the SDG target, an ARR of 11.6% is required globally between 2021 and 2030. This rate has rarely been achieved at the national level over a prolonged period. However, as most complications that potentially lead to maternal deaths during pregnancy as well as during and after childbirth can be prevented or managed by well-known interventions, efforts to improve access to such interventions must be intensified, especially in countries and areas with high mortality.

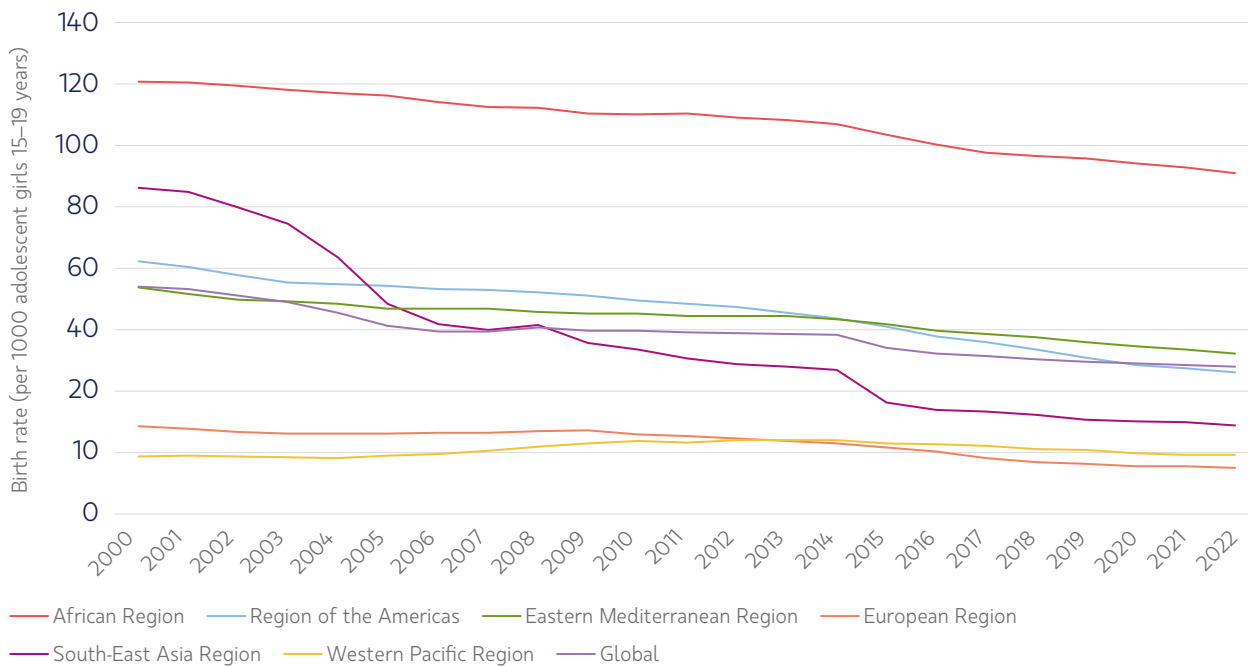
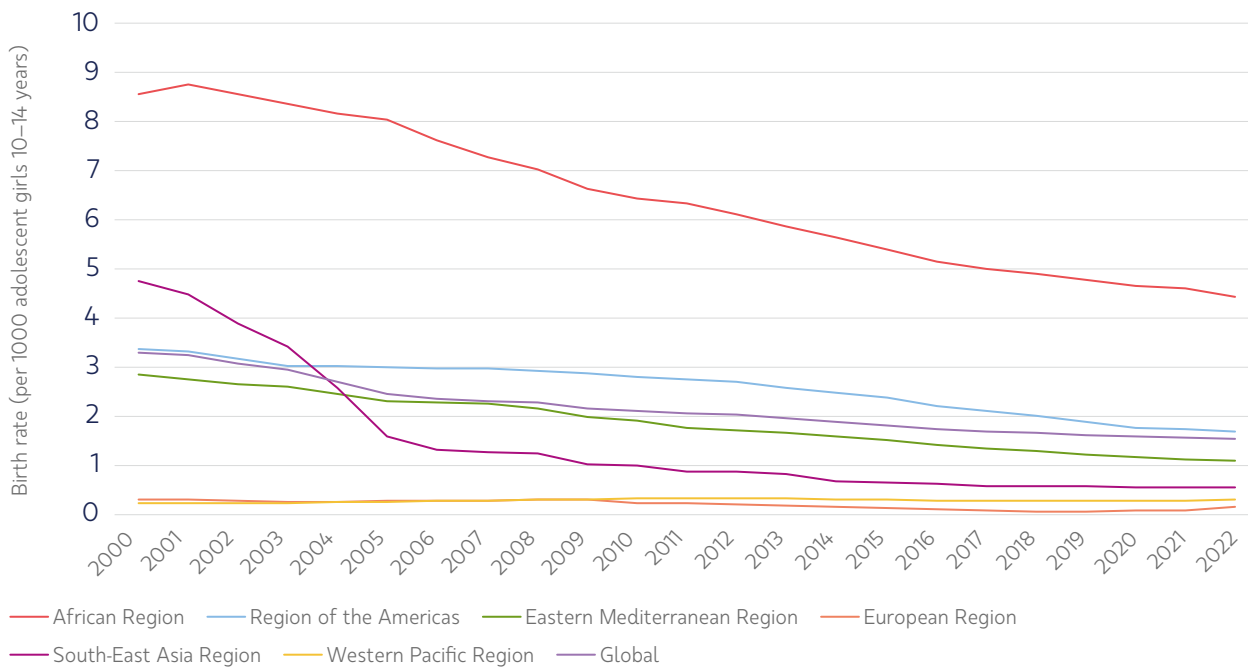
To avoid maternal deaths, it is vital to prevent unintended pregnancies. All women, including adolescents, need access to contraception, safe abortion services to the full extent of the law, and quality post-abortion care. Coverage of contraception services is discussed in the UHC section of this report.

Early childbearing poses increased health risks to adolescent mothers, as well as hampering their access to education. Maternal conditions are a leading cause of death among adolescent girls globally (2). Adolescent birth rates (ABR) have been declining since 2000 globally, but the progress has been slow and uneven (Figure 1.3) (3). Globally in 2022

there were on average 41.9 births per 1000 adolescent girls aged 15–19 years, down from 64.6 births per 1000 adolescent girls aged 15–19 years in 2000. Adolescent birth rates among younger adolescent girls (aged 10–14 years) more than halved from 3.3 births per 1000 girls in 2000 to 1.5 births per 1000 girls in 2022. The WHO European and Western Pacific regions continued to have the lowest adolescent birth rates in both age groups since 2000. The WHO South-East Asia Region experienced the steepest decline in adolescent birth rates – from levels 40% higher than the global rate in 2000 in both age groups, to almost one third (35%) of the global level among younger adolescent girls and 60% of the global level among older adolescent girls in 2022.

All women need access to high-quality care in pregnancy and during and after childbirth. It is particularly important that all pregnant women receive adequate antenatal care (ANC), and that all births are attended by skilled health professionals (also see the UHC section). To improve maternal health, barriers that limit access to quality maternal health services must be identified and addressed at both health system and societal levels.



**Figure 1.3** Trends in adolescent birth rates, by age group and WHO region, 2000–2022**Adolescent girls, 15–19 years****Adolescent girls, 10–14 years**

Source: Ref. (3).

## Child mortality

Child survival is an important marker of human development – it has been one of the main drivers of increasing global life expectancy over the past 75 years. The international community committed to reducing mortality among the youngest children, setting the SDG target to reduce neonatal mortality (i.e. mortality among newborn babies during the first month of life) by 2030 to at least as low as 12 per 1000 live births, and setting the under-five mortality target (i.e. mortality among children under 5 years of age) for the same period to at least as low as 25 per 1000 live births.

### Levels and trends in mortality among children under five years of age

Substantial global progress has been made in reducing child mortality since 2000. Approximately 10 million (9.9 million, UI: 9.8–10.1 million)<sup>2</sup> children under 5 years of age died globally in 2000, corresponding to an under-five mortality rate (U5MR) of 76 (UI: 75–78) deaths per 1000 live births. Both the global number of deaths and the U5MR halved by 2021 (Figure 1.4). However, 5.0 million (UI: 4.8–5.6 million) children in 2021 tragically died before reaching their fifth birthday. Just under half (47%) of these deaths – about 2.3 million (UI: 2.2–2.6 million) – occurred during the first month of life. The global neonatal mortality rate (NMR) stood at 18 (UI: 17–19) deaths per 1000 live births in 2021, a 43% drop from 31 (UI: 30–32) deaths per 1000 live births in 2000. The global U5MR in 2021 was 38 (UI: 36–42) deaths per 1000 live births (4).

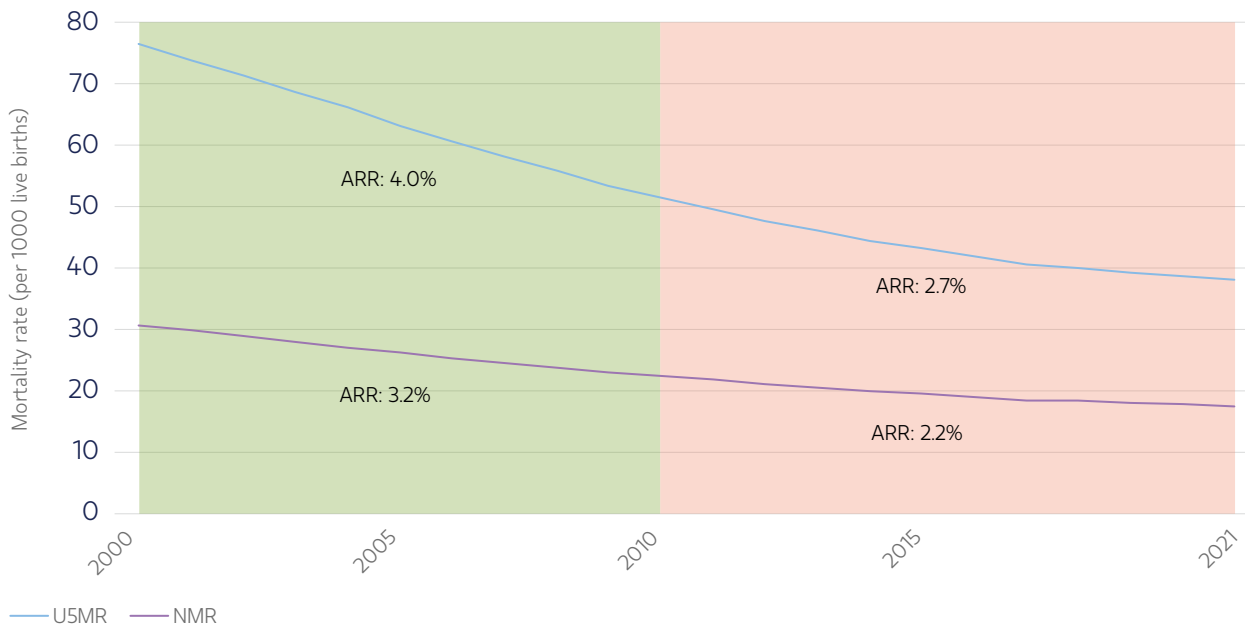
Globally, NMR declined at a slower rate compared to U5MR, and both declined more slowly during the second decade (2010–2021) compared to the first decade (2000–2009). The ARR of the NMR dropped from 3.2% during 2000–2009 to 2.2% during 2010–2021, while the ARR of U5MR fell from 4.0% during the first period to 2.7% during the second period (Figure 1.4). This slowdown has been particularly pronounced since the start of the SDG era in 2015.

Children around the world face vastly different chances of survival depending on where they are born. While U5MR in the African Region fell by 52% between 2000 and 2021, it remained the highest at 72 (UI: 65–84) deaths per 1000 live births – almost twice the global U5MR and about nine times higher than that of the European Region which was eight (UI: 7–8) deaths per 1000 live births. Despite a 34% drop in NMR from 40 (UI: 39–42) deaths per 1000 live births in 2000 to 27 (UI: 24–31) deaths per 1000 live births in 2021, the number of neonatal deaths in the African Region remained stubbornly high at about 1.1 million annually since 2000 (Figure 1.5), owing to the increasing number of live births. The South-East Asia Region saw a big decline in deaths as the number of neonatal and post-neonatal under-five deaths dropped by 65% and 78%, respectively, between 2000 and 2021.

U5MR and NMR also varied greatly by country/area (Figure 1.6). As of 2021, 133 countries and areas already met the SDG target for U5MR and 126 countries and areas met the target for NMR. However, in 14 countries U5MR was over 75 per 1000 live births, and in 29 countries NMR was over 25 deaths per 1000 live births.

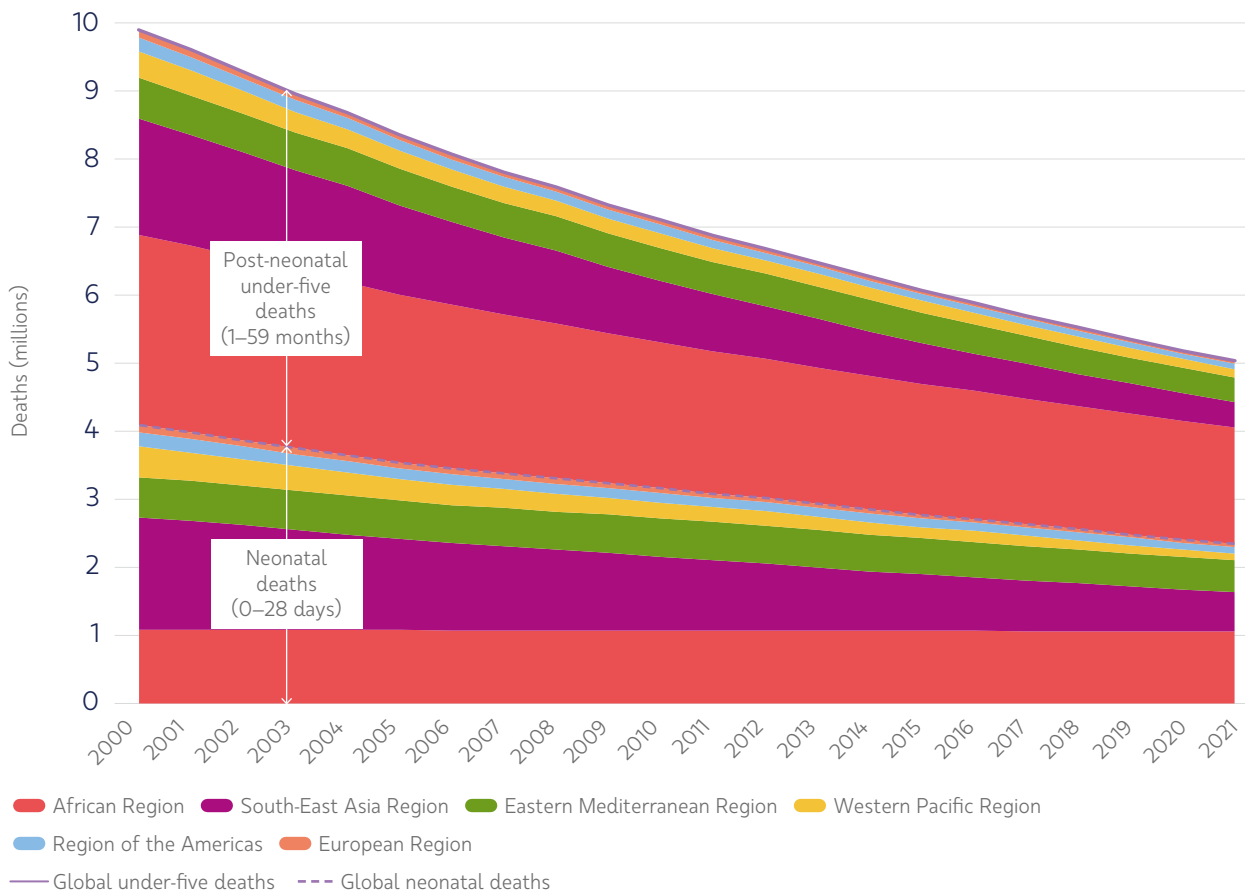
<sup>2</sup> Child mortality statistics are presented here with 90% uncertainty intervals.

**Figure 1.4** Trends in the global under-five mortality rate and neonatal mortality rate, 2000–2021



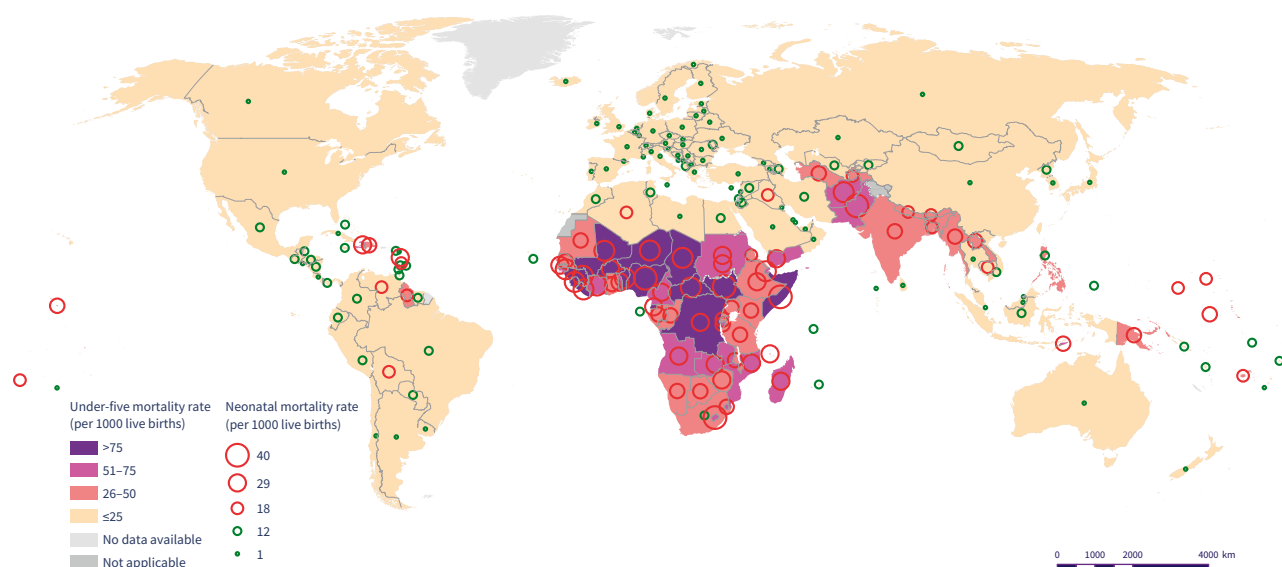
Note: ARR = average annual rate of reduction; U5MR = under-five mortality rate; NMR = neonatal mortality rate.  
Source: Ref. (4).

**Figure 1.5** Trends in neonatal deaths and post-neonatal under-five deaths, by WHO region, 2000–2021



Source: Ref. (4).

**Figure 1.6** Under-five mortality rate and neonatal mortality rate, by country/area, 2021



Source: Ref. (4).

## Interventions to prevent child deaths

If current trends continue – i.e. if the ARR of 2010–2021 remains constant – 54 countries will not meet the SDG target for U5MR and 63 countries will not meet the target for NMR by 2030. Meeting the SDG target in the off-track countries would avert almost 10 million under-five deaths between 2022 and 2030.

Access to basic life-saving interventions such as skilled delivery at birth, postnatal care, breastfeeding and adequate nutrition, vaccinations and treatment for common childhood diseases can save many young lives. Efforts to accelerate progress in high-mortality countries will involve delivering these interventions with high quality.

Neonatal deaths are mainly associated with conditions that arise before and during pregnancy, and complications related to the birth process. Preterm birth complications, birth asphyxia and birth trauma, along with congenital anomalies, are the

leading causes of death among these youngest babies. Acute respiratory infections, neonatal sepsis and meningitis are also among the most important causes of death. Maternal care and newborn care go hand in hand – key indicators such as coverage of ANC and of skilled birth attendance are discussed in the UHC section of this report. Box 1.1 presents an example of a country’s implementation of a set of interventions to save newborn lives following caesarean section (5).

Post-neonatal under-five deaths in high-mortality countries are predominantly caused by infectious diseases such as acute respiratory infections, diarrhoea and malaria (6). Key child health indicators, including immunization coverage and care-seeking for acute respiratory symptoms, are also discussed in the UHC section. Ensuring equitable access to quality primary health care is the most important action that can be taken so that, no matter where they are born, all children have the best start in life and best hope for the future.



### Box 1.1 A “first embrace” after caesarean section in Viet Nam is saving newborn lives (5)

Efforts to improve outcomes for mothers and babies in Viet Nam have been increasingly complicated by an accelerating caesarean section rate, estimated at 29% nationally in 2022. Across Viet Nam, babies born by caesarean section are routinely separated from their mothers and admitted to neonatal intensive care units (NICUs) for prolonged observation and are given infant formula. This often unnecessary practice has increased the risk of newborn infections and other complications and has resulted in crowded NICUs.

In 2014, Viet Nam introduced early essential newborn care (EENC), a package of evidence-based interventions that are applied at birth to prevent or manage common causes of newborn morbidity and mortality. These include immediate and thorough drying, sustained skin-to-skin contact, delayed cord clamping, promotion of early and exclusive breastfeeding, resuscitation of non-breathing babies and “kangaroo mother care” (KMC). The core of this approach is sustained skin-to-skin contact between mother and baby (“the first embrace”), which transfers warmth and promotes non-separation.

The Da Nang Hospital for Women and Children was one of the first to introduce EENC in Viet Nam, using staff coaching, quality improvement assessments and changes in protocols and environments. After introducing EENC with routine vaginal births, the hospital then pioneered this approach to care with caesarean births by developing methods for coaching surgical teams and improving availability of baby hats, drying cloths and resuscitation areas in operating rooms.

Following this, over the period 2013–2015, data on 16 927 newborns delivered by caesarean section before and after the introduction of EENC showed that total NICU admissions decreased from 16.7% to 11.8% (relative risk 0.71; 95% CI 0.66–0.76). In addition, compared with the pre-EENC period, the number of babies with hypothermia on admission to the NICU declined from 5.0% to 3.7% (relative risk 0.73; 95% CI 0.63–0.84) and cases of sepsis decreased from 3.2% to 0.8% (relative risk 0.26; 95% CI 0.20–0.33).

While more than half of all newborns in the NICU were previously fed something other than breastmilk after EENC was introduced, 85.8% were exclusively breast-fed (relative risk 1.86; 95% CI 1.75–1.98), and preterm newborns (< 2000 g) receiving KMC increased from 50% to 67% (relative risk 1.33; 95% CI 1.12–1.59).

These findings show a significant impact on outcomes for babies born by caesarean section, ultimately saving lives. The reduction in caesarean NIC admissions also represented a saving to the hospital of at least US\$ 162 060 in the year after introduction of EENC.

These data led to wider adoption of EENC in Viet Nam. As of 2019 the first embrace was being applied at 100% of national hospitals and 89% of subnational ones, reducing pressure on maternity health systems and enhancing the health and well-being of babies, mothers and families.

## 1.2. NCDs and major risk factors

NCDs affect people from all walks of life, and in all parts of the world. The epidemic of NCDs poses devastating health consequences for individuals, families and communities. Prevention and control of these diseases are a major development imperative for the 21st century.

NCDs continued to cause the highest disease burden worldwide. The impact of NCDs grew from causing 61% of global deaths (equivalent to 31 million, UI: 24–40 million)<sup>3</sup> in 2000 to causing 74% (or 41 million, UI: 29–57 million) in 2019, and from causing 47% (or 1.3 billion, UI: 0.8–1.7 billion) of global disability-adjusted life-years (DALYs)<sup>4</sup> in 2000 to causing 63% (or 1.6 billion, UI: 1.0–2.2 billion) of DALYs in 2019 (2,7).

Four major NCDs collectively killed about 33.3 million (UI: 24.5–43.3 million) people in 2019, a 28% increase compared to 2000. These major NCDs are cardiovascular disease (17.9 million,

UI: 13.4–22.9 million), cancer (9.3 million, UI: 6.9–12.2 million), chronic respiratory disease (4.1 million, UI: 2.9–5.6 million) and diabetes (2.0 million, UI: 1.4–2.7 million).

The increase in absolute numbers of deaths and DALYs due to NCDs was mainly driven by population growth and ageing. At individual level, however, the overall risk of dying from NCDs has been declining worldwide, showing progress over the last two decades.

Globally, the greatest decline in deaths from major NCDs between 2000 and 2019 were from chronic respiratory disease (a 37% drop in age-standardized rates for all ages combined), followed by cardiovascular disease (27%) and cancer (16%). Deaths due to diabetes, however, increased slightly, by 3% over the same period.

### NCD premature mortality

Globally, a person aged 30 years in 2019 has a 17.8% (UI: 13.3–23.1%) chance of dying from one of the four major NCDs before the age of 70 years. The probability is highest in the WHO Eastern Mediterranean Region at 24.5% (UI: 16.7–34.0), followed by the South-East Asia Region at 21.6% (UI: 15.8–28.2%) and the African Region at 20.8% (UI: 13.3–30.3%). The probability was lower in the WHO European Region at 16.3% (UI: 12.7–20.4%), in the Western Pacific Region at 15.6% (UI: 11.9–19.7%) and the Region of the Americas at 14.0% (UI: 11.7–16.9%) (2).

This represents progress from all regions since 2000 and a 22.2% decline globally. At regional levels the decline ranged from roughly 13% in the South-East Asia and Eastern Mediterranean regions to a decline of more than 25% in the Western Pacific (26.8%) and European (31.2%) regions.

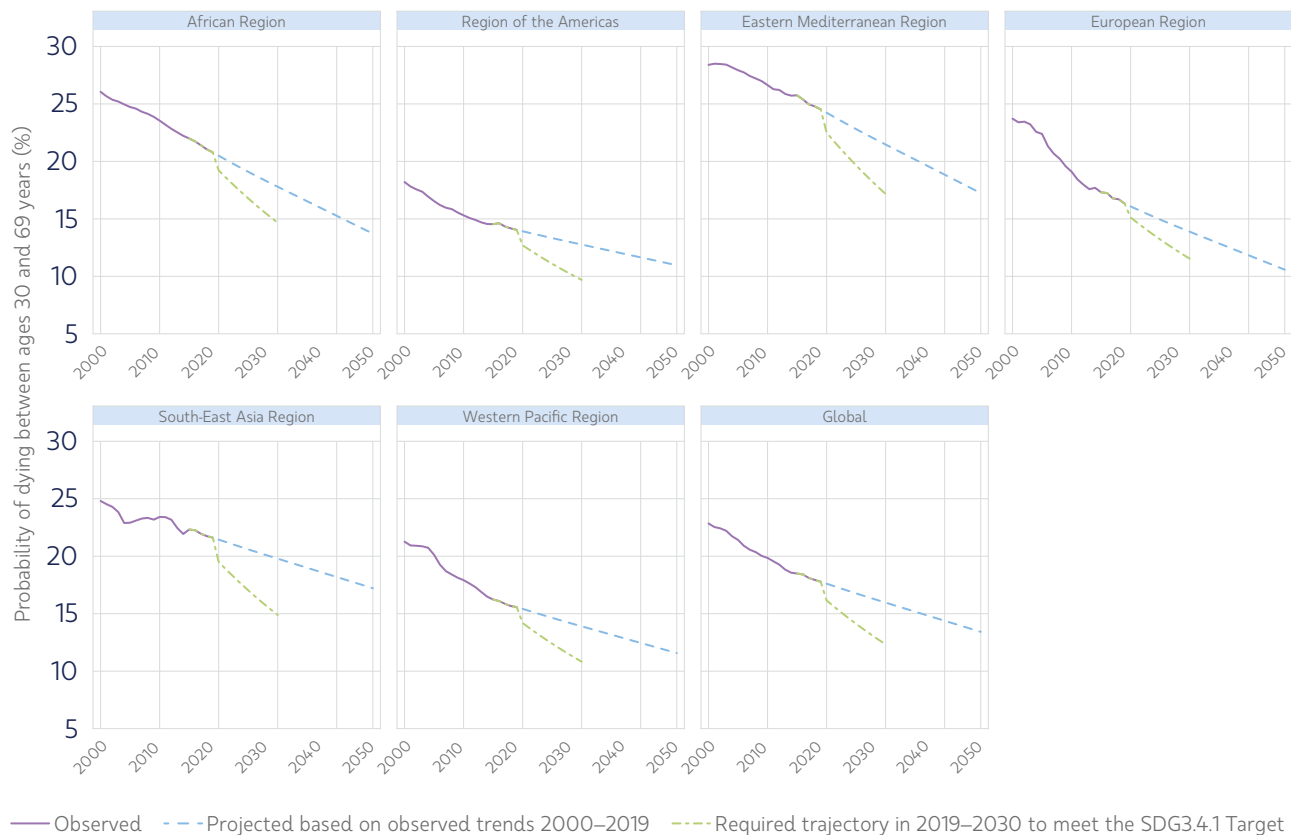
Men have a higher probability of premature death from NCDs than women in all WHO regions and globally. The absolute gap between sexes had been closing during the last two decades globally and in all WHO regions. However, the relative gap – as measured by the male-to-female ratio – increased by 11% in the Western Pacific Region, while it declined or remained roughly constant in the other five regions.

However, progress has slowed since the beginning of the SDG era in 2015. If the average annual rate of reduction (ARR) in premature mortality of the major NCDs continues, none of the WHO regions will achieve the SDG target of one third reduction. By the 100th anniversary of WHO in 2048, only the African, Eastern Mediterranean and European regions will have achieved the SDG 2030 target, while the target will be missed in other regions and also globally (Figure 1.7).

<sup>3</sup> Unless otherwise noted, uncertainty intervals presented in this report represent 95% uncertainty intervals.

<sup>4</sup> A DALY is a measure of the total burden of disease, taking into account both mortality and morbidity. DALYs for a disease or health condition are the sum of years of life lost (YLLs) due to premature mortality and years of healthy life lost due to disability (YLDs) as the result of prevalent cases of the disease or health condition in a population.

**Figure 1.7** Probability of dying from the four major NCDs\* (ages 30–69 years), projection versus SDG target, WHO regions and global, 2000–2048



\* Cardiovascular disease, cancer, chronic respiratory disease and diabetes.

Source: Ref. (2).

## Major NCD risk factors

NCDs are the result of a combination of genetic, physiological, environmental and behavioural factors. Modifiable behavioural risk factors include harmful use of alcohol, tobacco use, physical inactivity and an unhealthy diet. Metabolic risk factors include raised blood pressure, overweight and obesity, hyperglycaemia (high blood glucose levels), and hyperlipidaemia (high levels of fat in the blood). The latest available data for indicators on some of these risk factors are presented below. Environmental risks are discussed in Section 2.4.

### Alcohol consumption

Total alcohol per capita (15+ years) consumption has declined at global level since 2015, following an overall increase in 2005–2010 and a plateau in 2010–2015. Total consumption was 5.5 litres (UI: 4.8–6.2) of pure alcohol per capita (persons aged 15 years or older) in 2019 (8).

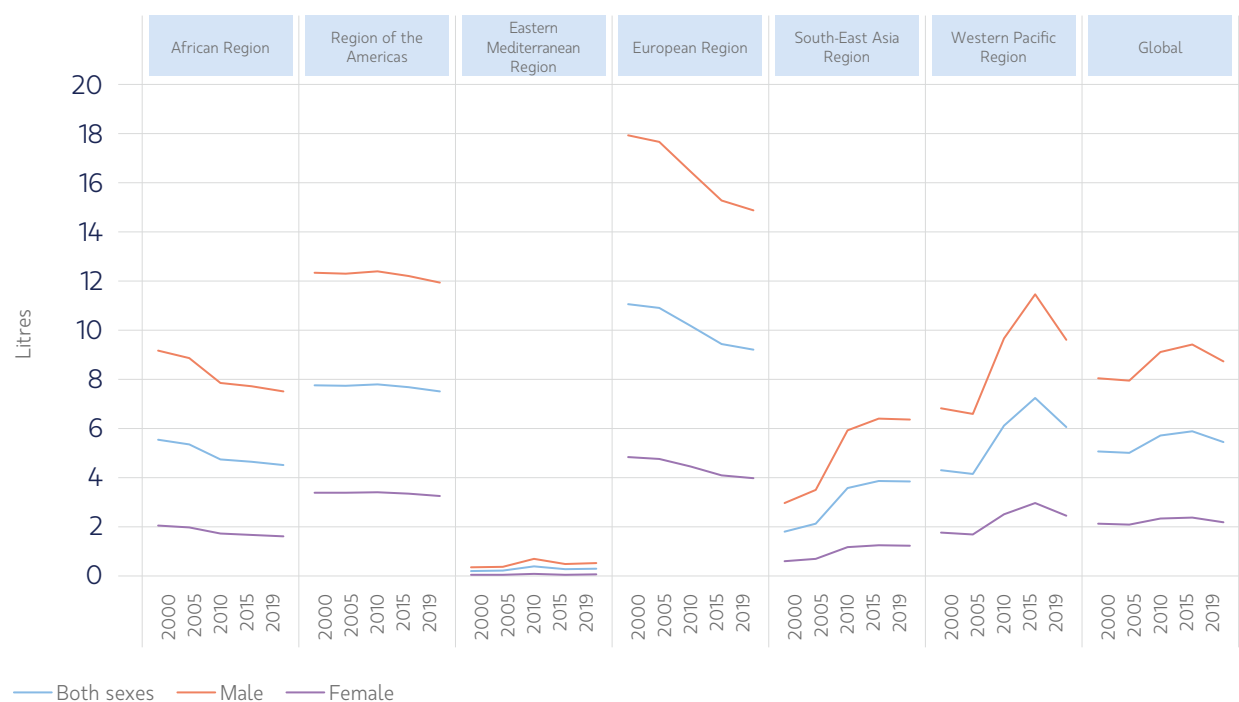
The trends were not uniform across WHO regions. While the European and African regions experienced sizeable decline in per capita consumption by 17% and 18% respectively between 2000 and 2019, there has been stagnation in the Region of the

Americas and substantial increases in per capita consumption in the South-East Asia and Western Pacific regions (of 112% and 40% respectively).

Despite the decline, men and women in the European Region still had the highest consumption – 14.9 (UI: 13.6–16.2) litres per capita in men and 4.0 (UI: 3.6–4.4) litres per capita in women. Per capita consumption in the Region of the Americas was 11.9 (UI: 10.1–13.8) litres in men and 3.3 (UI: 2.7–3.8) litres in women, while in the Western Pacific Region it was 9.6 (UI: 6.8–12.5) litres in men and 2.5 (UI: 1.8–3.2) litres in women. The lowest per capita consumption was in the Eastern Mediterranean Region with 0.5 (UI: 0.4–0.9) litres in men and 0.1 (UI: 0.0–0.1) litres in women in 2019 (Figure 1.8).

Globally, men consumed nearly four times more pure alcohol per capita than women did – namely, 8.7 (UI: 7.7–9.9) litres versus 2.2 (UI: 1.9–2.5) litres in 2019. The greatest gaps between the sexes (male-to-female ratio) were observed in the Eastern Mediterranean Region (8.1) and South-East Asia Region (5.1), and the lowest ratio was in the Region of the Americas (3.7) and the European Region (3.7).

**Figure 1.8** Total alcohol consumption per capita (age 15 years or older), WHO regions and global, 2000–2019



Source: Ref. (8).

## Tobacco use

Globally, the age-standardized prevalence of current tobacco use among persons aged 15 years or older has declined by over 30% – from 32.7% in 2000 to 22.3% in 2020 (Figure 1.9). With one of the greatest decline of over 40%, the South-East Asia Region nevertheless had the highest prevalence of tobacco use (29.0%) in 2020, whereas the African Region and the Region of the Americas had the lowest prevalences at 10.3% and 16.3%, respectively, in 2020. Progress was slowest in the Western Pacific Region where the decline was only 11.8% from a prevalence of 27.9% in 2000 to 24.6% in 2020 (9).

The Global Action Plan for Prevention and Control of NCDs has set a target to reduce the current tobacco use prevalence by 30% between 2010 and 2025. Notwithstanding the progress made in many parts of the world since 2000, the rate of reduction in the prevalence has slowed in 2010–2020 compared to 2000–2010. Globally, the current tobacco use prevalence

dropped only by 16.5% between 2010 and 2020, falling much short of the target of the 30% reduction by 2025. If the trend continues, the likelihood of meeting this target is lowest in Western Pacific with only a 5.7% reduction between 2010 and 2020. In contrast, the regions of Africa, Americas and South-East Asia have a better chance meeting the target by 2025, each having experienced about 23% reduction in 2010–2020.

The age-standardized current tobacco use prevalence was higher among men than among women across the world. The male-to-female ratio at global level was 4.7 in 2020, rising from 3.0 in 2000 and indicating a slower reduction among men compared to women. The lack of progress among men in relative terms was observed in all WHO regions, except for Europe where the ratio dropped slightly from over 2 in 2000 to 1.9 in 2020 – a level that was lowest among all six WHO regions. The ratio remained highest in Western Pacific Region throughout the two decades, rising from 10.2 in 2000 to 16.6 in 2020.

**Figure 1.9** Age-standardized prevalence of current tobacco use among persons aged 15 years or older, WHO regions and global, 2000–2020



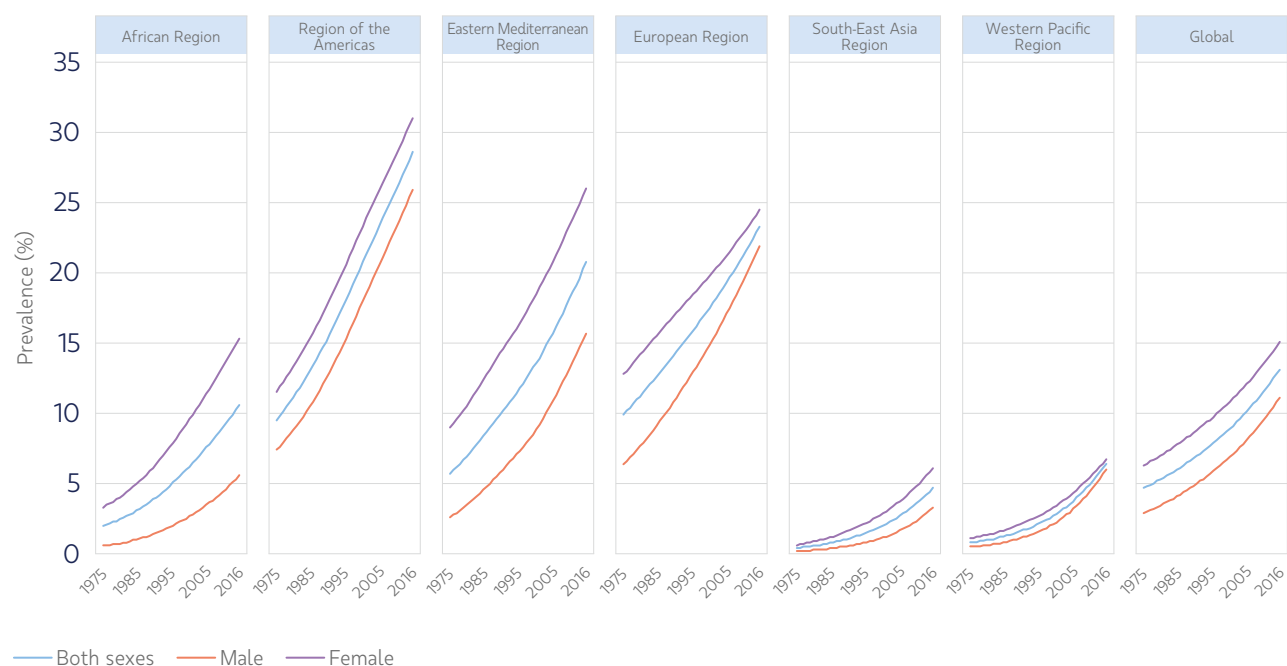
Source: Ref. (9).

## Obesity

The age-standardized prevalence of obesity among adults aged 18 years or older – i.e. body mass index (BMI) >30 kg/m<sup>2</sup> – has been rising since the 1970s. In 2016, 13.1% (UI: 12.4–13.9%) of adults globally were obese, up from 8.7% (UI: 8.4–9.0) in 2000. The greatest increases occurred in the South-East Asia Region, up from 1.9% (UI: 1.6–2.2%) to 4.7% (UI: 3.9–5.6%) (an almost 150% increase) and the Western Pacific Region, up from 2.7% (UI: 2.4–3.0%) to 6.4% (UI: 5.2–7.7%) (an almost 140% increase). The highest level of adult obesity in 2016 was in the Americas where 28.6% (UI: 26.6–30.5%) of adults were obese, increasing by 42% from 20.2% (UI: 19.0–21.5%) in 2000 (Figure 1.10) (10).

Unlike many other health risks, the prevalence rates of obesity were higher among adult women than men. Globally, the female-to-male ratio of age-standardized prevalence of obesity was 1.4 in 2016, down from 1.6 in 2000 and indicating a more rapid rise in male obesity. The sex difference was greatest in the African Region with a ratio at over 2.7 in 2016, down from 3.7 in 2000. All regions have shown similar trends of the more rapid increase in male obesity and the narrowing gap between sexes, with the regions of Europe and the Western Pacific having a ratio reduced to only 1.1 in 2016.

Obesity and overweight also affects children, and the global prevalence has been increasing since 2000 (11). The latest data on overweight among children under 5 years of age are presented in Section 2.2.

**Figure 1.10** Age-standardized prevalence of obesity among adults (age 18 years or older), WHO regions and global, 1975–2016

Source: Ref. (10).

## Hypertension

The global age-standardized prevalence of hypertension among adults aged 30–79 years has been rising since 1990 before peaking around 2009; it declined thereafter to 33.1% (UI: 31.5–34.8%) in 2019 (Figure 1.11). The similar bell-curved trends were also observed in all WHO regions, except in South-East Asia where the prevalence has continued to rise since 1990 and in Europe where there has been continuous decline. Among the WHO regions, the Eastern Mediterranean had the highest prevalence of adult hypertension in 2019 at 37.8% (UI: 34.9–40.8%), followed by Europe at 36.9% (UI: 35.0–38.7%), Africa at 35.5% (UI: 33.0–38.0%) and the Americas at 35.4% (UI: 33.3–37.6%), while the Western Pacific Region had the lowest level at 28.3% (UI: 24.8–32.1%) (10).

The sex difference in age-standardized prevalence of hypertension among adults varies markedly across WHO regions. In the African, Eastern Mediterranean and South-East Asia regions, the prevalence among women was consistently higher than among men, and the gap has widened in the African Region but narrowed in the Eastern Mediterranean Region in recent years. In contrast, in the Region of the Americas, the European Region and the Western Pacific Region, the prevalence among men was higher than that among women. The male-to-female ratio has increased in the European and the Western Pacific regions, both reaching over 1.2 in 2019, while in the Americas it remains roughly constant at around 1.1.

**Figure 1.11** Age-standardized prevalence of hypertension among adults (age 30–79 years), WHO regions and global, 1990–2019

Source: Ref. (10).

## NCD prevention and control

An indispensable way to prevent and control NCDs is to focus on lowering the associated risk factors. Low-cost solutions exist for governments and other stakeholders to reduce the common modifiable risk factors. A comprehensive approach is needed to require all sectors – health, finance, transport, education, agriculture, trade and others – to work together towards a common goal. Monitoring of progress and trends of NCDs and their risk factors is also essential to guide policies and priorities.

It is equally critical to invest in better management of NCDs, including in the detection, screening and treatment of these

diseases, as well as access to palliative care for people in need. High-impact essential NCD interventions can be delivered through a primary health care approach in order to strengthen early detection and timely treatment. Such interventions are excellent economic investments because, if provided early to patients, they can reduce the need for more expensive treatment.

Countries around the world are addressing the growing NCD problems. Box 1.2 presents efforts taken by Saudi Arabia in this endeavour.

## Box 1.2 Countering NCDs in Saudi Arabia

Like most countries in the world, Saudi Arabia has seen rising incidence and prevalence of NCDs. Consequently, NCDs have become the leading causes of mortality and disability in the country (2,7), challenging not only population health but also the country's health care and sustainable development.

To counter the rising burden of NCDs, Saudi Arabia has made tremendous progress in its health care system and in advancing the prevention and control of NCDs over the past few years. There is strong political commitment towards tackling NCDs through multisectoral collaboration and coordination as an integral part of the country's Vision 2030 agenda to increase life expectancy to 80 years by 2030 (12). With the aim of reducing both mortality and morbidity by 5% in 10 years, more specific goals were set in the National Executive Plan for NCDs (2010–2020) and its updated version for 2014–2025. The goals include scaling up monitoring and prevention of NCDs, providing quality health services for NCD treatment, promoting sports activities, substantially reducing air pollution, and expanding NCD research.

Along with the aim to improve NCD treatment through primary health care and UHC, Saudi Arabia also has initiated several strategic interventions and programmes to promote the prevention of health risks. For instance, the country has had a tobacco control programme since 2002, was one of the first countries to ratify the WHO Framework Convention on Tobacco Control (FCTC) in 2005 and was awarded the WHO Tobacco Control Medal in 2019 (13). Currently, Saudi Arabia is a best-practice country in three out of six MPOWER policies, including offering help to quit tobacco use, warning about the dangers of tobacco, and enforcing bans on advertising, promotion and sponsorship. In addition, Saudi Arabia has made remarkable progress in monitoring tobacco use through implementation of Global Adult Tobacco Survey as well as Global Youth Tobacco Survey in recent years. It is the first country in the Eastern Mediterranean Region to implement plain packaging of tobacco products. In December 2022, the Saudi Food & Drug Authority was accredited as a WHO Collaborating Centre. The country's tobacco control regulations include an anti-smoking law, a 100% excise taxation, and prohibition of smoking in public areas and advertising and promotion of tobacco (14,15).

Furthermore, the National Diet and Physical Activity Strategy (2014–2025) was implemented – together with several campaigns within and beyond the Vision 2030 framework – in order to lower the rate of overweight and obesity to 40%, to increase the rate of vegetable and fruit consumption to 20% and to stabilize the prevalence of diabetes. For instance, educational lectures were held, training manuals were published on physical activity, and awareness campaigns focused on mass media outlets to improve physical activity, particularly among young people. Furthermore, Saudi Arabia requires calorie levels to be displayed on restaurant and café menus and has imposed a 50% excise tax on sugar-sweetened beverages and a 100% tax on energy drinks since 2019 (16). Saudi Arabia is also a best-practice country for sodium reduction and trans-fat elimination policies to tackle NCDs. It is one of nine countries to have reached the highest level of implementation of sodium reduction policies and one of 14 countries to qualify for WHO's certification programme for trans-fat elimination (17,18). The country has mandatory policies to enforce a limit of sodium content in food items, implementing all WHO sodium-related best-buys, limiting trans-fat content in foods and oils, and requiring the labelling of sodium and trans-fat content on pre-packaged foods (17,19).

Through these policies, the country has created incentives for healthier lifestyles and has seen promising improvements. There was a 213% increase in demand from people seeking help to give up smoking and a 43.1% decrease in tobacco imports into the country (20). Healthy foods are now more affordable than unhealthy foods (21). These are just some highlights of the numerous actions that Saudi Arabia is undertaking, and needs to take, in order to accelerate progress towards full achievement of the Vision 2030 agenda.<sup>1</sup>

<sup>1</sup> Saudi Arabia is actively engaged with WHO for data exchange and estimation of various health-related indicators. This commitment will be reflected in forthcoming estimates.

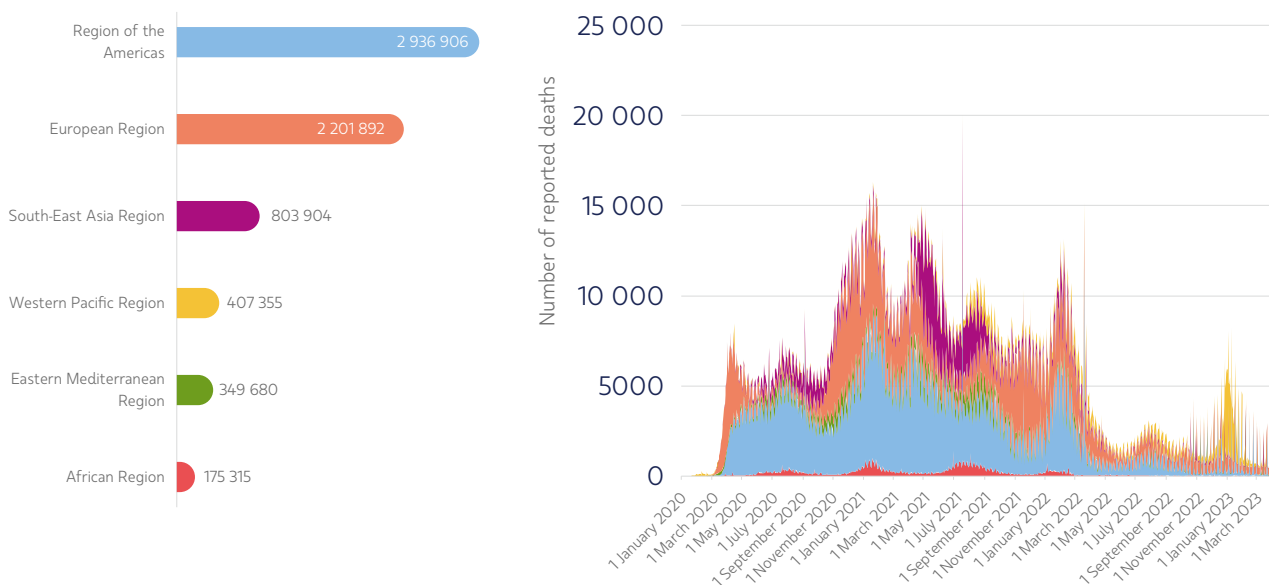


# 1.3 Assessing the impact of the COVID-19 pandemic, 2020–2021

Since the first cases of COVID-19 were reported around the world more than three years ago, the pandemic has had an unprecedented impact on every country in the world. Up to 11 of March 2023, there had been over 759 million confirmed cases of COVID-19 and nearly 6.9 million reported COVID-19 deaths globally (Figure 1.12) (22). However, the true toll of the COVID-19 pandemic is significantly higher as it has indirectly affected mortality through mechanisms such as disruptions to

health care services and changes in care-seeking behaviours. Excess mortality associated with the COVID-19 pandemic – as measured by the difference between overall mortality during the pandemic and the expected mortality level without the impact of the pandemic during the same period – is a crucial indicator of the true impact because it accounts for the net effects of the pandemic on all-cause mortality.

**Figure 1.12** Reported COVID-19 deaths by WHO region, to 11 March 2023



Source: Ref. (22).

## Reported COVID-19 mortality and excess mortality associated with the COVID-19 pandemic

Of the 6.9 million reported deaths attributed to COVID-19 up to 11 March 2023, 43% were reported in WHO's Region of the Americas, making it the region hardest hit by the pandemic. The WHO European and South-East Asia regions accounted for 32% and 12% of global reported COVID-19 deaths respectively.

The WHO Western Pacific, Eastern Mediterranean and African regions had reported many fewer deaths due to COVID-19 during the same period, accounting for a combined 14% of the global total. However, shares of the globally reported COVID-19 deaths varied by region over the course of the

pandemic, reflecting the spread of the disease, the various approaches the regions and the countries took to curb the pandemic, the availability of vaccines and disparities between countries, differences and changes in testing regimes and policies, the evolving practices in assignment of underlying causes of deaths, and the changing nature of the COVID-19 virus.

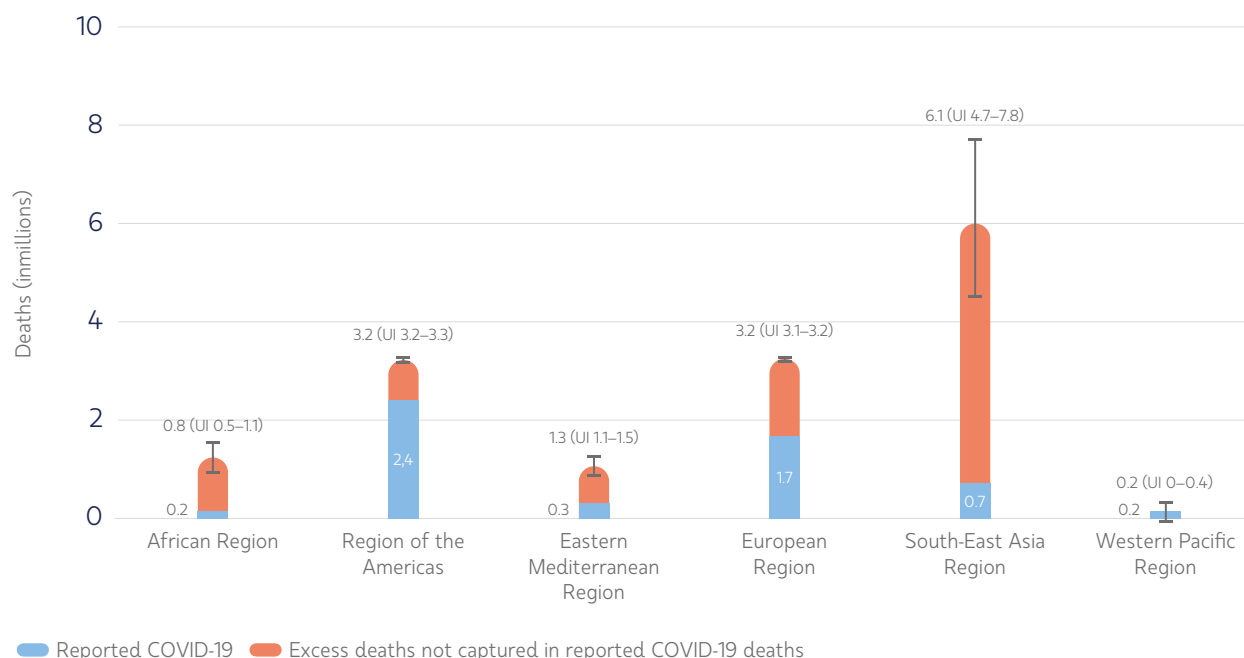
Nevertheless, reported deaths due to COVID-19 generally underestimate the true toll of the impact of COVID-19 on human mortality. Over the past two years, WHO has undertaken a monumental effort to collate all available information on reported all-cause mortality by week and month both during and before the pandemic. The Organization also collated data and other relevant information on the COVID-19 pandemic itself as well as the relevant epidemiological situation of populations around the world to produce for its Member States the most comprehensive assessment of the impact of the COVID-19 pandemic on mortality by sex and age for 2020 and 2021 (23,24).

Through the Member State consultation conducted in 2023, WHO’s updated estimates of excess mortality show that globally 14.9 million (95% UI: 13.3–16.6 million) excess deaths could be attributed to the COVID-19 pandemic by the end of 2021. More excess deaths occurred in 2021 – 10.4 million (95%

UI: 9.1–12.1 million) – than in 2020 when there was a total of 4.4 million (UI: 3.9–5.0 million). At the regional level, the South-East Asia Region had the highest number of excess deaths for the years 2020 and 2021 at 6.1 million (UI: 4.7–7.8 million), which account for 41% of global excess deaths; this was significantly different from the percentage of globally reported COVID-19 deaths that the South-East Asia Region accounted for over the same period (13.3% of global reported deaths). Except for the Western Pacific Region and the African Region, which had only 0.2 million (UI: 0.0–0.4 million) and 0.8 million (UI: 0.5–1.1 million) estimated excess deaths respectively, all other regions had estimated excess deaths of more than 1 million by the end of 2021. Both the European Region and the Region of the Americas had excess deaths over 3 million – i.e. 3.2 million (UI: 3.1–3.2 million) in Europe and 3.2 million (UI: 3.2–3.3 million) in the Americas (Figure 1.13) (25).

The large discrepancy between estimated global excess mortality and the reported deaths due to COVID-19 – a difference of 9.4 million by the end of 2021 – shows that the impact of the pandemic is far-reaching. Indeed, 162 out of 194 WHO Member States show a higher excess mortality rate associated with the COVID-19 pandemic than the reported mortality rate attributable to COVID-19 between 2020 and 2021.

**Figure 1.13** Total excess deaths by WHO region, 1 January 2020 to 31 December 2021



Source: Ref. (25).

## Age and sex distributions in the excess mortality associated with the COVID-19 pandemic

While a total of 14.9 million estimated excess deaths was associated with the COVID-19 pandemic between 2020 and 2021, the age distribution of the COVID-19-related excess mortality shows that the pandemic disproportionately affected the age group of 45 years and above (14.2 million or 95% of the global excess deaths). While 0.7 million excess deaths were observed in the age group of 25–44 years (5% of the global excess deaths), fewer deaths than expected (about 37 000 fewer deaths) were estimated to have occurred among people under the age of 25 years. An estimated 31% of the global excess deaths occurred in ages between 45 and 64 years (i.e. 4.6 million). Similarly, 46% of global excess deaths (i.e. 6.8 million) occurred between 65 and 84 years. The oldest age group, 85 years and above, accounted for 18% of excess deaths globally (i.e. 2.7 million) (25).

Partly influenced by differences in population structure, there was a visible heterogeneity in the percentage of excess deaths by age group in the six WHO regions. The percentage of excess deaths that occurred in ages 65 years and above was above 50% of all excess deaths in the African Region (54%), the Region of the Americas (63%), the Eastern Mediterranean Region (59%), the South-East Region (61%), and 80% in the European Region. In the Western Pacific Region, excess deaths were concentrated in the age group 45–64 and above 85 years. For the age group below 45 years, the African Region and the Western Pacific Region had fewer deaths than expected, compared to the other four regions where the percentage of excess deaths ranged between 3% and 7%.

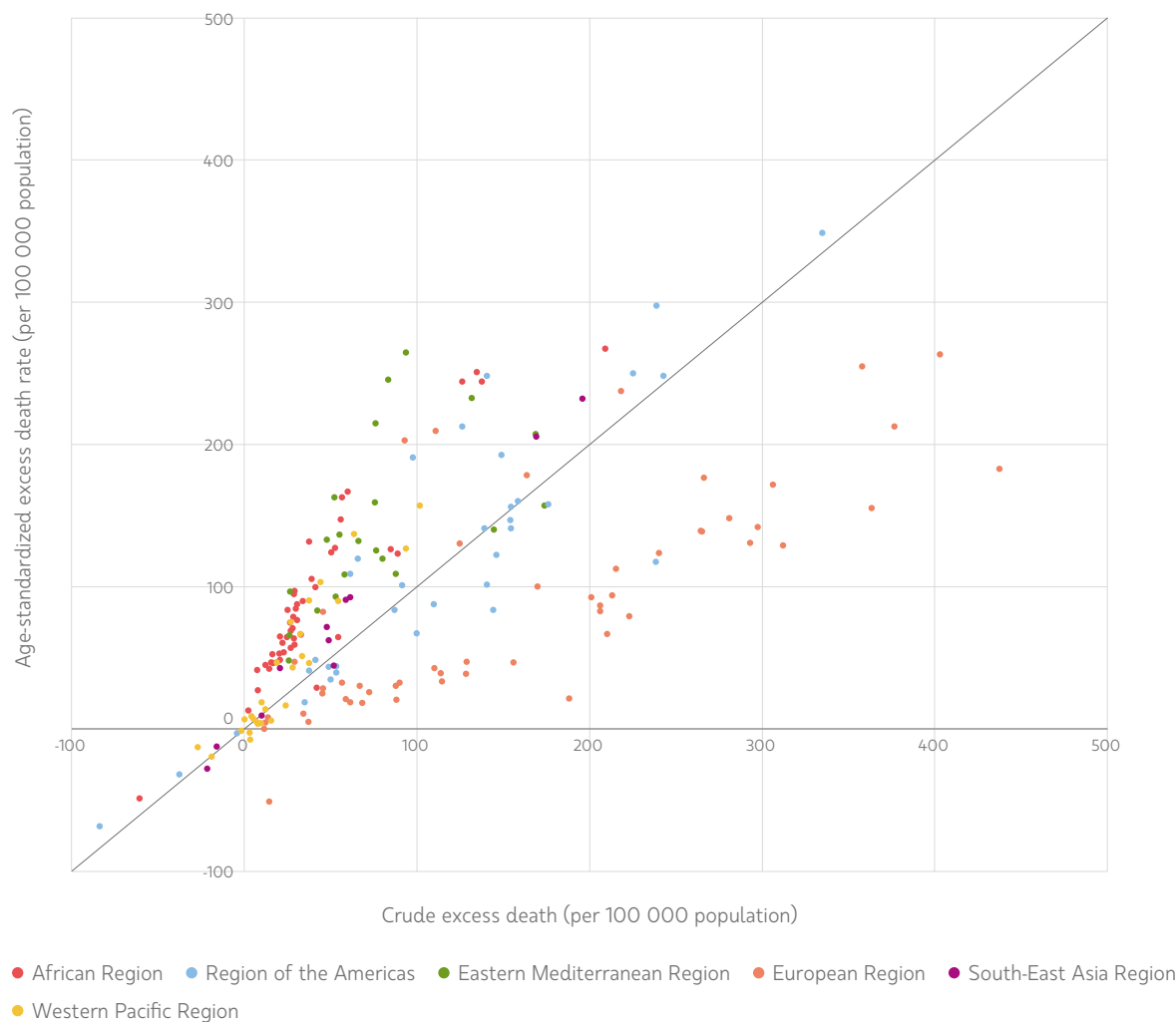
Globally, excess deaths among women accounted for about 44% of the global excess deaths for 2020 and 2021 combined. In terms of crude excess mortality rate, men had a slightly higher rate at 209.6 per 100 000, while women's excess mortality rate was at 170.1 per 100 000. However, much of the difference between men and women lies in the age-specific excess mortality rates. Globally, age-specific excess mortality rates among the male population are consistently higher than among the female population in all age groups. Above the age of 25 years, the ratio of the age-specific excess mortality rate between men and women ranges between 1.5 in ages 65–74 years to 2.0 in the age group 25–34 years. However,

ages below 25 years, the excess mortality rate is -0.9 per 100 000 for boys and young men, while the excess mortality rate for girls and young women in the same age group is 1.4 per 100 000.

Across WHO regions, there is a much higher level of heterogeneity in the ratios of age-specific excess mortality between male and female populations. These range from -45.4 in age group 0–24 years in the African Region – where the excess mortality rate was -0.1 per 100 000 among girls and young women and 4.3 per 100 000 among boys and young men – to 62.8 in the age group 35–44 years in the Western Pacific Region where the excess mortality rate was 0.2 per 100 000 among women and 11.2 per 100 000 among men. In 40 out of the 48 WHO region and age group combinations, excess mortality rates among the male population were higher than those of the female population.

While the crude excess mortality rate, as calculated by dividing the total number of excess deaths by the total person-years of exposure between 2020 and 2021, provides an informative summary measure of the magnitude of mortality brought about by the COVID-19 pandemic, this calculation masks the impact that the population structure has on the overall mortality rate. For instance, countries with older population structures might have a higher excess mortality rate because COVID-19 disproportionately affects the populations that are frailer and in older age groups. Seventy-five of WHO's 194 Member States have a crude excess mortality rate higher than the age-standardized excess mortality rate, indicating a much older population structure. These countries come predominantly from the Region of Americas and the European Region. Forty-six of the 53 Member States in the European Region have an age-standardized excess mortality rate lower than the crude excess mortality rate. In the Region of the Americas, 15 of the 35 Member States have seen an age-standardized excess mortality rate lower than the crude excess mortality rate. On the other hand, few countries in the African Region and the Eastern Mediterranean Region (only 1 and 2 respectively) have seen crude excess mortality rates higher than the age-standardized values (Figure 1.14).

**Figure 1.14** Crude versus age-standardized excess mortality rate per 100 000 population, WHO regions, 2020–2021



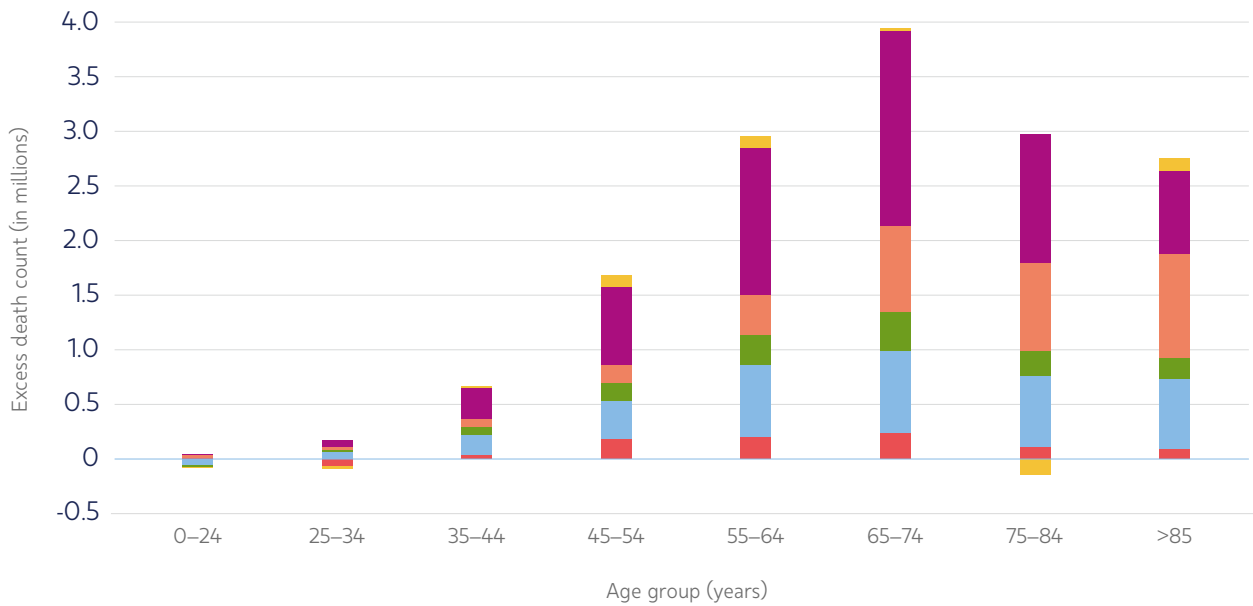
Source: Ref. (25).

## Years of life lost due to excess mortality associated with the COVID-19 pandemic

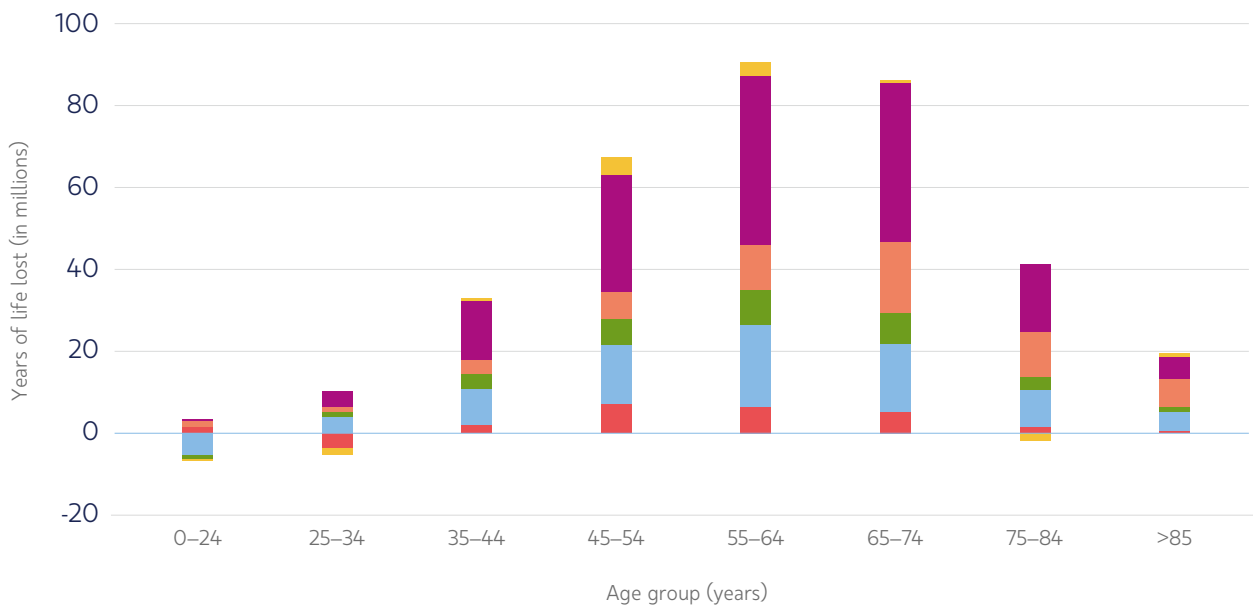
While excess mortality – as opposed to the deaths reported to be due to COVID-19 – provides a unique lens through which to evaluate the toll of the pandemic, it does not comprehensively account for the impact of each death due to the pandemic on a wide range of social and economic issues. Estimation of years of life lost (YLL), on the other hand, accounts not only for the number of deaths and the age at which death occurs but also for the associated loss of a potential number of life-years. YLL estimates show that a total of 336.8 million life-years have been lost globally due to the COVID-19 pandemic in 2020–2021. This means that, on average, each excess death led to a loss of more than 22 years of life – equivalent to over 5 years of life lost per second in 2020–2021 (25).

Globally, YLL associated with the COVID-19 pandemic is negative among ages younger than 25 years, reflecting YLL averted

during the pandemic (3.5 million). This is despite the fact that the potential YLL is the highest among this group given the high life expectancy by age in young age groups. YLL by age group is the highest in ages 55–64 years with a total of 90.4 million years (27%) of life lost – due to a combination of a relatively higher excess mortality rate in this age group and much higher potential years of life lost for each death that occurred at this age due to its relatively younger age compared to the deaths in age groups above 65 years. While the age groups beyond 65 years collectively accounted for 64% of the global excess deaths, YLL due to excess mortality accounted for less than half of the global YLL at 43%. Conversely, YLL in ages younger than 45 years accounted for 10% of the global YLL even though excess deaths in the same age group accounted for only 5% of the global total (Figure 1.15).

**Figure 1.15** Excess deaths and years of life lost due to the COVID-19 pandemic, by age group and WHO region, 2020–2021**Excess deaths**

● African Region  
 ● Region of the Americas  
 ● Eastern Mediterranean Region  
 ● European Region  
 ● South-East Asia Region  
 ● Western Pacific Region

**Year of life lost due to excess deaths**

● African Region  
 ● Region of the Americas  
 ● Eastern Mediterranean Region  
 ● European Region  
 ● South-East Asia Region  
 ● Western Pacific Region

Source: Ref. (25).

Globally, men have lost a total of 196.9 million life-years – 42% more than women who lost 140.0 million life-years. The age distribution of YLL is similar among men and women at the global level where YLL in age groups between 45 and 74 years account for around 70% of total YLL for both men and women. YLL in the oldest ages above 75 years among women are proportionally much higher at 21%, compared to just 15% for men, reflecting a higher probability of survival to ages beyond 75 years and a lower level of mortality – both excess mortality and background mortality due to other causes – among women.

The Region of the Americas, European Region and South-East Asia Region each accounted for over 15% of the global YLL due

to excess mortality at 21%, 17% and 44%, respectively. Thus, 278.8 million life-years have been lost due to the pandemic in these three regions alone. More YLL due to excess mortality occurred among men in all WHO regions. However, the ratio of YLL among men relative to women was more than 1.5 in the Western Pacific Region, in the Region of Americas and in the Eastern Mediterranean Region, while it is less than 1.3 in the other regions. The age distribution of YLL by sex is remarkably similar between the regions, as we observe at the global level, except in the Western Pacific Region where men and women in the age groups between 75 and 84 years saw negative YLL.

## Non-fatal impacts of COVID-19

This report, in addition to many similar studies at national, regional and global levels, aims to provide a detailed portrayal of the impact of the COVID-19 pandemic on human mortality in various dimensions. However, much less comprehensive research and analysis have been done to disentangle the long-lasting impact of non-fatal outcomes among people who have been infected by the COVID-19 virus. Commonly known as long COVID, the post-COVID-19 condition refers to the various mid- and long-term symptoms that approximately 10–20% of people experience after recovering from their initial COVID-19 illness (26). Such symptoms, including cognitive dysfunction

and fatigue, can have a significant, and in some cases severe, impact on one's daily life and productivity.

Given the emergent nature of the post-COVID-19 condition and the complexity of its symptoms, no specific treatment regimen is yet available. More research needs to be done in the coming years to assess the underlying mechanisms of such symptoms and the true disease burden associated with the non-fatal outcome of long COVID. Until then, it is important to stress the importance of public health interventions to prevent COVID-19 infections and its associated post-acute sequelae.

## COVID-19 vaccines and associated inequality

The COVID-19 pandemic has exposed inequalities both between and within countries, including inequalities in access to COVID-19 vaccines. As of March 2023, about 13 billion doses of COVID-19 vaccines had been administered globally. However, vaccination coverage varies greatly by country (22).

The Global COVID-19 Trends and Impact Survey conducted by the University of Maryland Social Data Science Center in partnership with Facebook, collected data on COVID-19 vaccination indicators as well as educational status (27). This survey is subject to several limitations, including inability to reach people who are not Facebook users, sampling and weighting issues, response bias and missing data. The estimates shown here are not official WHO estimates and are not directly comparable with official estimates.

Across all countries, self-reported receipt of COVID-19 vaccine was higher among those with more education. As of December 2021, still in the early stages in terms of the availability of COVID-19 vaccines, the median level of vaccination across 90 countries among population groups with educational levels above secondary education was 79.1% (UI: 75.6–82.4%). This was higher than the median level of vaccination among groups with secondary education which was 71.4% (UI: 67.4–76.1%) or

groups with no or primary education at 67.7% (UI: 60.0–73.0%). This stepwise pattern was also evident across high-income countries (HICs) where median vaccination levels across the most-to-least educated groups were 87.4% (UI: 83.4–89.0%), 83.8% (UI: 78.8–86.0%) and 81.0% (UI: 78.3–87.1%), respectively, and across upper-middle-income countries (UMICs) where median vaccination levels across the most-to-least educated groups were 75.5% (UI: 68.1–82.1%), 66.7% (UI: 58.8–73.9%) and 57.6% (UI: 52.5–72.3%), respectively. In low-income countries (LICs) and lower-middle-income countries (LMICs), the median self-reported receipt of a COVID-19 vaccine was higher among the most educated group at 63.9% (UI: 53.0–75.6%) and equally low in the two less educated groups (51%) (28).

Populations in LICs and LMICs were more likely to report experiencing a structural barrier to vaccination [median across 28 countries: 34.6% (UI: 29.3–38.9)] – such as not meeting eligibility requirements, availability or accessibility issues or lack of information – than populations in UMICs [median across 29 countries: 24.0% (UI: 21.5–29.9)] or populations in HICs [median across 33 countries: 15.0% (UI: 14.1–17.1)].

Among unvaccinated populations, vaccine hesitancy was lower in HICs than in UMICs, LMICs and LICs. However, vaccine

refusal was highest in HICs. Within HICs, vaccine refusal was higher among those with more than secondary education at 50.7% (UI: 40.5–60.7%) compared to those with no or primary education at 42.8% (UI: 31.2–49.0%). Vaccine hesitancy in HICs,

however, was more prevalent among those with no or primary education at 38.8% (UI: 35.5–41.4%) compared to those with more than secondary education at 33.1% (UI: 31.4–36.2%).

## COVID-19 and global health in the coming decades

With millions of excess deaths attributed to the pandemic globally thus far, COVID-19 stands out as one of the most devastating pandemics in history, and certainly in recent memory. This pandemic highlights the critical importance of early detection and swift response at the global level to contain the rapid spread of the virus. To improve a country's ability in detection and response, sustained investment in public health infrastructure and preparedness in every country in the world is required in order to protect global health. The pandemic also demonstrated the importance of a strong health care system and UHC among countries. For most regions, the level of essential service coverage is negatively associated with lower age-standardized excess mortality rates associated with the COVID-19 pandemic, as was particularly evident among countries of the European and Western Pacific regions. This is evidence that countries that are better equipped and better staffed are well positioned to weather the pandemic and to minimize the mortality toll.

The COVID-19 pandemic also shows how critical close collaboration between countries – with international

coordination led by key institutions such as (and particularly) WHO – is in addressing significant global health threats within countries and across national borders. Furthermore, well-coordinated cooperation among regions and countries, and between private and public sectors, helps to ensure equitable distribution of vaccines, sharing of critical information, and distribution of medicines and medical equipment among countries for those in critical need.

The COVID-19 pandemic has highlighted the inequality of access to health care systems, especially among vulnerable populations and in developing nations. In addition, the pandemic exposed inequality in health emergency preparedness around the world. Much needs to be done, and urgently, by countries and the international community to make sure that more people around the globe have access to health care services and are protected from health emergencies so that they may enjoy healthier lives.



# 1.4 Climate change and health

Climate change is one of the greatest health challenges of the 21st century. As climatic conditions change, we are witnessing more frequent and intensifying weather and climate events, such as storms, extreme heat, floods, droughts and wildfires. These weather and climate hazards affect health both directly and indirectly, increasing the risk of deaths, NCDs, the emergence and spread of infectious diseases, and health emergencies. Climate change is also having an impact on our health workforce and infrastructure, reducing capacity to provide UHC. More fundamentally, climate shocks and growing

stresses such as changing temperature and precipitation patterns, drought, floods and rising sea levels degrade the environmental and social determinants of physical and mental health. All aspects of health are affected by climate change – from clean air, water and soil to food systems and livelihoods. Further delay in tackling climate change will increase health risks, undermine decades of improvements in global health, and contravene our collective commitments to ensure the human right to health for all.

## Current and future health risks of climate change

The *Sixth Assessment Report of the Intergovernmental Panel on Climate Change* estimates that up to 3.6 billion people around the globe live in contexts that are highly vulnerable to the impacts of climate change (29). LICs, LMICs and small island developing states face the greatest health consequences of climate change, despite contributing the least to historical global emissions (29,30). It is estimated that, over the past decade, floods, droughts and storms were 15 times more lethal in highly vulnerable regions than in regions with low vulnerability (29).

Within countries there can also be large disparities in those most vulnerable to the impacts of climate change. Populations living in poverty, older people, women, children, indigenous peoples, outdoor workers, the socially isolated and persons with pre-existing medical conditions are typically at highest risk. Approximately 2 billion people lack access to safe drinking-water (see section 2.4 on Environmental risks) (31). Furthermore, there are some 600 million cases of foodborne illness globally. Children under 5 years of age carry 40% of the burden of foodborne diseases, resulting in 125 000 child deaths every year (32). Extreme weather events and climate-related environmental stressors degrade water and soil safety, increasing the risks of waterborne and foodborne illnesses.

It is estimated that in 2020, between 720 and 811 million people faced hunger, primarily in Africa and Asia (32). Higher temperatures, rising sea levels and flooding affect all aspects of food and nutrition security. Climate-related reductions in agricultural and marine productivity, biodiversity loss, volatility in food prices and disruptions in food imports further affect

the quality, quantity and diversity of food consumed, leading to further food and nutrition crises.

Changing temperature and precipitation patterns are also increasing the suitability of conditions for the transmission of mosquito-borne, tick-borne and rodent-borne diseases in many regions. If prevention methods are not strengthened, this could lead to an increase in the over 700 000 deaths from vector-borne diseases each year (33).

Acute mental health conditions such as anxiety, depression and post-traumatic stress can be experienced following extreme weather events. The cumulative effect of loss of livelihood, displacement, disrupted social cohesion and uncertainty from climate change can also result in longer-term mental health disorders (34), adding to the already large global challenges in mental health.

Estimating the full health burden of climate change is challenging. In 2014, WHO together with leading researchers conducted a quantitative risk assessment of the effects of climate change on selected causes of death. Under a medium–high emissions scenario, it was estimated that by 2030 climate change would cause around 250 000 additional deaths per year (35). This conservative estimate included only climate-attributable deaths from malaria, heat exposure in older persons, undernutrition and diarrhoeal disease in children, and coastal flood mortality. This assessment recognized that a main limitation of the findings was the inability of existing models to account for major causal pathways that influence a range of health outcomes. By looking at a small subset of causal pathways, however, the assessment clearly established



that climate change was projected to have a substantial adverse impact on future mortality.

Since 2015, WHO, the United Nations Framework Convention on Climate Change (UNFCCC) Health and Climate Change Country Profile project has worked with national governments to produce evidence-based summaries of country-specific climate hazards and climate-sensitive health risks and to track policy responses (36). This supports countries in their efforts to develop locally relevant and actionable information. Some 80 countries have participated in this project to date.

## Health response

In 2021, the global mean temperature was  $1.11 \pm 0.13$  °C higher than pre-industrial levels, with each of the past four decades warmer than the preceding decade (39,40). Under the 2015 Paris Agreement, countries committed to reduce greenhouse gas emissions rapidly to limit the global temperature rise to well below 2.0 °C and preferably to 1.5 °C (41). However, recent analysis indicates that the world remains off track to achieve this goal and avert irreversible and catastrophic changes to our natural and human systems (42).

WHO has identified three objectives for the health response to this escalating climate crisis. The objectives are described below.

### Promote actions that both reduce carbon emissions and improve health

In order to stay within the 1.5 °C global warming limit set out in the 2015 Paris Agreement, the world will need to drastically reduce emissions through large-scale transformation across social and economic systems. Several of the sectors driving greenhouse gas emissions – including energy, transport, industry, agriculture and waste – are also sources of harmful air pollutants. In 2019, air pollution caused approximately 6.7 million deaths globally due to cardiovascular disease, respiratory illnesses and cancer (see section 2.4 on Environmental risks) (37). Solutions exist to cut carbon emissions across all the main emitting sectors, but some bring much larger health gains than others. Health advocacy can help accelerate those that bring the greatest health benefits, including a just and inclusive transition to renewable energy, phasing out coal combustion and fossil fuel subsidy reform. The associated air quality improvements of this transition could avoid millions of premature deaths from air pollution (43,44).

Road transport is estimated to account for almost one fifth of global CO<sub>2</sub> emissions in 2019, while the global food system

An increasing number of studies aim to quantify specific health effects of climate change. Advancements in the application of detection and attribution studies to health outcomes are also providing greater insight and confidence into the magnitude of climate change-related health impacts of extreme weather events (37).

In terms of estimating the future impact of climate change on health, Working Group II of the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, comprehensively reviewed current evidence and concluded that under a high emissions scenario there could be over 9 million climate-related deaths each year by the end of the century (38).

also contributes 21–37% of greenhouse gas emissions (45). Sustainable urban planning which promotes a modal shift towards safe walking and cycling and access to public transport can lead to health benefits from increased physical activity, reduced ambient air pollution and lower noise exposure. In HICs, a transition towards plant-based diets, lower red meat consumption and less food waste offers an opportunity to mitigate climate change while lowering the health burden of diet-related NCDs. Sustainable agriculture and food production in low- and middle-income countries can protect local environments, lower emissions and promote food and nutrition security.

Health benefits from climate change mitigation save lives, provide cost-savings for health systems and improved productivity from a healthier workforce. These economic gains have been shown to be of the same magnitude as mitigation costs and in some cases even double the costs of mitigation (44,46), providing a strong motivation for climate action.

The UNFCCC Paris Agreement and the 2030 Agenda for Sustainable Development lay out coherent and complementary goals to reduce global emissions, achieve health for all people and preserve our natural systems.

Under the Paris Agreement, countries set out their mitigation commitments and adaptation priorities through their nationally determined contributions (NDCs) and national adaptation plans (NAPs). The 2023 WHO Review of Health in the NDC report found that over 90% of countries reflect health priorities in their NDCs but only 30% identify the health co-benefits of mitigation action and even fewer (10%) quantify them (47). Health considerations are an integral part of national and international climate policies and processes. As such, health can be a powerful argument to galvanize political and financial support for accelerated climate action.

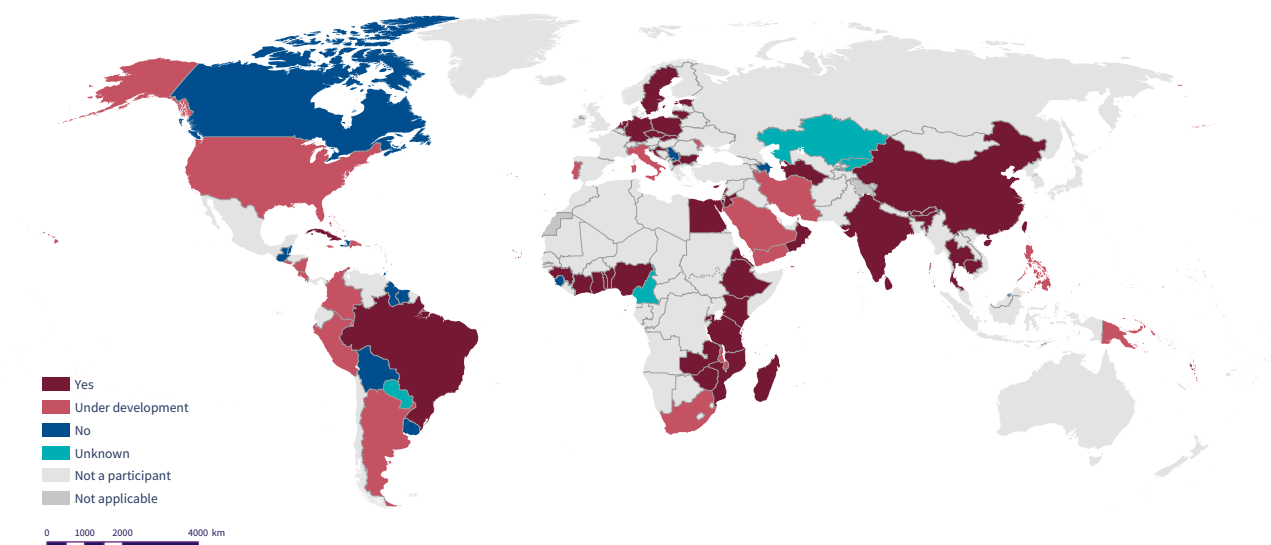
## Build better, more climate-resilient and environmentally sustainable health systems

Building climate-resilient and sustainable health systems involves a systematic and comprehensive approach to strengthening all core functions of a health system so that it can respond and adapt to the health risks of climate change. The 2021 WHO Health and Climate Change Global Survey found that approximately half of countries (48 out of 95) reported having conducted a climate change and health vulnerability and adaptation assessment. Fifty-two per cent (49 out of 95) of countries reported having a national climate change and health strategy or plan in place (Figure 1.16). However, only a quarter of those countries (11 out of 46) have reached a “high” or “very high” level of implementation. Insufficient finance was a main barrier to implementation of national strategies and plans (Figure 1.17) (48).

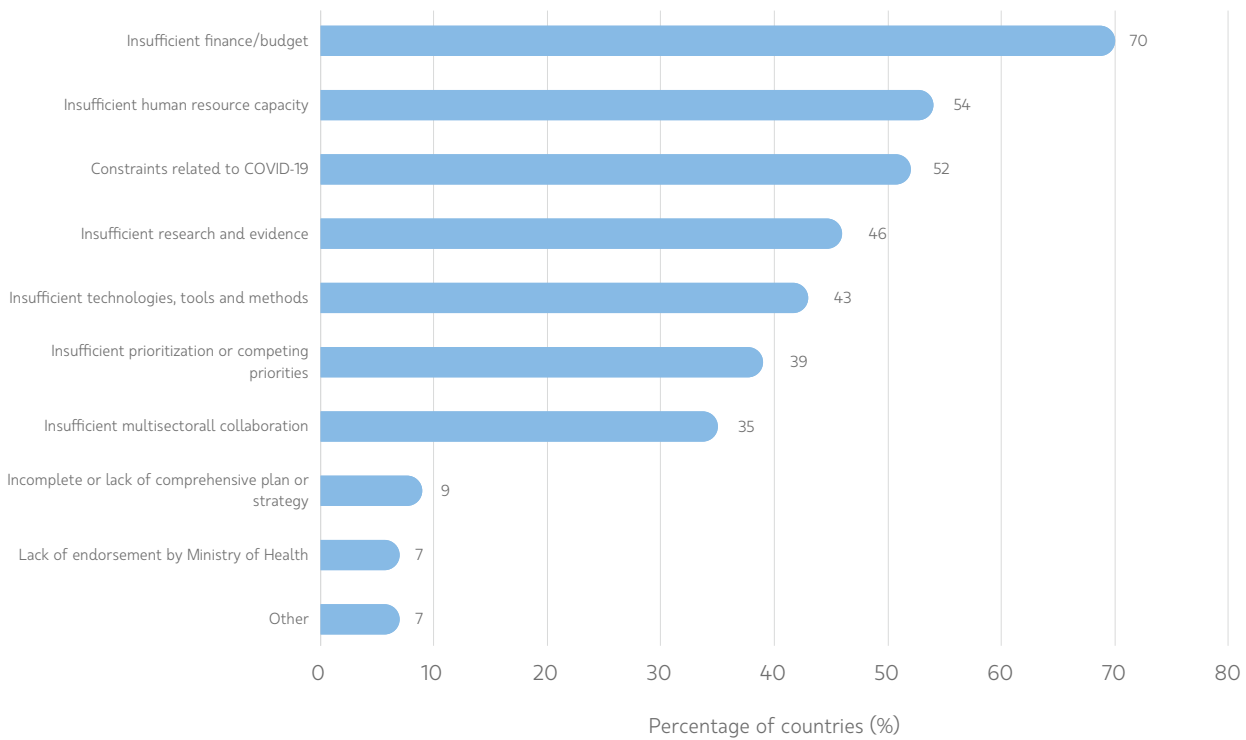
The health sector is responsible for approximately 4–5% of global greenhouse gas emissions (49). Health systems can decarbonize through measures such as sustainable procurement practices, more efficient or renewable energy sources, waste reduction, and optimization of the use of resources, which will contribute to a higher quality of care, greater accessibility, more reliable services, reduced occupational hazards from air pollution and waste, and reduced costs (49,50).

The WHO-led Alliance for Transformative Action on Climate Change and Health (ATAACH) was formed in 2022 to support countries in implementing their UNFCCC 26<sup>th</sup> Conference of Parties (COP26) health programme commitments to build climate-resilient and sustainable health systems. Over 60 countries have committed to this initiative with more countries expected to join (51).

**Figure 1.16** Countries and areas with a national health and climate change plan or strategy in place, 2021



Source: Ref. (48).

**Figure 1.17** Main barriers to implementation of national health and climate change plans or strategies, 2021

Source: Ref. (48).

## Protect health from the wide range of impacts of climate change

Countries are facing increasing threats to public health and health systems from climate change. A number of factors, including geography and socioeconomic conditions influence these risks. Countries can assess their individual health vulnerabilities and capacities and develop evidence-based NAPs and interventions. Climate-informed health surveillance and early warning systems and climate-informed health policies and programmes are critical in strengthening the resilience of health systems to growing climate risks (52).

Given the interconnectedness of natural, economic, social and human systems, action in the health sector alone is not enough to protect human health. As climate change intensifies,

a mobilized health community and strong multisectoral coordination will play critical roles in strengthening evidence, advocacy, policy, and actions to protect the health and well-being of all populations. Ensuring adequate funding through international climate finance and domestic funding will allow health priorities to be mainstreamed into climate change programming and climate considerations to be accounted for in health programming.

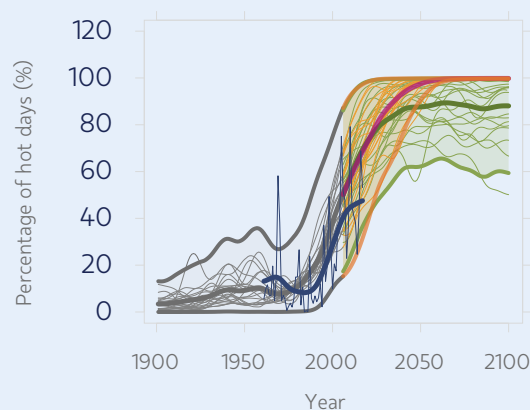
Effectively tackling climate change and protecting health requires us to monitor, learn and improve. The interaction between climate change, other determinants, health interventions and health effects is constantly evolving. This calls for integrated monitoring systems across these dimensions, that can be used to improve understanding, track progress and guide health actions.

### Box 1.3 Facing the consequences of climate change in the Caribbean (53)

Saint Lucia, a small island developing state in the Caribbean, is highly vulnerable to the health risks posed by climate change. With much of the country's population and economic activity located along the coast, Saint Lucia is particularly vulnerable to extreme weather events and climate stresses. Climate-related health risks to the island's population include injuries and deaths from extreme weather events, vector-borne diseases, waterborne illnesses, food insecurity, heat stress, respiratory illnesses and mental health stresses.

Under a "business as usual" high emissions scenario, the mean annual temperature in Saint Lucia is projected to rise by about 2.9 °C by the end of the century with "hot days" increasing from 23% of all observed days on average in 1981–2010 to over 90% of all days on average in 2071–2100 (Figure 1.18). Increasing mean annual temperature and extreme heat result in a greater number of people at risk of heat-related medical conditions, including heat rash, heat cramps, dehydration, heat stroke and in some cases death.

**Figure 1.18** Percentage of hot days ("heat stress"), Saint Lucia, 1900–2100\*



Note: \* The figure presents climate model projections for the percentage of "hot days". A "hot day" is a day when the maximum temperature exceeds the 90th percentile threshold for the time of the year. The blue lines represent annual and smoothed observed record. The orange lines represent a high-emission scenario (Representative Concentration Pathway 8.5, RCP8.5) and the green lines represent a low-emission scenario (RCP2.6). The scenarios are presented across some 20 global climate models. The figure shows each model individually, as well as their average and the 90% model range (shaded).

Source: Health and climate change: country profile 2020: Saint Lucia (Online). Geneva: World Health Organization (<https://www.who.int/publications/i/item/WHO-HEP-ECH-CCH-20.01.01>, accessed 26 April 2023).

Sea level is expected to rise by 0.5–0.6 metres by the end of the century in the Caribbean region. Impacts of the rise in sea level include coastal erosion, ecosystem disruption, higher storm surges, population displacement, and water contamination and disruption.

It is anticipated that tropical cyclones will become more intense due to climate change. Between 1980 and 2010, six major tropical cyclones and three other climate-related natural hazards crossed or had effects on Saint Lucia's Exclusive Economic Zone. In 2010, Hurricane Tomas affected 172 370 people and resulted in damages and losses worth 28.4% of GDP. Damages include disruptions to the functioning of health care facilities and emergency health services.

Climate change is likely to exacerbate the triple burden of malnutrition as well as the metabolic and lifestyle risk factors for diet-related NCDs. It is expected to reduce short- and long-term food and nutrition security both directly, through its effects on agriculture and fisheries, and indirectly, by contributing to underlying risk factors such as water insecurity, dependency on imported foods, urbanization, migration and health-service disruption.

The Government of Saint Lucia recognizes the threats posed by climate change to health and is committed to building a climate-resilient and sustainable health system. Saint Lucia has conducted a vulnerability and adaptation assessment of the health sector as part of its National Communication to the UNFCCC. The findings of this assessment can inform policy and planning.

In 2022, Saint Lucia developed a Health NAP which outlines its adaptation priorities. Saint Lucia also includes health considerations in its national climate policies. The NDC of Saint Lucia highlights the importance of human health as a key priority for adaptation implementation.

Using the SMART hospitals toolkit, Saint Lucia has assessed 34 health facilities for their structural and operational safety and low-carbon environmental sustainability. As of 2020, three health facilities in Saint Lucia had been designated as SMART health facilities. Expansion of the project to include facilities across the island are planned and will aim to ensure that the majority of the population (including women, children and persons with disabilities) can access quality health care in both pre- and post-disaster periods. It is planned that the remaining health facilities will be upgraded to improve safety in service delivery and to ensure they can structurally, non-structurally and functionally withstand climate-related events.

Saint Lucia has also identified the importance of strengthening climate-informed health surveillance and early warning systems to protect populations and to address barriers to accessing finance in order to support health adaptation and mitigation objectives.

## References

1. Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: World Health Organization; 2023 (<https://apps.who.int/iris/handle/10665/366225>, accessed 21 April 2023).
2. Global health estimates 2019: deaths by cause, age, sex, by country and by region, 2000–2019. Geneva: World Health Organization; 2020 (<https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/>, accessed 1 April 2023).
3. World Population Prospects 2022. New York (NY): United Nations, Department of Economic and Social Affairs; 2022 (<https://population.un.org/wpp/>, accessed 1 April 2023).
4. Levels and trends in child mortality. Report 2022. Estimates developed by the UN Inter-agency Group for Child Mortality Estimation. United Nations Children's Fund, World Health Organization, World Bank Group and United Nations Population Division. New York: United Nations Children's Fund; 2023 (<https://data.unicef.org/resources/levels-and-trends-in-child-mortality/>, accessed 14 April 2023).
5. Tran HT, Murray JCS, Sobel HL, Mannava P, Huynh LT, Nguyen PTT et al. Early essential newborn care is associated with improved newborn outcomes following caesarean section births in a tertiary hospital in Da Nang, Vietnam: a pre/post-intervention study. *BMJ Open Quality*. 2021;10(3):e001089 (<https://bmjopenquality.bmj.com/content/10/3/e001089>, accessed 4 April 2023). doi:10.1136/bmjopen-2020-001089.
6. Perin J, Mulick A, Yeung D, Villavicencio F, Lopez G, Strong KL et al. Global, regional, and national causes of under-5 mortality in 2000–19: an updated systematic analysis with implications for the Sustainable Development Goals. *Lancet Child Adolescent Health*. 2022;6:106–15. doi:10.1016/S2352-4642(21)00311-4.
7. Global health estimates 2019: disease burden by cause, age, sex, by country and by region, 2000–2019. Global Health Observatory data. Geneva: World Health Organization; 2020 (<https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/>, accessed 24 March 2023).
8. WHO global information system on alcohol and health (GISAH) [online database]. Global Health Observatory data. Geneva: World Health Organization; 2022 (<https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/levels-of-consumption/>, accessed 11 April 2023).
9. WHO global report on trends in prevalence of tobacco use 2000–2025, fourth edition. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/348537>, accessed 4 April 2023).
10. Noncommunicable diseases: risk factors. Global Health Observatory data. Geneva: World Health Organization; 2022 (<https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/ncd-risk-factors>, accessed 12 April 2023).
11. Levels and trends in child malnutrition. UNICEF/WHO/World Bank Group Joint Child Malnutrition Estimates. New York (NY), Geneva and Washington (DC): United Nations Children's Fund, World Health Organization and the World Bank Group; 2023. (<https://www.who.int/teams/nutrition-and-food-safety/monitoring-nutritional-status-and-food-safety-and-events/joint-child-malnutrition-estimates>, accessed 23 May 2023).
12. Vision 2030. Kingdom of Saudi Arabia (<https://www.vision2030.gov.sa/v2030/overview/vibrant-society/>, accessed 15 April 2023).
13. WHO Framework Convention on Tobacco Control. Geneva: World Health Organization; 2005 (<https://fctc.who.int/who-fctc/overview>, accessed 14 April 2023).
14. Alghamdi A, Fallatah A, Okal F, Felemban T, Eldigire M, Almodaimegh H. Smoking behaviour after enforcement of a 100% tax on tobacco products in Saudi Arabia: a cross-sectional study. *East Mediterr Heal J*. 2020;26(1):39–46. doi:10.26719/2020.26.1.39.
15. Tobacco control laws. Legislation by country – Saudi Arabia ([www.tobaccocontrollaws.org/legislation/country/saudi-arabia/summary](http://www.tobaccocontrollaws.org/legislation/country/saudi-arabia/summary), accessed 14 April 2023).
16. Kingdom of Saudi Arabia: inclusion of sugar sweetened beverages and other tobacco products in the Excise Tax System. PwC Middle East; 2019 (<https://www.pwc.com/m1/en/tax/documents/2019/ksa-inclusion-of-sugar-beverages-and-tobacco-products-in-the-ets.pdf>, accessed 14 April 2023).
17. WHO global report on sodium intake reduction. Geneva: World Health Organization; 2023. (<https://apps.who.int/iris/handle/10665/366393>, accessed 14 April 2023).

18. WHO announces certification programme for trans-fat elimination. Press release. Geneva: World Health Organization; 2020 (<https://www.who.int/news/item/17-11-2020-who-announces-certification-programme-for-trans-fat-elimination>, accessed 14 April 2023).
19. دليل لىقتب مازلالا صوصخب زبخال يدروتسمو يعنصم يداشرا لىلد يدوعسلا ةينفلا ةحئلال اقبط زبخال يف حملل SFDA>FD 2018/2362 [Guidelines for salt reduction in bread]. Riyadh: Government of the Kingdom of Saudi Arabia; 2018 (<https://extranet.who.int/nutrition/gina/en/node/41573>, accessed 28 April 2023).
20. Itumalla R, Aldhmadi B. Combating tobacco use in Saudi Arabia: a review of recent initiatives. *East Mediterr Heal J.* 2020;26(7):858–63. doi:10.26719/emhj.20.019.
21. Gosadi IM, Alshehri MA, Alawad SH. Do healthier foods cost more in Saudi Arabia than less healthier options? *Saudi Med J.* 2016;37(9):1015–21. doi:10.15537/smj.2016.9.14077.
22. WHO Coronavirus (COVID-19) dashboard. Geneva: World Health Organization (<https://covid19.who.int/data>, accessed 14 April 2023).
23. Msemburi W, Karlinsky A, Knutson V, Aleshin-Guendel S, Chatterji S, Wakefield J. The WHO estimates of excess mortality associated with the COVID-19 pandemic. *Nature.* 2023;613:130–7. doi.org/10.1038/s41586-022-05522-2.
24. Knutson V, Aleshin-Guendel S, Karlinsky A, Msemburi W, Wakefield J. Estimating global and country-specific excess mortality during the COVID-19 pandemic. *arXiv preprint.* 2022. doi.org/10.48550/arXiv.2205.09081.
25. Global excess deaths associated with COVID-19 (modelled estimates) (Database). Geneva: World Health Organization (<https://www.who.int/data/sets/global-excess-deaths-associated-with-covid-19-modelled-estimates>, accessed 14 April 2023).
26. Coronavirus disease (COVID-19): post COVID-19 condition. Questions and answers (Online). Geneva: World Health Organization ([https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-\(covid-19\)-post-covid-19-condition](https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-(covid-19)-post-covid-19-condition), accessed 14 April 2023).
27. University of Maryland Social data science center global COVID-19 trends and impact survey, in partnership with Facebook. College Park (MD): University of Maryland (<https://covidmap.umd.edu/>, accessed 21 April 2023).
28. Bergen N, Kirkby K, Fuertes CV, Schlottheuber A, Menning L, Mac Feely S et al. Global state of education-related inequality in COVID-19 vaccine coverage, structural barriers, vaccine hesitancy, and vaccine refusal: findings from the Global COVID-19 Trends and Impact Survey. *Lancet Glob Health.* 2023;11(2):e207–17.
29. Pörtner H-O, Roberts DC, Poloczanska ES, Mintenbeck K, Tignor M, Alegría A et al., editors. IPCC, 2022: Summary for policymakers. In: Pörtner H-O, Roberts DC, Tignor M, Poloczanska ES, Mintenbeck K, Alegría A et al. *Climate change 2022: impacts, adaptation, and vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.* Cambridge and New York (NY): Cambridge University Press ([https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC\\_AR6\\_WGII\\_SummaryForPolicymakers.pdf](https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf), accessed 11 May 2023).
30. COP24 special report: health and climate change. Geneva: World Health Organization; 2018 (<https://apps.who.int/iris/handle/10665/276405>, accessed 19 April 2023).
31. Public health and environment [online database]. Global Health Observatory data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/public-health-and-environment>, accessed 9 April 2023).
32. Food and Agriculture Organization, International Fund for Agricultural Development, United Nations Children’s Fund, World Food Programme, World Health Organization; 2021. *The State of Food Security and Nutrition in the World 2021. Transforming food systems for food security, improved nutrition and affordable healthy diets for all.* Rome: Food and Agriculture Organization of the United Nations; 2021. doi.org/10.4060/cb4474en.
33. Vector-borne diseases. Fact sheet. Geneva: World Health Organization; 2020 (<https://www.who.int/news-room/fact-sheets/detail/vector-borne-diseases>, accessed 20 June 2022).
34. Mental health and climate change. Policy brief. Geneva: World Health Organization; 2022 (<https://apps.who.int/iris/handle/10665/354104>, accessed 19 April 2023).
35. Quantitative risk assessment of the effects of climate change on selected causes of death, 2030s and 2050s. Geneva: World Health Organization; 2014 (<https://apps.who.int/iris/handle/10665/134014>, accessed 17 April 2023).



36. WHO UNFCCC Health and Climate Change Country Profiles 2015–2023. (online)[Website]: Geneva: World Health Organization (<https://www.who.int/teams/environment-climate-change-and-health/climate-change-and-health/evidence-monitoring/country-profiles>, accessed 19 April 2023).
37. Ebi K, Åström C, Boyer C, Harrington L, Hess J, Honda Y et al. Using detection and attribution to quantify how climate change is affecting health. *Health Aff.* 2020;39(12):2168–74. doi:10.1377/hlthaff.2020.01004.
38. Pörtner H-O, Roberts DC, Adams H, Adelekan I, Adler C, Adrian R et al., editors. IPCC, 2022: Technical summary. In: Pörtner H-O, Roberts DC, Tignor M, Poloczanska ES, Mintenbeck K, Alegría A et al. *Climate change 2022: impacts, adaptation, and vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge and New York (NY): Cambridge University Press ([https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC\\_AR6\\_WGII\\_TechnicalSummary.pdf](https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_TechnicalSummary.pdf), accessed 11 May 2023).
39. Masson-Delmotte V, Zhai P, Pirani A, Connors SL, Péan C, Berger S et al., editors. IPCC, 2021: Summary for policymakers. In: *Climate change 2021: the physical science basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York (NY); 2021. doi:10.1017/9781009157896.001.
40. State of the global climate 2021. Geneva: World Meteorological Organization; 2022 (<https://public.wmo.int/en/our-mandate/climate/wmo-statement-state-of-global-climate>, accessed 19 April 2023).
41. Paris Agreement. Bonn: United Nations Framework Convention on Climate Change; 2015 ([https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf), accessed 19 April 2023).
42. Emissions Gap Report 2022: The closing window: climate crisis calls for rapid transformation of societies. Nairobi: United Nations Environment Programme; 2022 (<https://www.unep.org/resources/emissions-gap-report-2022>, accessed 17 April 2023).
43. Hamilton I, Kennard H, McGushin A, Höglund-Isaksson L, Kiesewetter G, Lott M et al. The public health implications of the Paris Agreement: a modelling study. *Lancet Planet Health*. 2021;5(2):e74–83. doi.org/10.1016/S2542-5196(20)30249-7.
44. Markandya A, Sampedro J, Smith SJ, Van Dingenen R, Pizarro-Irizar C, Arto I et al. Health co-benefits from air pollution and mitigation costs of the Paris Agreement: a modelling study. *Lancet Planet Health*. 2018;2:e126–33.
45. Romanello M, McGushin A, Napoli C, Drummond P, Hughes N, Jamart L et al. The 2021 report of the Lancet Countdown on health and climate change: code red for a healthy future. *Lancet* 2021;398:1619–62. Published online 20 October 2021. doi:10.1016/S0140-6736(21)01787-6.
46. Lee H, Calvin K, Dasgupta D, Krinner G, Mukherji A, Thorne P et al. IPCC, 2023: Summary for policymakers. In: *Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Synthesis report*. ([https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC\\_AR6\\_SYR\\_SPM.pdf](https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf), accessed 17 April 2023).
47. Review of health in the nationally determined contributions (NDCs). Geneva: World Health Organization (in press).
48. WHO health and climate change global survey report. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/348068>, accessed 19 April 2023).
49. Global road map for health care decarbonization: a navigational tool for achieving zero emissions with climate resilience and health equity (website). *Health Care Without Harm*. (<https://healthcareclimateaction.org/roadmap>, accessed 19 April 2023).
50. WHO guidance for climate-resilient and environmentally sustainable health care facilities. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/335909>, accessed 19 April 2023).
51. Alliance for Transformative Action on Health and Climate Change (ATACH) (website). Geneva: World Health Organization (<https://www.who.int/initiatives/alliance-for-transformative-action-on-climate-and-health>, accessed 19 April 2023).
52. Supporting countries to protect human health from climate change: package of technical support (website). Geneva: World Health Organization (<https://www.who.int/teams/environment-climate-change-and-health/climate-change-and-health/country-support#cms>, accessed 19 April 2023).
53. Health and climate change: country profile 2020: Saint Lucia (Online). Geneva: World Health Organization (<https://www.who.int/publications/i/item/WHO-HEP-EHCCH-20.01.01>, accessed 26 April 2023).







# 02.

## Summary status of the health- related SDGs and GPW 13 indicators

A range of thematic areas in health are addressed in the SDGs and GPW 13. This chapter presents a summary status of indicators included in both frameworks, organized around the areas of infectious diseases, nutrition, injury and violence, environmental risks, and UHC and health systems.

## 2.1 Infectious diseases

Infectious diseases are primarily reflected in SDG target 3.3 which includes the indicators for HIV, TB, malaria, viral hepatitis and NTDs. This section summarizes the current status of these indicators as well as the GPW 13 indicators on AMR and poliomyelitis caused by wild poliovirus (WPV).

### HIV

In June 2021, the UN General Assembly adopted the Political Declaration on HIV and AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030. The core targets require a decrease in annual global new HIV infections to less than 370 000 and HIV-related deaths to fewer than 250 000 by 2025. Latest data available show that despite service disruptions caused by the global COVID-19 pandemic, new HIV infections and HIV-related deaths continued to decline – though not for everyone and not everywhere (1).

In 2021, there were 1.5 (UI: 1.1–2.0) million new HIV infections globally. This represents a decline of 32% in new HIV infections compared to 2010. The incidence rate (new infections per 1000 uninfected population) declined from 0.32 (UI: 0.24–0.43) in 2010 to 0.19 (UI: 0.15–0.26) in 2021. Across all WHO regions, progress has been strongest in the region with the largest HIV burden, the African Region, with a reduction in the incidence rate of 58% between 2010 and 2021. In western and central Africa, there was a remarkable drop of incidence rates within just one year, from 0.38 (UI: 0.27–0.54) in 2020 to 0.31 (UI: 0.22–0.45) in 2021. In the South-East Asia Region and the Region of the Americas, the incidence rates have decreased since 2010, whereas in the Eastern Mediterranean Region and European Region, the incidence rate has increased since 2010 (Figure 2.1) (2,3).

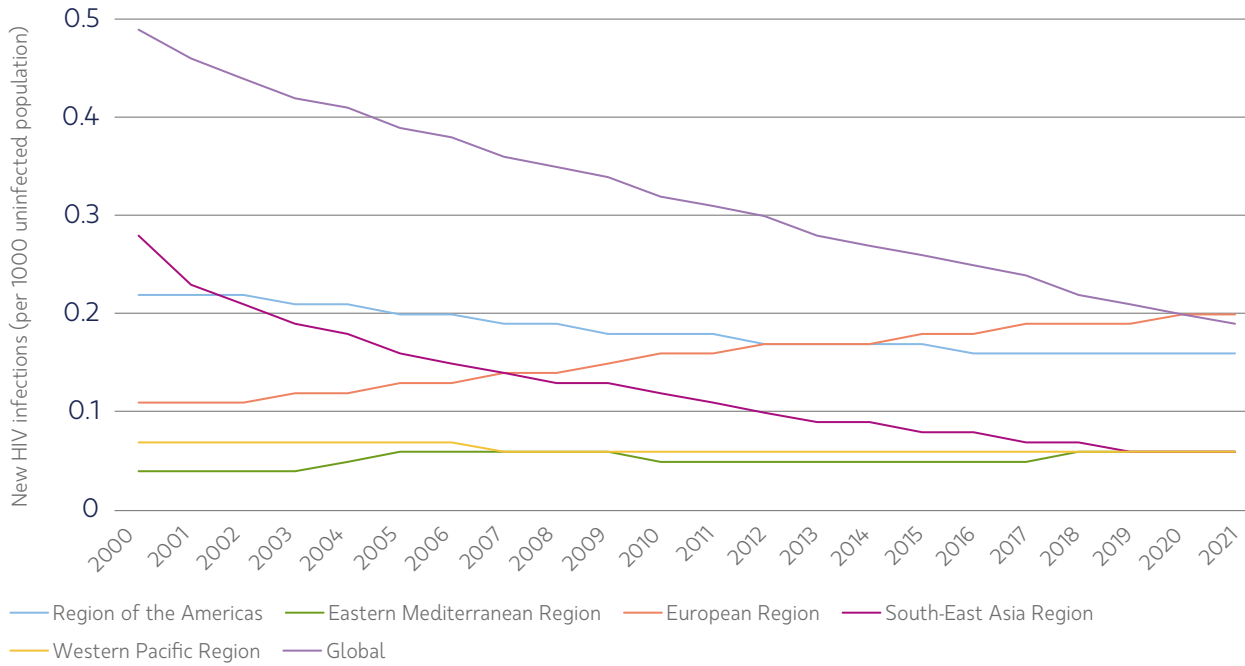
Certain subpopulations are at a higher risk of HIV infections. Progress is slower in regions where most new infections occur in key populations that are subject to criminalization, violence and social exclusion. Multiple vulnerabilities – including harmful social norms, and social, economic and gender inequalities – continue to put women and adolescent girls in the African Region at heightened risk of HIV infection.

The increasing availability of subnational data is enabling countries and subnational jurisdictions to implement locally differentiated approaches that direct limited resources towards places and populations in greatest need of HIV services. Box 2.1 illustrates the use of subnational estimates to support targeted efforts in strengthening HIV services in Africa.

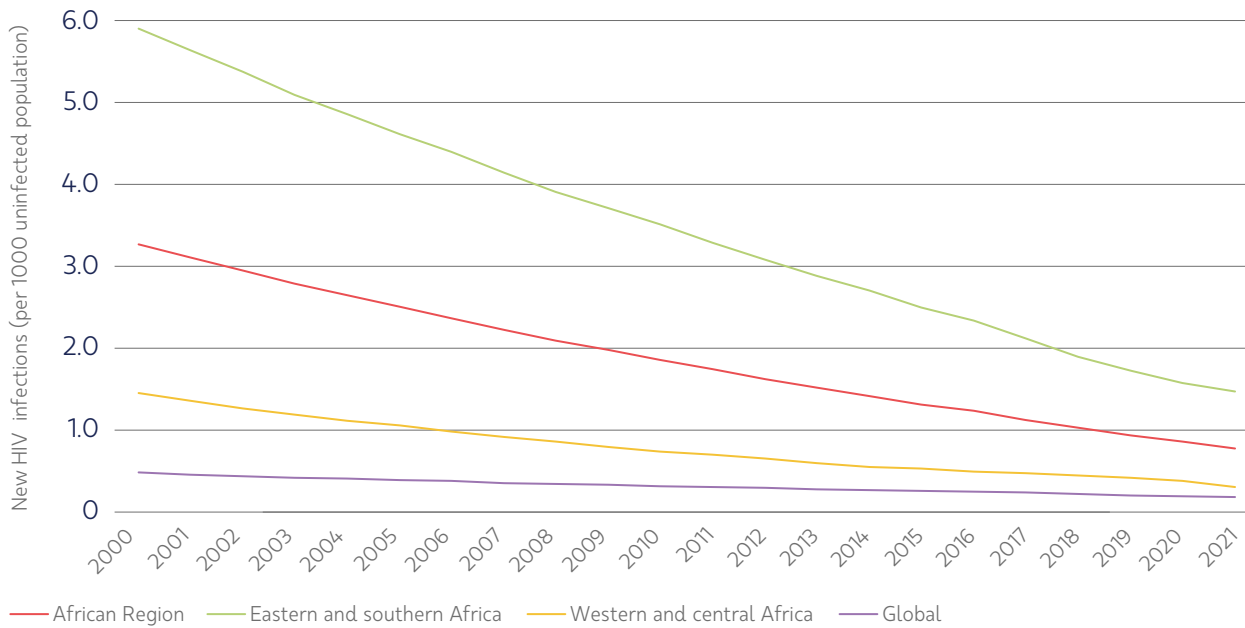
Scale-up of HIV testing and access to antiretroviral therapy (ART), especially for adults, has transformed the global AIDS response (see UHC section). However, children are markedly less likely than adults to be diagnosed with HIV, to receive ART and to achieve viral suppression. In 2021, children (aged 0–14 years) accounted for 4% of all people living with HIV (PLHIV) but for 15% of all HIV-related deaths.

**Figure 2.1** New HIV infections (per 1000 uninfected population), by WHO region and global, 2000–2021

**a. WHO regions (excluding Africa) and global**



**b. WHO African Region, eastern and southern Africa, western and central Africa and global**



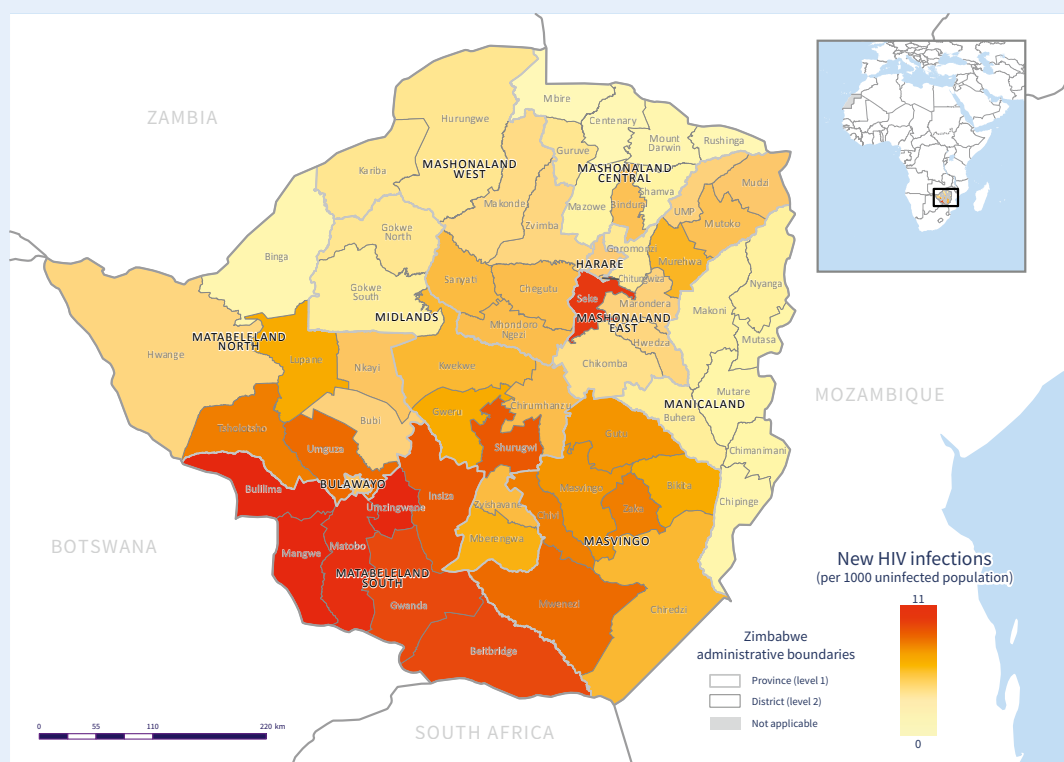
Source: Refs. (2) and (3).

**Box 2.1. Use of subnational estimates to support targeted efforts in strengthening HIV services in Africa**

In 2021, adolescent girls and young women (aged 15–24 years) were three times more likely to acquire HIV than adolescent boys and young men of the same age group in sub-Saharan Africa (1). The UNAIDS-supported Naomi model provides local and district-level decision-makers with the subnational HIV estimates they need to craft locally focused responses (4). In Mozambique, Zambia and Zimbabwe, subnational estimates of HIV incidence among adolescent girls and young women are assisting in the development of locally focused efforts to strengthen HIV services for this heavily affected population. Figure 2.2 displays an example of subnational-level estimates of HIV incidence among adolescent girls and young women in Zimbabwe, which helps to identify where intensified support is needed (5).

The WHO Regional Office for Africa provides support to Member States by characterizing the current epidemiology of HIV, reviewing surveillance approaches and methods, and disseminating strategic information guidelines. With the evolution of the disease and for more targeted interventions, the regional office supports countries in the implementation of person-centred HIV patient monitoring. The aim is to ensure the quality and continuity of HIV care, as well as treatment for adults, pregnant and breastfeeding women, and infants and children. This generates data that enable programmes to monitor the treatment and health status of patients over time, and to measure programme performance across health facilities and geographical settings.

**Figure 2.2** Subnational estimates of HIV incidence among adolescent girls and young women (aged 15–24 years), Zimbabwe, December 2021



Source: Ref. (5)



# Antimicrobial resistance

AMR represents a serious global public health threat with significant global economic and security implications. One of the main drivers of drug resistance is the excessive or inappropriate use of antimicrobials in people, but also in animals and plants, especially those used for food production. Antimicrobial resistant organisms are also found in the environment (in water, soil and air).

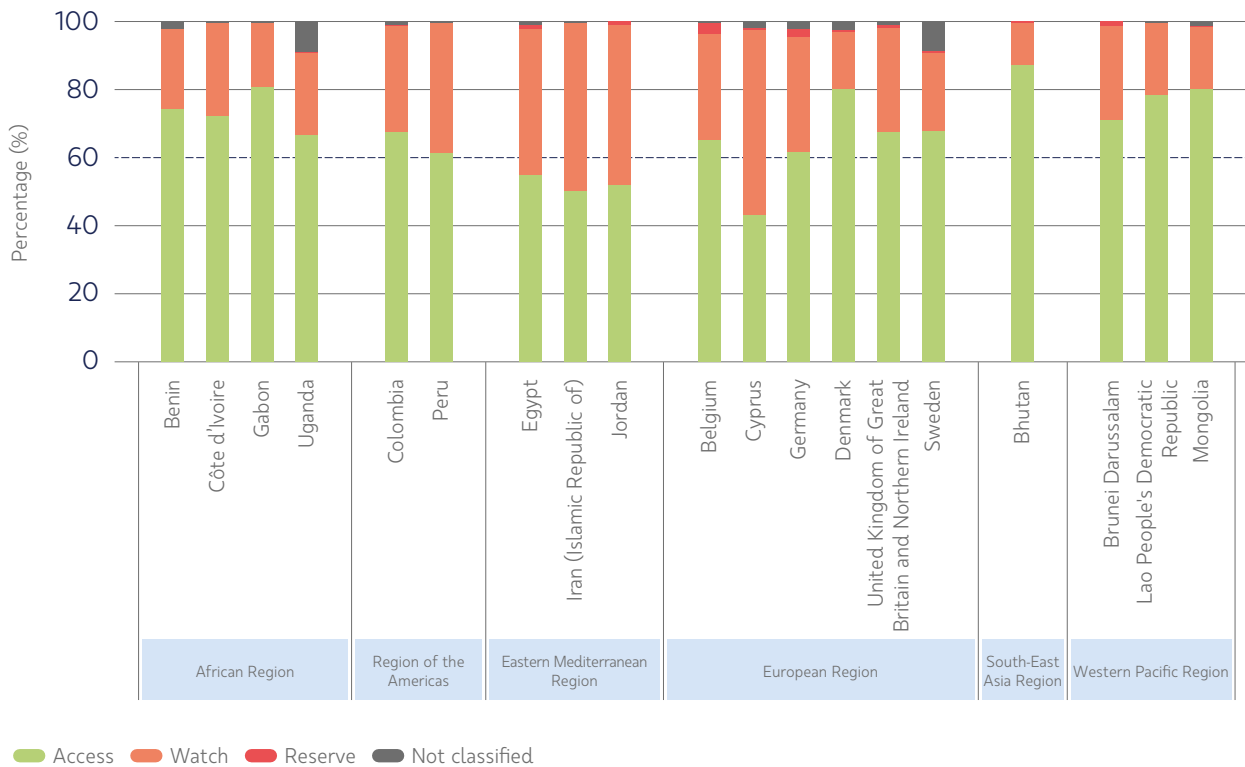
Launched by WHO in 2015, the Global Antimicrobial Resistance and Use Surveillance System (GLASS) is the first system that enables harmonized global reporting of official national AMR and antimicrobial consumption data (6). GLASS also informs the AMR indicator reported to the SDG monitoring framework (3.d.2), which monitors the proportion of bloodstream infections (BSIs) among patients seeking care due to methicillin-resistant *Staphylococcus aureus* (MRSA) and *Escherichia coli* resistant to third-generation cephalosporins (7).

Considering settings reporting at least 10 BSIs with antimicrobial susceptibility test (AST) results in 2020 (8), the median proportion of BSIs due to *E. coli* resistant to third-generation cephalosporins and the median proportion of BSIs due to

MRSA in 76 countries were 48.1% (IQR: 18.1–64.3) and 34.7% (IQR: 12.4–50.4), respectively. These rates were much lower – 10.6% (IQR: 8.6–14.9) and 6.8% (IQR: 2.7–17.4) respectively – in 19 countries with better testing coverage (i.e. where the number of BSIs with AST results per million population was above the 75th percentile).

To provide global evidence on how antimicrobials are used over time, facilitate comparisons among countries and inform strategies to improve access to – and optimize the use of – antimicrobials, GLASS collects national annual data to measure the countries’ antimicrobial consumption. GLASS also informs the GPW 13 Target 4b indicator “Pattern of antibiotic consumption at national level”. In this indicator, the consumption of antibiotics is expressed by AWaRe categories (9) with the aim of increasing the use of Access group antibiotics, which include antibiotics recommended as first- and second-line therapy for common infectious disease. The GPW 13 4b target is that ≥60% of total antibiotic consumption will be “Access” group antibiotics. In 2020, this target was met in 15 out of 19 reporting countries (Figure 2.3) (10).

**Figure 2.3** Pattern of antibiotic consumption at national level (relative consumption by AWaRe classification), by country, 2020



Note: The dotted line represents the target of at least 60% of total antibiotic consumption being Access group antibiotics (GPW 13 target 4b).

Source: Ref. (10).

# Tuberculosis

Before the COVID-19 pandemic hit, TB was the top cause of death from a single infectious agent worldwide. It is also the leading killer of people with HIV and a major cause of deaths related to AMR (11). The COVID-19 pandemic has had a negative impact on access to TB diagnosis and treatment in many countries, in turn resulting in global increases in the burden of TB disease. The 2025 milestones of WHO's End TB Strategy are a 50% reduction in the TB incidence rate (2015–2025) and a 75% reduction in the number of TB deaths (2015–2025). These global targets are currently not on track.

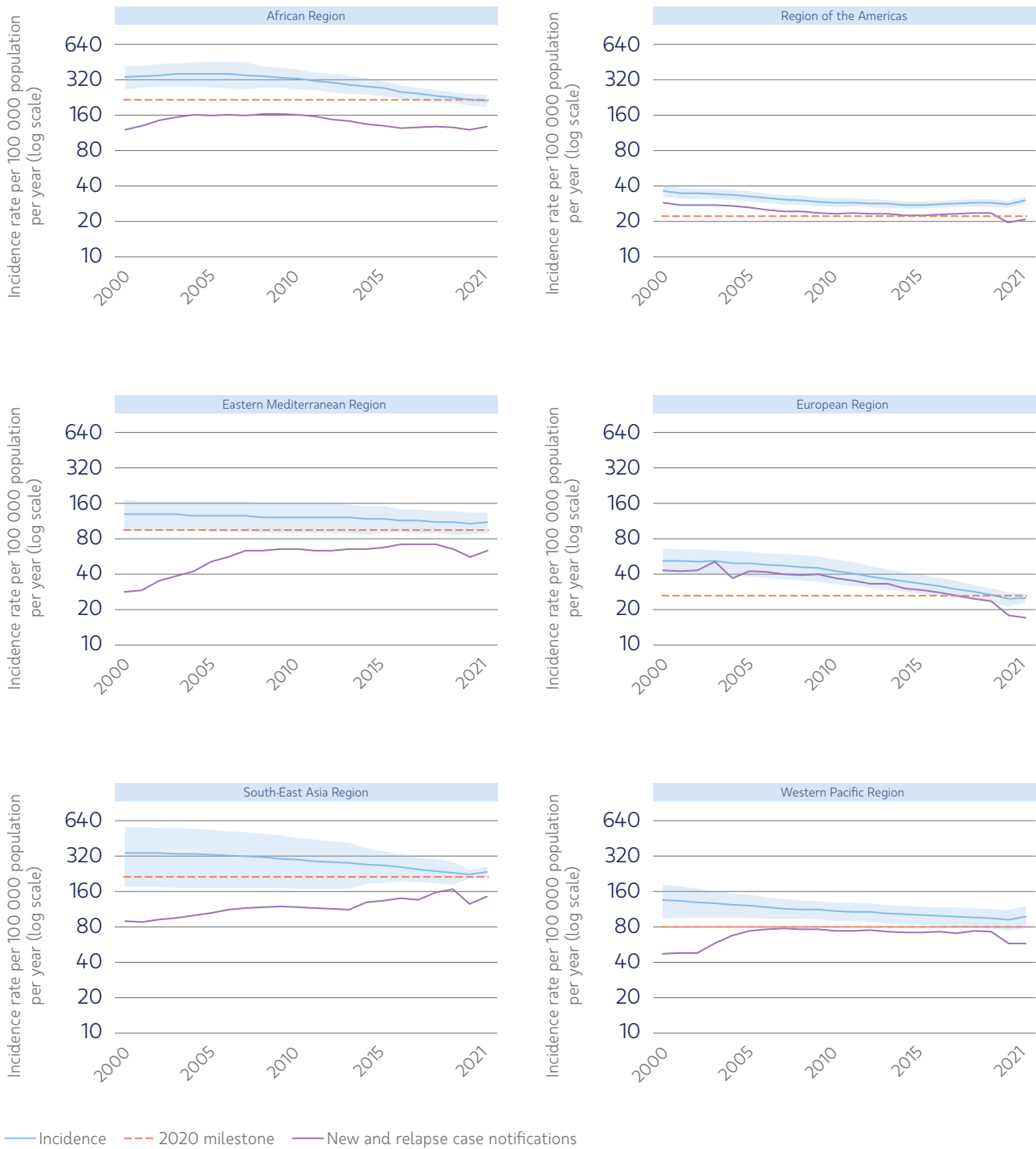
The most obvious and immediate impact of disruptions caused by the COVID-19 pandemic globally was a large fall in the number of people newly diagnosed with TB and reported (i.e. officially notified), due to reduced provision of TB services. Between 2019 and 2020 the number diagnosed fell by 18%, (from 7.1 million to 5.8 million), reversing a steady increase between 2017 and 2019. There was a partial recovery in 2021 – to 6.4 million (returning to the level of 2016–2017) (12).

In 2021, an estimated 10.6 million people (UI: 9.9–11.0 million) fell ill with TB, representing an increase of 4.5% from 10.1 million (UI: 9.5–10.7 million) in 2020. The global TB incidence rate rose by 3.6% between 2020 and 2021, reversing declines of

about 2% per year for most of the previous two decades. The net reduction from 2015 to 2021 was 10%, only one fifth of the way to the 2025 milestone of WHO's End TB Strategy. At regional level (Figure 2.4), the TB incidence rate increased between 2020 and 2021 in all WHO regions except for the African Region. In 2021, there were an estimated 1.4 million (UI: 1.3–1.5 million) deaths among HIV-negative people and 187 000 (UI: 158 000–218 000) among HIV-positive people, for a combined total of 1.6 million. The estimated number of deaths from TB increased in 2020 and 2021, reversing years of decline between 2005 and 2019. The net reduction in the number of people dying from TB between 2015 and 2021 was only 5.9%, less than one tenth of the way to the 2025 milestone of the End TB Strategy.

Enhanced efforts are urgently needed to mitigate and reverse the negative impacts of the COVID-19 pandemic on TB (Box 2.2 describes efforts to achieve this in Zambia). The need for action has become even more pressing in the context of war in Ukraine, ongoing conflicts in other parts of the world, a global energy crisis and associated risks to food security, which are likely to worsen some of the broader determinants of TB.

**Figure 2.4** Trends in TB incidence rates by WHO region, 2000–2021



Note: Shaded areas represent 95% uncertainty intervals.

Source: Ref. (12).

## Box 2.2 Leveraging timely surveillance to support TB service recovery during the COVID-19 pandemic in Zambia (13)

TB is one of the leading causes of morbidity and mortality in Zambia, especially for people living with HIV. Timely detection, linkage to care and adherence to the TB treatment regimen are critical to achieving successful treatment outcomes, controlling the spread of disease and preventing the development of drug resistance in TB.

Disruptions to the provision of, and access to, TB services caused by the response to the coronavirus disease (COVID-19) pandemic had a major negative impact on people with TB in Zambia.

When Zambia reported its first case of COVID-19 on 18 March 2020, it was not surprising that TB services were rapidly affected. TB case notifications, which averaged 3288 during the first quarter of 2020, fell to an average of 2643 (a 19.6% reduction) in the second quarter of 2020, as the number of confirmed COVID-19 cases began to rise in the country and disease containment measures were put into place (14).

The Ministry of Health, with technical support from WHO, responded by establishing closer monitoring through the following actions:

- Weekly performance targets for TB services were established, including notifications of both drug-susceptible and drug-resistant TB at the national, provincial and district levels.
- Key performance indicators were summarized for weekly performance targets and were shared with all districts before virtual discussions for validation and analysis and to prompt further action and response. The weekly virtual meetings tracked progress against set targets, and both identified and addressed emerging challenges to the TB response.
- Where data revealed gaps, district and provincial officers were encouraged to discuss challenges and identify solutions. High-performing districts and provinces were given the opportunity to share best practices through webinars and in-person workshops, and low-performing districts shared their challenges and identified the support they needed. All districts implemented best practices in case-finding.

Notifications of TB increased consistently afterwards, resulting in the notification of more cases in 2020 (a 7.5–10.8% increase) than in 2019, 2018 and 2017. Using real-time surveillance, Zambia demonstrated that it was possible to adapt to the challenges of the pandemic and to improve essential health services to levels exceeding pre-pandemic ones. It is worth noting that Zambia has increased domestic funding to fight TB sevenfold since 2015 (15).

WHO promoted the use of real-time data and indicators to monitor the impact of the COVID-19 pandemic on both TB services and the country's response. As of August 2021, 130 countries and territories reported having in place a digital, case-based TB surveillance system.

In the WHO African Region, the COVID-19 pandemic has had some impact on the provision of and access to essential TB services, the number of people diagnosed with TB and notified as TB cases through national disease surveillance systems, and the TB disease burden (incidence and mortality). One of the most widely available indicators that can be used to assess the impact of COVID-19-related disruptions on essential TB services at regional and country levels is the number of notifications of people diagnosed with TB. This indicator reflects impacts on access to diagnosis and treatment on both the supply side (e.g. capacity to continue to provide services) and the demand side (e.g. ability to seek care in the context of restrictions on movement, concerns about the risks of going to health care facilities during a pandemic, and stigma associated with similarities in symptoms related to TB and COVID-19). The African Region is home to 17 of the 30 countries globally that have the highest burden of TB (12). The WHO Regional Office for Africa has supported countries to adapt to the COVID-19 context, with all countries having the continuity of essential health services as a key pillar of the response to the COVID-19 pandemic in their strategy.



# Malaria

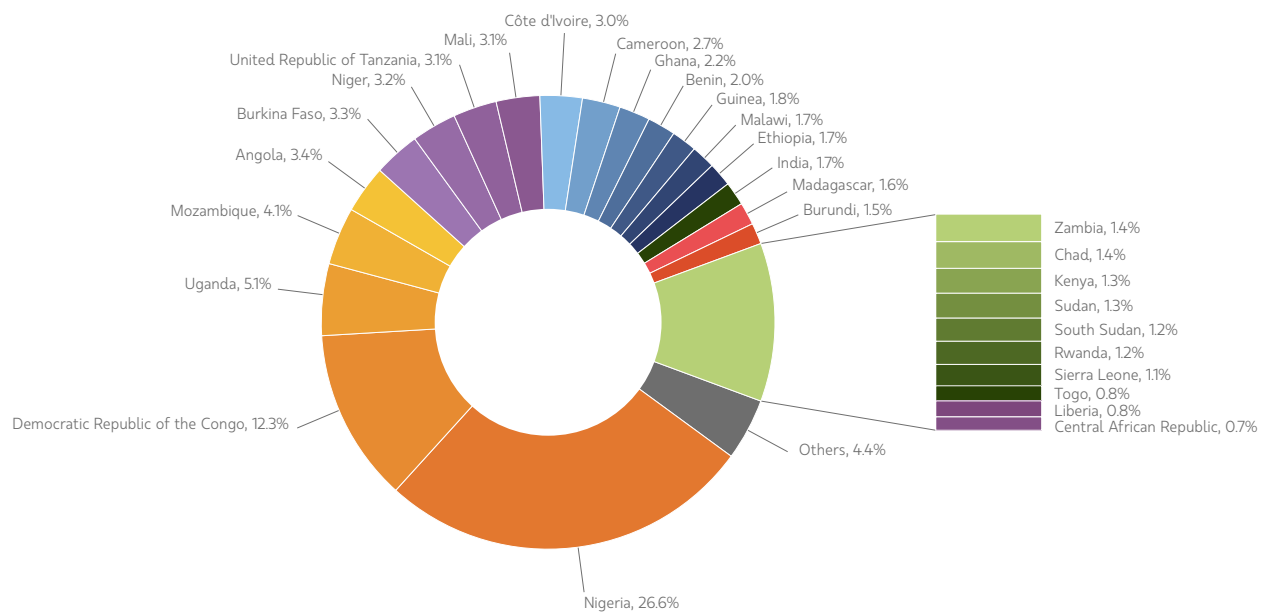
The Global technical strategy for malaria 2016–2030 (GTS) calls for a reduction in malaria case incidence and mortality rates of at least 40% by 2020, 75% by 2025 and 90% by 2030, from a 2015 baseline (16). Globally in 2021, there were an estimated 247 million (UI: 224–276 million) malaria cases in 84 malaria-endemic countries – an increase of 2 million cases compared with 2020. This is a lower increase compared to the jump from 232 million (UI: 213–255 million) cases in 2019 to 245 (UI: 222–273 million) million in 2020, which revealed the massive impact of the first year of the COVID-19 pandemic on global malaria control efforts. Global malaria deaths also rose from 568 000 (UI: 532 000–654 000) in 2019 to 625 000 (UI: 583 000–747 000) in 2020 but fell to 619 000 (UI: 577 000–754 000) in 2021. The WHO African Region continued to bear the highest burden, accounting for some 95% of global cases and 96% of global deaths in 2021. Figure 2.5 shows the distribution of malaria cases and deaths by country (17).

In the WHO African Region, the malaria incidence rate (cases per 1000 population at risk) fell from 373 (UI: 344–405) to 225 (UI: 206–248) between 2000 and 2019 but then increased to 234 (UI: 210–262) in 2020, mainly as a result of COVID-19 related disruption to services. In 2021, the incidence rate declined to 229 (UI: 206–257) per 1000 population at risk. The global malaria incidence rate dropped from 82 (UI: 77–89) in 2000 to 57 (UI: 52–63) in 2019, before increasing to 59 (UI: 54–66) in 2020. There was no change in incidence rates between 2020 and 2021.

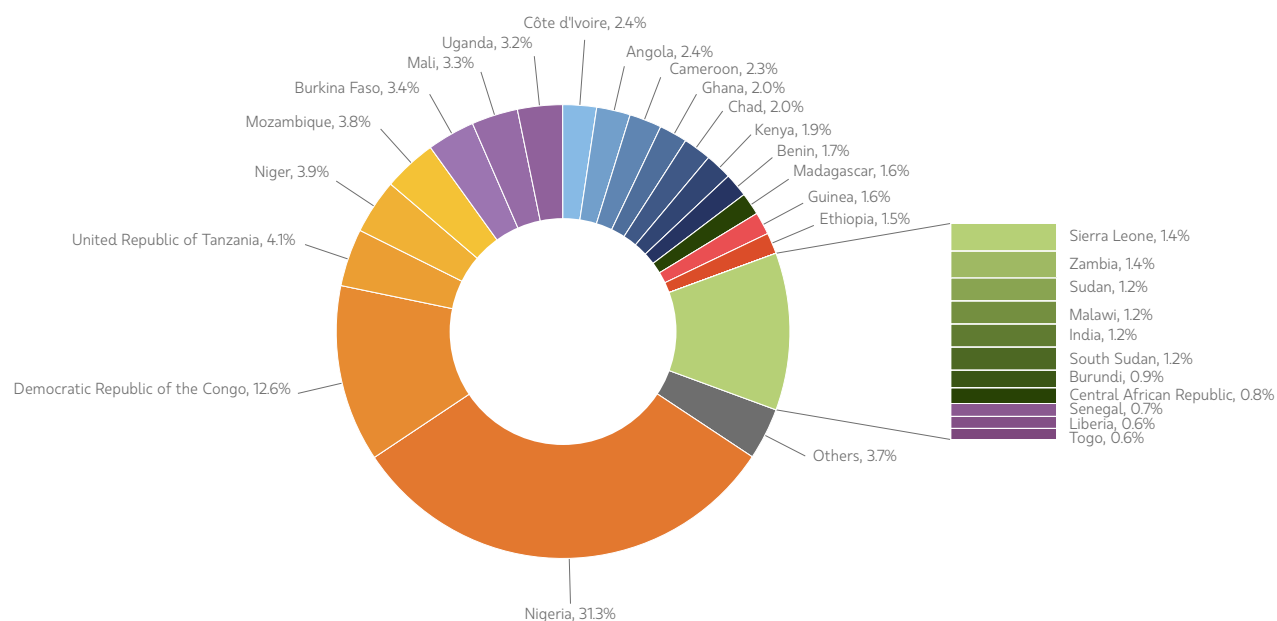
Rates of both global malaria incidence and mortality in 2021 were off track by 48% compared to the GTS targets. However, malaria-endemic countries avoided further pandemic-associated setbacks in 2021, bringing hope for continued and accelerated efforts to strengthen malaria control.

**Figure 2.5** Distribution of (a) malaria cases and (b) deaths, by country, 2021

**a. Cases**



**b. Deaths**



Source: Ref. (17).

## Hepatitis B

In 2016, the World Health Assembly endorsed the Global Health Sector Strategy on viral hepatitis which calls for the elimination of viral hepatitis as a public health threat by 2030 (18). In 2022, the Seventy-fifth World Health Assembly noted a new set of integrated global health sector strategies on HIV, viral hepatitis and sexually transmitted infections for the period 2022–2030 that would aim to achieve this goal. Progress is measured by a set of global targets and milestones for 2025 and 2030. Figure 2.6 shows the projected impact of the strategies in reducing the incidence and mortality of hepatitis B (19).

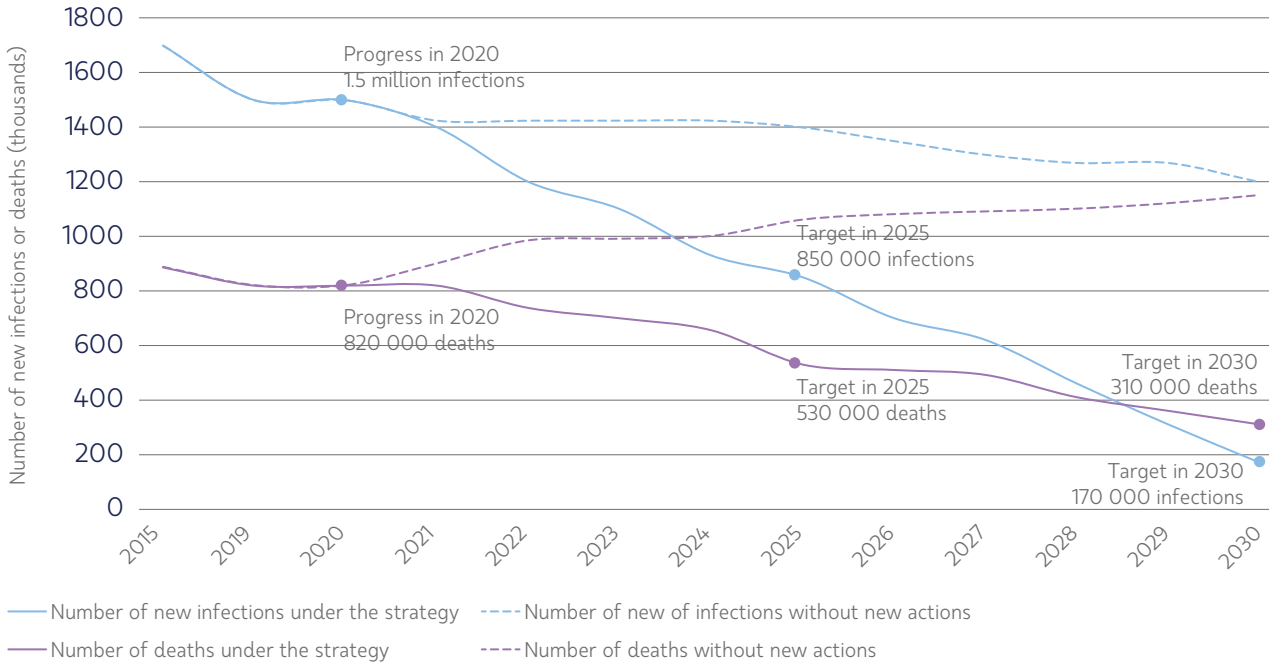
Globally in 2019, 296 million people were living with chronic hepatitis B (defined as hepatitis B surface antigen positive) – which included 1.5 million new infections – and resulted in approximately 820 000 deaths, mainly from cirrhosis and primary liver cancer (20).

In addition to the goal of reducing the number of annual new hepatitis B infections to 170 000 new cases and mortality to 310 000 deaths by 2030, another important target is to reduce the prevalence of hepatitis B surface antigen (HBsAg) to below 0.1% in children aged 5 years.

The latest available data show that the HBsAg prevalence among children under 5 years was 0.94% (UI: 0.82–1.06) globally in 2020. Prevalence is lowest in the Region of the Americas at 0.07% (UI: 0.05–0.13) and highest in the WHO African Region at 2.53% (UI: 2.10–3.07) (21).

Efforts to achieve the 2030 target include early diagnosis and treatment of persons living with hepatitis B, a timely birth dose of hepatitis vaccine to prevent vertical transmission from mother to child, and hepatitis B vaccine coverage among children (third dose).

**Figure 2.6** Hepatitis B incidence and mortality trends from new actions implemented under global health sector strategies versus no new actions, 2020–2030



Source: Ref. (19).

## Neglected tropical diseases

NTDs are a diverse group of 20 conditions<sup>1</sup> that are mainly prevalent in tropical areas, thrive among impoverished communities and disproportionately affect women and children. These diseases are caused by a variety of pathogens – including viruses, bacteria, parasites, fungi and toxins – and are responsible for devastating health, with social and economic consequences.

A new roadmap sets out global targets for 2030 to prevent, control, eliminate and eradicate NTDs (22). At the end of 2022, 47 countries had eliminated at least one NTD. Globally, the population requiring NTD treatment and care decreased by 25% between 2010 and 2021, from 2.19 billion to 1.65 billion. In least developed countries, 505 million people required

treatment and care for NTDs in 2021, representing 46% of those countries’ populations, down from 79% in 2010. More than 1 billion people were treated for at least one NTD each year from 2016 to 2019. However, as a result of disruptions to services due to the COVID-19 pandemic, fewer people were treated in 2020 (798 million) and 2021 (888 million) (23).

Although disruptions caused by COVID-19 were severe, the upward trend registered in 2021 is likely to be continued in 2022. Maintaining this progress will require further investments to compensate for the setbacks during the pandemic and to ensure attainment of the 2030 targets.

<sup>1</sup> NTDs include: Buruli ulcer; Chagas disease; dengue and chikungunya; dracunculiasis; echinococcosis; foodborne trematodiasis; human African trypanosomiasis; leishmaniasis; leprosy; lymphatic filariasis; mycetoma, chromoblastomycosis and other deep mycoses; onchocerciasis; rabies; scabies and other ectoparasitoses; schistosomiasis; soil-transmitted helminthiasis; snakebite envenoming; taeniasis and cysticercosis; trachoma and yaws.

## Poliomyelitis caused by WPV

Poliomyelitis is a highly infectious viral disease that primarily affects children under 5 years of age. WPV cases have decreased by over 99% since the launch of the Global Polio Eradication Initiative in 1988 – from an estimated 350 000 cases in more than 125 endemic countries to six reported cases in 2021 (24).

Of the three strains of WPV (types 1, 2 and 3), type 2 was declared eradicated in 2015 and type 3 was declared eradicated in 2019. Only type 1 WPV remains. In 2022, 20 WPV type 1 cases were reported in Pakistan, two cases in Afghanistan and eight cases in Mozambique (25).

Interrupting transmission of WPV1 and circulating vaccine-derived poliovirus type 2 is the primary goal on the path to global polio eradication (26).

# 2.2 Child malnutrition and anaemia among women

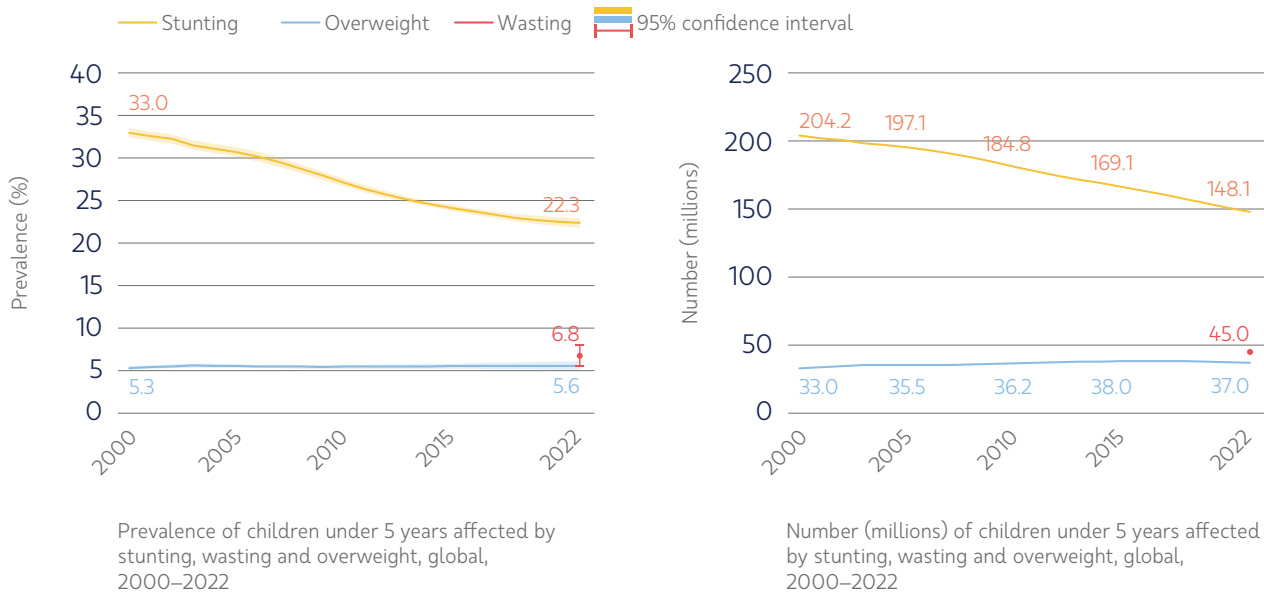
Malnutrition refers to deficiencies or excesses in nutrient intake, the imbalance of essential nutrients or impaired nutrient utilization. All countries are affected by one or more forms of malnutrition. This section discusses the SDG indicators on malnutrition among children under 5 years of age and anaemia among women aged 15–19 years.

## Child malnutrition

Adequate nutrition is fundamental to child development, especially in early life. When feeding practices are not optimal, children may suffer from stunting (low height for age), wasting (low weight for height) or overweight (high weight for height).

Global efforts to address child malnutrition are having an effect and there have been remarkable reductions in the prevalence and number of children affected by stunting in the past two decades (Figure 2.7) (27).

**Figure 2.7** Global percentage and number of children under 5 years of age affected by stunting, wasting and overweight, 2000–2022



Source: Ref. (27).

## Stunting

Stunting is the result of chronic and recurrent malnutrition in mothers and in children who do not grow to their maximum potential.

The global prevalence of stunting in children under 5 years of age fell from 33.0% (UI: 32.4–33.5) in 2000 to 22.3% (UI: 21.8–22.9) in 2022. The decline occurred more rapidly during the MDG era, with an ARR of 2.0% between 2000 and 2015 – spurred by the rapid decline during the second half of the period – compared to the decline since the start of the SDG era in 2015, with an ARR of 1.4%.

Stunting prevalence also declined in all WHO regions, albeit at different paces (Figure 2.8). In both the European and the Western Pacific regions, prevalence fell by more than half between 2000 and 2022, but the progress slowed in the

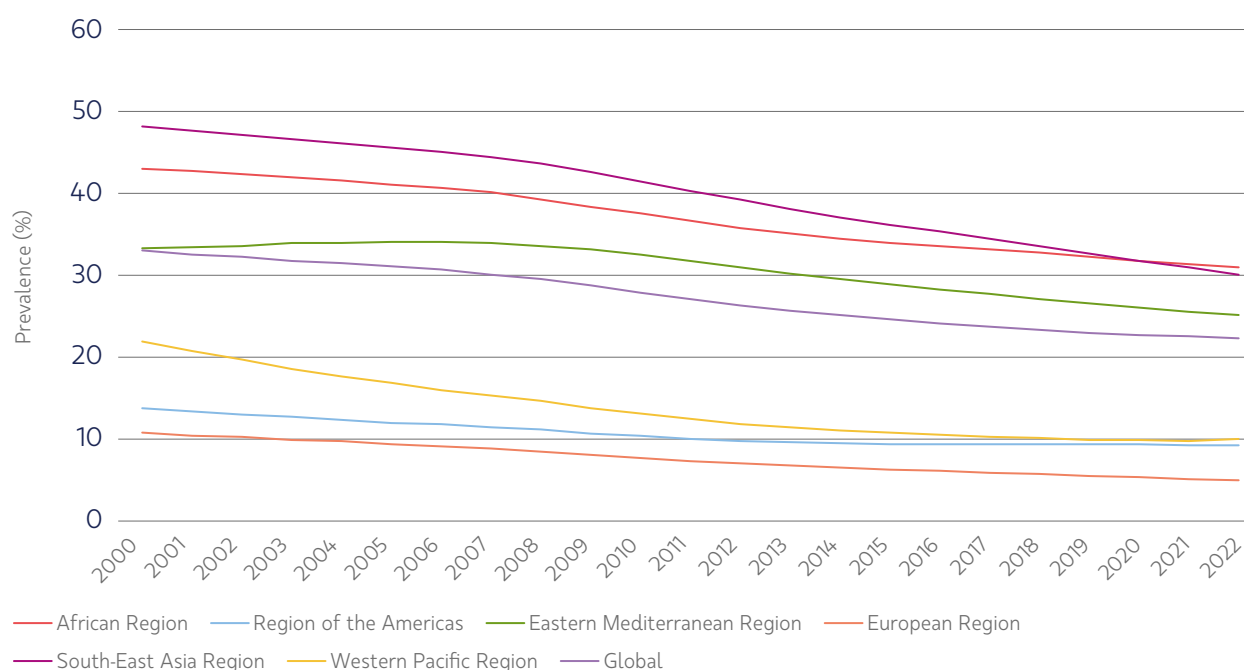
Western Pacific Region in the more recent period. In contrast, prevalence reduction has gathered speed in the South-East Asia and Eastern Mediterranean regions in the second half of the MDG era.

Still, in 2022, there were 49.8 million children under 5 years of age affected by stunting in the South-East Asia Region [30.1% (UI: 28.3–32.0)], 56.2 million in the African Region [31.0% (UI: 30.2–31.8)] and 22.9 million in the Eastern Mediterranean Region [25.1% (UI: 23.4–26.8)].

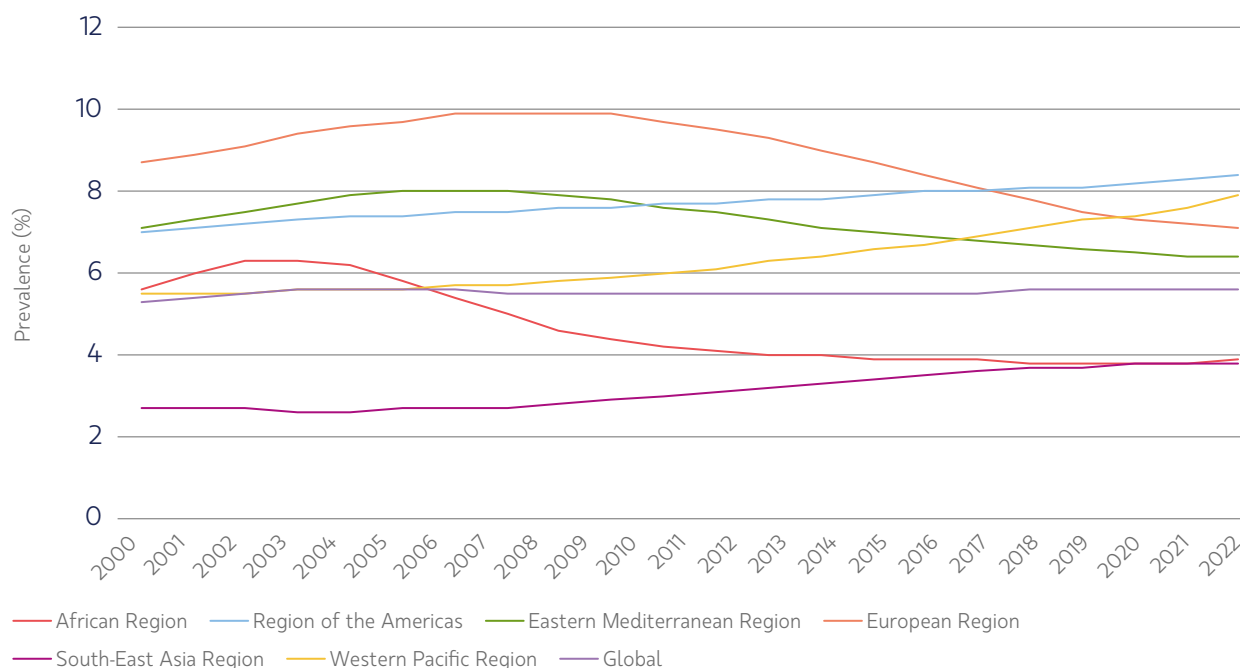
Globally, an estimated 148.1 million children under 5 years of age were affected by stunting in 2022. These numbers may become substantially higher as the global food and nutrition crisis continues to unfold – fueled by conflict, climate change and the enduring effects of the COVID-19 pandemic. The full impact of the crisis on stunting may take years to manifest (27).

**Figure 2.8** Trends in prevalence of stunting and overweight in children under 5 years of age, globally and by WHO region, 2000–2022

### Stunting



## Overweight



Source: Ref. (27).

## Overweight

Childhood overweight and obesity increase the risk of obesity, NCDs, premature death and disability in adulthood. Globally in 2000, 33.0 million children under 5 years of age [5.3% (UI: 5.1–5.5)] were overweight. In 2022 this number had risen to 37.0 million [5.6% (UI: 5.1–6.1)] (27).

While the global prevalence of overweight in children under 5 years of age virtually stagnated, the Western Pacific Region, the Region of the Americas and the South-East Asia Region saw the prevalence increasing since 2000 (Figure 2.8). Prevalence in the other regions increased in the early 2000s but declined in the more recent periods. The regions with the highest prevalence in 2022 are the Region of the Americas [8.5% (UI: 7.4–9.7)], the Western Pacific Region [8.1% (UI: 5.9–11.0)], the European Region [7.1% (UI: 5.6–8.8)] and the Eastern Mediterranean Region [6.3% (UI: 5.2–7.7)].

## Wasting

Children suffering from wasting have weakened immunity, are susceptible to long-term developmental delays and face an increased risk of death, particularly when the wasting is severe.

In 2022, the prevalence of wasting in children under 5 years of age was 6.8% (UI: 5.5–8.1), representing 45 million children. Some 2.1% (UI: 1.5–2.6) suffered from severe wasting – the most lethal form of undernutrition – which means that 13.7 million children were in critical situations, with 8.1 million of them in the South-East Asia Region (27).

The region with the highest prevalence of wasting was the South-East Asia Region where 14.7% (UI: 11.0–19.3) of children under 5 years of age (i.e. 24.2 million) suffered from wasting, followed by the Eastern Mediterranean Region where the prevalence was 6.9% (UI: 5.4–8.7) of children (i.e. 6.3 million).

## Anaemia in women aged 15–49 years

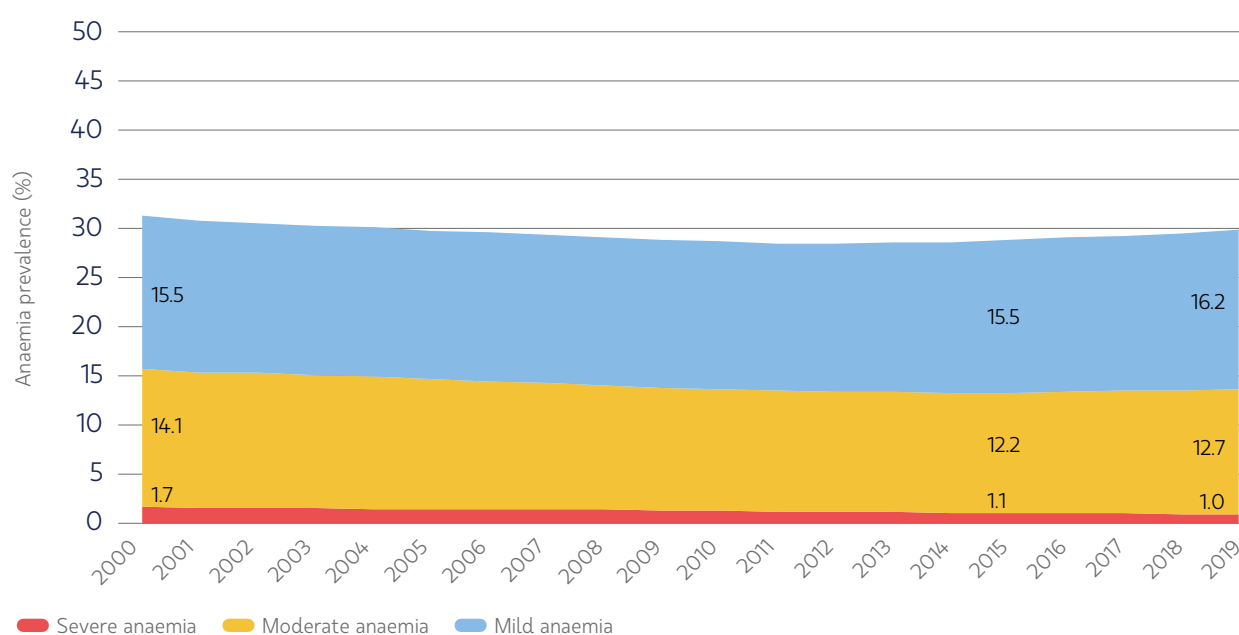
Anaemia is an indicator of both poor nutrition and poor health, having significant adverse health consequences for women and their children. Severe anaemia during pregnancy increases the risk of maternal and perinatal mortality, low birth weight, and poor growth and development in babies. Anaemia can also affect social and economic development as it causes fatigue and lowered productivity.

Although the global prevalence of anaemia in women aged 15–49 years decreased slightly from 2000 [31.2% (UI: 28.7–34.1)] to 2019 [29.9% (UI: 27.0–32.8)], the total number affected increased considerably due to population growth – from 492.9 million in 2000 to 570.8 million in 2019. Prevalence was higher among pregnant women [36.5% (UI: 34.0–39.1)] than non-pregnant women [29.6% (UI: 26.6–32.5)]. Globally, the prevalence of mild anaemia increased slightly from 15.5% (UI: 14.2–17.3) in 2000 to 16.2% (UI: 14.9–17.6) in 2019, while moderate anaemia declined slightly from 14.1% (UI: 12.4–16.1) in 2000 to 12.7% (UI: 10.6–14.8) in 2019, as did severe anaemia

from 1.7% (UI: 1.4–2.0) in 2000 to 1% (UI: 0.8–1.4) in 2019, indicating a shift towards mild anaemia (Figure 2.9) (28).

Across WHO regions, there were declines in the prevalence of total anaemia during the MDG era, but these either slowed or halted after 2015. Between 2000 and 2019, in the WHO Western Pacific Region, anaemia prevalence fell from 22.6% (UI: 16.3–30.4) to 16.4% (UI: 11.4–23.5), in the African Region it fell from 46.3% (UI: 42.5–50) to 40.4% (UI: 36.7–44.2) and in the Region of the Americas from 19.2% (UI: 16.1–22.5) to 15.4% (UI: 12.1–19.5). The prevalence of anaemia continued to be highest in the South-East Asia Region, 46.6% (UI: 39.4–53.1) in 2019. Mild anaemia prevalence slightly increased in the South-East Asia Region from 21% (UI: 19.1–22.8) in 2000 to 23.5% (UI: 20.6–26.0) in 2019 and in the Eastern Mediterranean Region from 18.4 (UI: 16.3–20.7) to 19.6 (UI: 16.5–22.6). In the same period, moderate and severe anaemia declined in all WHO regions.

**Figure 2.9** Global prevalence of anaemia by severity levels\* in women aged 15–49 years, 2000–2019



Note: \*Mild anaemia is defined as haemoglobin concentrations of 110–119 g/L in non-pregnant women, and concentrations of 100–109 g/L in pregnant women; moderate anaemia is defined as haemoglobin concentrations of 80–109 g/L in non-pregnant women and 70–99 g/L in pregnant women; and severe anaemia is defined as haemoglobin concentration below 80 g/L in non-pregnant women and below 70 g/L in pregnant women.

Source: Ref. (28).

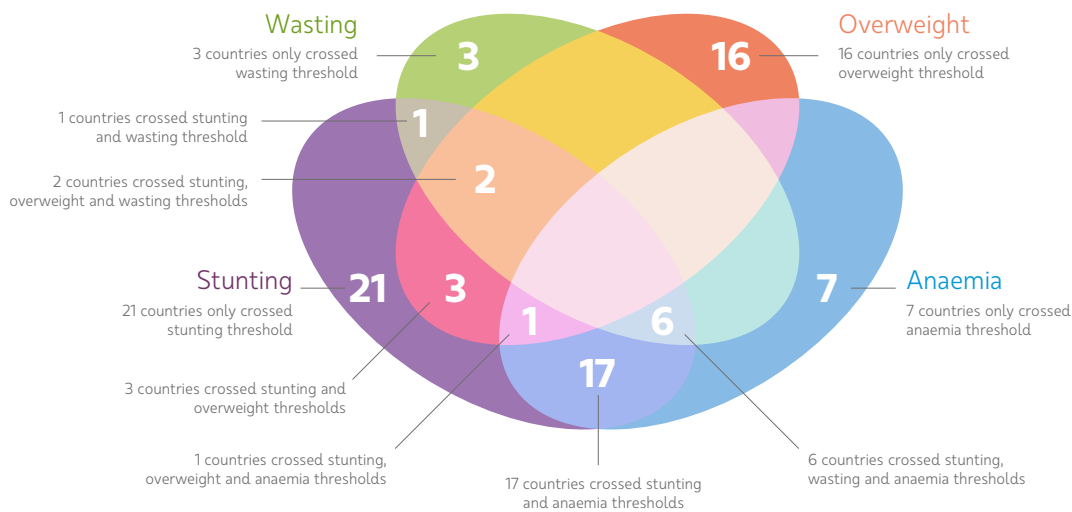


## Burden of multiple forms of malnutrition

In many countries, several factors influence the nutritional status in children under 5 years of age; extremes of malnutrition may coexist with high prevalence of stunting, overweight and obesity at the same time. In addition, high prevalence of anaemia may also be present.

Nutrition interventions should be comprehensive in order to reach the multiple burdens of malnutrition. Figure 2.10 is based on an analysis of countries with published estimates for all four SDG indicators: wasting, stunting and overweight in children under 5 years of age, and anaemia in women aged 15–49 years.

**Figure 2.10** Number of countries affected by high prevalence of multiple forms of malnutrition\* in 2022



Note: \*For wasting, only countries with data from 2012 onwards were considered. The thresholds used were  $\geq 10\%$  for wasting,  $\geq 20\%$  for stunting,  $\geq 10\%$  for overweight in children under 5 years of age and  $\geq 40\%$  for anaemia in women aged 15–49 years.  
Source: Refs. (27) and (28).

## 2.3 Injuries and violence

Global death rates due to injuries declined by 20% during the period 2000–2019 – from 71.7 (UI: 53.8–93.8) deaths per 100 000 population to 57.4 (UI: 38.7–81.4) deaths per 100 000 population. Over this period, injuries caused about 8% of all deaths. In 2019, deaths due to road traffic injuries made up 29% of all injury deaths, followed by suicide and falls (each causing 16% of all injury deaths), and homicide (11% of all injury deaths) (29).

The suicide rate fell by 29% globally between 2000 and 2019, from 13.0 (UI: 10.4–16.0) to 9.2 (UI: 9.7–12.6) deaths per 100 000 population (Figure 2.11). In all WHO regions, suicide rates have been on the decline, except in the Region of the Americas where the rate rose by 28%. The greatest decline (42%) was seen in the European Region, although the suicide rate in 2019 remained the highest at 12.8 (UI 10.1–16.4) deaths per 100 000 population.

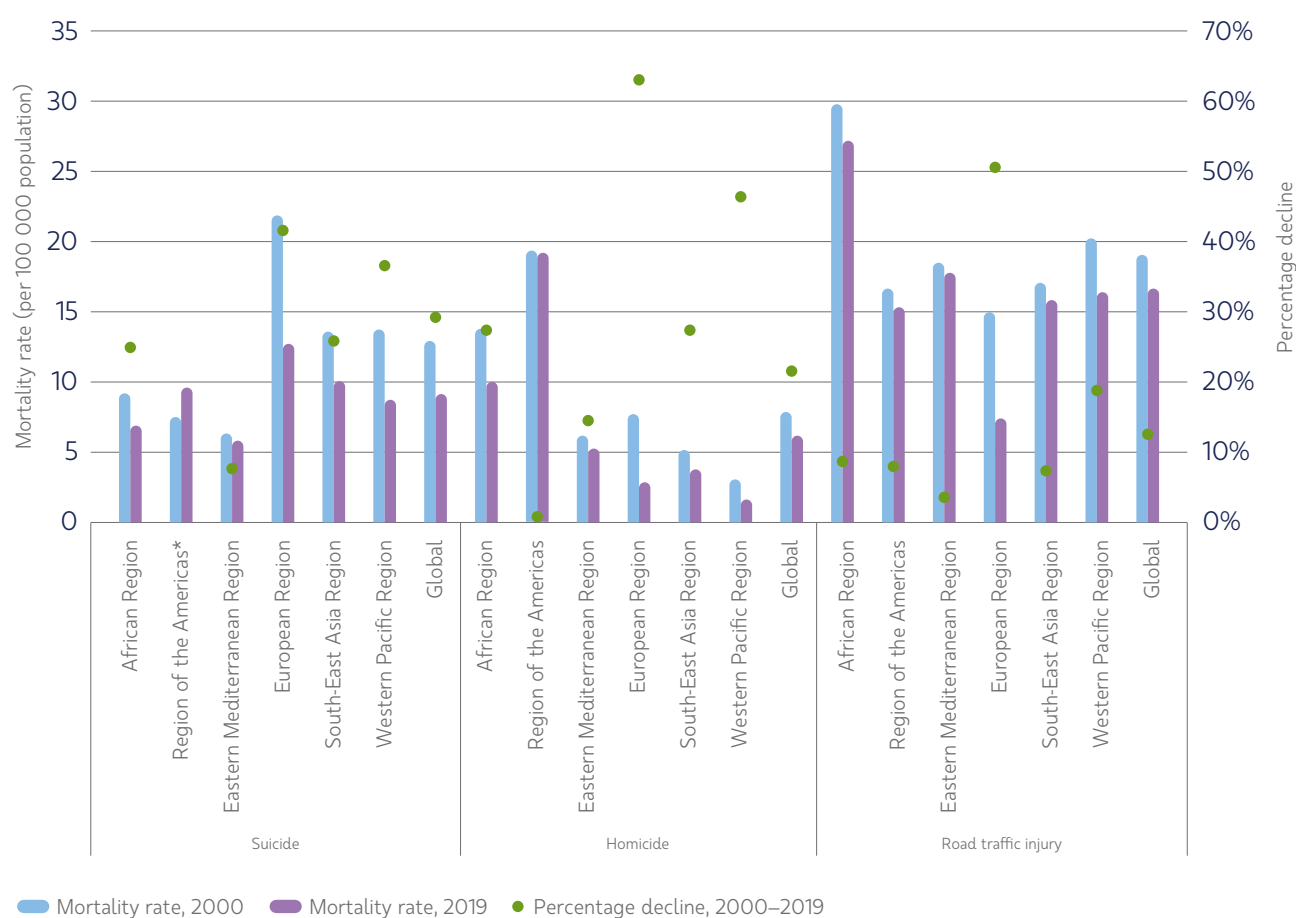
The global death rate due to homicides declined by 22% over the same period. However, progress varied greatly across WHO regions, with the homicide rate in the European Region declining by 63% while that in the Region of the Americas stayed roughly the same. In 2019, the homicide rate of 19.2 (UI: 15.6–23.7) deaths per 100 000 population in the Region of the Americas was over three times the global average of 6.2 (UI: 4.0–8.7) deaths per 100 000 population).

Globally, the death rate due to road traffic injuries has seen a slower decline of 13%, from 19.1 (UI: 16.1–22.3) deaths per 100 000 population to 16.7 (UI: 13.1–20.2) per 100 000 population. There was even an increase in the number of deaths – from 1.2 million (UI: 1.0–1.4 million) in 2000 to 1.3 million (UI: 1.0–1.6 million) in 2019 – due to an increase in total population. Much of the drop in the global death rate was driven by a 51% decline in the European Region. The drop in the death rates in most of the rest of the WHO regions was under 10% with the exception of the Western Pacific Region (19%). Prioritizing and creating laws in road safety is key to accelerating their declines (see Box 2.3).

Globally, men are about twice as likely to die from injury than women are. The death rates due to all injuries in 2019 were 77.6 (UI: 52.7–109.1) deaths per 100 000 male population and 36.9 (UI: 24.4–53.2) deaths per 100 000 female population. Across WHO regions and among the three injury causes discussed in this section, the male-to-female ratio of death rates in 2019 was highest for homicide in the Region of the Americas, where the death rate among men and boys was over seven times that among women and girls.

Men and boys accounted for 80%, 75% and 69% of deaths due to homicide, road traffic injuries and suicide respectively in 2019. Injury deaths also disproportionately affect younger men. Road traffic injury was the leading cause of death among boys and young men aged 15–29 years in 2019, and the second leading cause of death among men aged 30–49 years. Homicide was the second leading cause among boys and young men aged 15–29 years. Suicide was the third leading cause of death among girls and young women aged 15–29 years, and fourth among boys and young men in the same age group (Figure 2.12).

Although more men than women are affected by homicide, in 2019 some 93 000 (UI: 61 000–142 000) women died at the hands of others. A study suggests that approximately 39% of deaths among women have been committed by intimate partners (33). An estimated 30% of women aged 15 years and older worldwide in 2018 had been subjected to physical and/or sexual violence from either intimate partners or non-partners sexual violence during their lifetime (34). Violence can negatively affect women's physical, mental, sexual and reproductive health. WHO's 2013 study found that women who had been physically or sexually abused were 1.5 times more likely to have a sexually transmitted infection compared to women who had not experienced partner violence. They are also twice as likely to have an abortion and 41% more likely to have a preterm birth (35).

**Figure 2.11** Mortality rates due to suicide, homicide and road traffic injury, by WHO region and globally, 2000–2019


Note: \*The percentage decline is not shown because it is negative (meaning the death rate increased during the period).

Source: Ref. (29).

**Figure 2.12** Rank of deaths due to road traffic injury, suicide and homicide, by age group and sex\*, 2019

Age group (years)	Road traffic		Suicide		Homicide	
	Male	Female	Male	Female	Male	Female
0–15	7	9	>30	>30	22	25
15–29	1	5	4	3	2	7
30–49	2	8	7	10	8	17
50–59	5	13	13	19	21	>30
60–69	12	18	20	27	>30	>30
70+	22	28	27	>30	>30	>30

Crude death rate (per 100 000 population) - range of 0.4 to 51.1

Note: \* The colour gradient shows the range of the crude death rate per 100 000 population from low (light) to high (dark). The number in the cell shows the rank of the cause of death in the given age group and sex.

Source: Ref. (29).

### Box 2.3. Ratifying Mexico's National Law of Mobility and Road Safety (13)

The number of road traffic fatalities in Mexico, a country of nearly 130 million people, has remained consistently high in recent years, despite extensive efforts at national and subnational levels. More than 16 000 deaths were recorded in 2019 alone (30). Road traffic injuries were estimated to be the tenth leading cause of death (31). There was a lack of accountability in different sectors and institutions of the Federal Government, which was challenging for intersectoral coordination and progress in road safety to prevent fatal and non-fatal traffic injuries. Laws related to speeding, alcohol limits and licensing were created subnationally, with levels of government responsible for planning, designing and operating transport systems mostly working independently.

A crucial constitutional amendment was introduced in 2020 that recognized “mobility under the conditions of safety, accessibility, efficiency, sustainability, quality, inclusion and equality” as a universal right. The stage was set for a new national law to harmonize all actions and to enshrine an integrated “safe system” approach that recognized road safety as key to saving lives and achieving the SDGs.

The National Law of Mobility and Road Safety calls for the establishment of the proven and life-saving “safe system” approach, which is fully aligned with the Global Plan for the Decade of Action for Road Safety 2021–2030 (32). The Law of Mobility and Road Safety prioritizes the safety of the most vulnerable road users (i.e. pedestrians,

cyclists and people with disabilities) and promotes sustainable and equitable mobility for all. It clarifies roles and responsibilities within the Mexican Government and calls for the creation of a unified database for licences, number plates and fines. Moreover, it incorporates the majority of WHO's recommendations to promote the safe use of equipment (e.g. helmets, seatbelts and child restraints) and to reduce road users' exposure to key risk factors (e.g. speeding, use of mobile telephones while driving, and driving under the influence of alcohol). After approval by the Senate and the Chamber of Deputies, the Law was published on 17 May 2022. This momentous safe mobility law should be viewed as an integrated component of many important policy areas, including child health, climate action, gender, poverty and equity. Having the country's mobility systems firmly rooted in safety will bring a range of benefits to human health and the environment, reducing the social and economic toll of road tragedies and addressing gender equity on access to safe mobility.

Mexico's National Law of Mobility and Road Safety marks a major step forward in the country's efforts to reduce the persistently high number of road traffic deaths and boost equitable and sustainable access to transport services for all. The Law is expected to lead to a significant reduction in deaths due to road traffic injuries in Mexico.

## 2.4 Environmental risks

Healthy environments – including adequate water, sanitation and hygiene (WASH), clean air, safe use of chemicals, healthy and safe workplaces, sound agricultural practices, health-supportive cities and built environments, protection from radiation, a stable climate and preserved nature – are all prerequisites for good health. An estimated 24% of deaths globally were due to

modifiable environmental factors in 2016 and are therefore preventable (36). The interlinkages between climate change and health are discussed in Section 1.1. The section below summarizes the current status of selected environmental risks to health, as reflected by the SDG and GPW 13 indicators related to WASH, air pollution and unintentional poisoning.

### WASH

Despite progress, WASH services are still not universally available. Safely managed drinking-water services – i.e. located on premises, available when needed and free from contamination – were accessible by 74% of the global population in 2020, leaving 2 billion people with only basic or limited services or having to rely on unprotected drinking-water sources. Only slightly over half (54%) of the global population were using safely managed sanitation services, with excreta safely disposed on-site or treated off-site. Around 3 in 10 (29%) people worldwide lacked a basic handwashing facility with water and soap at home (37). The coverage of WASH services varies across WHO regions (Figure 2.13), as well as across and within countries.

Beyond the household, safely managed WASH services in institutional settings such as schools, workplaces and health care facilities are also of critical importance in view of the time spent in these settings by various population groups, including those vulnerable to further health issues. Box 2.4 illustrates efforts that can be taken by countries to improve WASH services in health care facilities.

SDG Indicator 6.3.1 tracks the proportion of total, industrial and domestic wastewater flows that are safely treated. Wastewater statistics, however, are in an early stage of development in many countries and there is a lack of reporting, especially from industrial sources. According to data from 42 reporting countries in 2015, only 32% of total wastewater flows received at least some treatment (41). On the basis of data from

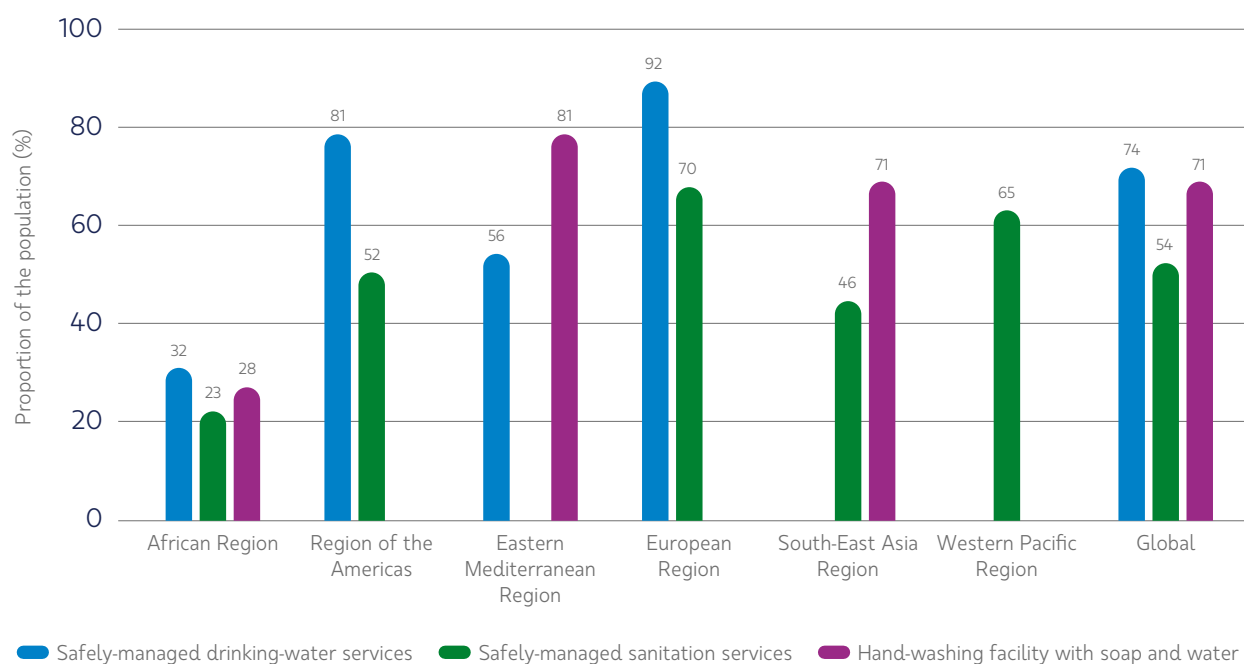
140 countries and territories, an estimated 58% of wastewater generated by households was safely treated in 2022 (42).

Globally in 2019, an estimated 1.4 million deaths – equivalent to 2.5% of all deaths that year – could have been prevented with safe WASH. These include deaths due to diarrhoea, acute respiratory infections, soil-transmitted helminthiasis and undernutrition. Almost all (97%) of these deaths were in low- and middle-income countries, with 79% in the African and South-East Asia regions (Figure 2.14). The African Region suffered the highest mortality rate at 46.7 deaths per 100 000 population – over 10 times the rates in the Western Pacific and European regions. At 29.6 deaths per 100 000, the mortality rate in the South-East Asia Region was 62% higher than the global average of 18.3 deaths per 100 000 population (43).

The SDG framework includes the tracking of official development assistance (ODA) for the water and sanitation sector, as well as the participation of local communities in improving water and sanitation management. ODA disbursements to the water sector decreased between 2015 and 2021 from US\$ 9.2 billion<sup>2</sup> to US\$ 7.8 billion – a decrease of 15% – with ODA commitments showing a similar decrease (44). In 2022, 87% of countries had the procedures for local community participation defined in law or policy for rural drinking-water. However, only 31% of countries reported high levels of community participation. Similar results were found for community participation in water resources management (45).

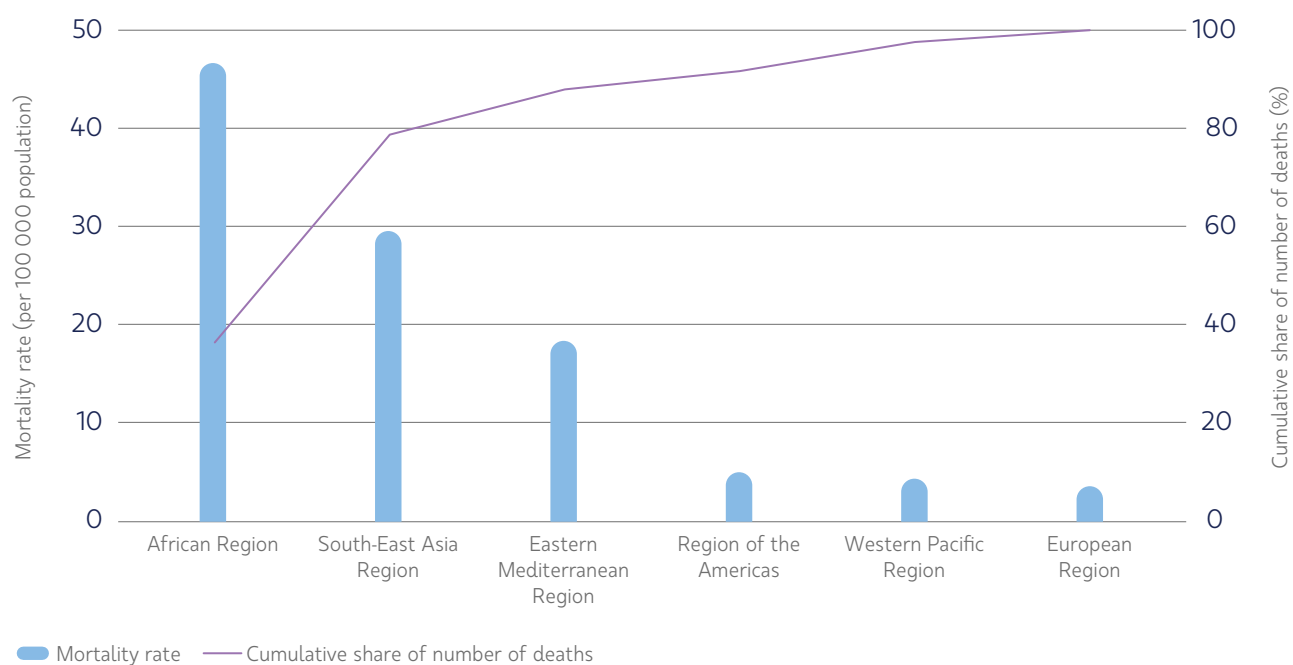
2 Constant (2021) US\$.

**Figure 2.13** Proportion of population using WASH services, globally and by WHO region, 2020



Note: Absence of bar means no aggregate statistics are available for the region.  
Source: Ref. (37).

**Figure 2.14** Mortality rate and cumulative share of deaths attributed to exposure to unsafe WASH services, by WHO region, 2019



Source: Ref. (43).

### Box 2.4 New data for assessing WASH services in Montenegrin health care facilities (13)

In 2019, the World Health Assembly adopted resolution WHA72.7 on WASH in health care facilities (38), calling for adequate WASH services for providing safe, people-centred health care and achieving UHC. Integration of WASH in health care services can catalyse improvements in quality of care, staff morale and performance, health care costs, disaster/outbreak resilience, infection prevention and control, and reductions in AMR. A key action is to conduct assessments of WASH conditions, on the basis of which follow-up interventions at the policy and practical levels should be identified and prioritized.

In 2021, the Institute of Public Health of Montenegro undertook – in partnership with the WHO European Centre for Environment and Health and the Organization's Country Office in Montenegro – an analysis of existing policies and the broader enabling environment, as well as a baseline survey of the actual situation in facilities. Internationally recognized indicators for basic and expanded WASH services established by the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene were used to track progress with WASH-related SDG targets (39). Data were collected from all public and selected private health care facilities in the country at all levels of care (151 in total). The findings indicated that there was good basic provision of various WASH components in many health care facilities, especially with respect to water (88%) and hand hygiene (78%), and medium coverage of waste management provision (62%). However, the basic provision of environmental cleaning (13%) and sanitation (16%) remained a challenge in many health care facilities across the country (40). Challenges in WASH service provision were observed more often in facilities providing primary care services and those located in rural areas, as well as in private facilities for waste management.

The outcomes of the survey highlighted strengths and gaps and will help in developing and implementing targeted interventions, both at the governance level and in practice at the facility level (e.g. by strengthening the national surveillance system and developing the capacity of medical and nonmedical staff. The outcomes also supported national reporting for global monitoring of progress towards achieving SDG3 (Ensure healthy lives and promote well-being for all at all ages) and SDG6 (Ensure availability and sustainable management of water and sanitation for all).

Following the assessment, since 2022 water quality control in all public health care facilities was included in the regular surveillance programme. Also planned was the integration of provisions related to WASH operation and maintenance in legislation, and the development of a programme dedicated to private health care facilities in order to enhance capacity-building in health care waste management.

## Air pollution

Both indoor and outdoor air pollution cause respiratory, cardiovascular and other diseases, leading to significant burdens of morbidity and mortality worldwide.

Inefficient and polluting fuels and technologies in and around the home are the main source of household air pollution. In 2021, it is estimated that 5.6 billion people – or 71% (UI: 67–75%) of the global population – were primarily using clean fuels and technologies for cooking. In 40% of countries, this practice was almost universal (covering at least 95% of the population). By contrast, in around 10% of countries, at least 95% of the population had to rely on polluting fuels and technologies (43).

Urban populations continue to have greater access to clean cooking fuels and technology than rural populations, but the divide is narrowing. Globally in 2021, the access was 86% in urban areas (UI: 83–89%) and 51% (UI: 46–56%) in rural areas, representing a gap of 35 percentage points. The WHO Eastern Mediterranean Region had the largest gap (38 percentage points) and the European Region had the smallest gap (7 percentage points). The African Region, however, has seen the gap widening in the past two decades, and remained the region with the lowest access for both urban and rural populations in 2021, at 41% (UI: 37–45%) and 7% (UI: 6–8%) respectively.

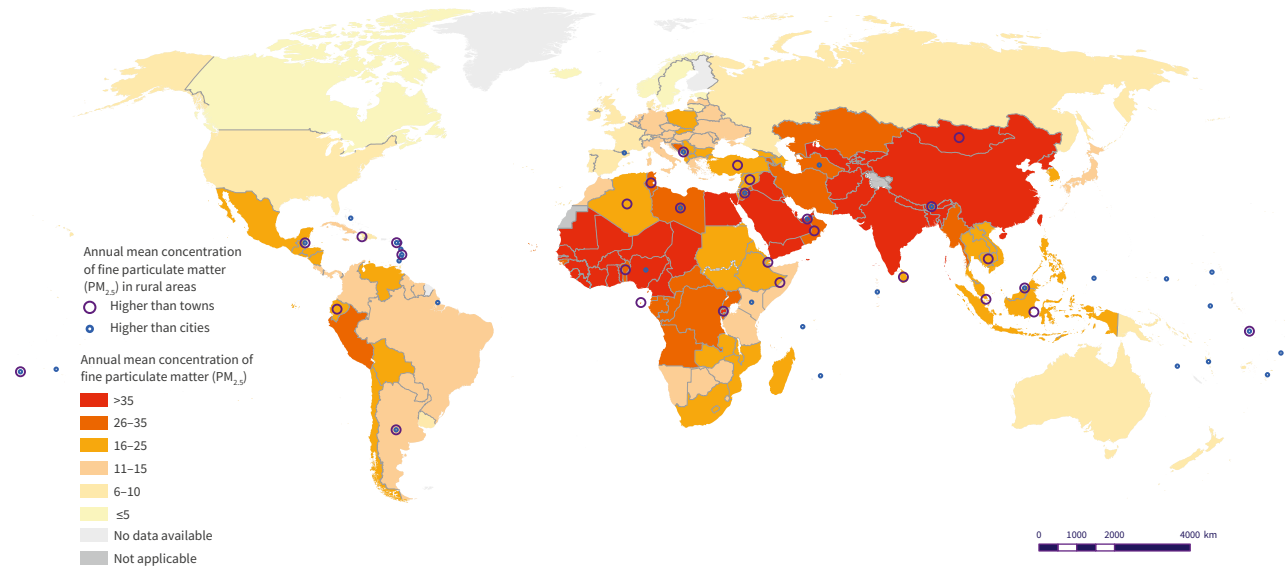
Almost the entire global population (99%) breathes unhealthy levels of fine particulate matter. Despite improvement since 2015, the global average population-weighted exposure to fine particulate matter<sup>3</sup> in cities in 2019 – 33  $\mu\text{g}/\text{m}^3$  (UI: 32–34) – was still much higher than the recommended air quality guideline for protecting public health (5  $\mu\text{g}/\text{m}^3$ ). While cities have traditionally been the focus of air pollution reduction policies, air pollution is not only an urban problem. In 34 countries in 2019, rural areas had higher air pollution levels than cities, and in 29 countries the air pollution levels in rural areas exceeded those in towns (Figure 2.15). The levels of fine particulate matter in cities, towns and rural areas in many countries in the African, Eastern Mediterranean and South-East Asia regions exceeded the WHO interim target 4 of 35  $\mu\text{g}/\text{m}^3$  (43,46).

In 2019, an estimated 6.7 million deaths globally were attributed to the joint effects of ambient and household air pollution. The vast majority (85%) of these deaths were due to NCDs (including stroke, ischaemic heart disease, chronic obstructive pulmonary disease, and trachea, bronchus and lung cancers) among adults, and the remainder were due to lower respiratory infections in both adults and children, with children under five years of age having the highest mortality rate (Figure 2.16) (46).

<sup>3</sup> Particulate matter with diameters equal to or smaller than 2.5  $\mu\text{m}$  ( $\text{PM}_{2.5}$ ).

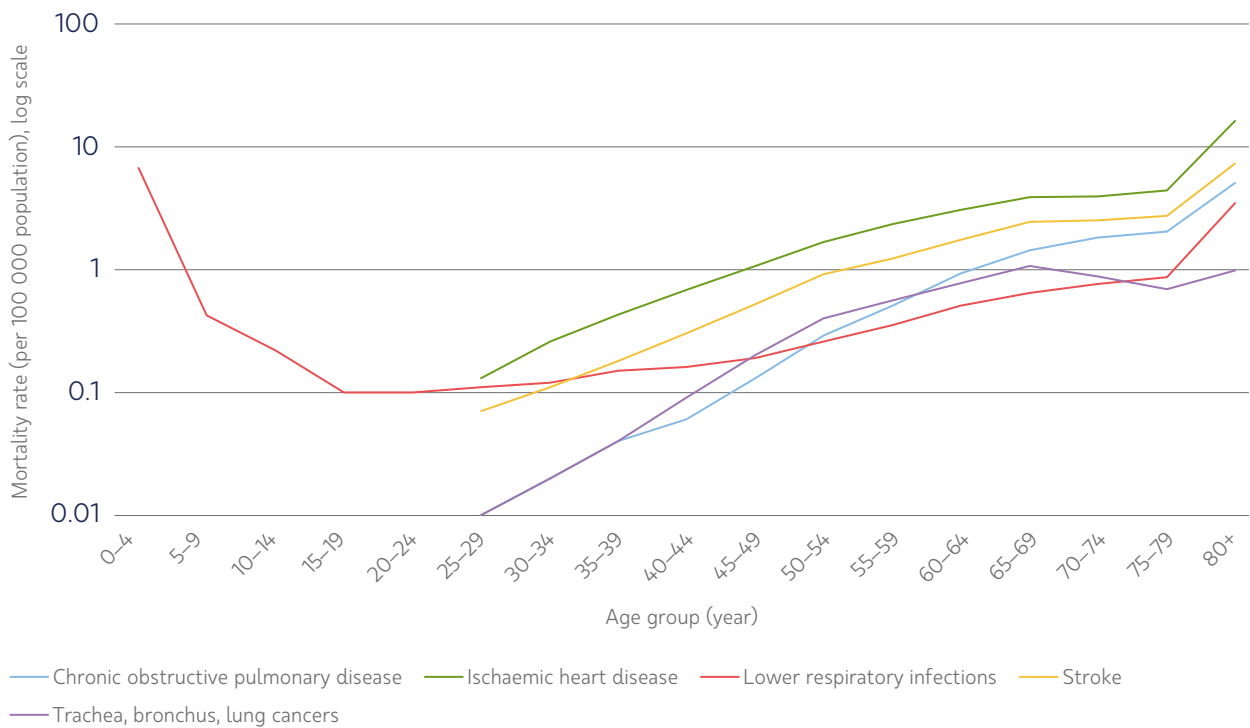


**Figure 2.15** Annual mean concentrations of fine particulate matter (PM<sub>2.5</sub>) at national level, and in rural areas as compared to towns and cities, by country/territory, 2019



Source: Ref. (43).

**Figure 2.16** Global crude mortality rate attributed to the joint effects of ambient and household air pollution, by disease and age group, 2019



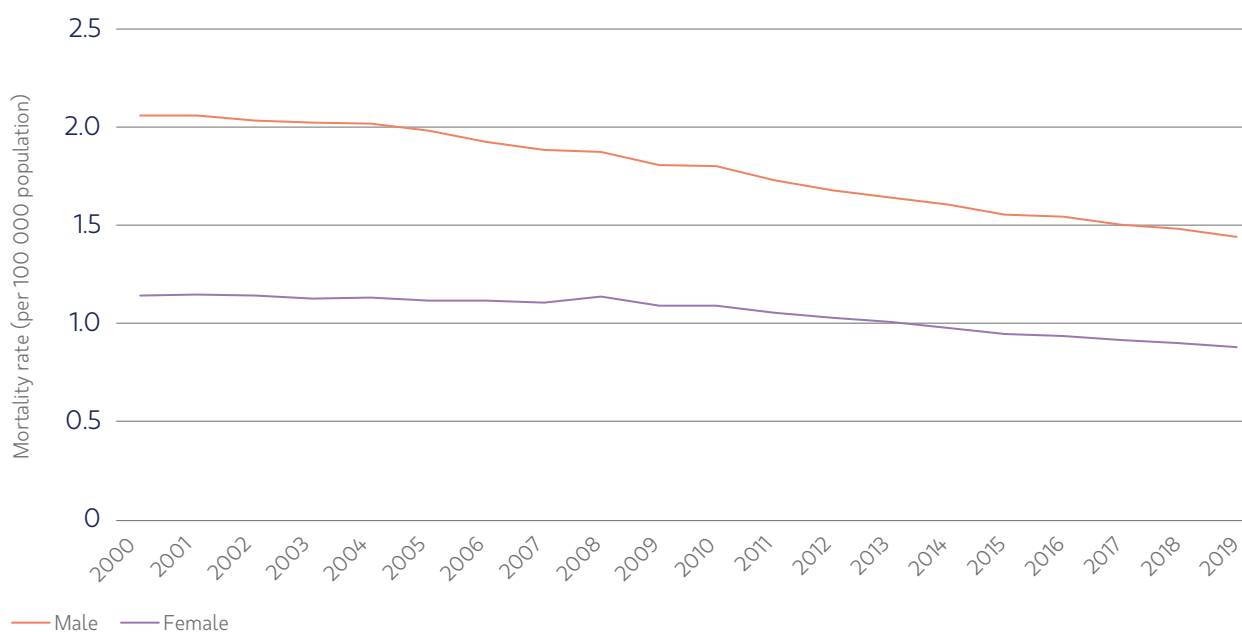
Source: Ref. (43).

## Unintentional poisoning

Unintentional poisoning can be caused by household chemicals, pesticides, kerosene, carbon monoxide and medicines or may be the result of environmental contamination or occupational chemical exposure. Unintentional poisonings were responsible for about 84 000 (UI: 48 000–137 000) deaths in 2019 – of

which 73% are thought to be preventable through sound chemical management (29,47). Because of occupational exposures, death rates due to unintentional poisonings are higher among men than women, although the gap has narrowed slightly in recent years (Figure 2.17).

**Figure 2.17** Global trends in mortality rates due to unintentional poisoning, by sex, 2000–2019



Source: Ref. (29).

## 2.5 UHC and health systems

UHC means that all people can get the health services they need, of good quality, and without facing financial hardship from the need to pay for those services. SDG target 3.8 specifically aims to achieve UHC – including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all – by 2030. Advances towards this target are tracked through indicators on the coverage of essential health services (SDG 3.8.1), which is a composite index of health service tracer indicators, and one indicator for the lack of financial protection (SDG 3.8.2), which is defined as the proportion of a country's population with large household expenditures on health relative to their total household expenditure. While assessed separately, both UHC indicators provide vital information about the coverage and cost of health services in countries and need to be tracked together.

The expansion of service coverage (SDG indicator 3.8.1) slowed during the first half of the SDG era compared to pre-2015 gains, rising only three index points to 68 by 2021 (48). There has been no significant progress in reducing financial hardship. The proportion of the population spending more than 10% of their household budget on health out of pocket (OOP) (SDG 3.8.2) has worsened since 2015 at an average of 0.2 percentage points per year to reach 13.5% in 2019 (about 1 billion people). This indicator is focused on relatively large out-of-pocket health spending, but for people living in or near

poverty any amount spent on health OOP might be a source of financial hardship. In 2019, 4.4% of the global population (344 million people) were pushed or further pushed into extreme poverty due to OOP payments for health (49). While the COVID-19 pandemic is likely to have exacerbated the financial hardship experienced by those paying OOP for health, the degree of impact on health service coverage globally remains unclear. However, decreases in service coverage during the COVID-19 pandemic have been observed at both subregional and country levels.

Monitoring the coverage of essential services presents unique challenges due to the inclusionary nature of UHC and its emphasis on providing health services (promotive, preventive, curative, rehabilitative and palliative) of sufficient quality to be effective to persons in need. No index can fully summarize all the health services required across the life course to achieve UHC. Given this fact, the current UHC Service Coverage Index (UHC SCI) uses a selection of key indicators to track *overall* coverage of essential health services. The UHC SCI comprises four subindices related to areas of key health concern, namely: reproductive, maternal, newborn and child health (RMNCH); infectious diseases; NCDs; and health service capacity and access. The following paragraphs describe the tracer indicators and related metrics which are used to monitor progress on the pathway to UHC.

### RMNCH

Globally, the percentage of women whose contraceptive needs satisfied by modern methods increased by approximately 5% since 2000, reaching 77.5% in 2022. Regional variations in improved contraceptive coverage depended mainly on the respective starting points in 2000. The largest relative gains were made in the Eastern Mediterranean Region (an increase of under 20% since 2000, up to 62.3% in 2022) and the African Region (an increase of over 50% since 2000, up to 57.5% in 2022) (50).

ANC visits are opportunities to reach pregnant women with a series of interventions that are vital for their health and the health of their newborns and infants. WHO recommends a minimum of eight contacts with a health provider that include blood and urine testing, as well as weight/height and blood pressure measurements (51). Globally, between 2015 and 2021, 66% of women are estimated to have attended four or more ANC visits during their pregnancies (52). Importantly, however, this estimate does not capture effective coverage, especially whether the recommended interventions were

received during the visits or if the women saw a skilled health provider such as a doctor or nurse. The data used to calculate this latter indicator primarily come from household surveys which do capture the type of provider seen on the first ANC visit. From these data, it is estimated that 88% of pregnant women attended at least one ANC visit with a skilled provider between 2015 and 2021. This does not directly indicate the degree to which respectful, quality pregnancy care was received but rather shows an increased likelihood that quality care – which included the recommended interventions for pregnant women – was received from a skilled health provider (versus from a non-skilled provider).

The assistance of skilled health personnel during childbirth is crucial for the lives of women, their newborns and families. The global coverage of this service increased from 81% in 2015 to an estimated 86% in 2022 (53). The WHO African Region continues to have the lowest coverage of skilled birth attendance across all WHO regions. To accelerate progress, it is essential to ensure that there are enough skilled health

personnel available to meet the needs of pregnant women and newborns, particularly in underserved areas.

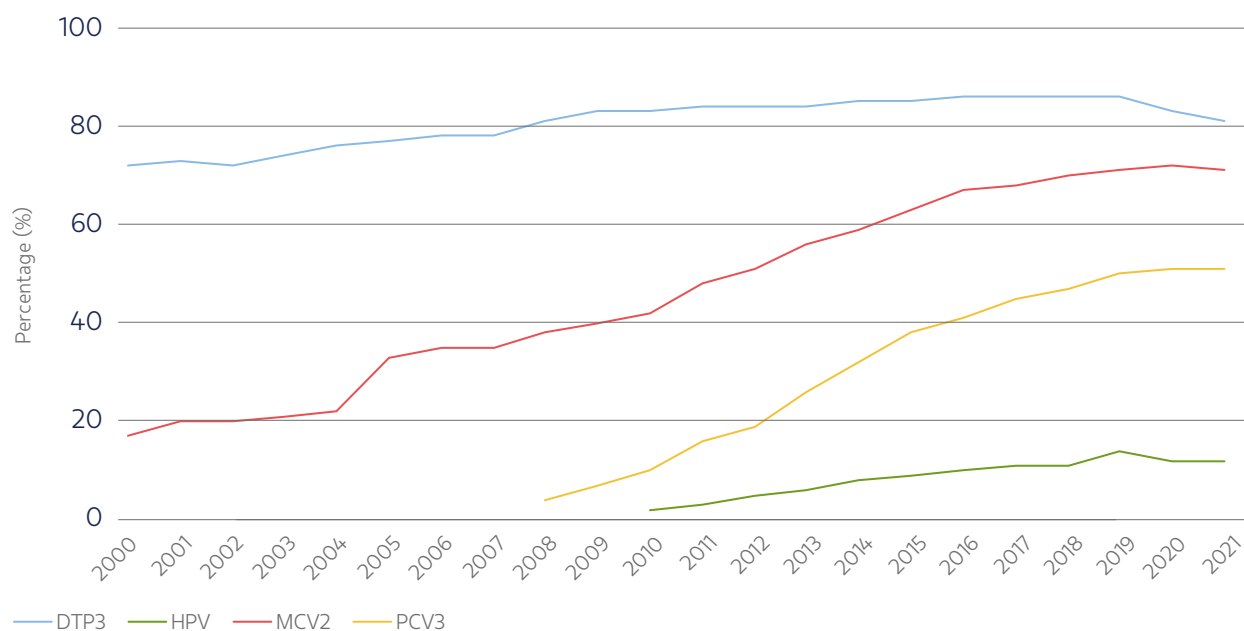
Immunization uptake is a critical component of primary health care and a key measurement of progress on the path to UHC. Over the past 30 years, increasing and sustained levels of immunizations among children have contributed to improved rates of childhood survival and well-being. Unfortunately, the proportion of one-year-old children vaccinated with three doses of diphtheria, tetanus toxoid and pertussis vaccine (DTP3) fell nearly 6% (five percentage points) to 81% between 2019 and 2021, leading to an estimated 25 million children missing at least one dose of DTP in 2021. Similar trends were observed in the population coverage of other vital immunizations (Figure 2.18). Globally, the coverage of the three doses of pneumococcal conjugate vaccines (PCV3) increased 5-fold between 2010 (10%) and 2020 (51%) and stagnated at this level through 2021. Similarly, coverage of the two doses of measles vaccine (MCV2) expanded from 42% in 2010 to 71% in 2019 and remained at approximately the same level through to 2021. Coverage of the human papillomavirus (HPV) vaccine, which has important health implications for women and girls, has remained relatively low since its first introduction, making

the more than 10% decrease in coverage between 2019 and 2021 (to 12% in 2021) particularly concerning (54).

Acute respiratory infection (ARI) is the leading cause of child mortality among all infectious diseases; in 2019, it was estimated that one in every seven deaths among children under 5 years of age was due to ARI (55). Seeking timely care from a health practitioner for a child suffering from ARI has been shown to reduce mortality. However, population-based survey data show that there has been slow progress in improving care-seeking for ARI symptoms – down from 68% in the period 2008–2014 to 56% in the period 2015–2021 – among countries with available survey data (56).

Statistics presented at the global, regional and national levels often obscure disparities in health service coverage. Subnational analyses, at the first (state or province) and second (district or county) administrative levels, provide additional information regarding progress on the pathway to UHC as well as insights for improving the design and implementation of health policies and programmes. Box 2.5 demonstrates an estimation of a UHC service coverage RMNCH index at district level in Rwanda.

**Figure 2.18** Global immunization rates against diphtheria, tetanus toxoid and pertussis (DTP3), measles (MCV2), pneumococcal infections (PCV3) and human papillomavirus (HPV), 2000–2021



Note: DTP = diphtheria, tetanus toxoid and pertussis vaccine; HPV = human papillomavirus vaccine; MCV = measles vaccine; PCV = pneumococcal conjugate vaccine. Source: Ref. (54).

### Box 2.5 Analysis of an RMNCH service coverage index at subnational level in Rwanda

Advances in small area estimation (SAE) methods can be used with household survey data to produce estimates for smaller subgroups by using spatial correlation between data points, whereas previously it was not possible to calculate reliable direct estimates for second-level administrative units due to the absence or lack of data.

In this analysis, data from the Rwanda Demographic and Health Survey (DHS) 2019–2020 were used to estimate a RMNCH service coverage index, one of the components of the composite UHC SCI, and its four tracer indicators at the second administrative (district) level with SAE methods. In 2019, while the RMNCH service coverage sub-index was estimated as 65 for Rwanda, the district-level variation ranged from 58 to 70 (Figure 2.19.a) (57,58). While Rwanda was classified as having high service coverage for RMNCH, 10% of districts ( $n = 3$ ) had only medium service coverage for RMNCH.

Variation was also observed between the tracer indicators which comprise the RMNCH sub-index. At national level, 47% of women aged 15–49 years in Rwanda had attended at least four ANC visits with any health provider during their last pregnancy. However, this varied substantially at the district level from 34% to 65%. Within the Western Province there was a difference of 29% between the minimum and maximum of ANC 4+ district-level coverage (Figure 2.19.b). Similar disparities were identified for family planning needs satisfied with modern methods and care-seeking for children with symptoms of acute respiratory infection. The percentage of infants receiving three doses of DTP3 vaccine persisted at high levels through the subnational analyses, with over 97% of infants covered in all districts and at national level in the 2019–2020 survey data (2017 cohort).

Subnational analyses, including continued advances in SAE methods, provide vital insights that are needed to

identify areas where expanded service coverage may be most needed on the pathway to UHC. The SAE estimates are produced with considerable uncertainty so continued investment in reliable routine national data systems is needed to allow for more granular and accurate direct measurements of inequalities.

A major challenge to measuring inequalities in the UHC SCI within countries is the lack of disaggregated data for many indicators. Using a proxy RMNCH coverage index derived from household surveys allows for an assessment of the extent of inequalities within countries. In the WHO African Region, there was progress in the RMNCH subindex, which increased from 42 in 2000 to 57 in 2019 (59). Assessments of composite RMNCH indexes across countries in the region shows that coverage of essential health interventions varies substantially, both within and between countries. Within countries, coverage tends to be higher among more advantaged groups such as the richest, most educated and those living in urban areas.

With the support of the WHO Regional Office for Africa, many countries have deployed the frontline readiness assessment, spanning a total of 282 hospitals and 1255 primary care facilities to support real-time tracking and monitoring of essential health services. This provided refined data on the use of RMNCH services at district level.

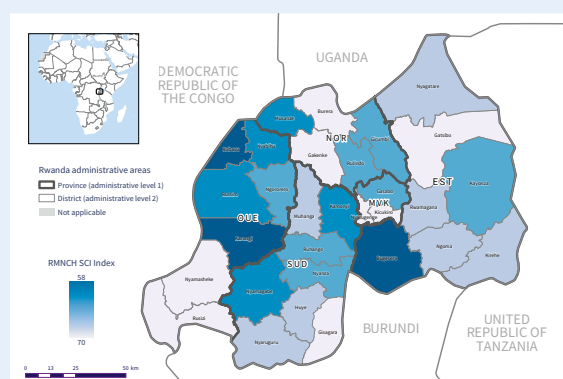
In relation to the other dimensions of UHC, the differential progress between services for infectious diseases, which have seen substantial increases since 2000, and services for RMNCH and NCDs will ultimately limit overall progress on UHC. Therefore, integrated service delivery remains a crucial need in the region. Moving forward, it is necessary to put in place a comprehensive monitoring of subnational system functioning as an early warning system to monitor UHC trends and distribution (59).

Continued on next page ↓

## Box 2.5 Analysis of an RMNCH service coverage index at subnational level in Rwanda

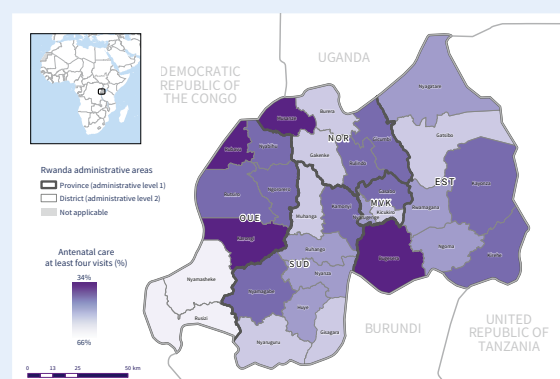
Figure 2.19 RMNCH service coverage at subnational level in Rwanda

a. Service coverage index for RMNCH, Rwanda, 2019–2020



Source: Ref. (58).

a. ANC coverage (four or more visits) during last pregnancy, Rwanda, 2019–2020



## Communicable diseases

Improvements in the coverage of essential services on the pathway to UHC have largely been driven by substantial gains in the prevention and control of communicable diseases. Treatment for TB and HIV, as well as use of insecticide-treated nets for malaria, are among the most pronounced interventions of expanded coverage. However, as discussed with other services in this section, worrying reversals in population coverage or stalling of progress were observed for some communicable disease prevention and control activities.

The number of newly-diagnosed TB cases dropped by 18% between 2019 and 2020, followed by a partial recovery to 6.4 million cases in 2021 (a 10% decrease from the 2019 value) (see section 2.1 on tuberculosis). The reductions in reported cases suggest an increase in the numbers of undiagnosed and untreated TB cases, likely caused by service disruptions due to the COVID-19 pandemic. Estimated treatment coverage decreased from 69% (UI: 62–77%) in 2019 to 61% (UI: 57–65%) in 2021. Worryingly, treatment coverage of persons diagnosed with rifampicin-resistant or multidrug-resistant TB also followed the trends of declining rates in 2020 and 2021. While treatment coverage declined, the success rate for people treated with first-line regimens remained relatively steady at

86% during the same period, indicating that the quality of care was maintained (12).

The burden of malaria remains high in many places (see section 2.1 on malaria). Service disruptions due to COVID-19 during 2020 and 2021 led to an estimated 13 million more malaria cases and 63 000 more malaria deaths. Malaria prevention strategies and tools consist of vector control, preventative chemotherapies and malaria vaccine, where applicable. Vector control, and the use of insecticide-treated nets in particular, has been a key driver of the decrease in the burden of malaria over the past 20 years. The percentage of the population sleeping under an insecticide-treated net increased substantially from 2% to 47% between 2000 and 2021, with increased use seen among the target groups of children under 5 years of age and pregnant women (17).

Continued improvements were made towards the treatment targets for HIV,<sup>4</sup> despite the COVID-19 pandemic. The HIV testing and treatment cascade (Figure 2.20) shows that in 2021, an estimated 85% (UI: 75–97%) of the 38.4 (UI: 33.9–43.8) million people living with HIV (PLHIV) globally knew their HIV status, 75% (UI: 66–85%) of PLHIV were on HIV treatment, and 68% (UI: 60–78%) of PLHIV were virally suppressed, a marked improvement since 2015. The highest testing and treatment

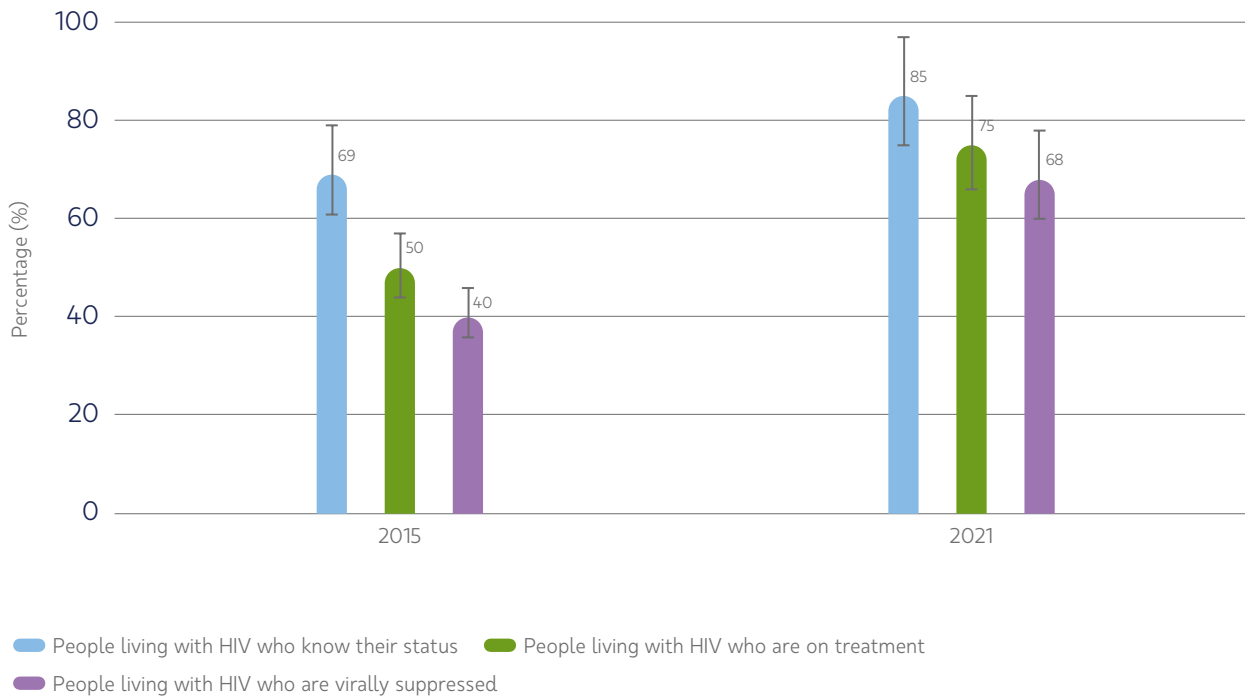
<sup>4</sup> The 2025 testing, treatment and viral suppression targets are: 95% of people within the subpopulation who are living with HIV know their HIV status; 95% of people within the subpopulation who are living with HIV and who know their HIV status are on ART; and 95% of people within the subpopulation who are on ART have suppressed viral loads. These targets are to be achieved within all demographics and groups and geographical settings.

coverage was found in the WHO African and Western Pacific regions, whereas the Eastern Mediterranean Region had the lowest coverage in 2021. The roll-out of effective HIV treatment

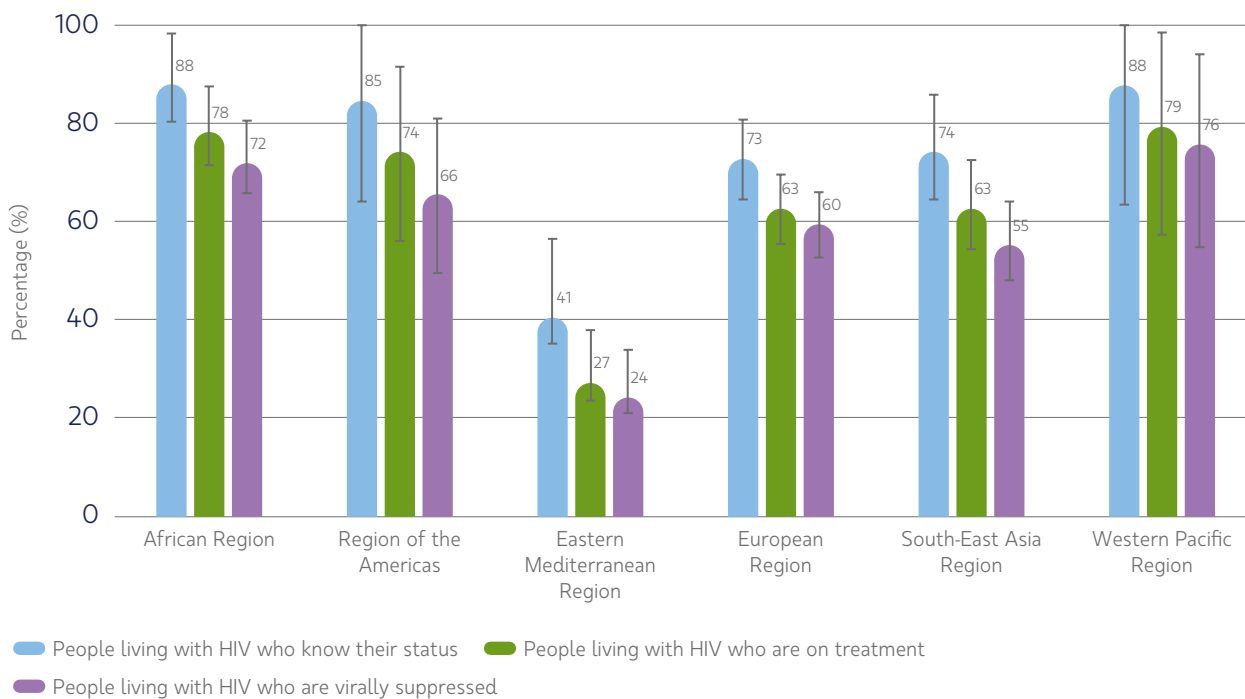
has reduced global HIV-related deaths by 52% since 2010 – from 1.4 (UI: 1.1–1.8) million to 650 000 (UI: 510 000–860 000) in 2021 (2,3).

**Figure 2.20** HIV testing and treatment cascade

**a. Global, 2015 and 2021**



**b. By WHO region, 2021**



Source: Ref. (2) and (3).

## NCDs and mental health

Globally, NCDs are responsible for the highest proportion of the disease burden (see section 1.3 on major noncommunicable diseases and related risk factors). NCDs result from a combination of genetic, physiological, environmental and behavioural factors; consequently, prevention and control efforts tend to focus on reducing relevant risk factors for these diseases. In terms of service coverage on the pathway to UHC, preventive, diagnostic and treatment services for NCDs require multisectoral approaches, underpinned by policy and fiscal decisions to reduce risk factors.

At the global level, hypertension diagnostic, treatment and control rates have increased substantially since 2000. However, nearly one half of people with hypertension were not diagnosed in 2019 and only around one fifth of those with hypertension were receiving effective treatment (60). The availability of early detection programmes strengthens the ability to detect cancers at an early stage, increasing the potential for survival. Globally, 20% of countries were reported to have early detection programmes for childhood cancers at the primary health care level, while 38% had programmes for colon cancer, 59% for breast cancer and 62% for cervical cancer (61).

Mental, neurological and substance use disorders accounted for 10% of the global burden of disease (DALYs) and 25% of years lived with disability in 2019 (62). More than 1 in 100 (1.3%) deaths in 2019 were due to suicide (see section 2.4 on Injuries and violence) (29). The gap between people needing care for mental conditions and those with access to care remains

substantial. For example, only 29% of people with psychosis and only one third of people with depression receive formal mental health care (63,64). Depression, anxiety, and conduct disorders are among the leading causes of illness and disability among adolescents (62). Intervening to prevent and treat these mental disorders during adolescence can have lifelong health and economic benefits. It is estimated that every US\$ 1 invested in interventions to prevent and treat mental disorders among adolescents could return around US\$ 24 in health, education and employment benefits over the course of 80 years (65).

Although effective treatments exist for substance use disorders, treatment coverage is very low. Fewer than 1 in 5 people receive treatment for alcohol use disorders – less than 1 in 10 in LICs and LMICs (66) – and about 1 in 8 of those with drug use disorders (67). Even fewer people with substance use disorders receive minimally adequate treatment: only about 7% globally and 1% in LICs and LMICs (68).

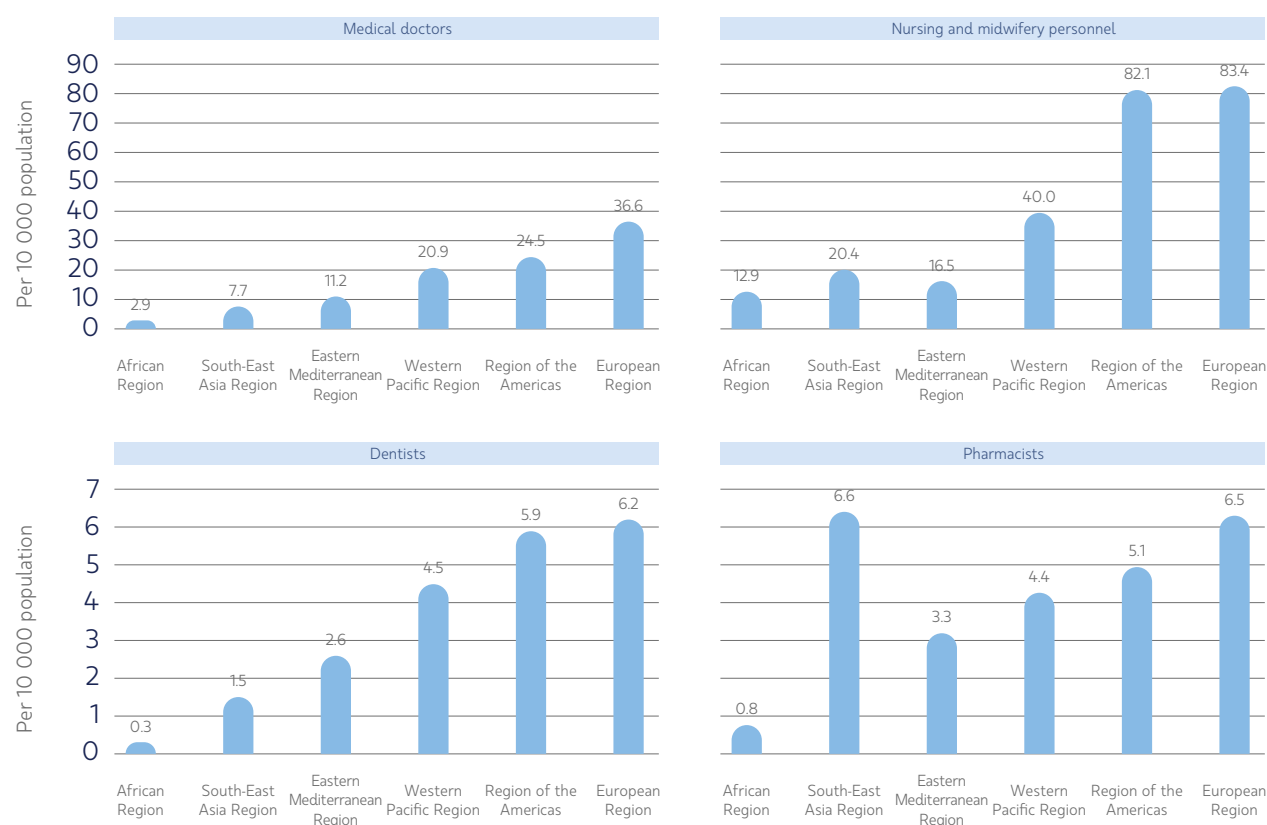
Approximately 70% of people with neurological disorders live in low- and middle-income countries (69), where health systems are ill-equipped to deal with this challenge, resulting in a large treatment gap. Treatment gaps for epilepsy exceed 75% in most LICs and 50% in most middle-income countries (70). Access to dementia diagnostic services is unequally distributed within and across countries, with rural or remote areas covered with dementia diagnostic services only in 1 in 4 low- and middle-income countries, compared to 2 in 3 in HICs (71).

## Health service capacity and access

Progress toward UHC depends on the availability, accessibility, acceptability and quality of the health workforce. Current challenges include maldistribution, inefficiencies, lack of support and protection, and shortages at national and subnational levels (72). A recent assessment shows that the global shortage reduced from 20 million in 2013 to 15 million health workers in 2020, with a projected decrease to 10 million by 2030 (73). Although there has been a tremendous increase in the health workforce globally, regions with the highest burden of disease continue to have the lowest proportion of health workforce to deliver the health services (Figure 2.21). Data from 2014–2021 show that the highest health worker densities for medical doctors, nursing and midwifery personnel and dentists are in

the WHO European Region at 36.6, 83.4 and 6.2 per 10 000 population respectively, and for pharmacists in the WHO South-East Asia Region and European Region at 6.6 and 6.5 per 10 000 population respectively. The lowest health worker density, however, remains in the WHO African Region with 2.9 medical doctors and 12.9 nursing and midwifery personnel per 10 000 population, and less than 1 per 10 000 population for both dentists and pharmacists (74). As with other indicators, health workforce statistics at national level often mask disparities within countries. Rural and remote areas particularly often suffer from these challenges. Box 2.5 provides an example of recent steps taken in Nepal to identify and address some of these challenges.



**Figure 2.21** Density of select health professionals per 10 000 population, 2014–2021

Source: Ref. (74).

Access to essential medicines – a multidimensional concept which combines both the affordability and availability of medicines – is another key component for achieving UHC. Since 2016, the proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis has been estimated for 17 countries across WHO's African, Americas and European regions, with a median value across all 17 countries of 15% (IQR: 0–28%) (77). The sparsity of data and lack of mechanisms for tracking progress make the interpretation of this particular metric difficult. During the COVID-19 pandemic, people suffering from NCDs, such as cancer, heart diseases and diabetes, reported disruptions or sustained challenges in accessing their routine medications for these diseases (78).

The International Health Regulations (IHR) are a set of legal instruments which oblige all 196 States Parties of WHO to develop and maintain a minimum set of core capacities for surveillance and response to public health events of international concern. The implementation status of the core capacities can be monitored through an average of 35 indicators that are used to measure the 15 capacities. The average implementation status of capacities for all WHO regions increased from 64% in 2021 to 66% in 2022 (79).

### Box 2.6 An evidence-based approach to ensuring retention and effective deployment of health workers in support of UHC Nepal (13)

Having the right number of health workers in the right places and at the right times is crucial to meeting population health needs and achieving UHC. In Nepal, challenges in human resources for health include the over- and under-production of different cadres of health workers, unequal distribution of workloads and geographical disparities in health worker density. Staff turnover is particularly high in primary health care facilities in remote and rural areas.

To address the drivers of poor retention of health workers in remote and rural areas of Nepal, the Ministry of Health and Population, with support from WHO, conducted a study on the perspectives of health workers on posting and retention in these areas. Starting in April 2021, 21 case studies were developed through personal interviews and focus group discussions with frontline health workers – including medical officers, staff nurses, health assistants and auxiliary nurse midwives – in remote health care facilities in 14 districts representative of different geographical areas of Nepal. The study was done in coordination with the provinces concerned. The study aimed to explore which approaches would be most appropriate for, and have most impact on, the retention and deployment of qualified professionals in rural and remote areas in accordance with government strategies. A review of the case studies was carried out between April and December 2021. The factors identified as influencing health worker decision-making included remuneration and incentives, opportunities for career development, social considerations, cultural values, health governance and the work environment, and national laws and regulations. It is crucial to address

these factors to manage and retain health workers in remote areas in order to ensure that health services provided by a qualified health professional are available and easily accessible to every citizen.

WHO's Workload Indicators of Staffing Need (WISN) (75) was implemented to determine optimal staffing with training in 2019 and a pilot programme involving nine primary health facilities across three provinces in 2021. Analysis of the WISN results identified duplication of responsibilities of health workers in primary health care settings and the need to improve number, skills and distribution of health workers on the basis of workload and geographical distribution. The findings called for improved task allocation, teamwork and skill mix within the health teams in the primary health care facilities. The findings from the pilot study (76) were disseminated in November 2021 along with the National Human Resources for Health Strategy. The Ministry of Health and Population, with WHO and partners, continues to roll out the WISN methodology for different health occupations and health facilities in order to support policy and actions.

## References

1. In danger: UNAIDS global AIDS update 2022. Geneva: Joint United Nations Programme on HIV/AIDS; 2022 (<https://www.unaids.org/en/resources/documents/2022/in-danger-global-aids-update>, accessed 8 April 2023).
2. AIDSinfo (online database) Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS (<https://aidsinfo.unaids.org/>, accessed 27 February 2023).
3. HIV/AIDS (Global Health Observatory online database). Geneva: World Health Organization; 2023 (<https://www.who.int/data/gho/data/themes/hiv-aids>, accessed 27 February 2023).
4. HIV sub-national estimates viewer. Geneva: Joint United Nations Programme on HIV/AIDS (<https://naomi-spectrum.unaids.org/>, accessed 8 April 2023).
5. Data for impact. Geneva: Joint United Nations Programme on HIV/AIDS ([https://www.unaids.org/sites/default/files/media\\_asset/how-UNAIDS-data-is-guiding-the-world-to-end-AIDS\\_en.pdf](https://www.unaids.org/sites/default/files/media_asset/how-UNAIDS-data-is-guiding-the-world-to-end-AIDS_en.pdf), accessed 21 April 2023).
6. Global Antimicrobial Resistance and Use Surveillance System (GLASS). (Online). Geneva: World Health Organization (<https://www.who.int/initiatives/glass>, accessed 13 March 2023).
7. United Nations. IAEG-SDGs 2020 Comprehensive review proposals submitted to the 51st session of the United Nations Statistical Commission for its consideration. 2020 (<https://unstats.un.org/sdgs/iaeg-sdgs/2020-comprev/UNSC-proposal/>, accessed 14 March 2023).
8. Global antimicrobial resistance and use surveillance system (GLASS) report: 2022. Geneva: World Health Organization; 2022 (<https://apps.who.int/iris/handle/10665/364996>, accessed 8 April 2023).
9. The WHO essential medicines list antibiotic book: improving antibiotic AWAreness (Draft for consultation). Geneva: World Health Organization; 2021 (<https://www.who.int/publications/m/item/the-who-essential-medicines-list-antibiotic-book-improving-antibiotic-awareness>, accessed 8 April 2023).
10. Global Antimicrobial Resistance and Use Surveillance System (GLASS). Global Health Observatory. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/topics/global-antimicrobial-resistance-surveillance-system-glass>, accessed 13 March 2023).
11. Global tuberculosis report 2022. Fact sheet. Geneva: World Health Organization; 2022 ([https://cdn.who.int/media/docs/default-source/hq-tuberculosis/global-tuberculosis-report-2022/global-tb-report-2022-factsheet.pdf?sfvrsn=88f8d76\\_8&download=true](https://cdn.who.int/media/docs/default-source/hq-tuberculosis/global-tuberculosis-report-2022/global-tb-report-2022-factsheet.pdf?sfvrsn=88f8d76_8&download=true), accessed 1 March 2023).
12. Global tuberculosis report 2022. Geneva: World Health Organization, 2022 (<https://apps.who.int/iris/handle/10665/363752>, accessed 1 March 2023).
13. WHO delivering results and making an impact: stories from the ground. Geneva: World Health Organization; 2022 (<https://apps.who.int/iris/handle/10665/365138>, accessed 24 March 2023).
14. Quick brief – Lessons from Zambia's TB situation room. Lusaka and Washington (DC): Ministry of Health of Zambia and The World Bank; 2023 (<https://thedocs.worldbank.org/en/doc/5db53831f10738b0724eb33a20d8a4490290062023/original/Zambia-TB-situation-room-lessons-quick-brief.pdf>, accessed 22 April 2023).
15. Low funding, COVID-19 curtail tuberculosis fight in Africa [News release]. Brazzaville: WHO Regional Office for Africa; 24 March 2022 (<https://www.afro.who.int/news/low-funding-covid-19-curtail-tuberculosis-fight-africa>, accessed 18 August 2022).
16. Global technical strategy for malaria 2016–2030, 2021 update. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/342995>, accessed 26 March 2013).
17. World malaria report 2022. Geneva: World Health Organization, 2022 (<https://apps.who.int/iris/handle/10665/365169>, accessed 6 March 2023).
18. Global health sector strategy on viral hepatitis 2016–2021. Towards ending viral hepatitis. Geneva: World Health Organization; 2016 (<https://apps.who.int/iris/handle/10665/246177>, accessed 7 March 2023).
19. Global health sector strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022–2030. Geneva: World Health Organization; 2022 (<https://apps.who.int/iris/handle/10665/360348>, accessed 7 March 2023).

20. Global progress report on HIV, viral hepatitis and sexually transmitted infections, 2021. Accountability for the global health sector strategies 2016–2021: actions for impact. Geneva: World Health Organization; June 2021 (<https://apps.who.int/iris/handle/10665/341412>, accessed 7 March 2023).
21. Hepatitis B surface antigen (HBsAg) prevalence among children under 5 years. Global Health Observatory data. Geneva: World Health Organization ([https://www.who.int/data/gho/data/indicators/indicator-details/GHO/hepatitis-b-surface-antigen-\(hbsag\)-prevalence-among-children-under-5-years](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/hepatitis-b-surface-antigen-(hbsag)-prevalence-among-children-under-5-years), accessed 7 March 2023).
22. Ending the neglect to attain the sustainable development goals: a road map for neglected tropical diseases 2021–2030. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/338565>, accessed 8 March 2023).
23. Global report on neglected tropical diseases 2023. Geneva: World Health Organization; 2023 (<https://apps.who.int/iris/handle/10665/365729>, accessed 8 March 2023).
24. Poliomyelitis (website). Geneva: World Health Organization; 2022 (<https://www.who.int/news-room/fact-sheets/detail/poliomyelitis>, accessed 8 March 2023).
25. Global Polio Eradication Initiative (website). Geneva: World Health Organization (<https://polioeradication.org/polio-today/polio-now/wild-poliovirus-list/>, accessed 8 March 2023).
26. Polio eradication strategy 2022–2026. Delivering on a promise. Geneva: World Health Organization on behalf of the Global Polio Eradication Initiative; 2021 (<https://apps.who.int/iris/handle/10665/345967>, accessed 26 March 2023).
27. Levels and trends in child malnutrition. UNICEF/WHO/World Bank Group Joint Child Malnutrition Estimates. New York (NY), Geneva and Washington (DC): United Nations Children’s Fund, World Health Organization and the World Bank Group; 2023 (<https://www.who.int/teams/nutrition-and-food-safety/monitoring-nutritional-status-and-food-safety-and-events/joint-child-malnutrition-estimates>, accessed 23 May 2023).
28. Global anaemia estimates, 2021 edition. Geneva: World Health Organization, 2021 ([https://www.who.int/data/gho/data/themes/topics/anaemia\\_in\\_women\\_and\\_children](https://www.who.int/data/gho/data/themes/topics/anaemia_in_women_and_children), accessed 5 April 2023).
29. Global health estimates 2019: deaths by cause, age, sex, by country and by region, 2000–2019. Global Health Observatory data. Geneva: World Health Organization; 2020 (<https://www.who.int/data/global-health-estimates>, accessed 3 April 2023).
30. The burden of road injuries [website]. Washington (DC): Pan American Health Organization; 2021 (<https://www.paho.org/en/enlace/burden-road-injuries>, accessed 20 July 2022).
31. National law of mobility and road safety. Government of Mexico, Chamber of Deputies (<https://www.diputados.gob.mx/LeyesBiblio/pdf/LGMSV.pdf>, accessed 3 April 2023).
32. Global plan for the decade of action for road safety 2021–2030. Geneva: World Health Organization; 2021 (<https://www.who.int/publications/m/item/global-plan-for-the-decade-of-action-for-road-safety-2021-2030>, accessed 22 April 2023).
33. Stöckl H, Devries K, Rotstein A, Abrahams N, Campbell J, Watts C et al. The global prevalence of intimate partner homicide: a systematic review. *Lancet*. 2013;382(9895):859–65.
34. Violence against women prevalence estimates, 2018. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/341337>, accessed 3 April 2023).
35. Global and regional estimates of violence against women: prevalence and health impacts of intimate partner violence and non-partner sexual violence. Geneva: World Health Organization; 2013 (<https://apps.who.int/iris/handle/10665/85239>, accessed 3 April 2023).
36. Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks. Geneva: World Health Organization; 2018 (<https://www.who.int/publications/i/item/9789241565196>, accessed 24 March 2023). The updated 2016 data tables for the WHO publication *Preventing disease through healthy environments*. Geneva: World Health Organization; 2019 are also available via the same link.
37. Progress on household drinking water, sanitation and hygiene 2000–2020: five years into the SDGs. Geneva: World Health Organization and the United Nations Children’s Fund; 2021 (<https://washdata.org/sites/default/files/2022-01/jmp-2021-wash-households-highlights.pdf>, accessed 7 February 2023).
38. Resolution WHA72.7. Water, sanitation and hygiene in health care facilities. In: Seventy-second World Health Assembly, 20–28 May 2019. Resolutions and decisions, annexes. Geneva: World Health Organization; 2019 ([https://apps.who.int/gb/ebwha/pdf\\_files/WHA72/A72\\_R7-en.pdf](https://apps.who.int/gb/ebwha/pdf_files/WHA72/A72_R7-en.pdf), accessed 2 March 2023).
39. Joint monitoring programme for water supply, sanitation and hygiene – global database [website]. Geneva: World Health Organization/United Nations Children’s Fund; 2023 (<https://washdata.org/monitoring/health-care-facilities>, accessed 2 March 2023).

40. National situation assessment of water, sanitation and hygiene (WASH) in health care facilities in Montenegro. Podgorica: Ministry of Health of Montenegro and Institute of Public Health of Montenegro (in preparation).
41. Progress on wastewater treatment – Global status and acceleration needs for SDG indicator 6.3.1. New York (NY) and Geneva: United Nations Human Settlements Programme and World Health Organization; 2021 (<https://www.unwater.org/publications/progress-wastewater-treatment-2021-update>, accessed 16 May 2023).
42. SDG indicators database. New York (NY): United Nations Department of Economic and Social Affairs (<https://unstats.un.org/sdgs/dataportal/database>, accessed 22 April 2023).
43. Public health and environment [online database]. Global Health Observatory data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/public-health-and-environment>, accessed 9 April 2023).
44. Official development assistance for the water sector (water supply and sanitation, agricultural water resources, and hydro-electric power plants), 2023. Creditor reporting system (CRS). Paris: Organization for Economic Co-operation and Development (<https://stats.oecd.org/Index.aspx?DataSetCode=crs1>, accessed 22 April 2023).
45. Strong systems and sound investments: evidence on and key insights into accelerating progress on sanitation, drinking-water and hygiene. The UN-Water global analysis and assessment of sanitation and drinking-water (GLAAS) 2022 report. Geneva: World Health Organization; 2022 (<https://apps.who.int/iris/handle/10665/365297>, accessed 22 April 2023).
46. WHO global air quality guidelines: particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide. Geneva, World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/345329>, accessed 24 March 2023).
47. The public health impacts of chemicals: knowns and unknowns: data addendum for 2019. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/342273>, accessed 22 April 2023).
48. Coverage of essential health services (SDG 3.8.1) [online database]. Global Health Observatory. Geneva: World Health Organization; 2023. (<https://www.who.int/data/gho/data/themes/topics/service-coverage>).
49. SDG 3.8.2 Catastrophic health spending (and related indicators) [online database]. Global Health Observatory. Geneva: World Health Organization; 2023. (<https://www.who.int/data/gho/data/themes/topics/financial-protection>).
50. Estimates and projections of family planning indicators 2022. New York (NY): United Nations Department of Economic and Social Affairs, Population Division; 2022 (<https://www.un.org/development/desa/pd/data/family-planning-indicators>, accessed 6 April 2023).
51. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organization; 2016 (<https://apps.who.int/iris/handle/10665/250796>, accessed 7 April 2023).
52. Maternal and reproductive health. Global Health Observatory data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/maternal-and-reproductive-health>, accessed 7 April 2023).
53. UNICEF/WHO joint database on births attended by skilled health personnel (<https://data.unicef.org/topic/maternal-health/delivery-care/>, accessed 7 April 2023).
54. WHO/UNICEF joint estimates of national immunization coverage (WUENIC), 2021 revision (<https://immunizationdata.who.int>, accessed 7 April 2023).
55. Perin J, Mulick A, Yeung D, Villavicencio F, Lopez G, Strong KL et al. Global, regional, and national causes of under-5 mortality in 2000–19: an updated systematic analysis with implications for the Sustainable Development Goals. *Lancet Child & Adolescent Health*. 2021;6(2):106–15 ([https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(21\)00311-4/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(21)00311-4/fulltext), accessed 7 April 2023).
56. Children aged < 5 years with pneumonia symptoms taken to a healthcare provider (%). Global Health Observatory data. Geneva: World Health Organization ([https://www.who.int/data/gho/data/indicators/indicator-details/GHO/children-aged-5-years-with-pneumonia-symptoms-taken-to-a-healthcare-provider\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/children-aged-5-years-with-pneumonia-symptoms-taken-to-a-healthcare-provider(-)), access 7 April 2023).
57. Tracking universal health coverage: 2021 global monitoring report. Geneva: World Health Organization and The World Bank; 2021 (<https://apps.who.int/iris/handle/10665/357607>, accessed 6 April 2023).
58. Analysis of Rwanda Demographic and Health Survey (DHS) 2019–2020.
59. Tracking universal health coverage in the WHO African Region, 2022. Brazzaville: World Health Organization Regional Office for Africa; 2022 (<https://www.afro.who.int/publications/tracking-universal-health-coverage-who-african-region-2022>, accessed 6 May 2023).
60. NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in hypertension prevalence and progress in treatment and control from 1990 to 2019: a pooled analysis of 1201 population-representative studies with 104 million participants. *Lancet*. 2021;398(10304):957–80.

61. Assessing national capacity for the prevention and control of noncommunicable diseases: report of the 2019 global survey. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/331452>, accessed 7 April 2023).
62. Global health estimates 2019: disease burden by cause, age, sex, by country and by region, 2000–2019. Geneva, World Health Organization; 2020 (<https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates>, accessed 22 April 2023).
63. Mental health atlas 2020. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/345946>, accessed 22 April 2023).
64. Moitra M, Santomauro D, Collins PY, Vos T, Whiteford H, Saxena S et al. The global gap in treatment coverage for major depressive disorder in 84 countries from 2000–2019: a systematic review and Bayesian meta-regression analysis. *PLoS Med*. 2022;19(2):e1003901. doi:10.1371/journal.pmed.1003901.
65. Stelmach R, Kocher EL, Kataria I, Jackson-Morris AM, Saxena S, Nugent R. The global return on investment from preventing and treating adolescent mental disorders and suicide: a modelling study. *BMJ Glob Health*. 2022;7e007759. doi:10.1136/bmjgh-2021-007759.
66. Mekonen T, Chan GCK, Connor J, Hall W, Hides L, Leung J. Treatment rates for alcohol use disorders: a systematic review and meta-analysis. *Addiction*. 2021;116(10):2617–34. doi:10.1111/add.15357.
67. World drug report 2021. Vienna: United Nations Office on Drugs and Crime; 2021 (<https://www.unodc.org/unodc/en/data-and-analysis/wdr2021.html>, accessed 22 April 2023).
68. Degenhardt L, Glantz M, Evans-Lacko S, Sadikova E, Sampson N, Thornicroft G et al. Estimating treatment coverage for people with substance use disorders: an analysis of data from the World Mental Health Surveys. *World Psychiatry*. 2017;16(3):299–307. doi: 10.1002/wps.20457.
69. Feigin VL, Vos T, Nichols E, Owolabi MO, Carroll WM, Dichgans M, et al. The global burden of neurological disorders: translating evidence into policy. *Lancet Neurol*. 2020 Mar;19(3):255–265. doi: 10.1016/S1474-4422(19)30411-9.
70. Epilepsy: a public health imperative. Geneva: World Health Organization; 2019 (<https://apps.who.int/iris/handle/10665/325293>, accessed 27 April 2023).
71. Global status report on the public health response to dementia. Geneva, World Health Organization; 2021. (<https://apps.who.int/iris/handle/10665/344701>, accessed 25 April 2023).
72. Health and care workers: Protect. Invest. Together. Technical brief. Geneva: World Health Organization; 2023 (<https://www.who.int/publications/m/item/health-and-care-workers--protect-invest-together>, accessed 7 April 2023).
73. Boniol M, Kunjumen T, Savasian Nair T, Siyam A, Campbell J, Diallo K. The global health workforce stock and distribution in 2020 and 2030: a threat to equity and 'universal' health coverage? *BMJ Glob Health*. 2022;7(6):e009316 (<https://pubmed.ncbi.nlm.nih.gov/35760437/>, accessed 22 April 2023).
74. National health workforce accounts (NHWA) data portal, December 2022 update. Geneva: World Health Organization (<https://apps.who.int/nhwportal/>, accessed 23 March 2023).
75. Workload Indicators of Staffing Need (WISN). Geneva: World Health Organization; 2010 (<https://apps.who.int/iris/handle/10665/44414>, accessed 7 April 2023).
76. Using Workload Indicators of Staffing Need (WISN) in selected primary health care facilities in Nepal. Final report. Kathmandu: Ministry of Health and Population and Office of the WHO Representative; 2021.
77. Data collected with a) the Essential medicines and health products price and availability monitoring mobile application (WHO EMP MedMon). Geneva: World Health Organization (<https://www.who.int/medicines/areas/policy/monitoring/empmedmon/en/>, accessed 7 April 2023) and b) Medicine prices, availability, affordability & price components database. Amsterdam: Health Action International/WHO (<https://haiweb.org/what-we-do/price-availability-affordability/price-availability-data/>, accessed 7 April 2023).
78. Access to NCD medicines: emergent issues during the COVID-19 pandemic and key structural factors; Geneva: World Health Organization; 2023 (<https://apps.who.int/iris/handle/10665/366528>, accessed 7 April 2023).
79. Electronic State Parties Self-Assessment Annual Reporting Tool (e-SPAR). Geneva: World Health Organization; 2023 (<https://extranet.who.int/e-spar>, accessed 7 April 2023).





03.

**Building on past achievements to prepare for the next stage of global health**

## 3.1 Improvements in overall population health over the last seven decades

Since the foundation of WHO in 1948, the world has experienced countless public health challenges that threatened our health and well-being. However, numerous obstacles have been dismantled and remarkable advancements made in medical science, health care and overall population health.

Notably, global life expectancy at birth increased from 46.5 years in 1950 to approximately 73.0 years in 2019 and, despite the setback caused by the COVID-19 pandemic, it is projected to reach 77.0 years by WHO's 100th anniversary in 2048 (1,2).<sup>1</sup> WHO regions such as Eastern Mediterranean, South-East Asia and Western Pacific – where resources were scarcer and life expectancy was relatively lower in 1950 – have observed the greatest gains, seeing increases in life expectancy of over 30 years between 1950 and 2019. However, progress was slower in WHO's African Region, which had the second lowest life expectancy at 37.6 years in 1950 but became the region with the lowest life expectancy in 2019 at under 65 years. Nonetheless, the absolute gain in Africa was still greater than that in the Americas where life expectancy increased from 56.0 years in 1950 by about 21 years to 77.2 years in 2019. In contrast, Europe had the highest life expectancy at birth (61.3 years) in 1950 and made the most modest gain of about 17 years by 2019.

Notwithstanding the diverse progress across regions over the past seven decades, projected increases in life expectancy by 2048 are of similar magnitude with all regions expected to gain 4–6 years. The Western Pacific Region is projected to attain the highest life expectancy (82.4 years) at birth by WHO's 100th anniversary, whereas Africa is projected to remain the most

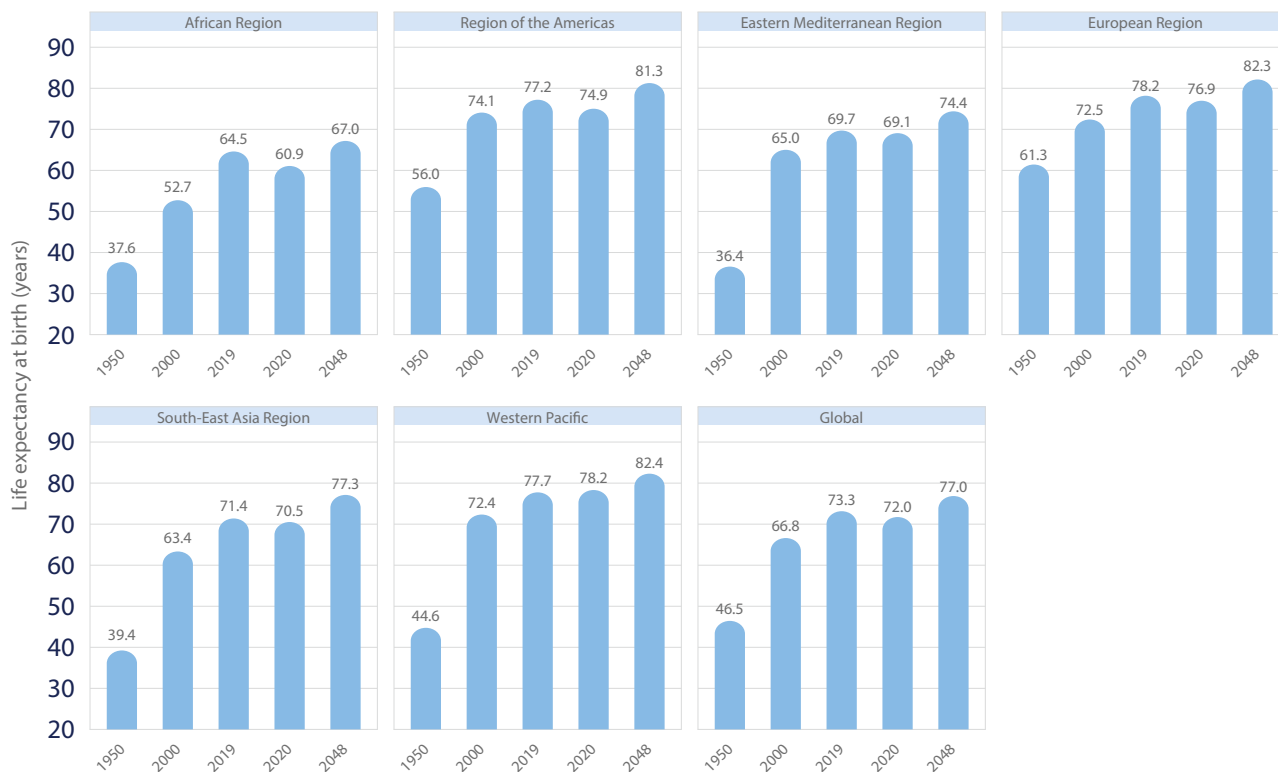
disadvantaged region where the newborns in 2048 are expected to live 15 fewer years on average than their counterparts in Western Pacific (Figure 3.1).

The observed and anticipated improvements in life expectancy at birth are in parallel with improvements in survival to older ages. Globally, a newborn in 1950 had only a 46% chance of surviving to 60 years. The inequality across regions was markedly pronounced (Figure 3.2): while the probability of a newborn surviving to 60 years of age in Europe in 1950 was nearly 70%, the probability in the African, Eastern Mediterranean and South-East Asia regions was only half of that in Europe. Since then, however, tremendous progress has been observed in almost all regions. The probability of survival to 60 years has doubled or nearly doubled – except in the Americas and Europe – where the probability was already at nearly 60% and 70% respectively in 1950 and reached 87% and 89% respectively in 2019. In particular, with only a 41% probability of surviving to 60 years in 1950, the Western Pacific Region reached the highest survival probability (90%) of all regions by 2019. In the African Region, which has continued to have the lowest survival rate, the probability of dying before reaching 60 years of age was still more than one-third in 2019 and is projected to remain slightly above one quarter by 2048. In contrast, over 90% of the newborns in 2048 in the Americas, European and Western Pacific regions will have the chance to celebrate their 60<sup>th</sup> birthday, while in the Eastern Mediterranean and South-East Asia regions the probability is only slightly lower (both over 85%).

<sup>1</sup> Unless otherwise noted, data on life expectancy, causes of death and burden of disease in this section are derived from the Global Health Estimates 2000–2019 (GHE2019) and World population prospects: 2022 revision (WPP2022). Given the overall good comparability of the two datasets at global and regional levels, the estimates from GHE2019 are used where possible and those from WPP2022 are used in supplement to enable trend analysis for historical (1950–1999) and future years (2020–2048) that are not covered in GHE2019.

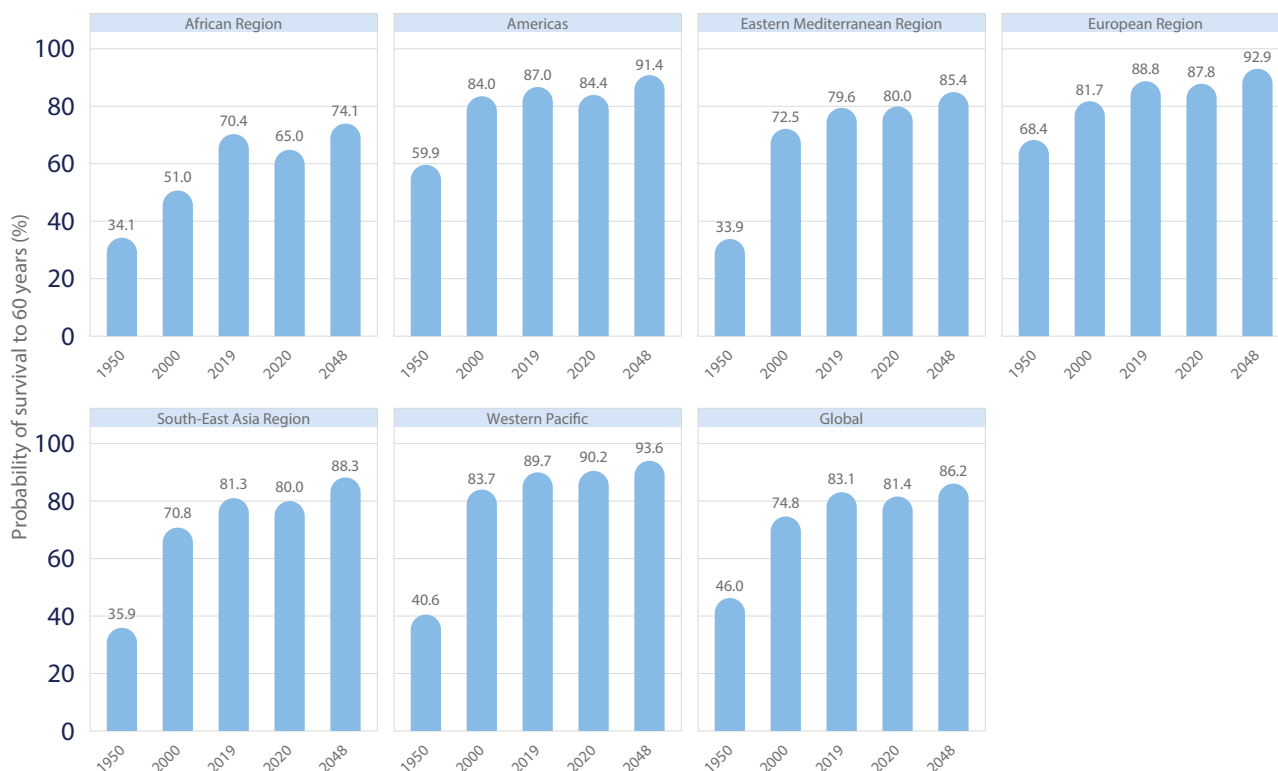


**Figure 3.1** Life expectancy at birth, WHO regions and global, 1950–2048



Sources: Ref. (1) and (2)

**Figure 3.2** Probability of survival to 60 years of age, WHO regions and global, 1950–2048



Sources: Ref. (1) and (2)

## 3.2 Rapid epidemiological transitions shifting disease burdens in recent decades

Progress in survival reflects well the rapid epidemiological transition that has taken place in the last century across the world. The transition is characterized by the shifting burden of diseases, from high child mortality and deaths due to infectious diseases to high prevalence of chronic NCDs. As shown by WHO's *Global health estimates 2019*, a marked shift has occurred in the two decades since 2000 alone. In 2000, 61% of the global deaths were from NCDs while another 31% were from communicable, maternal, perinatal and nutritional conditions (i.e. the communicable group). The corresponding proportions changed to 18% and 74%, respectively, in 2019, with the percentage gains in NCD deaths nearly equal to the loss in the communicable group while the proportions of death attributed to injuries remained roughly constant at approximately 8% (3).

Similar shifting trends were observed in all regions, although the compositions at baseline in 2000 and at the level in 2019 vary across the world. The Americas, Western Pacific and European regions had already achieved a low percentage of deaths from the communicable group in 2000 (at 13%, 12% and 6%, respectively) and a high percentage of NCD deaths (at 77%, 79% and 87% respectively). There were relatively small changes in the proportion of deaths from injuries, and declining proportions of deaths in the communicable group resulted in most of the increase in the proportion of NCD deaths. By 2019, the proportion of deaths due to NCDs reached,

respectively, 81%, 87%, and 90% in the Americas, Western Pacific and European regions. However, in 2000, deaths from the communicable group causes were still responsible for majority (68%) of all deaths in Africa, and a considerably large portion of death in the Eastern Mediterranean (40%) and South-East Asia (44%) regions. On the other hand, only 24%, 52% and 47% of all deaths were due to NCDs, respectively, in these regions. South-East Asia has experienced the fastest transition in 2000-2019, with proportion of deaths from the communicable group falling by half (or 22%), consequently NCDs accounted for 69% of all deaths in 2019. Eastern Mediterranean and Africa regions are the only regions where increase in the share of deaths due to injuries (1% and 2%, respectively) were observed. Accordingly, the over 15% drop in the proportions of deaths from communicable group in both regions only translated to, 14% and 13% increases in the share of NCD deaths, reaching 66% and 38%, respectively.

## 3.3 Driving factors for the transition and WHO's contribution

The epidemiological transition is multifaceted and was driven by many interrelated factors. The shifting in burden of diseases is partly due to demographic changes. Improved survival together with declining fertility rates resulted in a population with a higher proportion of older adults who have an elevated risk of developing NCDs.

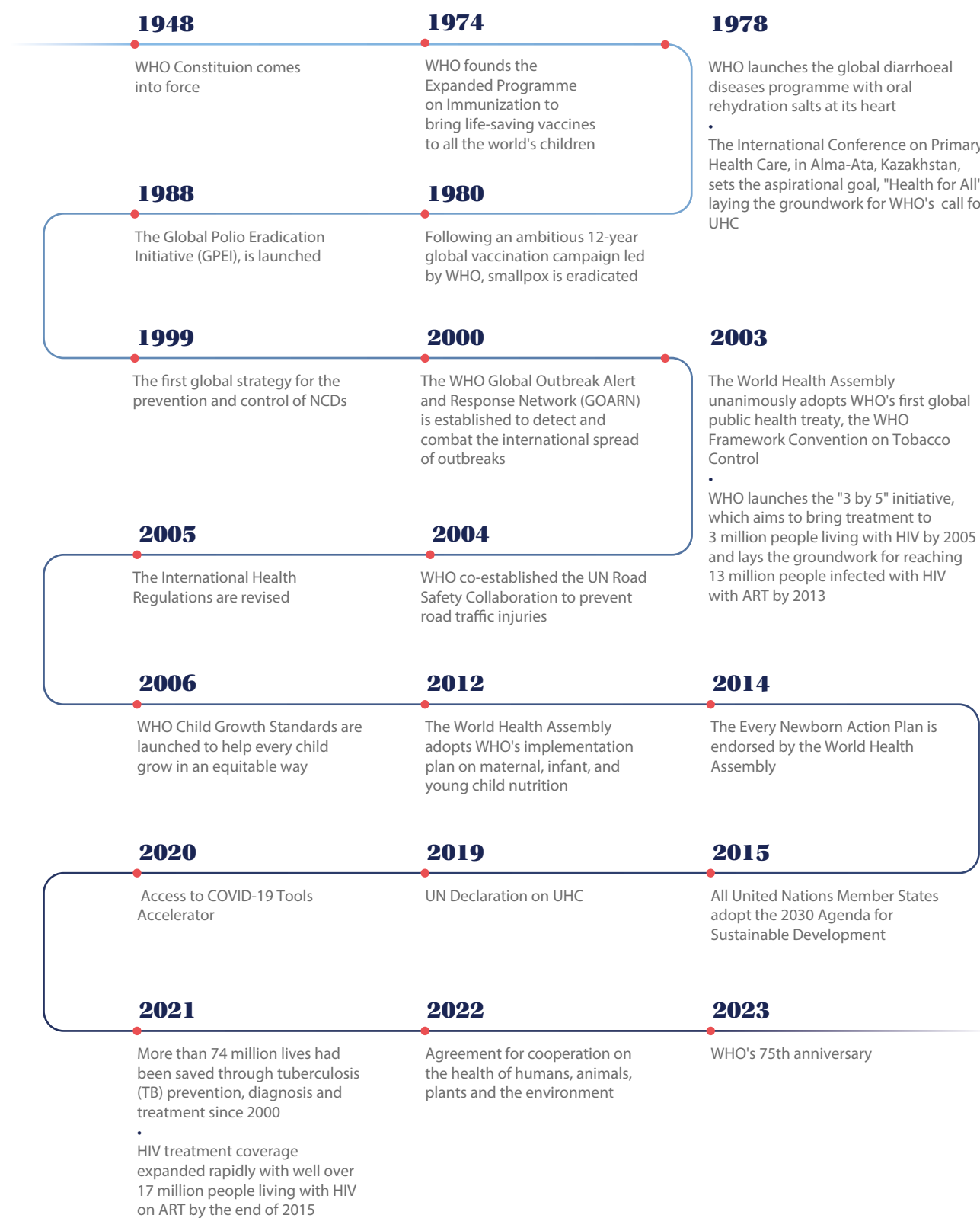
Changes in health determinants, including risk factors, also played a major role. Thanks to improved hygiene and sanitation in many parts of the world, the prevalence and virulence of many pathogenic organisms have been reduced and the pathogens are consequently less likely to result in infectious, especially severe, outcomes. In addition, due to economic, social and cultural factors, there have been significant changes in the profiles of risk factors – including behaviour-related factors such as smoking, harmful alcohol use, physical activities and diet, metabolic-related factors such as obesity and hypertension, and environment-related factors such as air pollution, water

and sanitation. These are discussed at length in other chapters of this report and, along with demographic changes, have led to the diverse patterns of changes in NCD outcomes.

Also important are advancements in medical science and developments in cost-effective policy interventions. For example, the discovery of antibiotics and WHO's advice to countries on their responsive use since the 1950s have saved hundreds of millions of lives. Similarly, the emergence of many vaccines and mass global vaccination campaigns have led to some of the greatest public health successes, including eradication of smallpox and near eradication of polio, as well as avoiding 3.5–5 million deaths from diseases such as diphtheria, tetanus, whooping cough, influenza and measles (4).

Since its establishment, WHO has spearheaded many programmes and global action plans that have contributed greatly to improved population health. (Figure 3.3) (5).

**Figure 3.3** Seventy-five years of improving public health, 1948–2023



Source: Ref. (5)

As the world moves towards achieving the SDG targets by 2030, WHO has redoubled its commitment to the “Health for All” goal adopted in Alma-Ata in 1978 and the Political Declaration of the High-level Meeting on UHC. The Organization is working closely with countries to orient their health systems towards people-centred, resilient and sustainable primary health care. Acceleration towards UHC is an integral pillar of the Triple Billion strategic priorities outlined in GPW 13: 1 billion more people benefitting from UHC; 1 billion more people better protected from health emergencies; 1 billion more people enjoying better health and well-being. These form a comprehensive framework to uphold the right to health, promote social justice, empower individuals and communities and address the determinants of human health. In 2022 WHO co-signed a ground-breaking agreement with several international agencies to strengthen cooperation in order to balance and optimize the health of humans, animals, plants and the ecosystem using a sustainable, integrated and coordinated approach. The framework reinforces national and regional health systems and services and contributes to global health security (5).

Working closely with Member States and other partners, WHO has seen many remarkable milestones achieved during its 75 years of existence. Smallpox was eradicated in 1980 after an ambitious 12-year global vaccination campaign led by WHO. By 2023, five of the six WHO Regions were certified free of wild poliovirus and two of the three wild poliovirus strains have been globally eradicated (6). HIV treatment coverage has expanded rapidly with over 28.7 million people living with HIV on ART by the end of 2021 – up from 7.8 million in 2010 (7). More than 74 million lives have been saved through TB prevention, diagnosis and treatment since 2000 (8), 42 countries have eliminated malaria (9) and 47 countries have eliminated at least one NTD (10). Moreover, in the past two decades, tobacco use has dropped by a third (11), maternal mortality has fallen by a third and child mortality has halved (12,13).

## 3.4 Implications for the next stage of global health

If past trends continue to WHO's 100th anniversary, by 2048 about 86% of global deaths will be attributed to NCDs, and the communicable group and injuries will each account for about 6% of all deaths. In particular, the Region of the Americas and the Western Pacific and European regions are each expected to see NCDs accounting for over 90% of all deaths by 2048, while causes from the communicable group will be responsible for below 3% of all deaths. As deaths due to communicable causes fall to below 10%, NCDs are expected to cause over 80% of all deaths in the South-East Asia and Eastern Mediterranean regions. The African Region is foreseen to be still falling behind with causes from the communicable group expected to account for 28% of all deaths in that region in 2048, while only 61% of all deaths are expected to be caused by NCDs (Figure 3.4) (3).

As a result of population growth and population ageing, the total number of annual deaths will grow dramatically in the decades ahead. According to United Nations projections, total annual global deaths will reach nearly 90 million in 2048 (2). WHO projects that 77 million of these will be NCD deaths, representing a nearly 90% increase in absolute numbers over 2019. The relative size of increase in the number of NCD deaths between 2019 and 2048 will range from under 30% in Europe to over 210% in Africa. The projected total number of NCD deaths will be highest in the Western Pacific Region, causing nearly 21 million deaths annually by 2048 (3).

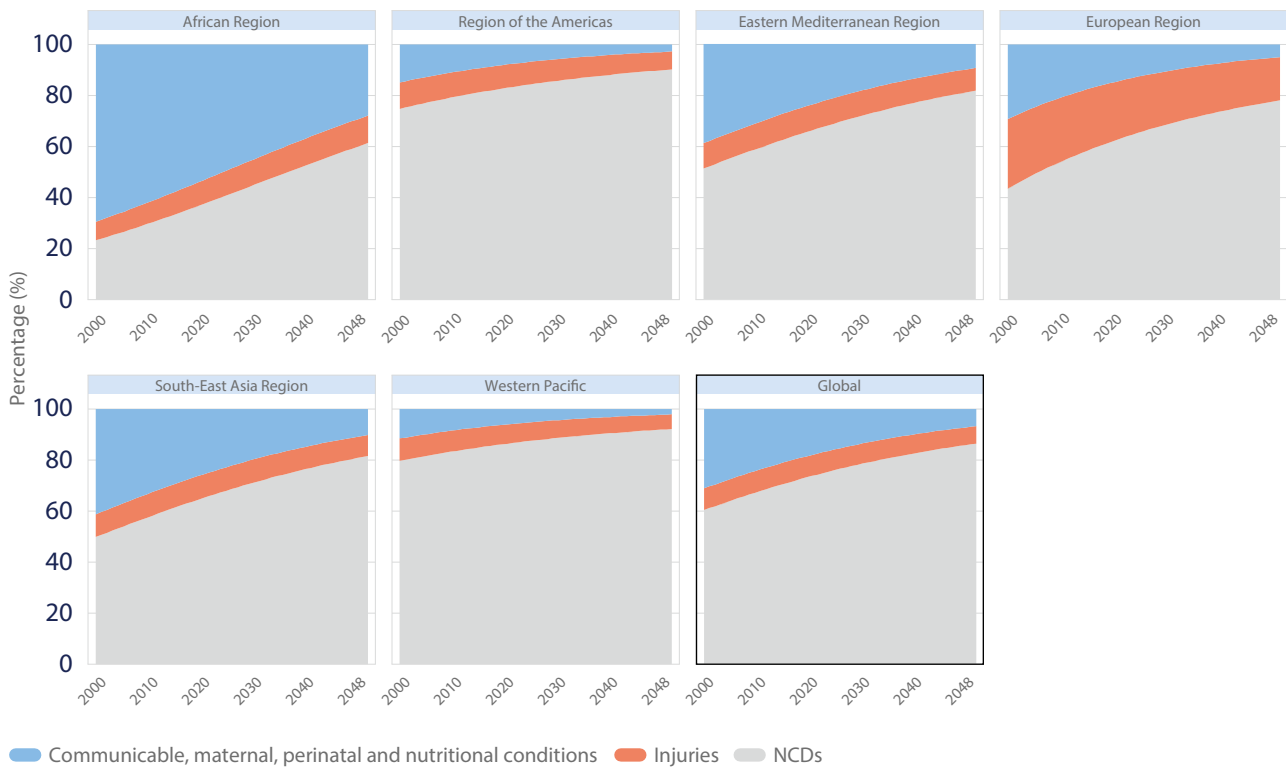
In spite of the expected decline in NCD mortality rates in many parts of the world, both the projected percentage increase and the absolute mortality burden of NCDs are daunting. It is imperative that we are prepared for the consequences of the epidemiological transition and demographic changes that will manifest in the next few decades. The world needs to double down on efforts to go beyond traditional public health measures and to address NCDs, their underlying risk factors

and their treatment through a multisectoral approach in order to prevent and control the diseases that will become more prominent causes of death worldwide in the years to come.

Mortality is only part of the picture of population health. As survival continues to improve across nearly all causes of deaths, non-fatal outcomes become more prevalent. People whose deaths have been averted are prone to spend part of their surviving years in less than full-health. Accordingly, it is critical to consider the impact of both mortality and morbidity. Looking at disability-adjusted life-years (DALYs) – a summary measure that accounts for the total number of years lost due to premature deaths and disability – the temporal trends and geographical patterns are similar to those for mortality. However, given that causes in the communicable group continue to contribute to life-year loss through disability despite their declining contribution to premature deaths, the shares of DALYs due to NCDs are lower than the share of all deaths due to NCDs (Figure 3.5) (14).

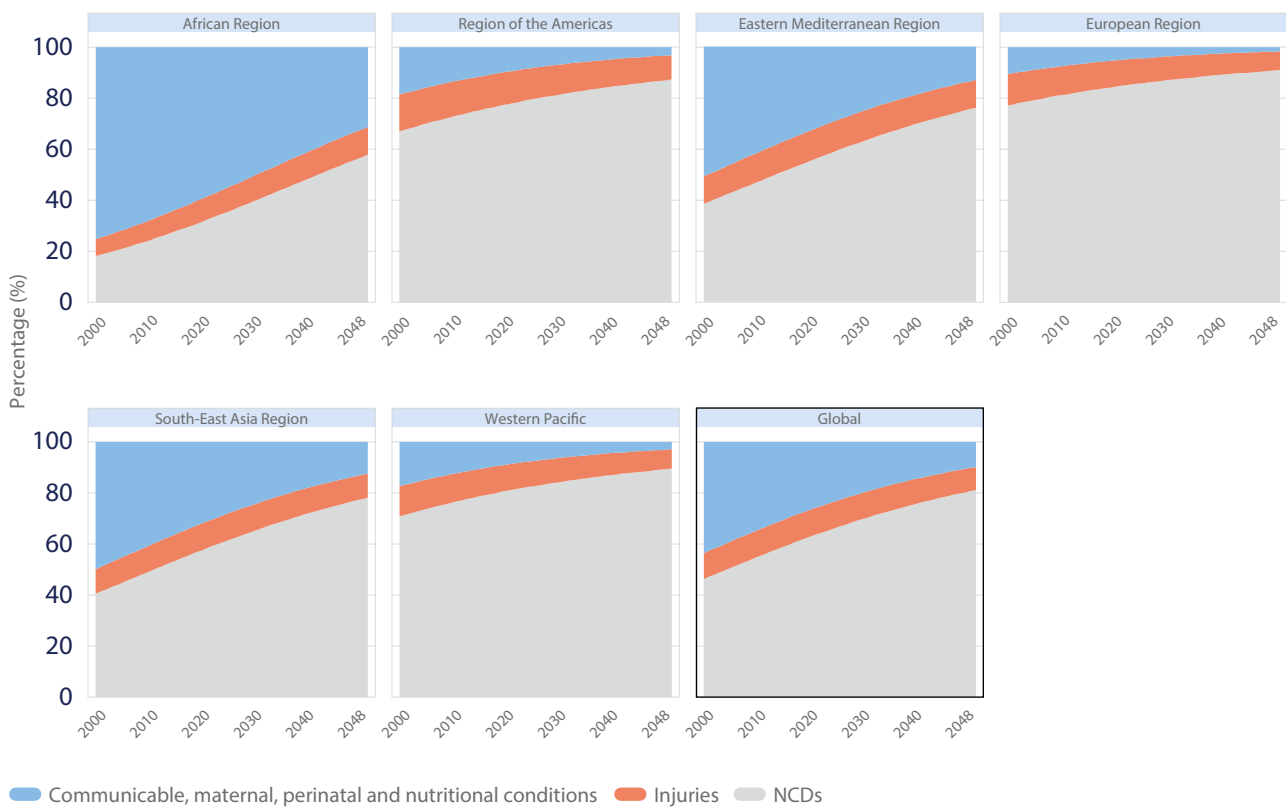
It is also noteworthy that disability is indeed responsible for a considerable number of years lost. Some primarily non-fatal causes, such as back and neck pains, are already among the highest ranked causes of DALYs (e.g. fifth ranking cause in the European Region). Also, while some communicable diseases such as HIV have fallen out of the top 10 contributors to DALYs, some NCDs and injuries – including diabetes – have remained or rapidly moved up in ranking to take a place in the top 10. In the Region of the Americas in particular, diabetes has surpassed stroke to become the second ranked contributor to DALYs while interpersonal violence has continued to be among the top five contributors since 2000 (14). Thus, it is critical to have a comprehensive view of current and future disease burdens in order to have better targeted and more effective policy formulation.

**Figure 3.4** Composition of causes of death, WHO regions and global, 2000–2048



Source: Ref. (3)

**Figure 3.5** Composition of causes of DALYs, WHO regions and global, 2000–2048



Source: Ref. (14)

Despite the progress and achievements in public health, inequalities persist. The most vulnerable populations continue to face an elevated risk of dying and disablement from avoidable communicable, maternal, perinatal and malnutrition conditions, as well as injuries that are well prevented and controlled in higher-resourced settings. Along with these existing challenges, the emerging NCD pandemic associated with unhealthy lifestyles, environmental hazards and an ageing population creates a double burden of diseases in these populations.

Additionally, progress in combating some major causes of illness and premature deaths have stalled in recent years. For example, the declining trends in maternal and child mortality, premature mortality from NCDs, preventable deaths from injury, and prevalence of major risk factors, have markedly slowed since 2015. Similarly, the expansion in access to essential health services has slowed compared to pre-2015 gains, and there has been no significant progress in reducing financial hardship. (See chapters 1 and 2).

The COVID-19 pandemic is a reality check, reminding us that infectious diseases can emerge or re-emerge to cause harm potentially to everyone regardless their location, age, sex, ethnicity and socioeconomic status. There are other emerging pathogens, including Ebola and Zika, and infections that were previously under control may surge as a result of AMR, setting back medical progress made in last century. Furthermore, climate change continues to degrade the environmental and social determinants of physical and mental health, posing enormous risks to health. These very real threats at global level show the pressing need for continued monitoring, enhanced awareness, cost-effective prevention and treatment strategies, and further development in medical sciences. Only with these can we secure the hard-won progress we have collaboratively made since the establishment of WHO 75 years ago.

This report documents successes and challenges in various aspects of public health, with a focus on the SDG indicators and the trends observed over the last few decades. The data and statistics presented in the annexes are fundamental elements for laying out a strategic roadmap to sustain and accelerate progress to meeting the SDG targets and to further fulfilling WHO's commitment to promoting the highest standard of health for all in the years to come.

If we are to track – accurately and continuously – population health (including burden of disease and risk factors), health system resources and outcomes, and the impact of global health events (both past and present), we must have timely and reliable data. The COVID-19 pandemic has highlighted the crucial need for robust and flexible health information systems. Yet despite progress in recent years, such systems are still insufficiently resourced in many countries and critical data are still lacking. In addition, the unfolding climate change crisis necessitates a strong and integrated monitoring system across different sectors. We must take urgent action to anticipate and respond to health challenges at global, regional, national and local levels – especially in order to protect vulnerable population groups. It is critical to have timely, reliable, and disaggregated data, estimates and forecasts to inform policy and actions at all levels to maximize health gains and eliminate inequalities. Concerted efforts championed by countries, WHO and partners to promote, provide and protect health for all in the years leading up to the end of the SDG era in 2030 will build a solid foundation for healthier populations around the globe in the decades to come.



## References

1. Global health estimates 2019: Life expectancy, 2000–2019. Geneva: World Health Organization; 2020 (<https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/>, accessed 2 May 2022). WHO Member States with a population of less than 90 000 in 2019 were not included in the analysis.
2. World population prospects: 2022 revision. New York (NY): United Nations, Department of Economic and Social Affairs, Population Division; 2022 (<https://population.un.org/wpp/>, accessed 22 April 2023).
3. Estimates and projections based on Global health estimates 2019: deaths by cause, age, sex, by country and by region, 2000–2019. Geneva: World Health Organization; 2020 (<https://www.who.int/data/global-health-estimates>, accessed 3 April 2023).
4. Vaccines and immunization. (Online). Geneva: World Health Organization (<https://www.who.int/health-topics/vaccines-and-immunization>, accessed 22 April 2023).
5. Public health milestones through the years. (Online). Geneva: World Health Organization (<https://www.who.int/campaigns/75-years-of-improving-public-health/milestones#year-1945>, accessed 22 April 2023).
6. Polio Global Eradication Initiative. (Online) (<https://polioeradication.org/>, accessed 22 April 2023).
7. Global HIV & AIDS statistics – Fact sheet. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS) (<https://www.unaids.org/en/resources/fact-sheet>, accessed 22 April 2023).
8. Global tuberculosis report 2022. Geneva: World Health Organization; 2022 (<https://apps.who.int/iris/handle/10665/363752>, accessed 22 April 2023).
9. World malaria report 2022. Geneva: World Health Organization; 2022 (<https://apps.who.int/iris/handle/10665/365169>, accessed 22 April 2023).
10. Global report on neglected tropical diseases 2023. Geneva: World Health Organization; 2023 (<https://apps.who.int/iris/handle/10665/365729>, accessed 22 April 2023).
11. WHO global report on trends in prevalence of tobacco use 2000–2025, fourth edition. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/348537>, accessed 22 April 2023).
12. Levels and trends in child mortality. Report 2022. Estimates developed by the UN Inter-agency Group for Child Mortality Estimation. United Nations Children’s Fund, World Health Organization, World Bank Group and United Nations Population Division. New York: United Nations Children’s Fund; 2023 (<https://data.unicef.org/resources/levels-and-trends-in-child-mortality/>, accessed 30 April 2023).
13. Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: World Health Organization; 2023 (<https://apps.who.int/iris/handle/10665/366225>, accessed 22 April 2023).
14. Estimates and projections based on Global Health Estimates 2019: disease burden by cause, age, sex, by country and by region, 2000–2019. Geneva, World Health Organization; 2020 (<https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates>, accessed 22 April 2023).



# Annex 1. Country, area, WHO region and global health statistics

## Explanatory notes

The statistics shown below are official WHO statistics for selected health-related SDG indicators and selected Thirteenth General Programme of Work indicators, based on data available in early 2023. In addition, summary measures of health, such as (healthy) life expectancy and total population, are included. These statistics have been compiled primarily from publications and databases produced and maintained by WHO, United Nations bodies of which WHO is a member, or other international organizations. In each instance, the source of the data series is provided.

The type of data used for each data series (comparable estimate or primary data) is also provided. Primary data are typically compiled from routine reporting or from publicly available sources such as Demographic and Health Surveys. Statistics are presented as they are reported or with minimal adjustment. Comparable estimates are achieved by adjusting or modelling country data to allow comparisons across countries and over time. Comparable estimates for the same reference years are produced for countries with underlying primary data and, in some cases, also for those without.<sup>1</sup> Comparable estimates are subject to considerable uncertainty, especially for countries where the availability and quality of the underlying primary data are limited. Uncertainty intervals and other details on the indicators and statistics presented here can be found online at the WHO Global Health Observatory.<sup>2</sup>

Although every effort has been made to maximize the comparability of statistics across countries and over time, data series based on primary data may differ in terms of the definitions, data collection methods, population coverage and estimation methods used. For indicators with a reference period

expressed as a range, country values refer to the latest available year in the range unless otherwise noted; the accompanying footnotes provide more details. In some cases, in the absence of a recent set of data for a specific SDG or General Programme of Work indicator, a proxy indicator is presented in this annex; where this is the case, proxy indicators have been clearly indicated as such in accompanying footnotes.

Unless otherwise stated, the WHO regional and global aggregates for rates and ratios are presented as weighted averages when relevant, whereas they are the sums for absolute numbers. Aggregates are shown only if data are available for at least 50% of the population (or other denominator) within an indicated group, unless otherwise noted. For indicators with a reference period expressed as a range, aggregates are for the reference period shown in the heading of the corresponding table column above the WHO regional values. Some WHO regional and global aggregates may include country estimates that are not individually reported.

Changes in the values shown for indicators reported in previous editions of WHO's *World health statistics* series should not be assumed to be accurate reflections of underlying trends. This applies to all data types (comparable estimates and primary data) and all reporting levels (country, regional and global). The data presented here may also differ from, and should not be regarded as, the official national statistics of individual countries or areas.

The notation “–” indicates that data are not applicable or not available.

<sup>1</sup> For more information, see: World health statistics 2018: monitoring health for the SDGs. Geneva: World Health Organization; 2018 (<https://apps.who.int/iris/bitstream/handle/10665/272596/9789241565585-eng.pdf>, accessed 6 May 2022).

<sup>2</sup> The Global Health Observatory (GHO) is a WHO online portal that provides access to data and analyses for monitoring the global health situation (<https://www.who.int/data/gho>, accessed 13 May 2022).

Table 1. Annex 1-1

	Total population <sup>a</sup> (000s)			Life expectancy at birth <sup>b</sup> (years)			Healthy life expectancy at birth <sup>b</sup> (years)		
Data type	Comparable estimates			Comparable estimates			Comparable estimates		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
Countries and areas	2021			2019			2019		
Afghanistan	20 255	19 845	40 099	63.3	63.2	63.2	54.7	53.2	53.9
Albania	1 426	1 429	2 855	76.3	79.9	78.0	68.0	70.3	69.1
Algeria	22 497	21 681	44 178	76.2	78.1	77.1	66.7	66.1	66.4
Andorra	-	-	79	-	-	-	-	-	-
Angola	17 051	17 452	34 504	60.7	65.5	63.1	53.6	56.2	54.8
Antigua and Barbuda	45	49	93	74.9	78.0	76.5	66.2	67.7	67.0
Argentina	22 415	22 862	45 277	73.5	79.5	76.6	65.4	68.8	67.1
Armenia	1 256	1 534	2 791	72.5	79.2	76.0	64.9	69.1	67.1
Australia	12 868	13 053	25 921	81.3	84.8	83.0	70.2	71.7	70.9
Austria	4 391	4 531	8 922	79.4	83.8	81.6	69.9	71.9	70.9
Azerbaijan	5 089	5 224	10 313	68.8	74.1	71.4	62.1	65.2	63.6
Bahamas	195	213	408	69.9	76.6	73.2	62.3	66.5	64.4
Bahrain	909	555	1 463	75.0	77.0	75.8	66.0	65.5	65.9
Bangladesh	83 998	85 358	169 356	73.0	75.6	74.3	64.2	64.4	64.3
Barbados	135	146	281	74.3	77.7	76.0	66.2	67.7	67.0
Belarus	4 415	5 163	9 578	69.7	79.6	74.8	62.3	69.4	66.0
Belgium	5 735	5 877	11 611	79.3	83.5	81.4	69.8	71.3	70.6
Belize	201	199	400	71.4	77.8	74.4	63.5	67.3	65.3
Benin	6 510	6 487	12 997	61.2	65.7	63.4	54.5	56.6	55.5
Bhutan	412	366	777	72.0	74.4	73.1	63.2	63.5	63.4
Bolivia (Plurinational State of)	6 059	6 021	12 079	71.1	73.1	72.1	63.2	63.3	63.3
Bosnia and Herzegovina	1 610	1 661	3 271	74.4	79.1	76.8	65.7	68.7	67.2
Botswana	1 278	1 311	2 588	58.9	65.5	62.2	51.9	55.8	53.9
Brazil	105 291	109 035	214 326	72.4	79.4	75.9	63.4	67.4	65.4
Brunei Darussalam	230	215	445	73.4	75.4	74.3	65.2	66.1	65.6
Bulgaria	3 339	3 547	6 886	71.6	78.6	75.1	63.9	68.7	66.3
Burkina Faso	11 011	11 090	22 101	60.1	65.2	62.7	53.4	56.3	54.9
Burundi	6 232	6 319	12 551	61.5	66.1	63.8	54.0	57.2	55.6
Cabo Verde	292	296	588	69.9	77.9	74.0	62.2	67.2	64.8
Cambodia	8 212	8 377	16 589	67.2	72.7	70.1	59.8	63.0	61.5
Cameroon	13 564	13 634	27 199	60.3	64.5	62.4	53.5	55.6	54.5
Canada	18 960	19 195	38 155	80.4	84.1	82.2	70.5	72.0	71.3
Central African Republic	2 728	2 729	5 457	50.2	56.3	53.1	44.5	48.4	46.4
Chad	8 624	8 556	17 180	58.0	61.3	59.6	51.3	52.8	52.0
Chile	9 675	9 818	19 493	78.1	83.2	80.7	69.0	71.1	70.0
China	728 050	697 843	1 425 894	74.7	80.5	77.4	67.2	70.0	68.5
China, Hong Kong SAR	3 457	4 038	7 495	-	-	-	-	-	-
China, Macao SAR	322	364	687	-	-	-	-	-	-
Colombia	25 415	26 101	51 517	76.7	81.9	79.3	67.4	70.5	69.0
Comoros	413	409	822	65.9	68.9	67.4	58.3	59.6	58.9
Congo	2 914	2 921	5 836	63.8	65.6	64.7	56.4	56.1	56.2
Cook Islands	-	-	17	-	-	-	-	-	-
Costa Rica	2 579	2 575	5 154	78.3	83.4	80.8	68.6	71.3	70.0
Côte d'Ivoire	13 878	13 601	27 478	60.5	65.8	62.9	53.4	56.5	54.8
Croatia	1 977	2 083	4 060	75.5	81.6	78.6	66.7	70.5	68.6
Cuba	5 589	5 667	11 256	75.4	80.3	77.8	66.6	69.2	67.8
Cyprus	623	621	1 244	81.1	85.1	83.1	71.8	73.0	72.4
Czechia	5 176	5 334	10 511	76.3	81.9	79.1	67.0	70.6	68.8
Democratic People's Republic of Korea	12 844	13 128	25 972	69.3	75.7	72.6	63.3	66.6	65.0
Democratic Republic of the Congo	47 575	48 319	95 894	60.0	64.8	62.4	52.8	55.4	54.1
Denmark	2 912	2 942	5 854	79.6	83.0	81.3	70.7	71.4	71.0
Djibouti	549	557	1 106	64.1	67.8	65.8	57.2	58.9	58.0

3.1		3.2		3.3				
Maternal mortality ratio <sup>c</sup> (per 100 000 live births)	Proportion of births attended by skilled health personnel <sup>d</sup> (%)	Under-five mortality rate <sup>e</sup> (per 1000 live births)	Neonatal mortality rate <sup>e</sup> (per 1000 live births)	New HIV infections <sup>f</sup> (per 1000 uninfected population)	Tuberculosis incidence <sup>g</sup> (per 100 000 population)	Malaria incidence <sup>h</sup> (per 1000 population at risk)	Hepatitis B surface antigen (HBsAg) prevalence among children under 5 years <sup>i</sup> (%)	Reported number of people requiring interventions against NTDs <sup>j</sup>
Comparable estimates	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data
2020	2013–2022	2021	2021	2021	2021	2021	2020	2021
620	62	56	34	0.04	189	6.3	0.39	14 367 281
8	100	9	7	0.03	17	-	0.29	21
78	99	22	16	0.04	54	0.0	0.08	7 081
-	100 <sup>ak</sup>	3	1	-	2.9	-	0.02	0
222	50	69	27	0.52	325	254.9	4.57	8 558 522
21	99 <sup>ak</sup>	6	3	-	4.9	-	0.19	1 000
45	99	7	5	0.11	30	-	0.01	151 847
27	100 <sup>ak</sup>	11	6	-	27	-	0.06	10
3	96 <sup>al</sup>	4	2	0.02	6.5	-	0.13	18 286
5	98 <sup>al</sup>	4	2	-	5.0	-	0.16	31
41	100 <sup>ak</sup>	19	10	0.03	63	-	0.06	0
77	99 <sup>ak</sup>	13	7	0.24	12	-	0.16	0
16	100 <sup>al</sup>	7	3	0.05	15	-	0.03	3
123	59 <sup>ak</sup>	27	16	<0.01	221	0.5	0.51	56 381 566
39	98 <sup>ak</sup>	12	8	0.24	0.4	-	0.18	448
1	100 <sup>ak</sup>	3	1	0.12	30	-	0.29	0
5	-	4	2	-	8.1	-	0.09	18
130	95 <sup>ak</sup>	11	7	0.42	28	0.0	0.60	1 251
523	78	84	29	0.14	53	383.5	2.87	6 005 261
60	99 <sup>ak</sup>	27	15	0.10	164	<0.1	0.14	181 040
161	81 <sup>ak</sup>	25	13	0.13	109	2.7	0.14	194 638
6	100	6	4	-	25	-	0.63	0
186	100 <sup>al</sup>	35	18	3.48	235	0.6	0.18	1 430 711
72	98	14	8	0.24	4.8	3.7	0.03	9 710 068
44	100 <sup>ak</sup>	11	6	-	61	-	0.10	2
7	95	6	3	0.03	17	-	0.09	90
264	80 <sup>ak</sup>	83	25	0.08	45	376.8	1.66	3 708 202
494	77 <sup>ak</sup>	53	20	0.14	100	291.4	1.35	3 187 928
42	97 <sup>ak</sup>	14	8	0.24	35	0.0	0.26	150 015
218	99 <sup>ak</sup>	25	13	0.07	288	1.6	0.19	4 500 729
438	69 <sup>ak</sup>	70	26	0.56	164	245.1	1.75	11 465 695
11	98 <sup>al</sup>	5	3	-	5.3	-	0.34	1
835	40 <sup>ak</sup>	100	32	0.58	540	334.7	3.75	6 389 657
1063	47 <sup>ak</sup>	107	32	0.21	140	206.4	10.79	6 592 702
15	100	7	4	0.20	16	-	0.03	208
23	100 <sup>ak</sup>	7	3	-	55	-	0.22	418
-	-	-	-	-	57	-	-	-
-	-	-	-	-	57	-	-	-
75	99	13	7	0.17	41	9.0	0.15	3 272 079
217	-	50	26	<0.01	35	12.8	1.16	524 334
282	91	43	18	2.39	370	219.3	2.56	1 486 475
-	-	7	4	-	13	-	0.10	317
22	99	8	5	0.21	11	0.1	0.02	5 746
480	84 <sup>ak</sup>	75	32	0.21	128	270.9	3.44	19 558 880
5	100	5	3	0.02	4.0	-	0.12	1
39	100	5	2	0.17	6.8	-	0.03	46 982
68	99 <sup>al</sup>	3	2	0.04	4.4	-	0.34	1
3	100 <sup>al</sup>	3	1	-	3.9	-	0.13	1
107	100	15	8	-	513	0.2	0.20	5 337 343
547	85	79	26	0.18	318	318.3	3.28	52 044 663
5	95 <sup>al</sup>	4	2	0.02	3.8	-	0.68	0
234	-	54	30	0.13	204	70.5	0.26	110 561

	Total population <sup>a</sup> (000s)			Life expectancy at birth <sup>b</sup> (years)			Healthy life expectancy at birth <sup>b</sup> (years)		
Data type	Comparable estimates			Comparable estimates			Comparable estimates		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
Countries and areas	2021			2019			2019		
Dominica	-	-	72	-	-	-	-	-	-
Dominican Republic	5 582	5 536	11 118	69.8	76.2	72.8	62.1	66.1	64.0
Ecuador	8 887	8 911	17 798	76.4	80.5	78.4	67.7	69.3	68.5
Egypt	55 260	54 002	109 262	69.6	74.1	71.8	62.3	63.7	63.0
El Salvador	3 007	3 307	6 314	70.6	79.1	75.0	61.6	67.8	64.9
Equatorial Guinea	863	771	1 634	60.9	63.6	62.2	53.4	54.1	53.9
Eritrea	1 786	1 834	3 620	61.3	67.1	64.1	53.9	57.7	55.7
Estonia	630	699	1 329	74.7	82.6	78.9	66.4	71.7	69.2
Eswatini	592	600	1 192	53.4	63.2	57.7	47.1	53.8	50.1
Ethiopia	60 443	59 840	120 283	66.9	70.5	68.7	59.0	60.8	59.9
Fiji	464	461	925	65.9	70.3	68.0	58.5	60.7	59.6
Finland	2 735	2 801	5 536	79.2	84.0	81.6	69.9	72.0	71.0
France	31 195	33 336	64 531	79.8	85.1	82.5	71.1	73.1	72.1
Gabon	1 192	1 149	2 341	63.6	69.7	66.5	56.0	59.3	57.6
Gambia	1 313	1 327	2 640	63.4	67.7	65.5	56.4	57.7	57.0
Georgia	1 767	1 991	3 758	68.8	77.8	73.3	61.4	67.9	64.7
Germany	41 154	42 255	83 409	78.7	84.8	81.7	69.7	72.1	70.9
Ghana	16 376	16 457	32 833	63.7	69.2	66.3	56.5	59.6	58.0
Greece	5 117	5 328	10 445	78.6	83.6	81.1	69.9	71.9	70.9
Grenada	62	62	125	70.6	75.3	72.9	62.6	65.4	63.9
Guatemala	8 717	8 892	17 608	69.0	75.0	72.0	60.5	64.1	62.3
Guinea	6 686	6 846	13 532	59.5	62.3	61.0	52.9	53.7	53.3
Guinea-Bissau	1 017	1 044	2 061	57.4	63.0	60.2	51.1	54.1	52.6
Guyana	394	411	805	62.5	69.4	65.7	55.1	59.7	57.2
Haiti	5 673	5 775	11 448	63.3	64.8	64.1	55.9	55.8	55.8
Honduras	5 191	5 088	10 278	70.7	73.2	71.9	62.7	63.3	63.0
Hungary	4 654	5 056	9 710	73.1	79.6	76.4	65.0	69.3	67.2
Iceland	190	181	370	80.8	83.9	82.3	71.7	72.3	72.0
India	726 503	681 060	1 407 564	69.5	72.2	70.8	60.3	60.4	60.3
Indonesia	137 852	135 901	273 753	69.4	73.3	71.3	61.9	63.8	62.8
Iran (Islamic Republic of)	44 427	43 497	87 923	75.7	79.1	77.3	66.0	66.5	66.3
Iraq	21 797	21 736	43 534	69.9	75.0	72.4	61.6	63.7	62.7
Ireland	2 471	2 516	4 987	80.2	83.5	81.8	70.7	71.4	71.1
Israel	4 437	4 463	8 900	80.8	84.4	82.6	72.0	72.7	72.4
Italy	28 873	30 367	59 240	80.9	84.9	83.0	71.2	72.6	71.9
Jamaica	1 403	1 425	2 828	74.4	77.7	76.0	65.9	67.3	66.6
Japan	60 568	64 045	124 613	81.5	86.9	84.3	72.6	75.5	74.1
Jordan	5 780	5 368	11 148	77.0	78.8	77.9	68.1	67.2	67.6
Kazakhstan	9 230	9 966	19 196	70.0	77.6	74.0	62.4	67.4	65.0
Kenya	26 279	26 726	53 006	63.7	68.4	66.1	56.4	58.9	57.7
Kiribati	63	66	129	56.1	62.8	59.4	50.5	54.9	52.6
Kuwait	2 591	1 659	4 250	79.3	83.9	81.0	69.5	71.1	70.1
Kyrgyzstan	3 205	3 322	6 528	70.7	77.3	74.2	63.6	67.7	65.8
Lao People's Democratic Republic	3 743	3 682	7 425	66.2	70.9	68.5	59.2	61.9	60.5
Latvia	868	1 006	1 874	70.6	79.8	75.4	62.9	69.3	66.2
Lebanon	2 713	2 879	5 593	74.0	79.2	76.4	65.1	67.0	66.0
Lesotho	1 126	1 156	2 281	47.7	54.2	50.7	42.3	46.4	44.2
Liberia	2 585	2 608	5 193	63.2	65.0	64.1	54.9	55.0	54.9
Libya	3 410	3 326	6 735	74.2	77.3	75.8	64.9	65.5	65.2
Lithuania	1 308	1 479	2 787	71.2	80.4	76.0	63.4	69.7	66.7
Luxembourg	322	318	639	80.6	84.2	82.4	71.1	72.0	71.6
Madagascar	14 491	14 425	28 916	64.1	66.6	65.3	56.9	57.7	57.3
Malawi	9 671	10 219	19 890	62.3	68.9	65.6	55.1	59.0	57.1
Malaysia	17 167	16 407	33 574	72.6	77.1	74.7	64.5	66.9	65.7
Maldives	301	221	521	78.6	80.8	79.6	69.7	70.0	70.0

3.1		3.2		3.3				
Maternal mortality ratio <sup>c</sup> (per 100 000 live births)	Proportion of births attended by skilled health personnel <sup>d</sup> (%)	Under-five mortality rate <sup>e</sup> (per 1000 live births)	Neonatal mortality rate <sup>e</sup> (per 1000 live births)	New HIV infections <sup>f</sup> (per 1000 uninfected population)	Tuberculosis incidence <sup>g</sup> (per 100 000 population)	Malaria incidence <sup>h</sup> (per 1000 population at risk)	Hepatitis B surface antigen (HBsAg) prevalence among children under 5 years <sup>i</sup> (%)	Reported number of people requiring interventions against NTDs <sup>j</sup>
Comparable estimates	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data
2020	2013–2022	2021	2021	2021	2021	2021	2020	2021
-	100 <sup>ak</sup>	36	28	-	16	-	0.20	418
107	99 <sup>ak</sup>	33	23	0.39	45	0.1	0.10	2 612 634
66	99	12	7	0.11	48	4.2	0.09	22 080
17	97	19	10	-	10	-	0.20	2 932 815
43	100	12	6	0.17	49	-	0.02	1 483 962
212	-	77	28	3.80	275	213.2	6.07	668 511
322	-	38	17	0.06	74	25.7	1.02	462 141
5	100	2	1	-	9.3	-	0.29	0
240	88	53	23	7.65	348	0.9	0.83	406 184
267	50	47	26	0.12	119	46.3	1.59	71 787 220
38	100	28	14	0.19	66	-	0.13	923 067
8	100 <sup>ak</sup>	2	1	-	3.5	-	0.81	5
8	98 <sup>al</sup>	4	3	0.09	7.7	-	0.15	88
227	-	40	19	0.80	513	228.9	2.12	914 073
458	84	48	25	0.80	149	80.8	1.60	478 578
28	100 <sup>ak</sup>	9	5	0.14	64	-	0.06	16
4	96 <sup>al</sup>	4	2	-	5.0	-	0.21	131
263	79	44	23	0.57	136	164.4	2.13	12 500 340
8	100 <sup>ak</sup>	4	2	0.07	4.1	-	0.14	24
21	100 <sup>ak</sup>	16	10	-	3.2	-	0.12	230
96	70 <sup>ak</sup>	23	11	0.07	27	0.1	0.03	4 965 477
553	55 <sup>ak</sup>	99	31	0.49	175	330.9	6.07	8 407 131
725	54	74	34	1.12	361	105.1	2.11	1 941 909
112	98 <sup>ak</sup>	28	17	0.62	83	32.1	0.40	685 968
350	42	59	24	0.38	159	2.2	1.04	4 447 036
72	94 <sup>ak</sup>	17	10	0.08	33	0.2	0.03	2 363 251
15	100 <sup>ak</sup>	4	2	-	3.7	-	0.90	0
3	97 <sup>al</sup>	3	1	0.03	2.9	-	0.15	0
103	89 <sup>ak</sup>	31	19	0.05	210	3.2	0.16	677 290 119
173	95	22	11	0.10	354	3.0	1.30	79 889 047
22	99 <sup>ak</sup>	13	8	0.03	12	0.0	0.05	14 729
76	96	25	14	-	24	0.0	0.29	2 170 486
5	100 <sup>al</sup>	3	2	0.07	4.8	-	0.04	1
3	-	3	2	-	2.8	-	0.05	0
5	100 <sup>al</sup>	3	1	0.02	4.9	-	0.33	100
99	100	12	10	0.50	3.3	-	0.55	96
4	100 <sup>al</sup>	2	1	-	11	-	0.96	3
41	100	15	9	-	4.2	-	0.56	58
13	100 <sup>al</sup>	10	5	0.18	7.4	-	0.15	0
530	70	37	18	0.73	251	64.5	0.40	10 649 944
76	92 <sup>ak</sup>	48	21	-	424	-	1.57	125 740
7	100 <sup>al</sup>	9	5	-	20	-	0.03	17
50	100	17	12	0.10	130	-	0.15	2 169 854
126	64	43	21	0.11	143	1.7	0.68	2 150 290
18	100 <sup>al</sup>	4	2	0.29	16	-	0.27	6
21	-	8	5	0.03	9.7	-	0.07	0
566	87	73	35	4.76	614	-	1.22	387 421
652	84 <sup>ak</sup>	76	30	-	308	356.7	4.66	3 272 582
72	100 <sup>ak</sup>	11	6	0.07	59	-	0.43	1 096
9	100 <sup>ak</sup>	3	2	0.08	26	-	0.05	16
6	-	3	2	0.07	6.1	-	0.06	0
392	46	66	24	0.35	233	169.8	2.13	21 634 839
381	96	42	19	1.13	132	219.2	1.39	13 100 699
21	100 <sup>ak</sup>	8	4	0.17	97	0.0	0.06	26 507
57	100	6	4	-	38	-	0.21	24 589

	Total population <sup>a</sup> (000s)			Life expectancy at birth <sup>b</sup> (years)			Healthy life expectancy at birth <sup>b</sup> (years)		
Data type	Comparable estimates			Comparable estimates			Comparable estimates		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
Countries and areas	2021			2019			2019		
Mali	11 061	10 844	21 905	62.2	63.4	62.8	54.8	54.5	54.6
Malta	274	253	527	79.9	83.8	81.9	70.9	71.9	71.5
Marshall Islands	-	-	42	-	-	-	-	-	-
Mauritania	2 261	2 354	4 615	68.1	68.7	68.4	60.2	59.4	59.8
Mauritius	641	658	1 299	71.0	77.3	74.1	62.0	65.9	63.9
Mexico	61 856	64 849	126 705	73.1	78.9	76.0	64.3	67.2	65.8
Micronesia (Federated States of)	57	56	113	60.3	66.0	63.0	54.4	57.8	56.0
Monaco	-	-	37	-	-	-	-	-	-
Mongolia	1 661	1 686	3 348	63.8	72.8	68.1	57.1	63.8	60.3
Montenegro	306	322	628	73.2	78.7	75.9	65.2	68.7	67.0
Morocco	18 666	18 411	37 077	71.7	74.3	73.0	63.7	63.7	63.7
Mozambique	15 737	16 340	32 077	54.5	61.7	58.1	47.9	52.8	50.4
Myanmar	26 783	27 015	53 798	65.9	72.2	69.1	58.8	62.8	60.9
Namibia	1 221	1 309	2 530	60.6	68.4	64.6	53.4	58.6	56.1
Nauru	-	-	13	-	-	-	-	-	-
Nepal	14 371	15 664	30 035	68.9	72.7	70.9	60.6	62.1	61.3
Netherlands (Kingdom of the)	8 696	8 805	17 502	80.4	83.1	81.8	71.3	71.5	71.4
New Zealand	2 542	2 587	5 130	80.4	83.5	82.0	69.6	70.8	70.2
Nicaragua	3 376	3 475	6 851	72.1	77.9	75.0	63.7	67.2	65.5
Niger	12 809	12 444	25 253	62.1	64.6	63.3	55.3	55.8	55.5
Nigeria	107 827	105 574	213 401	61.2	64.1	62.6	53.9	54.9	54.4
Niue	-	-	2	-	-	-	-	-	-
North Macedonia	1 049	1 055	2 103	72.8	76.9	74.8	65.1	67.3	66.1
Norway	2 726	2 677	5 403	81.1	84.1	82.6	71.0	71.6	71.4
occupied Palestinian territory, including east Jerusalem	2 560	2 573	5 133	-	-	-	-	-	-
Oman	2 762	1 759	4 520	73.0	75.3	73.9	64.5	64.5	64.7
Pakistan	116 816	114 586	231 402	64.6	66.7	65.6	56.9	56.8	56.9
Palau	-	-	18	-	-	-	-	-	-
Panama	2 177	2 175	4 351	76.6	82.1	79.3	67.4	70.0	68.7
Papua New Guinea	5 138	4 812	9 949	63.4	67.4	65.3	56.2	58.1	57.1
Paraguay	3 365	3 339	6 704	73.1	78.8	75.8	64.5	67.3	65.8
Peru	16 695	17 020	33 715	78.5	81.3	79.9	69.2	69.8	69.5
Philippines	57 817	56 063	113 880	67.4	73.6	70.4	60.1	63.9	62.0
Poland	18 524	19 783	38 308	74.5	81.9	78.3	65.9	71.3	68.7
Portugal	4 855	5 435	10 290	78.6	84.4	81.6	69.6	72.2	71.0
Puerto Rico	1 538	1 718	3 256	-	-	-	-	-	-
Qatar	1 954	735	2 688	78.0	76.6	77.2	68.1	65.1	67.1
Republic of Korea	25 885	25 945	51 830	80.3	86.1	83.3	71.3	74.7	73.1
Republic of Moldova	1 453	1 608	3 062	69.3	77.1	73.3	61.9	67.1	64.5
Romania	9 345	9 984	19 329	72.0	79.3	75.6	64.3	69.4	66.8
Russian Federation	67 393	77 710	145 103	68.2	78.0	73.2	60.7	67.5	64.2
Rwanda	6 582	6 880	13 462	66.9	71.2	69.1	59.0	61.4	60.2
Saint Kitts and Nevis	-	-	48	-	-	-	-	-	-
Saint Lucia	89	91	180	71.3	77.7	74.3	63.0	66.6	64.7
Saint Vincent and the Grenadines	53	51	104	71.3	75.3	73.2	62.9	65.1	64.0
Samoa	112	107	219	69.2	71.8	70.5	61.8	62.5	62.1
San Marino	-	-	34	-	-	-	-	-	-
Sao Tome and Principe	111	112	223	68.8	72.0	70.4	60.9	62.2	61.6
Saudi Arabia	20 766	15 184	35 950	73.1	76.1	74.3	63.8	64.4	64.0
Senegal	8 297	8 580	16 877	66.8	70.1	68.6	58.8	59.9	59.4
Serbia	3 497	3 800	7 297	73.5	78.3	75.9	65.4	68.4	66.9
Seychelles	56	50	106	70.0	77.1	73.3	61.9	66.4	64.0
Sierra Leone	4 219	4 202	8 421	59.6	61.9	60.8	52.5	53.3	52.9



3.1		3.2		3.3				
Maternal mortality ratio <sup>c</sup> (per 100 000 live births)	Proportion of births attended by skilled health personnel <sup>d</sup> (%)	Under-five mortality rate <sup>e</sup> (per 1000 live births)	Neonatal mortality rate <sup>e</sup> (per 1000 live births)	New HIV infections <sup>f</sup> (per 1000 uninfected population)	Tuberculosis incidence <sup>g</sup> (per 100 000 population)	Malaria incidence <sup>h</sup> (per 1000 population at risk)	Hepatitis B surface antigen (HBsAg) prevalence among children under 5 years <sup>i</sup> (%)	Reported number of people requiring interventions against NTDs <sup>j</sup>
Comparable estimates	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data
2020	2013–2022	2021	2021	2021	2021	2021	2020	2021
440	67	97	33	0.26	50	353.6	4.62	10 144 929
3	100 <sup>ak</sup>	6	4	-	12	-	0.20	0
-	92	30	14	-	483	-	0.35	19 594
464	70 <sup>ak</sup>	40	23	0.13	81	18.4	3.35	931 435
84	100	17	11	0.54	12	-	0.41	0
59	97	13	8	0.13	25	0.1	0.03	19 825 655
74	-	25	13	-	80	-	0.40	70 736
-	-	3	2	-	0.0	-	0.15	0
39	99 <sup>ak</sup>	15	8	0.01	428	-	0.47	0
6	99	2	1	0.03	16	-	0.67	0
72	87	18	11	0.02	94	0.0	0.16	3 209
127	73	70	28	-	361	320.6	0.59	23 902 902
179	60 <sup>ak</sup>	42	22	0.20	360	9.1	1.11	24 075 083
215	88	39	19	2.91	457	10.6	0.36	387 147
-	-	28	18	-	193	-	0.52	12 300
174	77 <sup>ak</sup>	27	16	-	229	<0.1	0.16	13 163 981
4	-	4	3	<0.01	4.4	-	0.08	0
7	97 <sup>al</sup>	5	3	0.02	6.8	-	0.77	5
78	94 <sup>ak</sup>	13	7	0.08	45	9.9	0.09	1 335 721
441	44 <sup>ak</sup>	115	34	0.04	79	323.4	3.44	11 426 103
1047	51 <sup>ak</sup>	111	35	0.34	219	306.5	2.94	139 910 337
-	-	24	13	-	48	-	0.37	0
3	100	5	3	-	11	-	0.08	0
2	99 <sup>al</sup>	2	1	0.01	2.9	-	0.02	5
20	100	15	9	-	0.6	-	-	-
17	100 <sup>ak</sup>	10	5	0.05	5.9	0.0	0.13	259
154	68 <sup>ak</sup>	63	39	-	264	2.2	0.91	25 234 450
-	97	16	9	-	51	-	0.03	0
50	95 <sup>ak</sup>	14	8	-	42	1.1	0.07	62 635
192	56 <sup>ak</sup>	43	21	0.43	424	124.3	1.36	7 021 695
71	92 <sup>ak</sup>	18	10	0.13	48	0.0	0.42	2 085 302
69	95	14	7	0.17	130	1.8	0.06	384 895
78	84	26	12	0.19	650	0.2	0.38	47 533 799
2	100	4	3	-	10	-	0.01	23
12	99	3	2	0.07	16	-	0.02	5
34	-	-	-	-	0.6	-	-	-
8	100	5	3	0.07	42	-	0.05	23
8	100 <sup>al</sup>	3	1	-	44	0.1	0.09	5
12	100 <sup>al</sup>	14	11	0.30	84	-	0.20	0
10	93	6	3	0.04	45	-	0.29	0
14	100 <sup>ak</sup>	5	2	-	47	-	0.55	0
259	94 <sup>ak</sup>	39	18	0.34	56	126.3	0.49	6 184 262
-	100 <sup>ak</sup>	15	10	-	0.0	-	0.06	0
73	100 <sup>ak</sup>	25	13	-	1.5	-	0.22	48
62	99 <sup>ak</sup>	14	8	-	8.7	-	0.15	654
59	89	17	7	-	6.8	-	0.34	191 219
-	-	2	1	-	0.0	-	0.13	0
146	97	15	8	0.05	114	12.2	1.31	98 337
16	95	7	3	-	8.2	0.0	0.00	625
261	75	39	21	0.10	113	59.0	0.93	5 764 573
10	100	5	4	0.02	15	-	0.04	0
3	100 <sup>al</sup>	14	9	-	12	-	0.09	1
443	87	105	31	0.50	289	329.8	1.98	7 315 339

	Total population <sup>a</sup> (000s)			Life expectancy at birth <sup>b</sup> (years)			Healthy life expectancy at birth <sup>b</sup> (years)		
Data type	Comparable estimates			Comparable estimates			Comparable estimates		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
Countries and areas	2021			2019			2019		
Singapore	3 107	2 834	5 941	81.0	85.5	83.2	72.4	74.7	73.6
Slovakia	2 660	2 788	5 448	74.8	81.4	78.2	66.2	70.8	68.5
Slovenia	1 065	1 054	2 119	78.6	84.1	81.3	69.0	72.5	70.7
Solomon Islands	362	346	708	62.9	67.9	65.2	56.5	59.1	57.8
Somalia	8 556	8 510	17 066	54.0	59.2	56.5	48.3	51.3	49.7
South Africa	28 895	30 498	59 392	62.2	68.3	65.3	54.6	57.7	56.2
South Sudan	5 321	5 428	10 748	60.8	64.8	62.8	52.9	54.5	53.7
Spain	23 272	24 215	47 487	80.7	85.7	83.2	71.3	72.9	72.1
Sri Lanka	10 490	11 283	21 773	73.8	79.8	76.9	65.1	69.0	67.0
Sudan	22 815	22 842	45 657	67.6	70.8	69.1	59.6	60.3	59.9
Suriname	305	308	613	68.5	74.6	71.5	60.7	64.2	62.4
Sweden	5 273	5 195	10 467	80.8	84.0	82.4	71.7	72.1	71.9
Switzerland	4 314	4 377	8 691	81.8	85.1	83.4	72.2	72.8	72.5
Syrian Arab Republic	10 681	10 643	21 324	71.2	74.3	72.7	62.5	63.3	62.9
Tajikistan	4 906	4 844	9 750	67.6	71.5	69.5	60.9	63.2	62.0
Thailand	34 794	36 807	71 601	74.4	81.0	77.7	65.9	70.6	68.3
Timor-Leste	674	647	1 321	67.9	71.4	69.6	59.8	62.0	60.9
Togo	4 345	4 300	8 645	61.5	67.2	64.3	54.7	57.8	56.2
Tonga	52	54	106	69.8	75.6	72.6	62.7	65.5	64.0
Trinidad and Tobago	753	773	1 526	72.5	79.9	76.1	64.0	68.6	66.2
Tunisia	6 057	6 206	12 263	74.9	79.2	77.0	66.1	67.7	66.9
Türkiye	42 490	42 286	84 775	76.4	80.7	78.6	67.8	69.0	68.4
Turkmenistan	3 142	3 200	6 342	66.5	73.0	69.7	59.9	64.3	62.1
Tuvalu	-	-	11	-	-	-	-	-	-
Uganda	22 701	23 153	45 854	63.2	70.1	66.7	56.0	60.4	58.2
Ukraine	20 147	23 384	43 531	68.0	77.8	73.0	60.6	67.8	64.3
United Arab Emirates	6 512	2 853	9 365	75.1	78.4	76.1	65.8	66.2	66.0
United Kingdom	33 239	34 042	67 281	79.8	83.0	81.4	69.6	70.6	70.1
United Republic of Tanzania	31 418	32 171	63 588	65.4	69.3	67.3	57.6	59.3	58.5
United States of America	166 942	170 056	336 998	76.3	80.7	78.5	65.2	67.0	66.1
Uruguay	1 659	1 767	3 426	73.5	80.6	77.1	65.4	69.5	67.5
Uzbekistan	17 052	17 030	34 081	70.8	75.2	73.0	63.5	65.8	64.7
Vanuatu	161	159	319	62.7	68.3	65.3	56.4	59.4	57.8
Venezuela (Bolivarian Republic of)	13 957	14 243	28 200	69.9	78.2	73.9	61.9	67.1	64.4
Viet Nam	48 136	49 332	97 468	69.6	78.1	73.7	62.4	68.3	65.3
Yemen	16 668	16 313	32 982	64.4	68.9	66.6	56.9	58.2	57.5
Zambia	9 609	9 864	19 473	59.5	65.4	62.5	52.5	56.3	54.4
Zimbabwe	7 544	8 450	15 994	57.5	63.6	60.7	51.2	54.8	53.1
WHO region	2021			2019			2019		
African Region	579 641	583 017	1 162 658	62.4	66.6	64.5	55.0	57.1	56.0
Region of the Americas	508 298	521 212	1 029 510	74.5	79.8	77.2	64.8	67.5	66.2
South-East Asia Region	1 049 022	1 007 451	2 056 473	69.9	73.1	71.4	61.1	61.9	61.5
European Region	451 859	478 950	930 809	75.1	81.3	78.2	66.6	70.0	68.3
Eastern Mediterranean Region	392 503	374 038	766 542	68.3	71.3	69.7	60.2	60.7	60.4
Western Pacific Region	980 226	952 584	1 932 809	74.8	80.8	77.7	67.0	70.2	68.6
Global	3 973 370	3 929 291	7 902 660	70.8	75.9	73.3	62.5	64.9	63.7

3.1		3.2		3.3				
Maternal mortality ratio <sup>c</sup> (per 100 000 live births)	Proportion of births attended by skilled health personnel <sup>d</sup> (%)	Under-five mortality rate <sup>e</sup> (per 1000 live births)	Neonatal mortality rate <sup>e</sup> (per 1000 live births)	New HIV infections <sup>f</sup> (per 1000 uninfected population)	Tuberculosis incidence <sup>g</sup> (per 100 000 population)	Malaria incidence <sup>h</sup> (per 1000 population at risk)	Hepatitis B surface antigen (HBsAg) prevalence among children under 5 years <sup>i</sup> (%)	Reported number of people requiring interventions against NTDs <sup>j</sup>
Comparable estimates	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data
2020	2013–2022	2021	2021	2021	2021	2021	2020	2021
7	100 <sup>ak</sup>	2	1	<0.01	48	-	0.13	5 268
5	98	6	3	0.02	2.8	-	0.31	2
5	-	2	1	<0.01	4.3	-	112	4
122	86 <sup>ak</sup>	19	8	-	65	216.1	0.87	598 343
621	32 <sup>ak</sup>	112	36	-	250	66.3	6.32	3 698 691
127	97	33	11	4.19	513	0.5	3.10	16 502 598
1223	40	99	40	1.27	227	274.8	13.03	8 758 494
3	100 <sup>ak</sup>	3	2	0.08	8.2	-	0.13	96
29	100	7	4	<0.01	63	0.0	0.34	26 092
270	78 <sup>ak</sup>	55	27	0.07	58	72.8	1.66	12 728 564
96	98 <sup>ak</sup>	17	11	0.71	29	0.2	0.07	165
5	-	2	1	-	3.8	-	0.13	12
7	-	4	3	-	4.7	-	0.16	0
30	-	22	11	-	18	0.0	0.69	2 971 666
17	95	31	14	0.10	88	-	0.18	3 375 143
29	99 <sup>ak</sup>	8	5	0.09	143	0.2	0.27	7 244
204	57 <sup>ak</sup>	51	22	0.10	486	0.0	0.72	464 413
399	69 <sup>ak</sup>	63	24	0.38	33	237.5	3.27	5 128 595
126	98 <sup>ak</sup>	11	5	-	7.6	-	0.89	37 131
27	100 <sup>ak</sup>	16	10	-	13	-	0.19	38
37	100	16	12	0.04	36	-	0.12	2 746
17	97 <sup>al</sup>	9	5	-	18	-	0.11	0
5	100 <sup>ak</sup>	41	23	-	47	-	0.07	97
-	100 <sup>ak</sup>	21	10	-	296	-	0.24	11 500
284	74	42	19	1.30	199	284.0	0.96	25 961 432
17	100 <sup>ak</sup>	8	5	0.15	71	-	0.25	0
9	99 <sup>al</sup>	6	3	-	0.8	0.0	0.02	41
10	-	4	3	-	6.3	-	0.41	0
238	64 <sup>ak</sup>	47	20	0.96	208	125.8	0.99	32 876 354
21	99	6	3	-	2.6	-	0.01	119
19	100 <sup>ak</sup>	6	4	0.27	32	-	0.15	52
30	99	14	8	0.11	62	-	0.16	4 05 951
94	89 <sup>ak</sup>	23	10	-	34	1.8	2.25	305 040
259	99 <sup>ak</sup>	24	15	-	47	14.5	0.15	7 995 796
46	96 <sup>ak</sup>	21	11	0.06	173	<0.1	0.64	8 820 515
183	45 <sup>ak</sup>	62	28	0.04	48	46.1	1.76	7 883 460
135	80 <sup>ak</sup>	58	25	2.17	307	187.7	1.32	13 185 586
357	86	50	25	1.51	190	27.2	2.74	8 147 168
2020	2022	2021	2021	2021	2021	2021	2020	2021
531	71	72	27	0.78	212	229.4	2.53	584 347 290
68	97	13	7	0.16	30	4.2	0.07	61 656 500
117	91	29	17	0.06	234	3.2	0.38	856 840 517
13	99	8	4	0.20	25	-	0.26	5 951 752
179	85	45	25	0.06	112	11.6	0.84	72 120 780
44	97	12	6	0.06	98	1.9	0.30	72 372 509
<b>223</b>	<b>86</b>	<b>38</b>	<b>18</b>	<b>0.19</b>	<b>134</b>	<b>59.2</b>	<b>0.94</b>	<b>1 653 289 348</b>

Table 2. Annex 1-2

Data type	3.4		3.5	3.6	3.7	
	Probability of dying from any of CVD, cancer, diabetes, CRD between age 30 and exact age 70 <sup>k</sup> (%)	Suicide mortality rate <sup>k</sup> (per 100 000 population)	Total alcohol per capita (≥ 15 years of age) consumption <sup>l</sup> (litres of pure alcohol)	Road traffic mortality rate <sup>k,ay</sup> (per 100 000 population)	Proportion of women of reproductive age who have their need for family planning satisfied with modern methods <sup>m</sup> (%)	Adolescent birth rate <sup>n</sup> (per 1000 women aged 15–19 years)
	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data
Countries and areas	2019	2019	2019	2019	2013–2021	2013–2021
Afghanistan	35.3	4.1	<0.1	15.9	42.1 <sup>am</sup>	62.1
Albania	11.4	4.3	5.1	11.7	6.3	13.2
Algeria	13.9	2.5	0.6	20.9	66.3 <sup>am</sup>	12.0
Andorra	-	-	11.1	-	-	0.5
Angola	22.2	6.1	6.2	26.1	29.8	162.7
Antigua and Barbuda	17.5	0.4	8.5	0.0	-	32.5
Argentina	15.7	8.4	8.0	14.1	80.3	41.8
Armenia	19.9	3.3	5.0	20.0	40.2 <sup>am</sup>	13.9
Australia	8.6	12.5	10.1	4.9	-	7.8
Austria	10.4	14.6	12.0	4.9	-	5.0
Azerbaijan	27.2	4.1	2.0	6.7	-	41.6
Bahamas	19.9	3.5	4.4	7.7	-	26.4
Bahrain	16.1	8.9	1.6	5.2	-	8.6
Bangladesh	18.9	3.7	<0.1	15.3	77.4 <sup>am</sup>	74.0
Barbados	16.0	0.6	9.5	8.2	-	-
Belarus	23.8	21.2	10.9	7.6	66.0	11.6
Belgium	10.6	18.3	10.3	5.8	-	4.9
Belize	16.5	7.1	5.7	22.6	64.9	51.2
Benin	22.6	7.8	8.3	26.8	28.0	108.4
Bhutan	18.5	4.6	0.2	16.2	-	8.1
Bolivia (Plurinational State of)	17.9	6.2	4.1	21.1	50.3 <sup>am</sup>	71.0
Bosnia and Herzegovina	18.7	10.9	6.4	13.5	-	9.7
Botswana	27.0	16.1	8.2	26.4	-	50.2
Brazil	15.5	6.9	7.7	16.0	-	43.1
Brunei Darussalam	18.5	2.7	0.4	7.5	-	7.9
Bulgaria	24.2	9.7	11.9	9.2	-	37.9
Burkina Faso	23.9	7.5	9.8	31.0	58.2	127.3
Burundi	25.0	6.2	4.1	35.5	39.6	58.2
Cabo Verde	17.4	12.9	6.3	26.8	-	40.0
Cambodia	22.5	4.8	8.5	19.6	56.5	57.4
Cameroon	23.9	9.0	10.1	30.2	44.9	122.2
Canada	9.6	11.8	9.9	5.3	-	5.6
Central African Republic	36.0	12.3	2.0	37.7	27.6	184.4
Chad	22.7	6.4	3.7	32.4	17.5 <sup>am</sup>	138.7
Chile	10.0	9.0	6.7	14.9	-	18.9
China	15.9	8.1	5.7	17.4	-	6.1
China, Hong Kong SAR	-	-	-	-	-	-
China, Macao SAR	-	-	-	-	-	-
Colombia	9.7	3.9	4.9	15.4	86.6	52.8
Comoros	20.6	5.4	0.3	26.6	-	38.0
Congo	22.6	6.5	6.4	29.7	43.2	72.0
Cook Islands	-	-	10.6	-	-	32.5
Costa Rica	9.5	8.1	3.5	14.8	80.8	26.9
Côte d'Ivoire	21.7	8.9	2.8	24.1	46.1	118.8
Croatia	16.1	16.4	8.5	7.9	-	7.6
Cuba	16.6	14.5	6.0	8.9	86.9	47.6
Cyprus	8.2	3.6	8.1	5.8	-	7.7
Czechia	14.3	12.2	13.3	5.9	-	8.8
Democratic People's Republic of Korea	23.9	9.4	4.3	24.2	89.6 <sup>am</sup>	-
Democratic Republic of the Congo	24.0	6.7	2.1	34.9	33.0	109.0
Denmark	10.8	10.7	9.4	3.7	-	1.3
Djibouti	22.0	9.6	0.4	23.5	-	-
Dominica	-	-	6.1	-	-	-

3.7		3.8				3.9	
Adolescent birth rate <sup>a</sup> (per 1000 women aged 10–14 years)	UHC: Service coverage index <sup>b</sup>	Population with household expenditures on health > 10% of total household expenditure or income <sup>c</sup> (%)	Population with household expenditures on health > 25% of total household expenditure or income <sup>c</sup> (%)	Age-standardized mortality rate attributed to household and ambient air pollution <sup>d</sup> (per 100 000 population)	Mortality rate attributed to exposure to unsafe WASH services <sup>e</sup> (per 100 000 population)	Mortality rate from unintentional poisoning <sup>f</sup> (per 100 000 population)	
Primary data	Comparable estimates	Primary data	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	
2013–2021	2021	2013–2021	2013–2021	2019	2019	2019	
0.2	41	26.1	8.0	265.7	16.6	1.0	
0.3	64	8.9	1.4	92.5	3.2	0.3	
0.0	74	-	-	49.7	4.1	0.7	
0.0	79	-	-	-	-	-	
10.7	37	35.5	12.5	142.8	48.9	2.0	
0.3	76	-	-	19.3	2.5	0.7	
1.2	79	9.6	2.5	29.7	11.4	0.4	
<0.1	68	19.9	5.9	74.5	5.8	0.7	
0.1	87	2.5	0.4	9.8	1.9	0.1	
<0.1	85	-	-	17.5	2.0	0.2	
0.0	66	-	-	125.2	3.6	0.9	
0.3	77	-	-	10.4	2.6	0.2	
<0.1	76	4.9	1.4	68.1	0.8	0.3	
0.9	52	24.4	8.5	143.9	18.2	0.3	
-	77	16.4	3.8	18.8	7.7	0.7	
0.1	79	16.5	1.2	69.9	1.6	3.3	
0.1	86	-	-	15.3	5.3	0.4	
0.9	68	6.2	3.1	41.0	4.3	0.4	
1.8	38	14.3	3.0	201.8	60.2	2.6	
-	60	4.0	1.8	94.3	15.7	0.2	
-	65	5.7	1.2	77.1	14.3	0.6	
<0.1	66	8.2	1.4	113.9	1.9	0.4	
0.3	55	4.3	1.0	140.7	26.8	1.8	
2.3	80	11.8	1.9	28.9	6.6	0.1	
0.3	78	-	-	19.6	1.7	<0.1	
1.3	73	21.3	3.1	62.9	2.9	0.5	
1.2	40	8.4	1.8	201.3	60.9	3.1	
0.7	41	4.8	0.9	205.9	53.3	3.2	
0.4	71	-	-	91.2	12.1	0.4	
0.1	58	17.9	4.9	163.3	17.1	0.5	
2.9	44	10.7	1.8	206.7	47.3	2.6	
<0.1	91	3.5	0.8	8.1	2.3	0.3	
8.0	32	-	-	305.1	97.0	2.8	
3.9	29	9.3	1.4	227.4	99.2	3.5	
0.5	82	14.6	2.1	17.9	2.3	0.4	
-	81	24.3	6.9	95.3	2.2	1.8	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
2.6	80	8.2	2.2	31.3	3.4	0.1	
-	48	8.8	1.6	164.6	43.8	2.4	
2.5	41	-	-	170.4	26.4	1.3	
0.3	46	0.1	<0.1	-	-	-	
1.1	81	7.4	1.1	17.8	2.9	0.1	
5.0	43	8.3	0.6	186.5	47.0	2.5	
<0.1	80	-	-	31.3	2.7	0.4	
1.2	83	-	-	41.9	9.7	0.2	
0.2	81	14.7	1.6	15.8	1.6	0.3	
0.1	84	4.6	0.8	32.5	4.1	0.4	
-	68	-	-	212.8	4.1	1.4	
3.4	42	-	-	209.8	52.3	2.0	
<0.1	82	-	-	12.9	4.1	<0.1	
-	44	1.5	0.3	177.9	37.6	2.5	
-	49	-	-	-	-	-	

	3.4		3.5	3.6	3.7	
	Probability of dying from any of CVD, cancer, diabetes, CRD between age 30 and exact age 70 <sup>k</sup> (%)	Suicide mortality rate <sup>k</sup> (per 100 000 population)	Total alcohol per capita (≥ 15 years of age) consumption <sup>l</sup> (litres of pure alcohol)	Road traffic mortality rate <sup>k,ay</sup> (per 100 000 population)	Proportion of women of reproductive age who have their need for family planning satisfied with modern methods <sup>m</sup> (%)	Adolescent birth rate <sup>n</sup> (per 1000 women aged 15–19 years)
Data type	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data
Countries and areas	2019	2019	2019	2019	2013–2021	2013–2021
Dominican Republic	19.1	4.9	6.8	64.6	77.4	42.4
Ecuador	11.0	7.6	3.3	20.1	82.5	58.1
Egypt	28.0	3.0	0.1	10.1	80.0 <sup>am</sup>	46.9
El Salvador	10.7	6.0	3.3	20.9	80.0	50.1
Equatorial Guinea	22.1	7.9	6.9	27.2	-	-
Eritrea	26.8	10.9	1.2	37.9	-	-
Estonia	14.9	14.9	11.3	4.5	80.2	7.9
Eswatini	35.2	29.4	8.1	33.5	82.9	87.1
Ethiopia	17.1	5.4	3.4	28.2	62.6 <sup>am</sup>	73.5
Fiji	37.7	9.0	3.4	13.5	-	31.1
Finland	9.6	15.3	9.2	3.9	-	3.7
France	10.6	13.8	11.3	5.1	-	5.7
Gabon	21.3	8.4	7.3	23.9	-	-
Gambia	21.1	4.8	1.1	29.6	41.1	64.8
Georgia	24.9	9.2	14.3	12.4	51.3 <sup>am</sup>	27.2
Germany	12.1	12.3	12.2	3.8	-	6.5
Ghana	22.5	6.6	4.5	25.7	40.4	78.0
Greece	12.5	5.1	7.1	8.3	-	8.5
Grenada	23.3	0.7	8.1	8.0	-	35.9
Guatemala	16.5	5.9	1.6	22.9	66.1	58.8
Guinea	24.9	7.0	0.5	29.7	37.7	119.6
Guinea-Bissau	24.9	7.0	4.1	32.2	60.0	84.4
Guyana	29.2	40.3	5.3	22.3	46.6	64.9
Haiti	31.3	9.6	3.5	18.8	45.4	54.8
Honduras	18.7	2.1	3.2	16.1	79.0	97.1
Hungary	22.1	16.6	10.6	7.7	-	21.4
Iceland	8.7	11.9	8.1	2.0	-	3.3
India	21.9	12.7	4.9	15.6	72.8	10.6
Indonesia	24.8	2.4	0.1	11.3	77.0	36.1
Iran (Islamic Republic of)	14.8	5.2	0.7	21.5	-	24.5
Iraq	23.5	3.6	0.2	27.3	53.8 <sup>am</sup>	70.0
Ireland	9.7	9.6	11.7	3.1	-	4.9
Israel	8.8	5.3	3.0	3.9	-	7.1
Italy	9.0	6.7	8.0	5.3	-	3.3
Jamaica	16.9	2.4	3.6	15.1	-	35.9
Japan	8.3	15.3	6.7	3.6	-	2.5
Jordan	15.3	1.6	0.3	17.0	56.7 <sup>am</sup>	27.0
Kazakhstan	22.4	17.6	4.5	12.7	73.2 <sup>am</sup>	22.9
Kenya	21.0	6.1	2.9	28.3	77.1	73.0
Kiribati	50.8	28.3	0.8	1.9	53.1	50.6
Kuwait	11.9	2.9	0.0	15.4	-	5.2
Kyrgyzstan	20.3	7.4	5.0	12.7	64.6	32.6
Lao People's Democratic Republic	26.8	5.4	11.5	17.9	72.3	83.4
Latvia	21.6	20.1	13.1	8.1	-	10.0
Lebanon	19.9	2.8	1.5	16.4	-	-
Lesotho	42.7	72.4	4.5	31.9	82.8	84.5
Liberia	17.8	4.4	3.6	38.9	47.5	128.1
Libya	18.6	4.5	<0.1	21.3	24.0 <sup>am</sup>	10.9
Lithuania	19.3	26.1	11.8	8.1	-	8.2
Luxembourg	9.7	11.3	11.5	4.1	-	3.9
Madagascar	26.0	5.5	1.0	29.2	65.6 <sup>am</sup>	143.0
Malawi	22.6	5.4	3.2	33.4	77.3	135.6
Malaysia	18.4	5.7	0.8	22.5	-	7.8
Maldives	11.6	2.7	1.4	1.6	29.2	5.1
Mali	22.3	4.1	4.3	22.7	41.2	163.6

3.7	3.8			3.9		
Adolescent birth rate <sup>a</sup> (per 1000 women aged 10–14 years)	UHC: Service coverage index <sup>b</sup>	Population with household expenditures on health > 10% of total household expenditure or income <sup>c</sup> (%)	Population with household expenditures on health > 25% of total household expenditure or income <sup>c</sup> (%)	Age-standardized mortality rate attributed to household and ambient air pollution <sup>d</sup> (per 100 000 population)	Mortality rate attributed to exposure to unsafe WASH services <sup>e</sup> (per 100 000 population)	Mortality rate from unintentional poisoning <sup>f</sup> (per 100 000 population)
Primary data	Comparable estimates	Primary data	Primary data	Comparable estimates	Comparable estimates	Comparable estimates
2013–2021	2021	2013–2021	2013–2021	2019	2019	2019
1.0	77	8.2	0.9	41.3	5.8	0.4
2.2	77	10.3	2.4	28.1	4.7	0.3
-	70	31.1	6.1	105.6	4.8	0.2
2.1	78	4.1	1.4	40.3	6.1	0.2
-	46	-	-	165.7	29.7	1.6
-	45	-	-	237.4	66.5	3.3
0.1	79	-	-	12.8	2.6	0.6
1.2	56	5.0	1.3	173.7	46.5	3.3
0.5	35	3.5	0.6	142.5	40.7	3.3
0.0	58	-	-	118.7	10.8	0.3
<0.1	86	6.7	0.7	7.4	0.8	0.4
0.1	85	-	-	10.0	3.4	0.3
-	49	3.8	0.7	78.3	17.5	1.3
1.1	46	0.2	<0.1	220.5	29.5	1.8
0.1	68	31.4	8.9	92.8	3.3	0.6
0.1	88	-	-	14.7	3.2	0.3
0.7	48	1.3	0.1	193.6	25.2	1.7
0.4	77	16.9	1.6	23.0	7.6	0.2
-	70	-	-	47.4	6.7	<0.1
0.0	59	11.5	3.8	91.0	15.3	1.6
4.4	40	1.5	<0.1	238.0	57.8	2.3
1.6	37	5.1	0.4	228.8	49.4	2.3
1.3	76	-	-	95.7	8.6	<0.1
1.3	54	11.5	4.0	206.4	25.9	1.4
2.5	64	-	-	112.5	7.1	0.5
0.4	79	12.3	0.9	42.3	2.0	0.5
0.0	89	-	-	8.2	2.4	1.0
0.2	63	17.5	6.7	139.3	36.4	0.3
0.3	55	2.0	0.4	96.1	15.8	0.3
0.4	74	15.4	3.7	58.1	2.9	1.0
1.6	59	19.6	4.2	89.7	4.4	0.2
<0.1	83	-	-	12.8	2.7	0.3
0.0	85	12.8	2.6	15.1	2.0	<0.1
0.0	84	-	-	15.0	3.0	0.3
0.0	74	-	-	35.9	2.3	<0.1
<0.1	83	11.1	2.0	11.8	8.4	0.2
0.4	65	6.4	1.3	38.7	1.9	0.5
<0.1	80	3.7	0.2	83.4	3.2	1.9
2.0	53	5.2	1.4	131.9	29.0	2.4
1.8	48	-	-	246.6	37.4	2.6
0.0	78	-	-	45.2	0.8	0.4
<0.1	69	4.9	0.8	124.9	2.3	0.9
2.6	52	6.8	3.0	195.3	20.5	0.6
0.0	75	21.4	5.7	40.1	2.6	1.2
-	73	-	-	58.6	2.4	0.6
0.1	53	-	-	288.3	108.1	5.2
3.8	45	6.8	1.1	152.7	34.6	1.7
-	62	-	-	53.9	2.2	0.8
<0.1	75	-	-	38.8	2.6	1.7
0.0	83	4.3	0.2	12.5	1.9	0.2
7.1	35	-	-	208.0	40.1	2.1
2.1	48	2.9	0.4	148.5	30.8	1.7
0.1	76	1.5	0.1	76.5	14.4	0.7
0.1	61	10.3	4.1	32.0	2.3	<0.1
6.8	41	1.7	0.1	167.1	66.1	2.9



Data type	3.4		3.5	3.6	3.7	
	Probability of dying from any of CVD, cancer, diabetes, CRD between age 30 and exact age 70 <sup>k</sup> (%)	Suicide mortality rate <sup>k</sup> (per 100 000 population)	Total alcohol per capita (≥ 15 years of age) consumption <sup>l</sup> (litres of pure alcohol)	Road traffic mortality rate <sup>k,ay</sup> (per 100 000 population)	Proportion of women of reproductive age who have their need for family planning satisfied with modern methods <sup>m</sup> (%)	Adolescent birth rate <sup>n</sup> (per 1000 women aged 15–19 years)
	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data
Countries and areas	2019	2019	2019	2019	2013–2021	2013–2021
Malta	10.5	6.1	8.5	4.1	-	11.0
Marshall Islands	-	-	-	-	-	-
Mauritania	16.1	3.1	0.0	25.6	22.4 <sup>am</sup>	89.6
Mauritius	23.2	9.5	7.5	12.2	41.9 <sup>am</sup>	20.7
Mexico	15.6	5.3	5.7	12.8	83.1 <sup>am</sup>	50.7
Micronesia (Federated States of)	46.3	28.2	2.1	0.2	-	-
Monaco	-	-	-	-	-	-
Mongolia	35.0	17.9	7.9	21.0	63.6	26.9
Montenegro	22.3	21.0	10.3	7.6	32.9	9.5
Morocco	24.1	7.2	0.5	17.0	72.0 <sup>am</sup>	21.7
Mozambique	30.6	13.6	2.0	3.0	55.5	180.1
Myanmar	24.9	2.9	2.1	20.4	74.9	24.5
Namibia	22.6	9.7	5.9	34.8	80.4	63.9
Nauru	-	-	2.9	-	-	94.0
Nepal	21.5	9.0	1.4	16.3	61.9 <sup>am</sup>	63.1
Netherlands (Kingdom of the)	10.3	11.8	9.3	4.0	-	2.4
New Zealand	10.3	11.0	9.9	9.6	-	10.1
Nicaragua	15.3	4.3	4.2	16.9	-	-
Niger	21	5.3	0.1	25.5	36.9	132.0
Nigeria	16.9	3.5	4.2	20.7	35.6	74.6
Niue	-	-	9.3	-	-	-
North Macedonia	22.7	9.4	4.6	5.1	29.6	16.2
Norway	8.7	11.8	6.8	2.1	-	1.7
occupied Palestinian territory, including east Jerusalem	-	-	-	-	61.0 <sup>am</sup>	42.8
Oman	21.5	4.8	0.9	10.6	39.6 <sup>am</sup>	7.1
Pakistan	29.4	8.9	0.1	13.0	48.5 <sup>am</sup>	54.0
Palau	-	-	-	-	-	34.5
Panama	10.7	2.9	6.6	13.9	65.2	61.7
Papua New Guinea	36	3.0	1.7	12.6	49.2	67.8
Paraguay	16	6.0	5.6	22.0	78.9	52.3
Peru	9.7	2.8	7.5	13.6	65.9 <sup>am</sup>	33.7
Philippines	24.5	2.1	6.2	12.0	56.0	34.8
Poland	17	11.3	11.6	9.4	-	8.2
Portugal	11	11.5	10.4	8.2	-	5.7
Puerto Rico	-	-	-	-	-	15.6
Qatar	10.7	5.8	1.1	7.3	-	7.6
Republic of Korea	7.3	28.6	8.2	8.6	-	0.7
Republic of Moldova	24.1	14.7	11.4	7.3	59.5	24.7
Romania	21	9.7	17.0	10.3	-	35.0
Russian Federation	24.2	25.1	10.4	12.0	-	16.2
Rwanda	20.2	5.6	1.9	29.4	72.1	31.3
Saint Kitts and Nevis	-	-	6.3	-	-	-
Saint Lucia	17.7	7.9	9.5	29.8	-	37.8
Saint Vincent and the Grenadines	20.7	1.0	7.2	7.4	-	55.2
Samoa	31.2	12.6	2.4	13.0	27.0	54.9
San Marino	-	-	-	-	-	1.4
Sao Tome and Principe	21.0	1.5	5.0	27.9	57.7	86.1
Saudi Arabia	20.9	6.0	0.0	35.9	-	-
Senegal	19.5	6.0	0.4	23.5	53.2	71.3
Serbia	22.0	11.4	7.9	7.5	38.4	13.6
Seychelles	21.1	8.1	12.0	11.3	-	61.4
Sierra Leone	23.5	6.7	0.3	33.0	53.0	101.9
Singapore	9.5	11.2	1.9	2.1	-	2.4
Slovakia	15.5	12.1	10.5	6.1	-	26.9

3.7		3.8				3.9	
Adolescent birth rate <sup>a</sup> (per 1000 women aged 10–14 years)	UHC: Service coverage index <sup>c</sup>	Population with household expenditures on health > 10% of total household expenditure or income <sup>d</sup> (%)	Population with household expenditures on health > 25% of total household expenditure or income <sup>d</sup> (%)	Age-standardized mortality rate attributed to household and ambient air pollution <sup>a</sup> (per 100 000 population)	Mortality rate attributed to exposure to unsafe WASH services <sup>c</sup> (per 100 000 population)	Mortality rate from unintentional poisoning <sup>k</sup> (per 100 000 population)	
Primary data	Comparable estimates	Primary data	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	
2013–2021	2021	2013–2021	2013–2021	2019	2019	2019	
0.1	85	15.9	2.8	20.9	4.6	0.1	
-	59	-	-	-	-	-	
6.3	40	11.7	3.0	128.4	37.8	1.5	
0.4	66	8.2	1.9	34.7	5.5	0.8	
1.0	75	4.4	1.2	44.7	3.5	0.4	
-	48	-	-	254.0	14.0	0.9	
-	86	-	-	-	-	-	
0.1	65	14.0	3.5	214.7	3.2	2.8	
0.1	72	10.3	0.8	115.2	1.8	0.6	
<0.1	69	8.2	0.9	66.6	4.6	0.7	
4.4	44	3.6	1.0	228.4	45.6	3.7	
0.1	52	12.7	3.5	184.1	12.9	1.3	
-	63	1.5	0.3	142.5	28.8	1.9	
-	60	-	-	-	-	-	
0.4	54	10.7	2.1	177.9	17.8	1.7	
0.0	85	-	-	13.1	3.4	0.1	
0.0	85	-	-	12.2	2.1	0.2	
-	70	24.7	9.1	84.4	3.5	0.3	
4.0	35	6.5	0.9	213.3	70.3	3.3	
1.9	38	15.8	4.1	165.2	71.7	3.3	
-	44	-	-	-	-	-	
0.4	74	9.7	1.5	95.6	1.0	0.5	
0.0	87	-	-	7.9	3.6	0.3	
0.0	-	9.0	1.5	-	-	-	
0.1	70	-	-	104.0	1.6	0.9	
0.4	45	5.4	1.0	192.1	38.8	1.6	
0.0	65	-	-	-	-	-	
2.2	78	6.2	0.7	27.3	4.2	<0.1	
1.1	30	-	-	189.6	24.9	1.4	
0.8	72	-	-	55.6	4.6	0.2	
1.0	71	12.6	2.0	37.9	7.6	0.4	
0.5	58	6.3	1.4	202.8	16.9	0.2	
<0.1	82	16.1	2.0	40.9	5.4	0.5	
0.1	88	-	-	10.0	6.8	0.3	
0.1	-	-	-	-	-	-	
0.0	76	1.3	0.1	90.8	0.4	0.3	
<0.1	89	12.0	2.9	18.9	5.2	0.2	
0.1	71	14.2	2.5	68.9	3.6	5.5	
1.4	78	13.4	2.2	67.8	7.2	1.9	
0.1	79	7.7	0.9	67.1	3.2	3.8	
0.2	49	1.2	0.1	165.8	25.0	1.7	
-	79	-	-	-	-	-	
0.9	77	6.2	1.8	27.7	5.8	0.1	
0.8	69	-	-	34.4	5.3	<0.1	
0.5	55	-	-	145.5	8.2	0.4	
0.0	77	-	-	-	-	-	
0.4	59	4.8	1.2	225.4	16.7	0.7	
-	74	1.3	0.6	91.1	1.9	0.8	
0.9	50	6.9	1.3	146.4	31.7	1.9	
0.2	72	8.5	0.6	71.5	3.9	0.3	
1.3	75	2.6	1.3	43.1	8.4	0.5	
3.9	41	16.4	3.0	239.0	69.5	2.8	
<0.1	89	9.0	1.5	23.4	8.5	<0.1	
0.3	82	2.7	<0.1	30.3	3.6	0.5	

	3.4		3.5	3.6	3.7	
	Probability of dying from any of CVD, cancer, diabetes, CRD between age 30 and exact age 70 <sup>k</sup> (%)	Suicide mortality rate <sup>k</sup> (per 100 000 population)	Total alcohol per capita (≥ 15 years of age) consumption <sup>l</sup> (litres of pure alcohol)	Road traffic mortality rate <sup>k,ay</sup> (per 100 000 population)	Proportion of women of reproductive age who have their need for family planning satisfied with modern methods <sup>m</sup> (%)	Adolescent birth rate <sup>n</sup> (per 1000 women aged 15–19 years)
Data type	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data
Countries and areas	2019	2019	2019	2019	2013–2021	2013–2021
Slovenia	11.4	19.8	11.0	5.1	-	4.2
Solomon Islands	39.2	14.7	16	16.5	38.0 <sup>am</sup>	77.9
Somalia	30.4	7.9	0.0	27.4	2.1 <sup>am</sup>	115.9
South Africa	24.1	23.5	8.8	22.2	79.7	40.7
South Sudan	16.8	3.9	-	36.7	-	-
Spain	9.6	7.7	10.9	3.9	-	5.3
Sri Lanka	13.2	14.0	2.8	19.7	74.3 <sup>am</sup>	16.5
Sudan	22.8	3.8	<0.1	26.8	30.2 <sup>am</sup>	86.8
Suriname	22.7	25.4	6.6	15.3	57.5	49.1
Sweden	8.4	14.7	9.3	3.1	86.7	2.4
Switzerland	7.9	14.5	10.4	2.2	-	1.3
Syrian Arab Republic	22.1	2.0	0.2	14.9	-	-
Tajikistan	28.3	4.3	0.9	15.7	52.1 <sup>am</sup>	41.7
Thailand	13.7	8.8	7.8	32.2	88.2	27.4
Timor-Leste	19.9	3.7	0.4	11.9	45.9	41.9
Togo	23.9	8.8	1.4	28.7	39.6	78.9
Tonga	24.8	3.8	0.4	33.0	49.9	-
Trinidad and Tobago	17.1	8.7	6.1	9.3	-	-
Tunisia	15.7	3.3	2.0	16.5	62.7 <sup>am</sup>	4.0
Türkiye	15.6	2.4	1.8	6.7	60.2 <sup>am</sup>	15.2
Turkmenistan	27.7	5.7	2.9	13.5	79.6 <sup>am</sup>	27.5
Tuvalu	-	-	1.2	-	46.2	40.3
Uganda	21.2	4.6	12.2	29.4	65.5 <sup>am</sup>	127.9
Ukraine	25.5	21.6	8.7	10.2	-	14.5
United Arab Emirates	18.5	6.4	2.4	8.9	-	4.9
United Kingdom	10.3	7.9	10.8	3.2	-	10.0
United Republic of Tanzania	17.4	4.3	10.4	31.1	55.1	138.9
United States of America	13.6	16.1	9.6	12.7	78.4	15.1
Uruguay	16.5	21.2	5.5	14.8	-	29.1
Uzbekistan	25.3	8.0	2.6	11.7	-	34.3
Vanuatu	39.7	1.8	1.9	14.9	50.7 <sup>am</sup>	-
Venezuela (Bolivarian Republic of)	14.8	2.0	3.0	39.0	-	81.1
Viet Nam	21.2	7.5	9.3	30.6	72.1 <sup>am</sup>	29.0
Yemen	27.6	5.8	<0.1	29.4	40.5 <sup>am</sup>	-
Zambia	24.6	7.3	3.9	20.5	65.9	134.6
Zimbabwe	28.4	14.1	3.6	41.2	84.8	107.9
<b>WHO region</b>	<b>2019</b>	<b>2019</b>	<b>2019</b>	<b>2019</b>	<b>2022</b>	<b>2022</b>
African Region	20.8	6.9	4.5	27.2	57.5	97.0
Region of the Americas	14.0	9.6	7.5	15.3	82.6	40.3
South-East Asia Region	21.6	10.1	3.8	15.8	77.7	25.2
European Region	16.3	12.8	9.2	7.4	76.8	13.1
Eastern Mediterranean Region	24.5	5.8	0.3	17.8	62.3	45.8
Western Pacific Region	15.6	8.7	6.1	16.4	87.3	16.9
<b>Global</b>	<b>17.8</b>	<b>9.2</b>	<b>5.5</b>	<b>16.7</b>	<b>77.5</b>	<b>41.9</b>

3.7	3.8			3.9		
Adolescent birth rate <sup>a</sup> (per 1000 women aged 10–14 years)	UHC: Service coverage index <sup>b</sup>	Population with household expenditures on health > 10% of total household expenditure or income <sup>c</sup> (%)	Population with household expenditures on health > 25% of total household expenditure or income <sup>c</sup> (%)	Age-standardized mortality rate attributed to household and ambient air pollution <sup>d</sup> (per 100 000 population)	Mortality rate attributed to exposure to unsafe WASH services <sup>e</sup> (per 100 000 population)	Mortality rate from unintentional poisoning <sup>f</sup> (per 100 000 population)
Primary data	Comparable estimates	Primary data	Primary data	Comparable estimates	Comparable estimates	Comparable estimates
2013–2021	2021	2013–2021	2013–2021	2019	2019	2019
0.1	84	3.7	0.3	18.8	19	0.2
-	47	-	-	281.2	327	2.3
1.2	27	0.1	0.0	237.9	99.2	4.9
1.0	71	1.0	0.1	74.9	27.6	1.7
-	34	11.7	2.7	134.5	68.1	2.3
0.1	85	7.9	1.1	10.1	3.2	0.4
<0.1	67	5.4	0.9	91.6	4.8	0.4
2.3	44	12.5	1.8	145.3	15.8	1.7
2.0	63	4.9	1.4	51.0	7.1	0.3
<0.1	85	-	-	8.1	3.0	0.2
<0.1	86	7.9	0.3	10.4	2.5	0.2
-	64	-	-	94.5	9.1	0.6
0.0	67	9.8	1.4	203.8	9.0	0.4
0.0	82	2.1	0.3	46.5	11.8	0.2
0.4	52	2.6	0.6	185.6	20.4	0.4
1.5	44	13.7	3.0	223.1	42.4	1.9
0.0	57	-	-	52.3	7.1	1.1
-	75	3.9	1.9	19.8	1.6	0.1
0.0	67	16.7	2.4	55.9	3.1	0.7
<0.1	76	4.2	0.7	45.5	2.5	0.4
0.0	75	-	-	87.9	5.7	0.6
0.0	52	-	-	-	-	-
1.1	49	15.3	3.8	163.0	28.1	1.7
0.1	76	8.3	1.2	78.9	2.3	2.5
0.0	82	0.4	<0.1	70.0	0.8	0.4
0.1	88	2.4	0.6	13.4	6.1	0.3
1.5	43	4.3	0.8	128.3	30.2	2.0
0.3	86	4.6	0.9	14.2	2.3	0.5
0.5	82	2.1	0.2	16.2	4.4	0.5
<0.1	75	-	-	151.7	2.9	0.8
-	47	-	-	259.9	25.0	0.7
3.1	75	-	-	37.9	5.2	0.2
0.2	68	8.5	1.7	102.8	6.9	0.9
-	42	15.8	4.2	186.3	15.6	1.8
2.9	56	0.3	<0.1	174.0	35.8	2.6
1.2	55	11.8	7.0	189.6	36.2	3.5
2022	2021	2019	2019	2019	2019	2019
4.4	44	8.6	2.6	163.4	46.7	2.5
1.7	80	7.8	1.5	31.1	5.0	0.4
0.5	62	16.1	5.9	132.8	29.6	0.3
0.1	81	7.9	1.3	44.5	3.6	1.1
1.1	57	12.1	2.2	136.0	18.4	1.1
0.3	79	19.8	5.3	94.0	4.3	1.4
<b>1.5</b>	<b>68</b>	<b>13.5</b>	<b>3.8</b>	<b>103.6</b>	<b>18.3</b>	<b>1.1</b>

Table 3. Annex 1-3

Data type	3.b						
	Age-standardized prevalence of tobacco use among persons 15 years and older <sup>s</sup> (%)	Diphtheria-tetanus-pertussis (DTP3) immunization coverage among 1-year-olds <sup>t</sup> (%)	Measles-containing-vaccine second-dose (MCV2) immunization coverage by the nationally recommended age <sup>t</sup> (%)	Pneumococcal conjugate 3rd dose (PCV3) immunization coverage among 1-year-olds <sup>t</sup> (%)	Human papillomavirus (HPV) immunization coverage estimates among 15 year-old girls <sup>t</sup> (%)	Total net official development assistance to medical research and basic health sectors per capita <sup>u</sup> (US\$), by recipient country	Proportion of health facilities with a core set of relevant essential medicines available and affordable on a sustainable basis <sup>v</sup> (%)
	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data
Countries and areas	2020	2021	2021	2021	2021	2021	2012–2019
Afghanistan	23.3	66	44	65	-	3.50	-
Albania	22.4 <sup>an</sup>	98	92	89	-	9.43	-
Algeria	21.0	91	77	91	-	0.53	-
Andorra	31.8 <sup>an</sup>	99	97	95	83	-	-
Angola	-	45	32	34	-	2.26	-
Antigua and Barbuda	-	92	76	-	2	1.55	-
Argentina	24.5	76	79	74	53	1.02	-
Armenia	25.5	93	94	93	8	4.03	-
Australia	13.6 <sup>an</sup>	95	94	96	66	-	-
Austria	26.4 <sup>an</sup>	85	88	-	-	-	-
Azerbaijan	24.0	89	90	90	-	0.34	-
Bahamas	10.6	75	82	82	-	-	-
Bahrain	14.9 <sup>an</sup>	98	99	99	-	-	-
Bangladesh	34.7	98	93	99	-	4.89	-
Barbados	8.5	82	70	83	28	-	-
Belarus	30.5 <sup>an</sup>	98	98	-	-	2.26	-
Belgium	23.4	98	85	94	70	-	-
Belize	8.5 <sup>an</sup>	83	77	-	4	12.01	-
Benin	6.9	76	-	73	-	5.64	-
Bhutan	-	98	91	95	88	14.38	-
Bolivia (Plurinational State of)	12.7	70	56	70	36	12.80	231 <sup>ao</sup>
Bosnia and Herzegovina	35.0 <sup>an</sup>	73	76	-	-	17.40	-
Botswana	19.4	95	70	90	22	3.41	-
Brazil	12.8	68	46	69	67	0.83	-
Brunei Darussalam	16.2 <sup>an</sup>	99	99	-	89	-	-
Bulgaria	39.0 <sup>an</sup>	89	86	86	3	-	-
Burkina Faso	14.3	91	71	66	-	7.68	0.0 <sup>ao</sup>
Burundi	11.8	94	85	94	-	8.86	0.0 <sup>ao</sup>
Cabo Verde	11.4	93	86	-	-	10.68	-
Cambodia	21.1	92	71	90	-	5.21	-
Cameroon	7.3	69	35	67	5	3.00	-
Canada	13.0	92	83	84	87	-	-
Central African Republic	-	42	-	40	-	9.07	-
Chad	8.3	58	-	-	-	3.60	-
Chile	29.2 <sup>an</sup>	95	58	92	57	-	36.4 <sup>ao</sup>
China	25.6 <sup>an</sup>	99	99	-	-	0.08	-
China, Hong Kong SAR	-	-	-	-	-	-	-
China, Macao SAR	-	-	-	-	-	-	-
Colombia	8.5	86	86	84	11	3.34	8.3 <sup>ao</sup>
Comoros	20.3	85	19	-	-	49.05	-
Congo	14.5	77	31	75	-	2.97	0.0 <sup>ao</sup>
Cook Islands	24.0 <sup>an</sup>	98	98	-	-	-	-
Costa Rica	8.8	99	69	92	59	2.85	-
Côte d'Ivoire	9.4	76	1	57	41	5.77	-
Croatia	36.9 <sup>an</sup>	92	90	75	-	-	-
Cuba	17.9	99	99	-	-	1.36	-
Cyprus	35.1 <sup>an</sup>	96	88	81	-	-	-
Czechia	30.7 <sup>an</sup>	94	90	-	-	-	-
Democratic People's Republic of Korea	17.4 <sup>an</sup>	41	41	-	-	0.03	-
Democratic Republic of the Congo	12.8	65	-	63	-	3.95	-
Denmark	17.5 <sup>an</sup>	97	94	96	80	-	-
Djibouti	-	59	48	59	-	8.04	-

3.c				3.d			1.a
Density of medical doctors <sup>ww</sup> (per 10 000 population)	Density of nursing and midwifery personnel <sup>ww</sup> (per 10 000 population)	Density of dentists <sup>ww</sup> (per 10 000 population)	Density of pharmacists <sup>ww</sup> (per 10 000 population)	Average of 15 International Health Regulations core capacity scores <sup>x</sup>	Percentage of bloodstream infections due to methicillin-resistant <i>Staphylococcus aureus</i> <sup>y</sup> (%)	Percentage of bloodstream infections due to <i>Escherichia coli</i> resistant to 3rd-generation cephalosporin <sup>y</sup> (%)	Domestic general government health expenditure (GGHE-D) as percentage of general government expenditure (GGE) <sup>z</sup> (%)
Primary data	Primary data	Primary data	Primary data	Primary data	Primary data	Primary data	Comparable estimates
2013–2021	2013–2021	2013–2021	2013–2021	2022	2020	2020	2020
2.5	4.5	0.7	0.3	40	-	-	4.3
18.8	58.3	10.3	10.9	91	-	-	9.0
17.3	15.6	3.7	4.5	72	-	-	10.7
36.3	43.7	8.9	11.0	-	-	-	15.2
2.1	4.0	0.5	0.7	58	-	-	5.4
29.0	95.8	0.4	-	54	-	-	12.6
39.0	54.5	7.9	5.0	67	38	21	15.7
45.5	50.3	5.7	0.5	84	-	-	7.7
41.0	148.2	6.3	10.4	89	18	13	17.2
54.6	107.7	5.8	7.3	69	5	9	15.4
31.1	62.8	2.7	1.9	81	-	-	4.0
18.5	43.8	2.5	-	56	-	-	15.7
8.4	23.5	1.0	1.6	84	34	59	8.3
6.7	6.1	0.7	1.0	68	0	71	3.1
25.5	31.4	3.2	-	70	-	-	11.2
44.3	107.1	6.1	3.5	95	-	-	11.9
62.6	205.3	11.3	20.3	-	7	10	14.8
10.8	23.5	1.4	6.8	46	-	-	12.6
0.6	2.9	<0.1	0.3	41	-	-	4.6
5.6	22.1	1.0	0.6	63	12	54	10.3
10.1	15.3	1.8	2.2	70	-	-	14.9
21.0	56.0	2.3	1.3	36	23	24	14.9
3.5	50.2	0.7	2.0	42	-	-	12.0
21.4	55.1	6.7	3.4	69	-	-	10.8
19.1	67.1	2.4	2.1	-	13	17	6.8
41.7	47.4	13.9	8.2	72	-	-	12.1
0.9	9.0	<0.1	0.1	57	100	64	11.5
0.6	7.6	<0.1	0.1	42	-	-	8.3
7.9	12.4	2.1	3.0	62	-	-	10.4
2.1	10.2	0.9	0.3	60	68	74	7.4
1.2	1.9	<0.1	0.1	40	-	-	3.7
24.6	102.7	6.6	10.5	96	-	-	18.3
0.7	2.3	<0.1	0.1	34	-	-	4.8
0.6	2.0	<0.1	0.1	40	-	-	4.9
29.7	46.0	14.8	6.3	78	-	-	18.8
23.9	33.0	4.5	3.2	93	-	-	8.4
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
23.6	14.5	8.3	1.7	73	-	-	19.5
2.8	15.9	0.4	0.7	41	-	-	4.1
1.0	9.3	0.1	0.3	47	-	-	8.2
13.5	81.9	3.5	0.6	71	-	-	7.8
27.7	30.6	10.6	11.7	65	-	-	25.2
1.6	6.4	0.1	0.4	53	72	90	6.7
34.7	80.9	12.2	7.2	76	50	18	11.7
84.3	75.7	16.7	-	99	-	-	16.4
53.8	46.3	8.6	13.3	68	50	52	14.1
54.7	92.0	7.5	7.2	77	9	13	17.1
36.7	44.3	2.2	4.0	76	-	-	-
3.6	10.7	<0.1	0.2	48	-	-	6.3
42.6	105.4	7.2	4.4	97	2	7	16.7
2.0	6.6	0.2	2.1	40	0	0	4.3

Data type	3.a		3.b				
	Age-standardized prevalence of tobacco use among persons 15 years and older <sup>s</sup> (%)	Diphtheria-tetanus-pertussis (DTP3) immunization coverage among 1-year-olds <sup>t</sup> (%)	Measles-containing-vaccine second-dose (MCV2) immunization coverage by the nationally recommended age <sup>t</sup> (%)	Pneumococcal conjugate 3rd dose (PCV3) immunization coverage among 1-year-olds <sup>t</sup> (%)	Human papillomavirus (HPV) immunization coverage estimates among 15 year-old girls <sup>t</sup> (%)	Total net official development assistance to medical research and basic health sectors per capita <sup>u</sup> (US\$), by recipient country	Proportion of health facilities with a core set of relevant essential medicines available and affordable on a sustainable basis <sup>v</sup> (%)
	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data
Countries and areas	2020	2021	2021	2021	2021	2021	2012–2019
Dominica	-	92	88	-	68	74.50	-
Dominican Republic	10.6	84	60	71	8	21.70	-
Ecuador	11.3	72	58	62	3	2.05	50.0 <sup>so</sup>
Egypt	24.3	96	96	-	-	115	-
El Salvador	7.9 <sup>an</sup>	79	71	94	24	4.79	-
Equatorial Guinea	-	53	17	-	-	1.07	-
Eritrea	7.5	95	85	95	-	2.75	-
Estonia	29.7	90	84	-	57	-	-
Eswatini	9.2	77	69	63	-	6.24	-
Ethiopia	5.1	65	46	61	75	1.75	-
Fiji	23.1 <sup>an</sup>	99	94	99	-	26.59	-
Finland	21.6	89	93	82	-	-	-
France	33.4 <sup>an</sup>	96	86	92	37	-	-
Gabon	-	75	-	-	-	6.05	-
Gambia	11.1	82	67	78	30	16.03	-
Georgia	31.7	85	81	82	12	4.48	-
Germany	22.0 <sup>an</sup>	91	93	82	47	-	-
Ghana	3.5	98	83	98	-	6.87	12.5 <sup>so</sup>
Greece	33.5	99	83	96	-	-	-
Grenada	-	72	79	-	-	12.53	-
Guatemala	10.9	79	72	72	15	2.48	-
Guinea	-	47	-	-	-	7.30	12.5 <sup>so</sup>
Guinea-Bissau	9.0	67	-	67	-	4.39	-
Guyana	12.1	91	83	99	2	5.10	-
Haiti	7.7	51	41	51	-	4.34	-
Honduras	-	77	75	77	53	2.68	-
Hungary	31.8 <sup>an</sup>	99	99	99	82	-	-
Iceland	12.0 <sup>an</sup>	92	10	92	90	-	-
India	27.2	85	82	25	-	0.22	-
Indonesia	37.6	67	50	1	5	1.26	-
Iran (Islamic Republic of)	13.6	98	98	-	-	0.83	-
Iraq	18.5	78	84	0	-	0.94	-
Ireland	20.8 <sup>an</sup>	94	-	85	71	-	-
Israel	21.2 <sup>an</sup>	98	93	95	55	-	-
Italy	23.1 <sup>an</sup>	94	86	91	-	-	-
Jamaica	9.4 <sup>an</sup>	90	85	-	2	2.94	-
Japan	20.1 <sup>an</sup>	96	95	95	-	-	-
Jordan	34.8 <sup>an</sup>	77	90	-	-	12.09	-
Kazakhstan	23.2	95	96	93	-	0.64	-
Kenya	11.1	91	57	92	44	3.79	-
Kiribati	40.6 <sup>an</sup>	92	58	99	-	72.18	-
Kuwait	17.9	94	94	96	-	-	-
Kyrgyzstan	25.4	89	97	90	-	4.79	0.0 <sup>so</sup>
Lao People's Democratic Republic	31.8	75	50	74	42	12.59	25.3
Latvia	37.0	94	85	92	42	-	-
Lebanon	38.2	67	59	70	-	22.78	52.5
Lesotho	24.3	87	82	87	-	4.41	-
Liberia	8.2	66	35	65	30	10.04	-
Libya	-	73	72	73	-	5.01	-
Lithuania	32.0	90	88	82	66	-	-
Luxembourg	21.1 <sup>an</sup>	99	90	96	-	-	-
Madagascar	27.8	55	24	54	-	3.25	-
Malawi	10.8	93	74	93	12	7.90	-
Malaysia	22.5	95	84	-	14	0.66	-

3.c				3.d			1.a
Density of medical doctors <sup>w</sup> (per 10 000 population)	Density of nursing and midwifery personnel <sup>w</sup> (per 10 000 population)	Density of dentists <sup>w</sup> (per 10 000 population)	Density of pharmacists <sup>w</sup> (per 10 000 population)	Average of 15 International Health Regulations core capacity scores <sup>x</sup>	Percentage of bloodstream infections due to methicillin-resistant <i>Staphylococcus aureus</i> <sup>y</sup> (%)	Percentage of bloodstream infections due to <i>Escherichia coli</i> resistant to 3rd-generation cephalosporin <sup>y</sup> (%)	Domestic general government health expenditure (GGHE-D) as percentage of general government expenditure (GGE) <sup>z</sup> (%)
Primary data	Primary data	Primary data	Primary data	Primary data	Primary data	Primary data	Comparable estimates
2013–2021	2013–2021	2013–2021	2013–2021	2022	2020	2020	2020
11.2	65.1	1.1	-	61	-	-	5.4
14.3	14.4	2.3	1.2	62	-	-	14.7
22.3	25.2	3.0	0.4	60	-	-	13.9
7.1	18.3	1.9	4.3	87	100	90	5.2
29.1	26.4	8.5	5.4	92	-	-	17.8
3.5	2.7	-	0.1	43	-	-	5.3
0.8	14.4	0.5	1.3	58	-	-	2.4
38.6	111.8	10.1	7.4	75	-	-	13.0
1.4	24.7	0.2	0.4	44	2	-	10.0
1.0	7.7	<0.1	0.5	74	60	67	6.8
8.1	38.4	1.2	1.0	48	-	-	7.7
43.3	223.2	9.8	20.1	84	1	7	13.7
33.2	122.2	6.6	10.6	81	12	10	15.2
5.9	26.8	0.1	0.6	42	-	-	9.6
0.8	8.9	<0.1	<0.1	48	-	-	5.5
54.0	58.7	6.6	0.9	71	20	44	8.1
45.2	123.5	8.5	6.7	87	6	10	19.8
1.6	35.0	0.2	0.4	52	-	64	6.9
63.1	37.0	13.0	10.9	68	41	25	8.4
13.1	57.5	1.8	6.3	35	-	-	8.5
12.8	23.1	2.6	1.2	41	-	-	15.9
2.2	5.7	0.1	0.2	51	-	-	6.2
2.2	10.5	<0.1	<0.1	40	-	-	2.8
14.0	34.8	0.7	0.6	54	-	-	13.1
2.4	4.0	0.2	0.3	56	-	-	4.1
4.9	7.1	0.3	-	59	-	-	12.3
32.9	66.0	6.7	7.8	70	-	-	10.1
38.9	163.3	7.9	5.7	77	-	-	15.7
7.3	17.3	1.6	8.6	85	65	87	3.3
7.0	11.2	1.2	3.1	72	36	76	10.1
15.1	19.8	4.3	2.8	86	44	69	22.1
9.1	22.6	3.3	3.9	66	86	95	6.3
40.6	149.0	6.6	13.7	56	14	11	20.5
36.5	56.3	8.9	8.4	86	-	-	13.0
41.3	65.5	8.6	12.4	70	37	29	12.9
5.5	9.8	0.9	0.2	87	-	-	14.0
26.1	124.5	8.3	20.0	99	36	21	20.6
25.1	31.6	7.4	9.8	60	58	65	11.9
40.3	71.9	2.9	8.0	80	-	-	10.2
2.3	12.0	0.3	0.2	45	25	0	8.2
1.9	36.2	0.7	0.3	-	-	-	8.4
22.9	45.9	6.6	4.8	92	100	100	8.7
21.7	56.8	1.9	0.4	48	-	-	6.9
3.3	11.8	0.8	2.3	53	50	51	6.2
33.5	44.0	7.2	8.8	68	14	33	10.9
26.2	19.3	11.8	14.9	72	35	56	13.4
4.5	31.2	0.2	1.8	40	-	-	11.1
0.5	19.3	<0.1	2.2	58	13	40	4.5
21.6	67.4	9.1	6.2	53	83	62	-
49.5	96.6	13.1	12.2	85	10	16	12.1
29.9	120.8	9.7	7.0	67	3	11	10.7
1.9	2.9	0.2	0.1	48	-	-	8.8
0.5	7.0	0.1	0.1	50	61	57	8.7
22.3	33.9	3.0	3.4	89	17	26	8.6



Data type	3.a		3.b				
	Age-standardized prevalence of tobacco use among persons 15 years and older <sup>s</sup> (%)	Diphtheria-tetanus-pertussis (DTP3) immunization coverage among 1-year-olds <sup>t</sup> (%)	Measles-containing-vaccine second-dose (MCV2) immunization coverage by the nationally recommended age <sup>t</sup> (%)	Pneumococcal conjugate 3rd dose (PCV3) immunization coverage among 1-year-olds <sup>t</sup> (%)	Human papillomavirus (HPV) immunization coverage estimates among 15 year-old girls <sup>t</sup> (%)	Total net official development assistance to medical research and basic health sectors per capita <sup>u</sup> (US\$), by recipient country	Proportion of health facilities with a core set of relevant essential medicines available and affordable on a sustainable basis <sup>v</sup> (%)
	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data
Countries and areas	2020	2021	2021	2021	2021	2021	2012–2019
Maldives	25.2	96	96	-	41	23.00	-
Mali	8.3	77	33	77	-	5.18	0.0 <sup>ao</sup>
Malta	24.0 <sup>an</sup>	99	93	99	99	-	-
Marshall Islands	28.5	86	58	61	27	2.18	-
Mauritania	10.7	68	-	65	-	11.66	-
Mauritius	20.2 <sup>an</sup>	92	64	94	55	1.69	-
Mexico	13.1	78	97	83	1	0.04	-
Micronesia (Federated States of)	-	72	38	70	32	2.64	-
Monaco	-	99	80	-	-	-	-
Mongolia	29.4	95	94	95	-	14.89	26.7 <sup>ao</sup>
Montenegro	31.4	83	79	-	-	22.53	-
Morocco	14.5	99	99	98	-	3.52	-
Mozambique	14.3	61	70	70	-	5.72	-
Myanmar	44.1	37	42	40	-	3.21	-
Namibia	15.1	93	63	78	-	2.32	-
Nauru	48.5	98	97	59	-	98.43	-
Nepal	30.4	91	87	84	-	5.08	-
Netherlands (Kingdom of the)	22.2 <sup>an</sup>	95	90	93	66	-	-
New Zealand	13.7 <sup>an</sup>	90	82	95	48	-	-
Nicaragua	-	87	83	87	-	17.69	-
Niger	7.4	82	66	82	-	4.48	-
Nigeria	3.7	56	36	52	-	2.34	-
Niue	-	99	99	99	76	490.10	-
North Macedonia	-	81	80	53	21	7.75	-
Norway	16.2 <sup>an</sup>	97	95	96	93	-	-
occupied Palestinian territory, including east Jerusalem	-	95	99	95	-	-	-
Oman	8.0	99	99	99	-	-	-
Pakistan	20.2	83	79	83	-	3.61	-
Palau	17.6 <sup>an</sup>	95	84	77	21	6.15	-
Panama	5.0	74	97	74	-	1.00	-
Papua New Guinea	39.3 <sup>an</sup>	31	20	32	-	15.69	-
Paraguay	11.5 <sup>an</sup>	70	67	62	17	2.77	-
Peru	8.1 <sup>an</sup>	82	60	75	53	1.08	69.2 <sup>ao</sup>
Philippines	22.9 <sup>an</sup>	57	55	51	0	2.45	-
Poland	24.0	90	95	62	-	-	-
Portugal	25.4 <sup>an</sup>	99	95	98	76	-	-
Puerto Rico	-	-	-	-	-	-	-
Qatar	11.8	98	99	98	-	-	-
Republic of Korea	20.8 <sup>an</sup>	98	96	98	-	-	-
Republic of Moldova	29.0	87	92	78	35	7.22	25.0 <sup>ao</sup>
Romania	28.0	86	75	85	-	-	-
Russian Federation	26.8	97	96	89	-	-	-
Rwanda	13.7	88	85	88	73	10.94	-
Saint Kitts and Nevis	-	96	94	-	84	-	-
Saint Lucia	-	80	66	-	62	11.93	-
Saint Vincent and the Grenadines	-	97	99	-	-	24.57	-
Samoa	25.3	85	50	3	-	36.41	-
San Marino	-	90	81	82	23	-	-
Sao Tome and Principe	5.7	97	69	97	-	20.99	-
Saudi Arabia	14.3	97	97	97	-	-	-
Senegal	6.9	85	75	86	21	4.83	7.7 <sup>ao</sup>
Serbia	39.8 <sup>an</sup>	92	84	87	-	6.15	-

3.c				3.d			1.a
Density of medical doctors <sup>w</sup> (per 10 000 population)	Density of nursing and midwifery personnel <sup>w</sup> (per 10 000 population)	Density of dentists <sup>w</sup> (per 10 000 population)	Density of pharmacists <sup>w</sup> (per 10 000 population)	Average of 15 International Health Regulations core capacity scores <sup>x</sup>	Percentage of bloodstream infections due to methicillin-resistant <i>Staphylococcus aureus</i> <sup>y</sup> (%)	Percentage of bloodstream infections due to <i>Escherichia coli</i> resistant to 3rd-generation cephalosporin <sup>y</sup> (%)	Domestic general government health expenditure (GGHE-D) as percentage of general government expenditure (GGE) <sup>z</sup> (%)
Primary data	Primary data	Primary data	Primary data	Primary data	Primary data	Primary data	Comparable estimates
2013–2021	2013–2021	2013–2021	2013–2021	2022	2020	2020	2020
21.6	49.0	1.0	6.8	56	-	-	18.2
1.2	4.2	<0.1	0.1	44	80	61	5.7
54.9	144.0	6.6	25.5	73	20	12	15.6
-	42.4	1.6	-	-	-	-	9.7
1.9	9.5	0.5	0.2	41	-	-	7.0
26.6	38.5	2.7	5.8	46	40	50	10.2
24.4	29.6	1.2	-	75	-	-	11.5
9.6	22.0	-	-	51	-	-	4.1
77.6	208.3	10.5	27.1	77	-	-	4.8
38.6	42.2	4.1	6.8	72	-	-	8.5
27.7	56.8	0.6	2.3	53	-	-	13.1
7.3	13.9	1.4	2.6	73	-	-	7.2
0.8	5.7	0.1	0.1	81	25	32	7.3
7.5	11.0	0.7	0.8	61	51	81	3.4
6.0	19.9	0.7	2.5	65	-	-	10.7
12.5	70.6	3.3	1.8	-	-	-	6.7
8.7	34.9	1.4	1.7	47	79	73	5.7
38.4	113.3	5.7	2.2	82	2	7	16.1
35.2	114.3	5.2	7.2	85	-	-	18.7
6.6	15.3	0.4	1.8	85	-	-	18.4
0.3	2.2	<0.1	<0.1	57	-	-	10.2
3.9	15.6	0.2	0.8	56	75	81	4.2
-	105.3	-	-	69	-	-	5.0
28.3	37.4	8.7	4.4	66	100	86	12.8
51.7	188.9	9.3	9.1	95	2	5	16.7
21.7	19.5	7.2	11.3	-	-	47	-
19.9	44.3	3.3	6.4	80	32	79	10.2
10.8	4.7	1.2	1.5	50	70	82	5.1
17.8	65.0	3.3	2.8	-	-	-	23.2
16.3	35.4	2.8	2.4	75	-	-	20.4
0.6	5.1	<0.1	0.1	-	-	-	7.6
32.4	90.3	12.8	5.5	62	-	-	15.9
16.5	26.1	2.1	1.5	45	47	72	16.3
7.9	47.5	2.5	4.7	67	46	36	8.7
37.1	67.6	10.1	9.5	83	15	18	9.7
56.2	75.6	11.3	9.5	85	-	-	13.8
-	-	-	-	-	-	-	-
25.0	72.4	6.2	8.9	94	32	40	9.5
25.1	85.3	5.2	7.7	99	48	38	13.6
40.6	61.2	5.4	3.9	62	56	89	12.4
29.7	73.7	7.9	9.1	64	-	-	12.0
38.3	62.4	3.5	0.4	100	29	73	13.6
1.2	9.3	0.2	0.7	65	-	-	8.9
30.3	45.2	2.5	-	71	-	-	8.0
6.5	32.2	1.7	4.5	60	-	-	8.7
-	73.4	-	-	59	-	-	9.7
5.5	30.2	0.9	0.2	55	-	-	11.7
60.2	80.8	17.5	6.6	-	-	-	13.1
4.9	21.5	0.3	1.7	38	-	-	10.8
27.9	56.0	6.3	8.6	93	100	58	-
0.8	3.6	0.1	0.1	52	-	-	6.5
36.8	71.9	3.0	9.6	68	-	-	11.0

Data type	3.b						
	3.a	Age-standardized prevalence of tobacco use among persons 15 years and older <sup>s</sup> (%)	Diphtheria-tetanus-pertussis (DTP3) immunization coverage among 1-year-olds <sup>t</sup> (%)	Measles-containing-vaccine second-dose (MCV2) immunization coverage by the nationally recommended age <sup>t</sup> (%)	Pneumococcal conjugate 3rd dose (PCV3) immunization coverage among 1-year-olds <sup>t</sup> (%)	Human papillomavirus (HPV) immunization coverage estimates among 15 year-old girls <sup>t</sup> (%)	Total net official development assistance to medical research and basic health sectors per capita <sup>u</sup> (US\$), by recipient country
	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data
<b>Countries and areas</b>	<b>2020</b>	<b>2021</b>	<b>2021</b>	<b>2021</b>	<b>2021</b>	<b>2021</b>	<b>2012–2019</b>
Seychelles	20.2	94	86	95	39	-	-
Sierra Leone	13.5	92	67	90	-	5.93	-
Singapore	16.5 <sup>an</sup>	96	84	82	-	-	-
Slovakia	31.5 <sup>an</sup>	97	96	97	-	-	-
Slovenia	22.0 <sup>an</sup>	86	91	58	50	-	-
Solomon Islands	36.5 <sup>an</sup>	87	40	86	-	17.87	-
Somalia	-	42	4	-	-	5.91	-
South Africa	20.3 <sup>an</sup>	86	82	87	34	1.35	-
South Sudan	-	49	-	-	-	15.68	-
Spain	27.7 <sup>an</sup>	92	91	92	77	-	-
Sri Lanka	22.0	96	97	-	46	1.70	68.3 <sup>ap</sup>
Sudan	-	84	63	85	-	3.60	41.0
Suriname	-	72	43	-	2	15.48	-
Sweden	24.0	98	91	97	83	-	-
Switzerland	25.5 <sup>an</sup>	96	94	88	71	-	-
Syrian Arab Republic	-	48	53	-	-	5.27	-
Tajikistan	-	97	96	-	-	8.56	15.0
Thailand	22.1	97	87	-	-	0.55	-
Timor-Leste	39.2	86	78	-	-	31.54	-
Togo	6.8	83	50	83	-	5.25	-
Tonga	31.0 <sup>an</sup>	99	99	67	-	50.65	-
Trinidad and Tobago	-	94	88	95	8	-	0.0 <sup>ap</sup>
Tunisia	24.6	97	98	96	-	7.18	-
Türkiye	30.7	95	93	96	-	0.31	-
Turkmenistan	5.5	97	98	97	99	1.69	-
Tuvalu	35.6 <sup>an</sup>	94	84	-	27	197.78	-
Uganda	8.4	91	-	91	44	5.94	-
Ukraine	25.8	78	86	-	-	1.17	19.8
United Arab Emirates	-	96	96	95	-	-	-
United Kingdom	15.4 <sup>an</sup>	93	87	91	59	-	-
United Republic of Tanzania	8.7	81	62	80	57	3.82	0.0 <sup>ap</sup>
United States of America	23.0	93	95	82	48	-	-
Uruguay	21.5	89	84	94	17	-	-
Uzbekistan	17.6	98	99	98	87	1.72	-
Vanuatu	17.8 <sup>an</sup>	62	-	2	-	54.23	-
Venezuela (Bolivarian Republic of)	-	56	37	0	-	1.01	-
Viet Nam	24.8	83	85	-	-	2.16	-
Yemen	20.3	72	52	72	-	-	-
Zambia	14.4	91	81	89	33	6.92	16.7 <sup>ap</sup>
Zimbabwe	11.7	86	74	86	40	9.65	-
<b>WHO region</b>	<b>2020</b>	<b>2021</b>	<b>2021</b>	<b>2021</b>	<b>2021</b>	<b>2021</b>	
African Region	10.3	71	41	66	21	4.08	-
Region of the Americas	16.3	80	75	74	38	2.02	-
South-East Asia Region	29.0	82	78	29	1	0.95	-
European Region	25.3	94	91	82	27	2.04	-
Eastern Mediterranean Region	18.6	82	77	54	-	3.16	-
Western Pacific Region	24.6	90	91	19	2	0.64	-
<b>Global</b>	<b>22.3</b>	<b>81</b>	<b>71</b>	<b>51</b>	<b>12</b>	<b>-</b>	<b>-</b>

3.c				3.d			1.a
Density of medical doctors <sup>w</sup> (per 10 000 population)	Density of nursing and midwifery personnel <sup>w</sup> (per 10 000 population)	Density of dentists <sup>w</sup> (per 10 000 population)	Density of pharmacists <sup>w</sup> (per 10 000 population)	Average of 15 International Health Regulations core capacity scores <sup>x</sup>	Percentage of bloodstream infections due to methicillin-resistant <i>Staphylococcus aureus</i> <sup>y</sup> (%)	Percentage of bloodstream infections due to <i>Escherichia coli</i> resistant to 3rd-generation cephalosporin <sup>y</sup> (%)	Domestic general government health expenditure (GGHE-D) as percentage of general government expenditure (GGE) <sup>z</sup> (%)
Primary data	Primary data	Primary data	Primary data	Primary data	Primary data	Primary data	Comparable estimates
2013–2021	2013–2021	2013–2021	2013–2021	2022	2020	2020	2020
211	92.2	4.0	12.0	52	-	-	10.2
0.7	2.0	<0.1	0.2	51	-	-	5.3
24.3	61.8	4.1	5.0	94	-	31	13.3
46.3	78.5	7.1	10.5	65	-	-	12.8
32.8	105.4	7.4	7.4	80	-	-	13.4
19	21.4	0.7	1.2	-	-	-	10.1
0.2	1.1	-	-	33	47	-	-
81	50.1	1.1	2.7	73	20	28	15.3
0.4	3.6	<0.1	0.3	40	-	-	2.1
45.8	63.1	8.4	13.2	82	-	-	15.0
11.9	24.4	1.0	1.1	66	53	62	8.5
2.6	11.4	2.1	0.3	49	100	100	9.6
8.0	38.0	0.6	0.4	46	-	-	13.8
70.6	215.9	17.7	16.1	88	5	8	18.8
44.4	187.1	4.1	6.7	92	25	11	11.1
11.9	14.2	6.6	9.8	58	25	0	-
17.1	47.1	1.5	-	63	-	-	7.4
9.3	30.8	2.6	6.2	87	11	39	13.2
7.7	17.7	<0.1	2.1	68	21	62	6.6
0.6	4.0	<0.1	<0.1	49	-	-	5.4
10.1	41.8	1.4	0.8	70	-	-	7.9
34.1	37.3	3.1	6.1	65	-	26	9.6
12.6	24.3	3.0	2.2	74	14	31	10.8
20.4	34.0	4.1	4.2	-	-	-	10.7
21.5	42.7	1.1	1.6	81	-	-	8.7
12.6	36.9	0.9	1.8	-	-	-	15.9
1.6	16.9	0.1	0.4	65	75	88	3.1
29.9	66.6	6.0	0.3	69	18	50	8.2
28.8	63.6	7.4	12.0	96	43	54	10.4
31.7	91.7	5.2	8.5	94	4	10	19.5
0.5	5.5	0.1	0.3	58	50	75	9.4
35.6	124.7	6.0	10.6	91	-	-	22.4
62.0	115.5	17.0	5.4	70	-	-	20.0
23.7	112.7	1.5	0.4	70	-	-	10.8
1.6	14.0	0.3	-	54	-	-	5.9
16.6	20.0	1.3	-	77	-	-	4.9
8.3	14.5	-	3.4	-	-	-	9.4
2.9	7.3	0.2	1.0	40	71	100	-
3.0	18.6	0.1	0.7	59	100	100	7.2
1.9	20.3	0.1	1.0	67	-	-	5.2
<b>2014–2021</b>	<b>2014–2021</b>	<b>2014–2021</b>	<b>2014–2021</b>	<b>2022</b>	<b>2020</b>	<b>2020</b>	<b>2020</b>
2.9	12.9	0.3	0.8	52	-	-	7.3
24.5	82.1	5.9	5.1	67	-	-	14.0
7.7	20.4	1.5	6.6	68	-	-	8.2
36.6	83.4	6.2	6.5	76	-	-	12.6
11.2	16.5	2.6	3.3	67	-	-	9.2
20.9	40.0	4.5	4.4	73	-	-	10.3
<b>16.3</b>	<b>39.4</b>	<b>3.3</b>	<b>4.7</b>	<b>66</b>	<b>36</b>	<b>47</b>	<b>10.7</b>

Table 4. Annex 1-4

Data type	2.2				5.2		6.1	6.2
	Prevalence of stunting in children under 5 <sup>aa</sup> (%)	Prevalence of wasting in children under 5 <sup>aa</sup> (%)	Prevalence of overweight in children under 5 <sup>aa</sup> (%)	Prevalence of anaemia in women of reproductive age (15–49 years) <sup>ab</sup> (%)	Proportion of ever-partnered women and girls aged 15–49 years subjected to physical and/or sexual violence by a current or former intimate partner in the previous 12 months <sup>ac</sup> (%)	Proportion of ever-partnered women and girls aged 15–49 years subjected to physical and/or sexual violence by a current or former intimate partner in their lifetime <sup>ac</sup> (%)	Proportion of population using safely-managed drinking-water services <sup>ad</sup> (%)	Proportion of population using safely-managed sanitation services <sup>ad</sup> (%)
	Comparable estimates	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates
Countries and areas	2022	2013–2022	2022	2019	2018	2018	2020	2020
Afghanistan	33.1	5.1 <sup>aa, ar</sup>	3.7	42.6	35	46	28	-
Albania	8.3	1.6	13.4	24.8	6	13	71	48
Algeria	8.6	2.7	11.9	33.3	-	-	72	18
Andorra	-	-	-	12.1	-	-	91	100
Angola	43.6	4.9	3.9	44.5	25	38	-	-
Antigua and Barbuda	-	-	-	17.2	-	-	-	-
Argentina	9.5	1.7 <sup>ar</sup>	12.6	11.9	5	27	-	-
Armenia	7.2	4.4	11.5	17.3	5	10	87	69
Australia	3.4	-	21.8	8.5	3	23	-	74
Austria	-	-	-	13.0	4	15	99	100
Azerbaijan	13.3	3.2 <sup>ar</sup>	10.1	35.1	5	14	88	-
Bahamas	-	-	-	14.5	-	-	-	-
Bahrain	5.0 <sup>as</sup>	-	-	35.4	-	-	99	91
Bangladesh	26.4	9.8	2.1	36.7	23	50	59	39
Barbados	6.0	-	12.5	17.0	-	-	-	-
Belarus	3.6	-	5.3	20.6	6	21	95	74
Belgium	2.4	0.4 <sup>ar</sup>	4.0	13.6	5	22	100	89
Belize	12.0	1.8	5.9	20.5	8	24	-	-
Benin	30.4	5.0	2.2	55.2	15	26	-	-
Bhutan	22.7	-	6.5	38.6	9	22	37	65
Bolivia (Plurinational State of)	11.1	2.0	9.0	24.4	18	42	-	53
Bosnia and Herzegovina	8.0	-	9.4	24.4	3	12	89	-
Botswana	21.6	-	10.1	32.5	17	34	-	-
Brazil	7.2	3.1 <sup>ar</sup>	10.3	16.1	6	23	86	49
Brunei Darussalam	10.9	-	9.1	16.7	-	-	-	-
Bulgaria	5.6	5.9 <sup>ar</sup>	3.8	23.6	6	19	98	72
Burkina Faso	21.8	10.6	2.0	52.5	11	19	-	-
Burundi	56.5	4.9 <sup>ar</sup>	3.6	38.5	22	40	-	-
Cabo Verde	9.4 <sup>as</sup>	-	-	24.3	11	19	-	-
Cambodia	22.3	9.6	3.8	47.1	9	19	28	-
Cameroon	26.9	4.3	10.5	40.6	22	39	-	-
Canada	-	-	11.1	10.4	3	-	99	84
Central African Republic	39.8	5.4	2.6	46.8	21	29	6	14
Chad	32.3	8.3 <sup>ar</sup>	3.2	45.4	16	29	6	10
Chile	1.6	0.3	8.8	8.7	6	21	99	79
China	4.6	1.9	8.9	15.5	8	19	-	70
China, Hong Kong SAR	-	-	-	-	-	-	-	-
China, Macao SAR	-	-	-	-	-	-	-	-
Colombia	11.2	1.6 <sup>aq</sup>	6.2	21.2	12	30	73	18
Comoros	18.8	-	7.7	33.8	8	16	-	-
Congo	16.5	8.2	4.5	48.8	-	-	46	-
Cook Islands	-	-	-	27.1	14	33	-	-
Costa Rica	9.5	1.8	7.6	13.7	7	27	81	30
Côte d'Ivoire	20.2	8.4	2.6	50.9	16	27	35	-
Croatia	-	-	-	21.0	4	13	-	68
Cuba	7.0	2.0	10.2	19.3	5	14	-	37
Cyprus	-	-	-	13.6	3	16	100	77
Czechia	2.5	-	6.1	21.1	4	22	98	85
Democratic People's Republic of Korea	16.8	2.5	2.8	33.9	-	-	66	-
Democratic Republic of the Congo	40.3	6.4	3.7	42.4	36	47	19	13
Denmark	-	-	-	12.2	3	23	97	92

6.2	6.3	6.a	7.1	11.6	16.1	GPW 13				
Proportion of population using a hand-washing facility with soap and water <sup>ad</sup> (%)	Proportion of safely treated domestic wastewater flows <sup>ae</sup> (%)	Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan <sup>af</sup> (constant 2020 US\$ millions)	Proportion of population with primary reliance on clean fuels and technology <sup>ag</sup> (%)	Annual mean concentrations of fine particulate matter (PM <sub>2.5</sub> ) in urban areas <sup>ag</sup> (µg/m <sup>3</sup> )	Mortality rate due to homicide <sup>k</sup> (per 100 000 population)	Number of cases of poliomyelitis caused by wild poliovirus (WPV) <sup>ah</sup>	Percentage of total antibiotic consumption being from the AWaRe "Access" antibiotics category <sup>av</sup> (%)	Age-standardized prevalence of hypertension among adults aged 30–79 years <sup>ai</sup> (%)	Prevalence of obesity among children and adolescents (5–19 years) <sup>aj</sup> (%)	Age-standardized prevalence of obesity among adults (18+ years) <sup>aj</sup> (%)
Comparable estimates	Comparable estimate	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data	Comparable estimates	Comparable estimates	Comparable estimates
2020	2022	2021	2021	2019	2019	2022	2018–2020	2019	2016	2016
38	-	74.65	35	75.2	8.5	2	-	40.2	3.1	5.5
-	19	44.62	84	16.6	3.6	0	-	41.8	7.6	21.7
85	76	1.21	100	22.9	1.7	0	-	36.2	13.5	27.4
-	100	-	100 <sup>au</sup>	8.9	-	0	-	31.0	12.8	25.6
27	-	11.19	50	32.3	9.2	0	-	38.7	2.4	8.2
-	-	1.00	100 <sup>au</sup>	8.4	2.4	0	-	42.6	11.5	18.9
-	36	60.46	100	11.2	6.1	0	-	47.5	16.9	28.3
95	1	21.29	98	36.2	3.8	0	-	47.3	4.8	20.2
-	96	-	100 <sup>au</sup>	9.1	1.0	0	-	29.3	12.4	29.0
-	98	-	100 <sup>au</sup>	12.4	0.5	0	-	33.8	8.6	20.1
-	41	6.43	98	26.2	2.5	0	-	41.0	4.9	19.9
-	-	-	100 <sup>au</sup>	5.2	38.1	0	-	44.5	17.3	31.6
-	93	-	100 <sup>au</sup>	51.8	0.3	0	-	38.7	17.2	29.8
58	18	273.19	27	46.8	2.8	0	-	28.8	2.6	3.6
-	-	-	100 <sup>au</sup>	9.8	11.3	0	-	41.8	12.3	23.1
-	80	1.18	100	17.2	2.7	0	-	49.2	7.6	24.5
-	85	-	100 <sup>au</sup>	11.6	1.3	0	65	30.0	7.0	22.1
90	-	0.07	83	10.4	37.3	0	-	38.0	12.2	24.1
12	1	43.43	5	31.8	6.2	0	74	31.2	2.6	9.6
92	40	10.76	87	16.9	2.4	0	88 <sup>av</sup>	43.4	3.3	6.4
27	-	83.58	88	26.9	9.5	0	-	28.3	9.1	20.2
-	65	20.26	42	29.7	1.5	0	-	44.2	5.4	17.9
-	-	0.04	66	14.4	16.9	0	-	44.1	6.3	18.9
-	43	37.87	97	11.3	32.6	0	-	45.0	10.8	22.1
-	-	-	100 <sup>au</sup>	6.8	0.7	0	71	46.4	14.1	14.1
-	72	-	-	18.6	1.2	0	-	45.2	10.8	25.0
9	3	102.39	12	46.0	9.6	0	84	30.5	1.0	5.6
6	-	39.62	<1	28.4	6.6	0	-	34.2	1.9	5.4
-	-	16.14	82	32.6	13.4	0	-	44.1	3.1	11.8
74	47	297.65	45	18.3	2.1	0	-	25.7	3.2	3.9
36	-	117.95	23	61.6	6.4	0	-	36.8	2.8	11.4
-	69	-	100 <sup>au</sup>	6.7	1.6	0	-	22.1	12.3	29.4
22	-	5.43	1	32.2	21.3	0	-	41.3	2.2	7.5
25	2	24.23	8	54.0	9.0	0	-	37.9	1.5	6.1
-	89	-	100 <sup>au</sup>	22.2	3.9	0	-	36.1	15.2	28.0
-	62	59.15	83	40.2	0.8	0	-	27.3	11.7	6.2
-	91	-	-	-	-	0	-	-	-	-
-	65	-	-	-	-	0	-	-	-	-
68	19	20.24	93	15.1	38.3	0	68	31.0	7.0	22.3
-	-	1.15	11	14.5	7.4	0	-	33.2	2.8	7.8
-	-	23.13	36	37.8	10.0	0	-	39.8	2.0	9.6
-	-	-	79	7.9	-	0	-	42.6	32.2	55.9
86	25	0.26	96	15.1	12.6	0	-	37.8	12.3	25.7
22	-	10.58	32	46.6	11.5	0	72	37.3	3.4	10.3
-	34	-	100 <sup>au</sup>	15.5	1.1	0	-	48.4	10.9	24.4
92	34	10.83	94	15.9	5.1	0	-	39.9	11.4	24.6
-	73	-	100 <sup>au</sup>	15.5	1.3	0	43	30.8	12.2	21.8
-	91	-	100 <sup>au</sup>	14.9	0.6	0	-	41.6	9.7	26.0
-	-	0.37	13	43.9	4.2	0	-	26.5	8.5	6.8
19	16	112.79	4	37.4	12.8	0	-	34.3	2.2	6.7
-	99	-	100 <sup>au</sup>	10.1	1.1	0	80	35.9	7.2	19.7

Data type	2.2				5.2		6.1	6.2
	Prevalence of stunting in children under 5 <sup>aa</sup> (%)	Prevalence of wasting in children under 5 <sup>aa</sup> (%)	Prevalence of overweight in children under 5 <sup>aa</sup> (%)	Prevalence of anaemia in women of reproductive age (15–49 years) <sup>ab</sup> (%)	Proportion of ever-partnered women and girls aged 15–49 years subjected to physical and/or sexual violence by a current or former intimate partner in the previous 12 months <sup>ac</sup> (%)	Proportion of ever-partnered women and girls aged 15–49 years subjected to physical and/or sexual violence by a current or former intimate partner in their lifetime <sup>ac</sup> (%)	Proportion of population using safely-managed drinking-water services <sup>ad</sup> (%)	Proportion of population using safely-managed sanitation services <sup>ad</sup> (%)
	Comparable estimates	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates
Countries and areas	2022	2013–2022	2022	2019	2018	2018	2020	2020
Djibouti	18.7	10.6 <sup>ar</sup>	3.2	32.3	-	-	-	37
Dominica	-	-	-	20.8	-	-	-	-
Dominican Republic	5.6	2.2	7.6	26.4	10	19	-	-
Ecuador	22.7	3.7	11.9	17.2	8	33	67	42
Egypt	20.4	9.5	18.8	28.3	15	30	-	67
El Salvador	10.0	2.1	6.8	10.6	6	21	-	-
Equatorial Guinea	16.1	-	8.2	44.5	29	46	-	-
Eritrea	50.2	-	3.0	37.0	-	-	-	-
Estonia	1.2	1.5	5.1	21.7	4	21	96	93
Eswatini	21.2	2.0	7.9	30.7	18	-	-	-
Ethiopia	34.4	6.8	2.7	23.9	27	37	13	7
Fiji	7.1	4.6	7.4	32.0	23	52	-	-
Finland	-	-	-	10.9	8	23	100	84
France	-	-	-	10.6	5	22	99	79
Gabon	13.4	3.4	5.4	52.4	22	41	-	-
Gambia	13.6	5.1	1.8	49.5	10	25	45	29
Georgia	4.8	0.6	5.0	27.5	3	10	66	34
Germany	2.1	0.4 <sup>ar</sup>	3.1	11.7	5	21	100	97
Ghana	12.7	6.8	1.9	35.4	10	24	41	13
Greece	2.2	-	14.6	15.1	5	18	100	92
Grenada	-	-	-	19.2	8	28	-	-
Guatemala	43.5	0.8	4.8	7.4	7	21	56	-
Guinea	27.9	9.2	5.6	48.0	21	37	-	-
Guinea-Bissau	27.7	5.1	3.3	48.1	-	-	24	12
Guyana	7.6	6.5	5.7	31.7	10	31	-	-
Haiti	19.5	3.7	3.7	47.7	12	23	-	-
Honduras	17.5	1.9	4.7	18.0	7	17	-	50
Hungary	-	-	-	19.7	6	19	93	88
Iceland	-	-	-	10.3	3	21	100	84
India	31.7	18.7	2.8	53.0	18	35	-	46
Indonesia	31.0	10.2	10.6	31.2	9	22	-	-
Iran (Islamic Republic of)	4.7	4.3	3.8	24.1	18	31	94	-
Iraq	9.9	3.0	6.4	28.6	-	26	60	43
Ireland	-	-	-	12.1	3	16	97	83
Israel	-	-	-	12.9	6	-	99	95
Italy	-	-	-	13.6	4	16	96	96
Jamaica	6.5	3.2	5.7	19.9	7	24	-	-
Japan	5.0	-	2.1	19.0	4	20	99	81
Jordan	6.6	0.6 <sup>aq,at</sup>	9.5	37.7	13	24	86	82
Kazakhstan	4.9	3.1	7.7	28.7	6	16	89	-
Kenya	18.4	4.9	3.8	28.7	23	38	-	-
Kiribati	14.2	3.5	2.0	32.6	25	53	15	27
Kuwait	6.9	2.3 <sup>ar,at</sup>	11.7	23.7	-	-	100	100
Kyrgyzstan	10.3	2.0	6.4	35.8	13	23	70	92
Lao People's Democratic Republic	27.7	9.0	4.0	39.5	8	19	18	61
Latvia	1.8	1.6 <sup>ar</sup>	6.4	21.6	6	25	96	83
Lebanon	7.4	1.4 <sup>aq</sup>	8.3	28.3	-	-	48	16
Lesotho	31.8	2.1	6.9	27.9	16	40	29	48
Liberia	26.6	3.4	5.3	42.6	27	43	-	-
Libya	52.2	10.2	28.7	29.9	-	-	-	22
Lithuania	4.5	4.8 <sup>ar</sup>	4.7	19.9	5	22	95	94
Luxembourg	-	-	-	10.2	4	20	99	97
Madagascar	38.6	7.2	1.5	37.8	-	-	21	10
Malawi	34.0	2.6	3.9	31.4	17	30	-	24

6.2	6.3	6.a	7.1	11.6	16.1	GPW 13				
Proportion of population using a hand-washing facility with soap and water <sup>ad</sup> (%)	Proportion of safely treated domestic wastewater flows <sup>ae</sup> (%)	Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan <sup>af</sup> (constant 2020 US\$ millions)	Proportion of population with primary reliance on clean fuels and technology <sup>ag</sup> (%)	Annual mean concentrations of fine particulate matter (PM <sub>2.5</sub> ) in urban areas <sup>ag</sup> (µg/m <sup>3</sup> )	Mortality rate due to homicide <sup>k</sup> (per 100 000 population)	Number of cases of poliomyelitis caused by wild poliovirus (WPV) <sup>ah</sup>	Percentage of total antibiotic consumption being from the AWaRe "Access" antibiotics category <sup>y</sup> (%)	Age-standardized prevalence of hypertension among adults aged 30–79 years <sup>ai</sup> (%)	Prevalence of obesity among children and adolescents (5–19 years) <sup>aj</sup> (%)	Age-standardized prevalence of obesity among adults (18+ years) <sup>aj</sup> (%)
Comparable estimates	Comparable estimate	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data	Comparable estimates	Comparable estimates	Comparable estimates
2020	2022	2021	2021	2019	2019	2022	2018–2020	2019	2016	2016
-	11	14.42	10	20.7	6.6	0	-	34.2	5.3	13.5
-	-	0.94	89	8.4	-	0	-	47.7	15.0	27.9
47	40	6.50	92	7.8	17.8	0	-	49.1	15.0	27.6
87	-	56.29	95	16.9	7.0	0	-	27.2	9.4	19.9
90	74	246.71	100	64.1	4.1	0	55	38.2	17.6	32.0
-	-	28.83	93	22.8	85.0	0	-	32.7	11.7	24.6
-	-	0.09	24	27.1	3.3	0	-	38.1	2.3	8.0
-	-	0.60	12	24.0	11.0	0	-	23.7	2.1	5.0
-	92	-	100 <sup>au</sup>	6.6	2.1	0	-	40.2	6.3	21.2
24	-	24.50	58	15.9	18.5	0	-	42.5	6.0	16.5
8	3	178.10	8	22.9	7.2	0	48	27.4	1.1	4.5
-	40	12.01	51	8.1	2.2	0	-	38.6	11.5	30.2
-	90	-	100 <sup>au</sup>	6.2	1.2	0	-	35.9	9.1	22.2
-	88	-	100 <sup>au</sup>	11.3	0.8	0	-	29.1	8.1	21.6
-	-	1.93	90	32.9	8.5	0	81	37.4	4.2	15.0
18	11	3.07	2	41.4	8.3	0	-	37.6	2.8	10.3
92	49	34.93	91	20.9	2.3	0	-	44.5	6.8	21.7
-	99	-	100 <sup>au</sup>	11.2	0.9	0	62 <sup>aw</sup>	29.7	8.9	22.3
42	12	52.58	30	50.4	6.1	0	-	33.9	2.1	10.9
-	90	-	100 <sup>au</sup>	15.6	1.0	0	-	31.3	13.8	24.9
-	-	16.84	88	10.2	6.6	0	-	46.6	10.7	21.3
-	-	10.89	48	21.8	25.1	0	-	32.2	9.9	21.2
20	-	37.57	1	42.4	8.8	0	-	40.9	1.7	7.7
18	19	3.24	1	40.1	9.0	0	-	38.0	2.4	9.5
-	32	0.29	82	11.7	24.7	0	-	40.0	10.0	20.2
22	-	62.19	4	9.8	20.7	0	-	42.9	10.9	22.7
-	-	25.80	50	19.4	66.9	0	-	33.9	9.6	21.4
-	82	-	100 <sup>au</sup>	14.8	1.4	0	-	48.3	11.1	26.4
-	3	-	100 <sup>au</sup>	6.2	1.2	0	-	27.5	9.9	21.9
68	21	420.09	71	53.0	3.8	0	-	31.1	2.0	3.9
94	-	203.60	87	19.9	4.3	0	-	40.3	6.1	6.9
-	25	3.55	96	34.1	3.1	0	50	26.2	9.8	25.8
97	42	83.54	99	43.0	14.4	0	-	48.1	14.4	30.4
-	52	-	100 <sup>au</sup>	8.7	0.8	0	-	32.3	9.8	25.3
-	97	-	100 <sup>au</sup>	19.6	1.2	0	-	29.1	11.9	26.1
-	70	-	100 <sup>au</sup>	14.7	0.7	0	-	33.8	12.5	19.9
-	-	0.05	83	15.8	50.3	0	-	46.3	13.0	24.7
-	92	-	100 <sup>au</sup>	11.1	0.2	0	-	31.4	3.3	4.3
-	77	172.32	100	25.8	2.7	0	52	37.7	12.9	35.5
-	36	0.37	94	35.4	5.1	0	-	41.9	6.5	21.0
27	11	235.43	24	12.3	5.6	0	-	33.2	2.3	7.1
56	33	10.28	12	8.0	4.8	0	-	42.3	23.0	46.0
-	100	-	100 <sup>au</sup>	67.2	1.8	0	-	40.5	22.9	37.9
100	19	66.74	78	39.6	4.6	0	-	40.9	3.9	16.6
56	10	72.33	9	24.2	6.6	0	79	28.5	4.7	5.3
-	87	-	100 <sup>au</sup>	14.1	5.0	0	-	43.9	7.0	23.6
-	-	77.21	-	24.4	4.2	0	-	38.1	13.9	32.0
6	-	11.86	41	18.5	43.5	0	-	40.1	5.0	16.6
-	-	14.06	<1	40.5	9.7	0	-	39.4	1.9	9.9
-	14	1.34	-	28.3	2.1	0	-	42.7	14.6	32.5
-	97	-	100 <sup>au</sup>	11.7	4.8	0	-	48.0	6.8	26.3
-	99	-	100 <sup>au</sup>	9.1	0.5	0	-	30.5	8.3	22.6
27	11	27.08	1	18.4	6.5	0	-	36.9	1.8	5.3
8	6	76.69	2	20.2	2.2	0	-	29.5	2.0	5.8



Data type	2.2				5.2		6.1	6.2
	Prevalence of stunting in children under 5 <sup>aa</sup> (%)	Prevalence of wasting in children under 5 <sup>aa</sup> (%)	Prevalence of overweight in children under 5 <sup>aa</sup> (%)	Prevalence of anaemia in women of reproductive age (15–49 years) <sup>ab</sup> (%)	Proportion of ever-partnered women and girls aged 15–49 years subjected to physical and/or sexual violence by a current or former intimate partner in the previous 12 months <sup>ac</sup> (%)	Proportion of ever-partnered women and girls aged 15–49 years subjected to physical and/or sexual violence by a current or former intimate partner in their lifetime <sup>ac</sup> (%)	Proportion of population using safely-managed drinking-water services <sup>ad</sup> (%)	Proportion of population using safely-managed sanitation services <sup>ad</sup> (%)
	Comparable estimates	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates
Countries and areas	2022	2013–2022	2022	2019	2018	2018	2020	2020
Malaysia	219	9.7	5.7	32.0	-	19	94	-
Maldives	13.9	9.1 <sup>af</sup>	3.3	52.2	6	19	-	-
Mali	23.8	10.6 <sup>aq</sup>	2.0	59.0	18	29	-	20
Malta	-	-	-	13.7	4	17	100	92
Marshall Islands	30.5	3.5 <sup>aq</sup>	4.4	30.6	19	38	-	-
Mauritania	22.1	13.6 <sup>af</sup>	2.0	43.3	-	-	-	-
Mauritius	8.6 <sup>as</sup>	-	6.8 <sup>as</sup>	23.5	-	-	-	-
Mexico	12.6	1.7 <sup>af</sup>	6.9	15.3	10	24	43	57
Micronesia (Federated States of)	-	-	-	25.0	21	35	-	-
Monaco	-	-	-	12.3	-	-	100	100
Mongolia	6.1	0.9	10.7	14.5	12	27	30	56
Montenegro	8.2	2.2	8.0	17.2	4	16	85	45
Morocco	12.8	2.3 <sup>af</sup>	4.9	29.9	10	-	80	39
Mozambique	36.4	3.9 <sup>aq</sup>	5.5	47.9	16	30	-	-
Myanmar	24.1	7.4 <sup>af</sup>	0.8	42.1	11	19	59	61
Namibia	16.8	7.1	5.3	25.2	16	27	-	-
Nauru	14.8	-	4.5	29.6	20	43	-	-
Nepal	26.7	7.7	1.7	35.7	11	27	18	49
Netherlands (Kingdom of the)	1.6	-	5.1	12.8	5	21	100	97
New Zealand	-	-	-	10.4	4	23	100	82
Nicaragua	14.9	-	8.7	15.7	6	23	56	-
Niger	47.4	10.9 <sup>aq</sup>	2.7	49.5	13	-	-	16
Nigeria	34.2	6.5	2.2	55.1	13	24	22	31
Niue	-	-	-	27.3	-	-	94	-
North Macedonia	3.7	3.4	9.9	19.3	4	13	77	12
Norway	-	-	-	12.0	4	20	99	65
occupied Palestinian territory, including east Jerusalem	-	-	-	31.0	-	-	80	67
Oman	12.7	9.3 <sup>at</sup>	6.5	29.1	-	-	91	-
Pakistan	34.0	7.1 <sup>at</sup>	2.7	41.3	16	29	36	-
Palau	-	-	-	28.5	14	31	91	-
Panama	13.8	11.1 <sup>aq,af</sup>	11.4	21.2	8	16	-	-
Papua New Guinea	51.2	-	16.0	34.4	31	51	-	-
Paraguay	3.4	1.0	14.6	23.0	6	18	64	60
Peru	10.1	0.4	9.4	20.6	11	38	51	53
Philippines	28.8	6.8 <sup>af</sup>	4.6	12.3	6	14	47	61
Poland	2.3	-	6.0	-	3	13	98	91
Portugal	3.1	1.1 <sup>af</sup>	8.9	13.2	4	18	95	85
Puerto Rico	-	-	-	18.8	-	-	-	-
Qatar	4.4 <sup>as</sup>	-	11.7 <sup>as</sup>	28.1	-	-	96	97
Republic of Korea	1.7	0.2 <sup>af</sup>	5.4	13.5	8	-	99	100
Republic of Moldova	3.9	-	2.9	26.1	9	27	74	-
Romania	7.7	-	4.5	22.7	7	18	82	83
Russian Federation	-	-	7.4	21.1	-	-	76	61
Rwanda	29.8	1.1	4.7	17.2	23	38	12	-
Saint Kitts and Nevis	-	-	-	15.4	-	-	-	-
Saint Lucia	2.5	-	6.0	14.3	-	-	-	-
Saint Vincent and the Grenadines	-	-	-	17.0	-	-	-	-
Samoa	7.4	3.1	7.9	26.8	18	40	46	48
San Marino	-	-	-	12.5	-	-	100	70
Sao Tome and Principe	10.0	4.1	4.7	44.2	18	27	36	35
Saudi Arabia	12.4	4.4 <sup>af</sup>	10.1	27.5	-	-	-	59
Senegal	17.0	8.1	3.4	52.7	12	24	-	24

6.2	6.3	6.a	7.1	11.6	16.1	GPW 13				
Proportion of population using a hand-washing facility with soap and water <sup>ad</sup> (%)	Proportion of safely treated domestic wastewater flows <sup>ae</sup> (%)	Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan <sup>af</sup> (constant 2020 US\$ millions)	Proportion of population with primary reliance on clean fuels and technology <sup>ag</sup> (%)	Annual mean concentrations of fine particulate matter (PM <sub>2.5</sub> ) in urban areas <sup>ag</sup> (µg/m <sup>3</sup> )	Mortality rate due to homicide <sup>k</sup> (per 100 000 population)	Number of cases of poliomyelitis caused by wild poliovirus (WPV) <sup>ah</sup>	Percentage of total antibiotic consumption being from the AWaRe "Access" antibiotics category <sup>y</sup> (%)	Age-standardized prevalence of hypertension among adults aged 30–79 years <sup>ai</sup> (%)	Prevalence of obesity among children and adolescents (5–19 years) <sup>aj</sup> (%)	Age-standardized prevalence of obesity among adults (18+ years) <sup>aj</sup> (%)
Comparable estimates	Comparable estimate	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data	Comparable estimates	Comparable estimates	Comparable estimates
2020	2022	2021	2021	2019	2019	2022	2018–2020	2019	2016	2016
-	89	0.60	94	23.7	2.7	0	-	40.8	12.7	15.6
96	-	24.34	100	12.7	1.9	0	44	34.1	7.4	8.6
17	6	92.75	1	45.1	10.7	0	54	34.6	2.6	8.6
-	1	-	100 <sup>au</sup>	12.9	1.0	0	-	29.5	13.4	28.9
85	-	1.03	67	7.5	-	0	-	31.9	26.6	52.9
-	-	25.54	48	51.3	10.9	0	-	37.9	4.0	12.7
-	19	2.73	99	10.5	2.3	0	-	33.1	4.4	10.8
-	64	2.22	85	18.4	25.4	0	-	32.1	14.8	28.9
-	-	1.48	13	8.1	4.6	0	-	32.9	20.7	45.8
-	97	-	100 <sup>au</sup>	9.2	-	0	-	-	-	-
86	26	28.63	53	50.6	6.1	0	80	42.8	4.3	20.6
99	55	9.23	62	17.9	2.8	0	-	45.1	7.6	23.3
-	45	224.19	98	13.7	1.7	0	-	35.3	10.2	26.1
-	-	133.79	5	17.5	3.7	8	-	38.6	2.3	7.2
75	15	42.22	44	27.8	3.9	0	-	37.8	3.7	5.8
-	-	2.64	47	13.1	18.0	0	-	43.8	4.9	17.2
-	-	0.01	100 <sup>au</sup>	7.4	-	0	-	41.8	33.2	61.0
62	39	176.86	35	36.9	2.5	0	26	36.1	1.7	4.1
-	100	-	100 <sup>au</sup>	10.9	0.6	0	-	30.5	7.0	20.4
-	84	-	100 <sup>au</sup>	8.7	1.2	0	-	30.9	16.3	30.8
-	32	51.15	57	16.7	9.4	0	-	35.8	10.8	23.7
23	9	145.58	3	55.5	9.6	0	-	41.5	1.4	5.5
33	41	104.53	17	55.3	9.2	0	-	36.1	1.9	8.9
-	-	0.01	98	-	-	0	-	39.5	29.5	50.0
100	-	24.77	79	28.7	1.5	0	-	45.1	9.3	22.4
-	76	-	100 <sup>au</sup>	7.2	0.6	0	-	30.5	9.1	23.1
92	-	80.25	-	31.3	-	0	-	40.7	-	-
97	-	-	100 <sup>au</sup>	35.8	0.7	0	-	45.6	14.9	27.0
80	38	186.19	51	51.6	6.0	20	-	43.2	3.1	8.6
-	-	1.40	43	7.9	-	0	-	44.2	31.4	55.3
-	-	16.53	100 <sup>au</sup>	11.9	17.2	0	-	36.1	10.5	22.7
30	5	19.31	10	9.5	11.0	0	-	27.8	9.8	21.3
80	25	15.07	70	13.2	8.0	0	-	56.4	10.5	20.3
-	49	17.29	86	31.7	9.3	0	62 <sup>ax</sup>	20.7	7.8	19.7
82	67	44.73	48	24.2	13.7	0	-	33.8	4.3	6.4
-	77	-	100 <sup>au</sup>	19.9	0.8	0	-	49.2	9.1	23.1
-	88	-	100 <sup>au</sup>	7.6	0.9	0	-	32.3	10.4	20.8
-	33	-	-	-	-	-	-	-	-	-
-	100	-	100 <sup>au</sup>	60.0	0.5	0	-	40.9	19.5	35.1
-	99	-	100 <sup>au</sup>	24.4	0.8	0	-	26.7	8.5	4.7
-	46	6.39	98	12.7	4.1	0	-	48.3	4.2	18.9
-	30	-	100 <sup>au</sup>	14.1	1.3	0	-	48.4	8.1	22.5
-	15	-	73	9.9	7.8	0	-	44.3	7.1	23.1
5	-	29.38	5	35.7	4.3	0	-	29.8	1.7	5.8
-	-	-	100 <sup>au</sup>	7.6	-	0	-	45.1	12.3	22.9
-	-	0.39	94	8.9	20.2	0	-	39.8	8.8	19.7
-	-	5.96	93	9.5	29.4	0	-	39.3	12.4	23.7
79	43	0.76	37	8.1	2.8	0	-	38.3	21.7	47.3
-	90	-	100 <sup>au</sup>	9.8	-	0	-	-	-	-
55	-	2.79	4	36.2	5.6	0	-	45.1	3.5	12.4
-	85	-	100 <sup>au</sup>	60.7	1.9	0	-	34.0	17.4	35.4
22	8	79.38	29	42.2	7.6	0	-	40.5	1.8	8.8

Data type	2.2				5.2		6.1	6.2
	Prevalence of stunting in children under 5 <sup>aa</sup> (%)	Prevalence of wasting in children under 5 <sup>aa</sup> (%)	Prevalence of overweight in children under 5 <sup>aa</sup> (%)	Prevalence of anaemia in women of reproductive age (15–49 years) <sup>ab</sup> (%)	Proportion of ever-partnered women and girls aged 15–49 years subjected to physical and/or sexual violence by a current or former intimate partner in the previous 12 months <sup>ac</sup> (%)	Proportion of ever-partnered women and girls aged 15–49 years subjected to physical and/or sexual violence by a current or former intimate partner in their lifetime <sup>ac</sup> (%)	Proportion of population using safely-managed drinking-water services <sup>ad</sup> (%)	Proportion of population using safely-managed sanitation services <sup>ad</sup> (%)
	Comparable estimates	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates	Comparable estimates
Countries and areas	2022	2013–2022	2022	2019	2018	2018	2020	2020
Serbia	4.6	2.6 <sup>ar</sup>	9.9	22.8	4	17	75	18
Seychelles	7.2	-	9.1	25.1	-	-	-	-
Sierra Leone	26.0	6.3 <sup>aq</sup>	5.2	48.4	20	36	11	14
Singapore	3.0	-	3.8	13.0	2	11	100	100
Slovakia	-	-	-	23.5	6	18	99	82
Slovenia	-	-	-	21.8	3	18	98	72
Solomon Islands	29.8	8.5	5.5	37.7	28	50	-	-
Somalia	18.0	-	2.7	43.1	-	-	-	32
South Africa	22.8	3.8 <sup>ar</sup>	12.1	30.5	13	24	-	-
South Sudan	27.9	-	4.7	35.6	27	41	-	-
Spain	-	-	-	13.4	3	15	100	96
Sri Lanka	15.9	15.1	1.3	34.6	4	24	-	-
Sudan	36.0	16.3 <sup>aq</sup>	2.7	36.5	17	-	-	-
Suriname	7.6	5.5 <sup>ar</sup>	3.8	21.0	8	28	56	25
Sweden	-	-	-	13.6	6	21	100	95
Switzerland	-	-	-	11.3	2	12	94	100
Syrian Arab Republic	25.4	-	11.7	32.8	-	-	-	-
Tajikistan	13.1	5.6	3.0	35.2	14	24	55	-
Thailand	11.8	7.7 <sup>ar</sup>	8.6	24.0	9	24	-	26
Timor-Leste	45.1	8.3 <sup>aq</sup>	1.3	29.9	28	38	-	-
Togo	22.3	5.7	2.2	45.7	13	25	20	9
Tonga	1.8	1.1	10.9	28.5	17	37	30	34
Trinidad and Tobago	8.8	-	13.9	17.7	7	28	-	-
Tunisia	8.6	2.1	19.0	32.1	10	25	79	81
Türkiye	5.5	1.7	8.1	-	12	32	-	78
Turkmenistan	6.7	4.1	3.6	26.6	-	-	95	-
Tuvalu	5.2	2.8	4.2	27.5	20	39	-	-
Uganda	23.4	3.6 <sup>aq</sup>	3.5	32.8	26	45	17	-
Ukraine	12.3	-	13.6	17.7	9	18	89	72
United Arab Emirates	-	-	-	24.3	-	-	-	99
United Kingdom	-	-	11.3	11.1	4	24	100	98
United Republic of Tanzania	30.6	3.3	4.6	38.9	24	38	-	26
United States of America	3.6	0.1	7.9	11.8	6	26	97	98
Uruguay	6.1	1.4	11.5	15.0	4	18	-	-
Uzbekistan	6.9	2.4	4.2	24.8	-	-	59	-
Vanuatu	31.4	4.7 <sup>aq</sup>	5.1	28.5	29	47	-	-
Venezuela (Bolivarian Republic of)	10.5	-	6.9	24.2	8	19	-	23
Viet Nam	19.3	4.7	8.1	20.6	10	25	-	-
Yemen	35.1	16.4	1.7	61.5	-	-	-	19
Zambia	31.4	4.2	5.4	31.5	28	41	-	-
Zimbabwe	21.6	2.9	2.7	28.9	18	35	30	26
<b>WHO region</b>	<b>2022</b>	<b>2022</b>	<b>2022</b>	<b>2019</b>	<b>2018</b>	<b>2018</b>	<b>2020</b>	<b>2020</b>
African Region	31.0	5.5	3.9	40.4	20	33	32	23
Region of the Americas	9.2	0.8	8.5	15.4	7	25	81	52
South-East Asia Region	30.1	14.7	3.8	46.6	17	33	-	46
European Region	4.9	-	7.1	18.8	6	21	92	70
Eastern Mediterranean Region	25.1	6.9	6.3	34.9	17	31	56	-
Western Pacific Region	10.0	1.9	8.1	16.4	8	20	-	65
<b>Global</b>	<b>22.3</b>	<b>6.8</b>	<b>5.6</b>	<b>29.9</b>	<b>13</b>	<b>27</b>	<b>74</b>	<b>54</b>

6.2	6.3	6.a	7.1	11.6	16.1	GPW 13				
Proportion of population using a hand-washing facility with soap and water <sup>ad</sup> (%)	Proportion of safely treated domestic wastewater flows <sup>ae</sup> (%)	Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan <sup>af</sup> (constant 2020 US\$ millions)	Proportion of population with primary reliance on clean fuels and technology <sup>ag</sup> (%)	Annual mean concentrations of fine particulate matter (PM <sub>2.5</sub> ) in urban areas <sup>ag</sup> (µg/m <sup>3</sup> )	Mortality rate due to homicide <sup>k</sup> (per 100 000 population)	Number of cases of poliomyelitis caused by wild poliovirus (WPV) <sup>ah</sup>	Percentage of total antibiotic consumption being from the AWaRe "Access" antibiotics category <sup>ay</sup> (%)	Age-standardized prevalence of hypertension among adults aged 30–79 years <sup>ai</sup> (%)	Prevalence of obesity among children and adolescents (5–19 years) <sup>aj</sup> (%)	Age-standardized prevalence of obesity among adults (18+ years) <sup>aj</sup> (%)
Comparable estimates	Comparable estimate	Primary data	Comparable estimates	Comparable estimates	Comparable estimates	Primary data	Primary data	Comparable estimates	Comparable estimates	Comparable estimates
2020	2022	2021	2021	2019	2019	2022	2018–2020	2019	2016	2016
-	36	42.34	81	22.3	1.2	0	-	46.1	9.8	21.5
-	-	-	100 <sup>au</sup>	17.4	14.8	0	-	44.3	10.8	14.0
21	15	18.65	1	43.3	7.9	0	-	40.8	2.5	8.7
-	100	-	100 <sup>au</sup>	13.3	0.3	0	-	31.5	6.8	6.1
-	82	-	100 <sup>au</sup>	16.3	1.1	0	-	42.7	8.1	20.5
-	65	-	100 <sup>au</sup>	14.6	0.9	0	-	45.3	9.2	20.2
-	-	9.90	9	8.7	3.9	0	-	29.8	4.3	22.5
25	-	29.69	4	14.4	5.4	0	-	36.1	3.0	8.3
44	41	8.28	88	21.7	35.9	0	-	44.1	11.3	28.3
-	-	36.31	0	21.4	14.3	0	-	34.2	-	-
-	80	-	100 <sup>au</sup>	9.8	0.6	0	-	27.2	10.8	23.8
-	-	128.32	33	24.8	2.3	0	-	35.6	4.8	5.2
13	-	40.36	63	23.5	5.8	0	-	40.8	-	-
72	24	0.53	95	13.0	5.8	0	-	42.9	13.9	26.4
-	97	-	100 <sup>au</sup>	6.4	1.1	0	68	30.2	6.7	20.6
-	99	-	100 <sup>au</sup>	9.2	0.5	0	-	21.9	5.8	19.5
83	-	27.58	96	25.3	2.6	0	-	41.1	11.5	27.8
73	-	97.19	86	56.8	1.8	0	-	46.8	3.0	14.2
85	25	1.82	85	25.5	4.3	0	-	29.2	11.3	10.0
28	-	3.25	15	21.8	4.7	0	-	35.3	4.2	3.8
17	15	28.09	11	37.9	8.9	0	-	36.0	2.0	8.4
70	30	1.11	87	7.7	3.4	0	-	43.3	26.7	48.2
-	-	-	100 <sup>au</sup>	10.4	39.4	0	-	42.4	11.1	18.6
84	73	182.67	100	27.4	3.5	0	75	34.7	8.5	26.9
-	65	60.72	95	23.3	4.8	0	-	32.8	11.5	32.1
100	-	0.01	100	26.4	2.8	0	-	39.0	4.7	18.6
-	43	3.08	75	-	-	0	-	50.4	27.2	51.6
23	4	138.40	1	32.3	13.9	0	67 <sup>ax</sup>	32.5	1.7	5.3
-	50	24.16	95	14.5	6.3	0	-	43.1	7.0	24.1
-	95	-	100 <sup>au</sup>	39.0	0.7	0	-	41.4	17.3	31.7
-	97	-	100 <sup>au</sup>	9.7	1.3	0	67 <sup>ax</sup>	26.4	10.2	27.8
48	8	187.74	7	16.1	8.1	0	56	33.2	2.5	8.4
-	98	-	100 <sup>au</sup>	7.4	5.8	0	-	31.6	21.4	36.2
-	-	-	100 <sup>au</sup>	8.5	8.5	0	-	42.4	13.8	27.9
-	-	120.26	83	44.5	1.5	0	-	45.7	4.0	16.6
-	-	8.99	7	9.1	2.3	0	-	39.5	8.3	25.2
-	-	0.81	96	16.5	63.6	0	-	39.4	14.1	25.6
86	40	399.51	96	22.1	1.9	0	-	29.7	2.6	2.1
-	28	51.32	61	43.0	9.7	0	-	29.3	7.0	17.1
18	-	86.74	10	18.8	6.5	0	-	32.3	2.9	8.1
42	55	10.11	30	14.5	13.1	0	-	42.3	4.0	15.5
<b>2020</b>	<b>2022</b>	<b>2021</b>	<b>2021</b>	<b>2019</b>	<b>2019</b>	<b>2022</b>		<b>2019</b>	<b>2016</b>	<b>2016</b>
28	24	2309.51	21	34.8	10.0	8	-	35.5	2.8	10.6
-	75	532.89	93	12.0	19.2	0	-	35.4	14.4	28.6
71	26	1284.81	67	46.4	3.8	0	-	32.4	3.0	4.7
-	49	580.87	93	14.7	2.9	0	-	36.9	8.6	23.3
81	71	1495.98	74	48.0	5.3	22	-	37.8	8.2	20.8
-	67	971.95	83	35.1	1.6	0	-	28.3	9.8	6.4
<b>71</b>	<b>58</b>	<b>7754.71</b>	<b>71</b>	<b>33.1</b>	<b>6.2</b>	<b>30</b>	<b>-</b>	<b>33.1</b>	<b>6.8</b>	<b>13.1</b>

## Footnotes

- a** World population prospects: 2022 revision. New York (NY): United Nations, Department of Economic and Social Affairs, Population Division; 2022 (<https://population.un.org/wpp/>, accessed 30 April 2023). For Member States with a total population less than 90 000, the male, female values are not shown but are included in the regional and global sums. Male and female may not sum to both sexes due to rounding.
- b** Global health estimates 2019: Life expectancy, 2000–2019. Geneva: World Health Organization; 2020 (<https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/>, accessed 30 April 2023). WHO Member States with a population of less than 90 000 in 2019 were not included in the analysis.
- c** Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: World Health Organization; 2023 (<https://apps.who.int/iris/handle/10665/366225>, accessed 30 April 2023). WHO Member States excluded due to small populations: Andorra, Cook Islands, Dominica, Marshall Islands, Monaco, Nauru, Niue, Palau, Saint Kitts and Nevis, San Marino and Tuvalu.
- d** UNICEF/WHO joint database on births attended by skilled health personnel, 2023 (<https://data.unicef.org/topic/maternal-health/delivery-care/>, accessed 30 April 2023); Global Health Observatory (GHO) data ([https://www.who.int/data/gho/data/indicators/indicator-details/GHO/births-attended-by-skilled-health-personnel\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/births-attended-by-skilled-health-personnel(-)), accessed 30 April 2023).
- e** Levels and trends in child mortality. Report 2022. Estimates developed by the UN Inter-agency Group for Child Mortality Estimation. United Nations Children's Fund, World Health Organization, World Bank Group and United Nations Population Division. New York: United Nations Children's Fund; 2023 (<https://data.unicef.org/resources/levels-and-trends-in-child-mortality/>, accessed 30 April 2023).
- f** AIDSinfo [online database]. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS) (<http://aidsinfo.unaids.org/>); and HIV/AIDS [online database], Global Health Observatory (GHO) data. Geneva: World Health Organization ([https://www.who.int/data/gho/data/indicators/indicator-details/GHO/new-hiv-infections-\(per-1000-uninfected-population\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/new-hiv-infections-(per-1000-uninfected-population)), accessed 30 April 2023).
- g** Global tuberculosis report 2022. Geneva: World Health Organization; 2022 (<https://apps.who.int/iris/handle/10665/363752>, accessed 30 April 2023).
- h** World malaria report 2022. Geneva: World Health Organization; 2022 (<https://apps.who.int/iris/handle/10665/365169>, accessed 30 April 2023). "-" indicates countries or regions that are malaria-free.
- i** Global and country estimates of immunization coverage and chronic HBV infection. Geneva: World Health Organization (<http://situatedlaboratories.net/who-hepB-dashboard/src/#global-strategies>, accessed 30 April 2023).
- j** Neglected tropical diseases [online database]. Global Health Observatory (GHO) data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/neglected-tropical-diseases>, accessed 30 April 2023). Global and regional aggregates include imputation of incomplete reports.
- k** Global health estimates 2019: deaths by cause, age, sex, by country and by region, 2000–2019. Geneva: World Health Organization; 2020 (<https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/>, accessed 2 May 2022). WHO Member States with a population of less than 90 000 in 2019 were not included in the analysis.
- l** WHO Global Information System on Alcohol and Health (GISAH) [online database]. Global Health Observatory (GHO) data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/levels-of-consumption/>, accessed 30 April 2023).
- m** World Contraceptive Use 2022. New York (NY): United Nations, Department of Economic and Social Affairs, Population Division (<https://www.un.org/development/desa/pd/data/world-contraceptive-use>, accessed 30 April 2023). Global and regional aggregates are from the Estimates and Projections of Family Planning Indicators 2022. New York (NY): United Nations, Department of Economic and Social Affairs, Population Division.
- n** Most recent updates provided by the Population Division, of the UN Department of Economic and Social Affairs to the SDG Indicators, Global SDG Database (<https://unstats.un.org/sdgs/indicators/database>, accessed 30 April 2023). Global and regional aggregates are from the World population prospects: the 2022 revision. New York: United Nations, Department of Economic and Social Affairs, Population Division.
- o** Coverage of essential health services (SDG 3.8.1) [online database]. Global Health Observatory. Geneva: World Health Organization; 2023. (<https://www.who.int/data/gho/data/themes/topics/service-coverage>). These values were part of the May 2023 update and may have since changed due to updated tracer indicated values.

- p** SDG 3.8.2 Catastrophic health spending (and related indicators) [online database]. Global Health Observatory. Geneva: World Health Organization; 2023. (<https://www.who.int/data/gho/data/themes/topics/financial-protection>).
- q** Public health and environment [online database]. Global Health Observatory (GHO) data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/public-health-and-environment/GHO/public-health-and-environment>, accessed 30 April 2023). WHO Member States with a population of less than 90 000 in 2019 were not included in the analysis.
- r** Public health and environment [online database]. Global Health Observatory (GHO) data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/public-health-and-environment/GHO/public-health-and-environment>, accessed 30 April 2023). WHO Member States with a population of less than 90 000 in 2019 were not included in the analysis.
- s** WHO global report on trends in prevalence of tobacco use 2000–2025, fourth edition. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/348537>, accessed 2 May 2022).
- t** WHO/UNICEF Joint Estimates of National Immunization Coverage (WUENIC), 2022 revision. (<https://immunizationdata.who.int/listing.html?topic=coverage&location=>, accessed 30 April 2023).
- u** Official development assistance for the health sectors, 2021. Creditor reporting system (CRS) of the Organization for Economic Co-operation and Development (OECD) (<https://stats.oecd.org/Index.aspx?DataSetCode=crs1>, accessed 30 April 2023). Per capita figures were calculated by WHO using population estimates from: World population prospects: 2022 revision, United Nations, Department of Economic and Social Affairs, Population Division. Includes CRS purpose codes for medical research (12182) and basic health (122:1.2.b).
- v** Data collected with the WHO Essential Medicines and Health Products Price and Availability Monitoring Mobile Application (WHO EMP MedMon): (<https://www.who.int/news/item/18-02-2018-medmon-mobile-application>, accessed 30 April 2023) and Health Action International's Medicine Prices, Availability, Affordability & Price Components database (HAI/WHO): (<https://haiweb.org/what-we-do/price-availability-affordability/price-availability-data/>, accessed 30 April 2023).
- w** 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 30 April 2023). Country comparisons are affected by differences in the occupations included. Refer to the source for country-specific definitions and other descriptive metadata. Global and regional aggregates were calculated using country data between 2014 and 2021.
- x** International Health Regulations (2005) – States Parties Annual Self-Assessment Reports – Monitoring Framework [online database]. Global Health Observatory data. Geneva: World Health Organization (<https://extranet.who.int/e-spar/>, accessed 30 April 2023). Responses received for SPAR 2022 annual report as of 31 March 2023. Regional and global averages may include two IHR States Parties not shown in the table (Liechtenstein and Holy See). Data for Afghanistan was provided by the WHO Country Office in Afghanistan.
- y** Global Antimicrobial Resistance and Use Surveillance System (GLASS). Geneva: World Health Organization; 2022. Global values shown are median of country figures and are not population weighted averages.
- z** Global Health Expenditure Database. Geneva: World Health Organization (<https://apps.who.int/nha/database>, accessed 30 April 2023). The WHO regional and global averages are unweighted. This indicator is presented here because it could constitute the health-related portion of the SDG Indicator 1.a.2.
- aa** Levels and trends in child malnutrition. UNICEF/WHO/World Bank Group Joint Child Malnutrition Estimates. New York (NY), Geneva and Washington (DC): United Nations Children's Fund, World Health Organization and the World Bank Group; 2023. (<https://www.who.int/teams/nutrition-and-food-safety/monitoring-nutritional-status-and-food-safety-and-events/joint-child-malnutrition-estimates>, accessed 23 May 2023).
- ab** Global anaemia estimates, 2021 edition. Geneva: World Health Organization, 2021 ([https://www.who.int/data/gho/data/themes/topics/anaemia\\_in\\_women\\_and\\_children](https://www.who.int/data/gho/data/themes/topics/anaemia_in_women_and_children), accessed 30 April 2023).
- ac** Violence against women prevalence estimates, 2018. Global, regional and national prevalence estimates for intimate partner violence against women and global and regional prevalence estimates for non-partner sexual violence against women. Geneva: World Health Organization; 2021 (<https://www.who.int/publications/i/item/9789240022256>, accessed 2 May 2022). Given the lack of consensus on the definition and standardized measurement of psychological intimate partner violence, the current estimates include only physical and/or sexual partner violence. As the majority of the available survey data on intimate partner violence are for women aged 15–49 years, with sparse data for women aged 15 years and older, the estimates are presented for the 15–49 years age group.

- ad** Progress on household drinking water, sanitation and hygiene 2000-2020: five years into the SDGs. Geneva: World Health Organization and the United Nations Children's Fund; 2021 ([https://washdata.org/sites/default/files/2022-01/jmp-2021-wash-households\\_3.pdf](https://washdata.org/sites/default/files/2022-01/jmp-2021-wash-households_3.pdf), accessed 30 April 2023). Comparable estimates are only shown for countries with recent primary data. Global and regional aggregates are calculated to include country data not shown in the table.
- ae** United Nations Global SDG Indicators Data Platform (<https://unstats.un.org/sdgs/dataportal>, accessed 25 April 2023).
- af** Official development assistance for the water sector (water supply and sanitation, agricultural water resources, and hydro-electric power plants), 2023 as of 23 March 2023. Creditor reporting system (CRS) of the Organization for Economic Co-operation and Development (OECD) (<https://stats.oecd.org/Index.aspx?DataSetCode=crs1>, accessed 30 April 2023). Includes CRS purpose codes for water supply and sanitation (CRS 140XX), agricultural water resources (CRS 31140), and hydro-electric power plants (CRS 23220). Global aggregate includes country and regional data not shown in the table.
- ag** Public health and environment [online database]. Global Health Observatory data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/public-health-and-environment/GHO/public-health-and-environment>, accessed 30 April 2023).
- ah** Data from Global Polio Eradication Initiative as of 12 April 2023 (<https://polioeradication.org/polio-today/polio-now/wild-poliovirus-list/>, accessed 12 April 2023).
- ai** Risk factors in noncommunicable diseases [online database]. Global Health Observatory data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/noncommunicable-diseases---risk-factors>, accessed 30 April 2023). This indicator is presented here as a proxy for the GPW 13 indicator "age-standardized prevalence of raised blood pressure among persons aged 18+ years", as the estimates are more recent.
- aj** Risk factors in noncommunicable diseases [online database]. Global Health Observatory data. Geneva: World Health Organization (<https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/noncommunicable-diseases---risk-factors>, accessed 30 April 2023).
- ak** Non-standard definition. For more details see: UNICEF/WHO joint database on births attended by skilled health personnel (footnote "d").
- al** Proportion of institutional births (%) used as proxy for the SDG indicator.
- am** Non-standard definition. For more details see: World Contraceptive Use 2021 (footnote "m").
- an** Estimate refers to smoking only, but is expected to be similar to all tobacco use.
- ao** Data for capital city only.
- ap** Data from private sector only.
- aq** Oedema data was not considered in the analysis.
- ar** Non-standard definition. For more details, see respective survey(s) comments available at: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/gho-jme-country-children-aged-5-years-wasted-br-\(-weight-for-height--2-sd\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/gho-jme-country-children-aged-5-years-wasted-br-(-weight-for-height--2-sd)) (accessed 30 April 2023).
- as** Most recent input data is before 2000, interpret with caution.
- at** Data collection excluded some regions or populations. For more details, see respective survey(s) comments available at: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/gho-jme-country-children-aged-5-years-wasted-br-\(-weight-for-height--2-sd\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/gho-jme-country-children-aged-5-years-wasted-br-(-weight-for-height--2-sd)) (accessed 30 April 2023).
- au** For high-income countries classified as high-income in the 2021 fiscal year with no information on clean fuel use, usage is assumed to be 100%.
- av** Only hospital consumption is reported.
- aw** Only community consumption is reported.
- ax** Only public sector reported.
- ay** The *Global status report for road safety 2023* (to be published in November 2023) will provide estimates for the year 2021, as well as updated counts for 2019 and prior years, based on more recent data made available since the publication of this edition of *World health statistics*.



# Annex 2. Regional groupings<sup>1</sup>

## WHO African Region

Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.

## WHO Region of the Americas

Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia (Plurinational State of), Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, United States of America, Uruguay, Venezuela (Bolivarian Republic of).

## WHO South-East Asia Region

Bangladesh, Bhutan, Democratic People's Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor-Leste.

## WHO European Region

Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands (Kingdom of the), North Macedonia, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Türkiye, Turkmenistan, Ukraine, United Kingdom of Great Britain and Northern Ireland, Uzbekistan.

## WHO Eastern Mediterranean Region

Afghanistan, Bahrain, Djibouti, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, occupied Palestinian territory, including east Jerusalem, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen.

## WHO Western Pacific Region

Australia, Brunei Darussalam, Cambodia, China, China, Hong Kong SAR, China, Macao SAR, Cook Islands, Fiji, Japan, Kiribati, Lao People's Democratic Republic, Malaysia, Marshall Islands, Micronesia (Federated States of), Mongolia, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Tonga, Tuvalu, Vanuatu, Viet Nam.

<sup>1</sup> Included are all WHO Member States, plus Associate Member States and territories with populations above 500 000 in 2021 according to World population prospects: 2022 revision. New York (NY): United Nations, Department of Economic and Social Affairs, Population Division; 2022 (<https://population.un.org/wpp/>, accessed 15 April 2023).













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