KEY MESSAGES

The coronavirus disease (COVID-19) pandemic has caused significant loss of lives, disrupted livelihoods and undermined well-being throughout the world. The COVID-19 crises have underscored how unprepared most health systems were and the negative impact this can have towards achieving the Sustainable Development Goal (SDGs). These is an urgency to invest in health systems, services and workforce.

The 2030 Agenda is a powerful accountability mechanism for the world. It is now more critical than ever to take stock of the lessons learned and progress made in improving population health, and more importantly, to identify and address the gaps that persist where progress is not on track.

World Health Statistics 2020 sheds light on the progress towards relevant SDGs and their implications in the midst of the current COVID-19 emergency. The report highlights the need to track population health and its determinants in a comprehensive and continuous manner. This report’s key messages are presented below.

1. The world population is not only living longer but living healthier

Life expectancy and healthy life expectancy (HALE) have both increased by over 8% globally between 2000 and 2016, and remain profoundly influenced by income. Despite the largest gains in both indicators being due primarily to the progress made in reducing child mortality and fighting infectious diseases, low-income and lower-middle-income countries continue to suffer from the poorest overall health outcomes, lagging far behind the global average.

To effectively sustain the progress in ensuring longer and healthier lives, timely and effective health policies and interventions are needed to minimize the potential direct and indirect impact of COVID-19 on life expectancy, due to excess mortality, and on HALE for populations of different ages, especially among older adults.

2. The overall improvements in health move along the fault lines created by inequalities and echo the status and the progress made towards universal health coverage

Overall access to essential health services improved from 2000 to 2017, with the strongest increase in low- and lower-middle-income countries. Yet, service coverage in low- and middle-income countries remains well below coverage in wealthier ones. Due to the serious inadequacy of service coverage in low-resource settings, the overall access to essential health services is still way below optimum. Only between one third and one half of the world’s population was able to obtain essential health services in 2017. The inability to pay for health care poses another major challenge.

The COVID-19 pandemic not only draws into focus the need to rebuild resilient health systems with increased access to quality health services, lowered financial cost and a strengthened health workforce, but also calls for the provision of services such as routine vaccinations and basic hygiene and sanitation.

3. Compared with the advances against communicable diseases, there has been inadequate progress in preventing and controlling noncommunicable diseases

Rapid epidemiological transition and demographic changes have shifted the disease burden from those that received attention in the Millennium Development goals (MDGs) era to noncommunicable diseases (NCDs), particularly in low- and middle-income countries where delivery of effective NCD interventions remains an overwhelming challenge to health systems. In 2016, NCDs accounted for 71% of all global deaths, and 85% of the 15 million premature deaths (deaths between ages 30 and 70) occurred in low- and middle-income countries.

Despite the increase in the proportion of all deaths due to NCDs, the overall rate of NCD-related premature deaths has been declining in the past two decades, but progress has slowed since 2010. Premature mortality from NCD parallels,
and can partly be attributed to, a lack of success in addressing many NCD risk factors. Although tobacco use is steadily declining, the prevalence of obesity is on the rise and reduction in harmful alcohol consumption has stagnated globally and is increasing in some regions.

In the event of a health emergency such as COVID-19, patients with pre-existing NCD conditions such as hypertension and diabetes, become more vulnerable and at higher risk of dying, not only because they are more susceptible to the virus but also due to the medical resources that have to be directed towards caring for patients with COVID-19. This makes addressing risk factors to prevent NCDs such as obesity, mental health conditions, in the first place even more crucial.

4. **Investing in strengthening country health information systems to improve timeliness of data could have the greatest positive impact and is vital for countries to monitor progress towards SDGs**

Accurate, timely, and comparable health-related statistics are essential for understanding population health trends. Decision-makers need the information to develop appropriate policies, allocate resources and prioritize interventions.

For almost a fifth of countries, over half of the indicators have no recent primary or direct underlying data. Data gaps and lags prevent from truly understanding who is being included or left aside and take timely and appropriate action. The existing SDG indicators address a broad range of health aspects but do not capture the breadth of population health outcomes and determinants. Monitoring and evaluating population health thus goes beyond the indicators covered in this report and often requires additional and improved measurements.

WHO is committed to supporting Member States to make improvements in surveillance and health information systems. These improvements will enhance the scope and quality of health information and standardize processes to generate comparable estimates at the global level.

Getting accurate data on COVID-19 related deaths has been a challenge. The COVID-19 pandemic underscores the serious gaps in timely, reliable, accessible and actionable data and measurements that compromise preparedness, prevention and response to health emergencies. The International Health Regulations (IHR) (2005) monitoring framework is one of the data collection tools that have demonstrated value in evaluating and building country capacities to prevent, detect, assess, report and respond to public health emergencies. From self-assessment of the 13 core capacities in 2019, countries have shown steady progress across almost all capacities including surveillance, laboratory and coordination. As the pandemic progresses, objective and comparable data are crucial to determine the effectiveness of different national strategies used to mitigate and suppress, and thus to better prepare for the probable continuation of the epidemic over the next year or more.

5. **Current rate of progress falls short and COVID-19 further risks getting the world off track to achieve SDGs**

Prevention and treatment coverage have substantially improved for major infectious diseases, maternal, neonatal and child health care, leading to steady decline in incidence and mortality from these diseases in the past two decades. However, the current rate of change is insufficient to reach the 2030 SDG targets. Preserving progress made, constant vigilance, early detection and monitoring, a unified national response (in coordination with global partners) and, rapidly scaling up solutions for high risk, resource limited and marginalized populations are key to achieve SDGs.
Significant progress towards several health-related SDGs increased average life expectancy at birth by 5.5 years globally between 2000 and 2016: from 66.5 to 72.0 years (1). Many of the health-related SDG indicators tracked in this report have shown improvements, much of it reflecting momentum that was built during the preceding Millennium Development Goals (MDGs) era and sustained subsequently. For several indicators, however, advances are currently stalling or are progressing too slowly to achieve the relevant SDG targets.

Life expectancy remains profoundly influenced by income: In 2016, it was 18.1 years lower in low-income countries (62.7 years) than in high-income countries (80.8 years). Since 2000, that gap has narrowed somewhat. Low-income countries have seen the biggest recent gains in life expectancy: On average in those countries, it rose by 21% between 2000 and 2016 (or 11 years), compared with 8% (5 years) globally and 4% (3 years) in high-income countries (Figure 1.1). In all age groups other than people 65 years and older, the biggest decreases in mortality rates occurred in low-income countries. Similarly, healthy life expectancy rose by 18% in low-income countries compared with 8% globally over the same period (1).

The recent life expectancy gains in low-income countries are largely due to major reductions in mortality in children under 5 years in low-income countries (1), a reduction of 53% from 143 deaths per 1000 live births in 2000 to 68 in 2018 (2). There is room for further progress, given the persistent and substantial gap that remains between average life expectancy in low- and in high-income countries.

In low-income countries overall, fewer than 3 out of 5 newborns are expected to reach the age of 70 and more than one third of all deaths are among children younger than 15 years. Premature deaths in those countries are due primarily to lower respiratory infections, diarrhoeal diseases, acquired immunodeficiency syndrome (AIDS), malaria and preterm birth complications. In high-income countries, 80% of newborns are expected to live beyond the age of 70. Ischaemic heart disease, lung cancer and suicides are the three top causes of premature death in the latter countries (3).

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1 See section 2.
2 Deaths occurring before the age of 70.
NEW INDICATORS IN THE 2020 EDITION

SDG indicators

SDG 2.2.3: In 2016, the global prevalence of anaemia among women of reproductive age was 32.8% (compared with 30.3% in 2012). Applied to the latest UN population estimates, that equated to 615.8 million women with anaemia. The rates of anaemia were highest in the WHO South-East Asia (45.8%), Eastern Mediterranean (39.8%) and African (39.0%) regions (4).

SDG 3.b.1: Human papillomavirus (HPV) is the most common viral infection of the reproductive tract, and can cause cervical cancer. The vaccine targeting 9–14 year-old girls is now offered in 90 countries, but is yet to reach the poorest countries where the risk of cervical cancer is the greatest. Global coverage for a full course of HPV vaccines increased from 3% in 2010 to 12% in 2018 (5).  

SDG 3.b.3: Based on a sample of 25 countries, surveyed between 2008 and 2019, on average only 22.4% of health facilities provided an available and affordable (accessible) core set of relevant essential medicines for treatment, prevention and management of acute and chronic, communicable and noncommunicable diseases in primary health care settings. A lot of variation in access to medicines is observed between these 25 countries. Specifically, in 28% of countries none of the facilities provided accessible medicines (6).

SDG 3.d.2: By rendering medicines ineffective, antimicrobial resistance undermines the treatment of common infections and increases the risk of spread to others. After the launch of the Global Antimicrobial Resistance Surveillance System (GLASS) in 2016, as of 21 April 2020, a total of 91 countries and territories have been supported to enroll into the system and participate in the annual data call on antimicrobial resistance and consumption. Data on the overall prevalence of antimicrobial- resistance pathogens are currently limited, but completeness and representativeness of the data have continuously increased at every GLASS data call. The last data call run in 2019 gathered frequency of antimicrobial resistant pathogens in common acute bacterial infections, including bloodstream infections from 66 countries and territories (7). Monitoring AMR will help inform control strategies and actions to mitigate impact on the population such as informing the treatment protocols, enhancing Infection Prevention and Control (IPC) and water, sanitation and hygiene (WASH) in health care facilities, increasing the availability of “Access” group antibiotics, as well as continuous improvement of AMR surveillance capacities. Establishing AMR surveillance systems will also build country capacity to monitor and respond to risks from emerging pathogens.

SDG 6.2.2(b): Proportion of population using a hand-washing facility with soap and water.a

GPW13 indicatorsb

Number of cases of poliomyelitis caused by wild poliovirus.c

Age-standardized prevalence of raised blood pressure among persons aged 18+ years (defined as systolic blood pressure of >140 mmHg and/or diastolic blood pressure >90 mmHg) and mean systolic blood pressure.d

Prevalence of obesity.e

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Note: Each circle represents a country.  

Fig. 1.1  
Gains in life expectancy and healthy life expectancy between 2000 and 2016, by country income group
The progress being made offers a platform for further improvements. But it does not guarantee that the world will meet the health-related SDG targets for 2030. Currently, none of the nine main health-related SDG indicators with explicit targets for 2030 are on-track to meet them. However, some individual countries have achieved or are on-track to achieve SDG targets; they should intensify their efforts to ensure progress is equitable.

**Health systems and universal health coverage**

In the SDG monitoring framework, progress towards universal health coverage (UHC) is tracked with two indicators: (i) a service coverage index (which measures coverage of selected essential health services on a scale of 0 to 100); and (ii) the proportion of the population with large out-of-pocket expenditures on health care (which measures the incidence of catastrophic health spending, rendered as percentage).

The service coverage index improved from 45 globally in 2000 to 66 in 2017, with the strongest increase in low- and lower-middle-income countries, where the baseline at 2000 was lowest. However, the pace of that progress has slowed since 2010. The improvements are especially notable for infectious disease interventions and, to a lesser extent, for reproductive, maternal and child health services. Within countries, coverage of the latter services is typically lower in poorer households than in richer households (9).

Overall, between one third and one half the world’s population (33% to 49%) was covered by essential health services in 2017 (8). Service coverage continued to be lower in low- and middle-income countries than in wealthier ones; the same held for health workforce densities and immunization coverage (Figure 1.2). Available data indicate that over 40% of all countries have fewer than 10 medical doctors per 10 000 people, over 55% have fewer than 40 nursing and midwifery personnel per 10 000 people, over 68% have fewer than five dentists per 10 000 population and over 65% have less than five pharmacists per 10 000 population (10).

Globally, women comprise over 76% of medical doctors and nursing personnel, although the sex distribution varies considerably depending on the occupation and region. While women comprise a little over 40% of medical doctors worldwide, they make up 90% of nursing personnel. Nursing is by far the largest occupational group in the health sector, with nurses accounting for an average 59% of health professionals in the 172 countries with available data (11).

The age distribution of the nursing workforce is also noteworthy: 1 in 6 nurses in the world is aged 55 years or older and is expected to retire in the next decade. That proportion is even higher in the Region of the Americas (24%) (11). The sex distribution of health workers shows that, although women represent the majority of the health workforce, they are often under-represented at senior management levels (12).

Disparities in distribution of health workforces – e.g. in terms of their age and sex distribution, employment status and pay levels – hinder UHC and the achievement of the SDGs.

In health systems with strong financial protection, health service coverage should not be a source of financial hardship for people accessing those services. Yet, the proportion of the global population experiencing catastrophic health expenditure1 has increased steadily since 2000.

Out-of-pocket health spending can force people to choose between spending on health and spending on other necessities. The proportion of the global population

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1 Defined as large out-of-pocket spending in relation to household consumption or income (SDG 3.8.2).

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**Fig. 1.2**

Number of nurses per 10 000 population, by WHO region, 2018
spending more than 10% of household budgets on health care reached 12.7% in 2015, up from 9.4% in 2000 and equivalent to about 927 million people. The proportion of the population spending more than 25% of household budgets on health care reached almost 3% in 2015, up from 1.7% in 2000. Increases occurred in all regions except for the Americas (since 2010). The vast majority of people (87%) suffering large out-of-pocket health payments in 2015 were living in middle-income countries. On current trends, approximately 1 billion (12.9%) people will be spending at least 10% of their household budgets on health care by 2020.

Out-of-pocket health spending can also push people into poverty. Most of the people pushed into extreme poverty (surviving on less than US$ 1.90 per person per day) by out-of-pocket payments live in lower-middle-income countries and South-East Asia. Globally, between 2000 and 2015, the total number of people pushed below the extreme poverty line by such spending decreased, however: from 123.9 million people (2%) to 89.7 million people (1.2%). That decline coincided with a reduction in the total number of people living in extreme poverty.

Out-of-pocket health spending is also a major driver of economic disadvantage compared with other factors. Between 2000 and 2015, there was an increase in relative poverty due to out-of-pocket health spending: from an additional 110.9 million people globally (1.8%) who had been pushed below the relative poverty line of 60% of median consumption to an additional 183.2 million people (2.5%).

Reaching UHC remains a challenge for countries around the world. While service coverage is increasing, progress on financial protection is mixed. Countries should assess their performance against both of these key indicators (Figure 1.3).

Countries with high service coverage and low financial hardship (quadrant I) face the challenge of sustaining their gains, while those with high service coverage and high health-related financial hardship (quadrant II) need to give more attention to health financing reforms to bend the curve. Countries with low service coverage and high health-related financial hardship (quadrant III) need to thoroughly reform their service delivery models and health financing strategies. Countries with low service coverage and low health-related financial hardship (quadrant IV) need to build stronger foundations for their health systems. That includes strengthening human resources, health infrastructure and supply chains to ensure basic service delivery, particularly for the rural poor, while protecting people against having to pay out-of-pocket costs for health services. The focus throughout should be on removing inequalities in service coverage and financial protection.
References


The Millennium Development Goals (MDGs) era (2000–2015) showed that the world can work together towards a common set of global goals with success. Improvements were made in many areas of health and well-being. Maternal and child survival improved, and mortality from infectious diseases, notably human immunodeficiency virus (HIV)/AIDS, TB, malaria and neglected tropical diseases (NTDs) declined. The SDGs, ratified by UN Member States in 2015, are aimed at sustaining the progress made through the MDG efforts.

Maternal mortality has declined but progress is uneven across regions

A total of 295,000 [UI 80%: 279,000–340,000] women worldwide lost their lives during and following pregnancy and childbirth in 2017, with sub-Saharan Africa and South Asia accounting for approximately 86% of all maternal deaths worldwide. The global maternal mortality ratio (MMR, the number of maternal deaths per 100,000 live births) was estimated at 211 [UI 80%: 199–243], representing a 38% reduction since 2000. On average, global MMR declined by 2.9% every year between 2000 and 2017. If the pace of progress accelerates enough to achieve the SDG target (reducing global MMR to less than 70 per 100,000 live births), it would save the lives of at least one million women (1).

The majority of maternal deaths are preventable through appropriate management of pregnancy and care at birth, including antenatal care by trained health providers, assistance during childbirth by skilled health personnel, and care and support in the weeks after childbirth. Data from 2014 to 2019 indicate that approximately 81% of all births globally took place in the presence of skilled health personnel, an increase from 64% in the 2000–2006 period. In sub-Saharan Africa, where roughly 66% of the world’s maternal deaths occur, only 60% of births were assisted by skilled health personnel during the 2014–2019 period (2).

Maternal deaths can also be reduced through improved spacing of births, which is easier to achieve when family planning needs are satisfied. Worldwide, the proportion of women whose family planning needs were satisfied with modern methods increased slightly from 73.6% in 2000 to 76.8% in 2020. However, coverage in sub-Saharan Africa was only 55.5% in 2020 (3). Adolescent girls (15–19 years), who have a higher risk of complications during pregnancy, are having fewer births: their fertility rate has declined

1 UI = uncertainty interval.
from 56 births per 1000 adolescent girls in 2000 to 41 in 2020 (4).

There has been significant progress in under-five and neonatal mortality, and deaths are now concentrated in specific regions and countries

Between 2000 and 2018, the under-five mortality rate fell from 76 [75–78] per 1000 live births to 39 [37–42], and the neonatal mortality rate declined from 31 [30–31] per 1000 live births to 18 [17–19] (Figure 2.1). This represented an estimated 5.3 [5.1–5.7] million under-five deaths and 2.5 [2.4–2.7] million neonatal deaths in 2018 (5).


Fig. 2.1
Global child and neonatal mortality, 2000–2018

One hundred and twenty-one countries2 have already met the SDGs target for under-five mortality, and a further 21 countries are expected to do so by 2030 if current trends continue. Efforts to accelerate progress need to be scaled up in the remaining 53 countries, two thirds of which are in sub-Saharan Africa (5).

Many child deaths can be prevented through interventions such as immunization, exclusive breastfeeding, proper nutrition, and prompt and appropriate treatment of common childhood illnesses. Reductions in air pollution and greater access to basic hygiene, safely managed drinking-water and sanitation also contribute to save many young lives.

In 2018, global coverage rates for the third dose of the diphtheria, tetanus- and pertussis-containing vaccine (DTP3) reached 86%, up from 72% in 2000. However, progress has stalled during the current decade and 83 countries have yet to reach the Global Vaccine Action Plan target of at least 90% coverage. Similar levels of coverage were achieved for a single dose of the measles-containing vaccine (86%), while coverage of a second-dose reached 69% in 2018 (up from 18% in 2000) (6). Despite progress, disparities in measles vaccine access and use persist across and within countries of all income levels, resulting in new measles outbreaks (7). Pneumococcal conjugate vaccine coverage increased more than 10-fold since 2008, but was still below 50% globally in 2018 (Figure 2.2).

Global coverage of immunization of children against polio has also been a major success, reducing reported wild poliovirus cases by 99.9% since 1988 (from an estimated 350 000 cases to 175 in 2019) (8), and rendering 210 countries, territories and areas polio-free. About 84% of infants globally received the hepatitis B vaccine (3rd dose) in 2018, compared with 30% coverage in 2000 (6). Hepatitis B prevalence among children under 5 years of age declined from 4.7% in the pre-vaccine era to 0.8% in 2017 (9).

More than half (55%) of the global population was estimated to lack access to safely-managed sanitation services in 2017, and more than one quarter (29%) lacked safely-managed drinking-water. In the same year, two in five households globally (40%) lacked basic hand-washing facilities with soap and water in their home (10,11). Globally in 2016, unsafe drinking-water and sanitation, and lack of hand hygiene were responsible for nearly 1.2 million deaths, including almost 300 000 of children aged under 5 years who died due to diarrhoea (12).

1 Unless indicated otherwise, the bounds refer to the 95% uncertainty interval.
2 Includes one territory.
Malnutrition and undernutrition continue to make millions of children more susceptible to disease and death. Globally in 2019, about one fifth (21.3%) of children under 5 years of age were stunted, compared with one third (32.4%) in 2000. Approximately 144.0 million [133.6–154.5 million] children under 5 years worldwide suffered from stunting in 2019, two thirds of whom lived in the WHO Africa and South-East Asia regions. More than 47.0 million [38.7–55.3 million] children (6.9%) under 5 years of age were stunted, compared with one third (32.4%) in 2000. Approximately 144.0 million [133.6–154.5 million] children under 5 years of age were stunted, compared with one third (32.4%) in 2000. Approximately 144.0 million [133.6–154.5 million] children under 5 years of age were stunted, compared with one third (32.4%) in 2000. Approximately 144.0 million [133.6–154.5 million] children under 5 years of age were stunted, compared with one third (32.4%) in 2000.

In addition, significant in-country inequalities persist, as is evident in relation to several indicators:

- In one third of 88 low- and middle-income study countries, demand for family planning using modern methods was at least 20% higher among the women living in the richest household quintile than among their counterparts living in the 20% poorest households (14).
- In one third of 47 low- and middle-income countries studied, the under-five mortality rate was 20 deaths per 1000 live births higher in rural areas than in urban areas (14).
- About 8 in 10 of people worldwide who lack access to basic drinking-water services live in rural areas, as do 7 out of 10 of those lacking basic sanitation services (10).
- In one quarter of 63 low- and middle-income study countries, DTP3 immunization coverage among one year-olds was at least 20% higher in the richest than in the poorest quintile of households (14).
- Stunting prevalence was at least 20% higher among children under five years whose mothers lacked formal education than among the children whose mothers had at least secondary education (14).

### Steady progress is being made against major infectious diseases, but stronger efforts are needed to bring the SDG targets within closer reach

The incidence of HIV, TB and malaria infections has declined, while the proportion of people requiring interventions against NTDs has diminished. The decades-long mobilization against the HIV epidemic has led to an almost two-fold reduction in HIV incidence globally between 2000 and 2018 (from 0.47 [0.36–0.61] to 0.24 [0.18–0.31] per 1000 uninfected persons). However, the current rate of change is too slow to reach the SDG target to end the HIV/AIDS epidemic by 2030. Interventions need to reach the populations who are at very high risk and who accounted for an estimated 54% of new HIV infections in 2018, but who are marginalized by punitive laws and discrimination (15).

TB incidence has declined gradually, from 172 [144–204] new and relapsed cases per 100 000 population in 2000 to 132 [118–146] in 2018. It ranged between 100 and 400 per 100 000 population in most of the 30 TB high-burden countries and above 500 in a few others in 2018 (16). Longstanding interventions against malaria have reduced the incidence rate from 81 cases per 1000 population at risk in 2000 to about 57 cases in 2018, but progress has stalled since 2014 (17). The number of people requiring interventions against NTDs decreased from 2190 million in 2000 to 1755 million in 2018 (18), and to date 40 countries or territories have eliminated at least one NTD (19).

Death rates attributable to HIV, TB, malaria and NTDs have decreased annually by an average 2.4–3.2% globally since 2000, a larger reduction than for deaths caused by noncommunicable diseases (NCDs) and injuries targeted for action during the SDGs era (Figure 2.3) (15–17, 20–22). HIV, TB (among HIV-negative people) and malaria accounted for 0.8 [0.6–1.1], 1.2 [1.1–1.3] and 0.4 [0.4–0.5] million deaths, respectively, in 2018 (15–17).

### Fig. 2.3
**Global annual decline in all age mortality rates associated with selected causes of death since 2000**

Progress observed since 2000 for all three major infectious diseases, as well as for NTDs, has been largely due to massive scale up of prevention and treatment interventions (Figure 2.4). The scale up of HIV treatment has been

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1 Such as sex workers, people who inject drugs, men who have sex with men, transgender people and incarcerated persons.
particularly successful and has saved almost 14 million lives between 2000 and 2018 (23).

For TB, the biggest increases in treatment coverage were observed in the late 1990s and early 2000s, during the roll-out of the directly-observed treatment, short-course (DOTS) strategy. Coverage continued to increase subsequently and reached 69% globally in 2018, although large gaps in detection and treatment mean that close to 3 million incident cases of TB went undiagnosed or unreported in that year (16).

For malaria, the gains observed since 2000 have been largely due to an expansion in the use of insecticide-treated mosquito nets, indoor residual spraying, diagnostic testing and artemisinin-based combination therapy. However, insecticide-treated bed net use to protect against malaria has increased little since 2015 and the use of indoor residual spraying is diminishing (17). The NTD response has expanded coverage of preventive chemotherapy for at least one of the NTDs from 36% in 2010 to 65% in 2018 (24), representing more than 1.1 billion people treated in 2018 (25).

More rapid progress towards the SDG goals and targets requires strengthened efforts in low- and lower-middle-income countries where the largest gains can be made (Figures 2.5 and 2.6), especially in the:

- 19 countries with a very high maternal mortality ratio in 2017 (1); 1
- 53 countries that need to accelerate their current trends in under-five mortality rates to reach the 2030 SDG target (5);
- 30 countries where the number of new HIV infections among adults 15-49 years exceeded 100 per 100 000 uninfected persons in 2018 (15);
- 30 countries that accounted for 87% of new TB cases in 2018 (16);
- 11 countries that accounted for 70% of the estimated global malaria case burden in 2018 (17); and
- 17 countries that accounted for 80% of the burden of NTDs in 2018 (18).

1 Considered very high if in the 500–999 per 100 000 live births range and extremely high if greater than or equal to 1000 maternal deaths per 100 000 live births.
Largest gains can be made in reducing mortality in countries that matched the criteria*:

- **Under-five mortality only**
- **Both under-five and maternal mortality**
- **Do not match the criteria**
- **Data not available**
- **Not applicable**

* Under-five mortality: need to accelerate their current trends in mortality rates to reach the 2030 SDG target. Maternal mortality ratio: If greater than or equal to 500 maternal deaths per 100,000 live births in 2017.


**Fig. 2.5**
Countries where the largest gains can be made in reducing under-five and/or maternal mortality

Number of selected SDG 3.3 indicators (0–4) requiring major progress in each country

- **0**
- **1**
- **2**
- **3**
- **4**
- **Data not available**
- **Not applicable**


**Fig. 2.6**
Countries where major gains can be made against at least one of the four selected SDG 3.3 indicators
References


Noncommunicable disease mortality

Compared with the advances against communicable diseases, there has been inadequate progress in preventing and controlling premature death from noncommunicable diseases (NCDs). However, countries need comprehensive strategies to reduce these causes of death more effectively in order to achieve global targets by 2030.

An estimated 41 million people worldwide died of NCDs in 2016, equivalent to 71% of all deaths. Four NCDs caused most of those deaths: cardiovascular diseases (17.9 million deaths), cancer (9.0 million deaths), chronic respiratory diseases (3.8 million deaths), and diabetes (1.6 million deaths) (1).

The probability of dying from any one of the four main NCDs between the ages of 30 and 70 decreased by 18% globally between 2000 and 2016. The most rapid decline in the age-standardized ‘premature’ mortality rate – defined as mortality rate between ages 30 and 70 – is seen for chronic respiratory diseases (40% lower), followed by cardiovascular diseases and cancer (both 19% lower). Diabetes, however, is showing a 5% increase in premature mortality. In high-income countries, cancer has become the leading cause of premature death. In other country income groups, particularly low- and lower-middle-income countries, cardiovascular diseases continue to be the main NCD cause that claims the largest number of lives among people in the age group, yet the progress of mortality reduction is slowest among all country-income groups.

Despite the considerable progress made in the first decade of the 21st century, the momentum of change has dwindled since 2010, with annual reductions in the age-standardized premature mortality rates slowing for the main NCDs. Disaggregating the data by World Bank country income groups (Figure 3.1), in high-income countries the premature mortality rate due to diabetes and chronic respiratory diseases decreased from 2000 to 2010 but then increased in 2010–2016. In lower-middle-income countries, the premature mortality rate due to diabetes increased across both periods.

In contrast to the overall decline in age-standardized mortality rates, the demographic transition (towards older populations) and the rapid epidemiological transition from communicable diseases to NCDs appear to have not only slowed the decline in the crude premature mortality rate from NCDs since 2000, but also contributed to an observed increase since 2010, particularly in lower-and upper-middle-income countries (Figure 3.2).
Fig. 3.1  
Annualized rate of change of age-standardized premature mortality rates from the four major NCDs highlighted in SDG Target 3.4, by country income group, 2000–2010 and 2010–2016

Considering the population age-structures in countries with a high burden of premature NCD mortality, the slow progress in NCD mortality reduction holds major implications for societies’ health and welfare, as well as for national economies. Policies and actions that substantially reduce that mortality risk are needed in at least half of the countries worldwide where progress towards SDG target 3.4 is markedly lacking (2). More effective action against the key risk factors for NCDs and more intensive management for those with existing NCDs through strengthened health systems including improved diagnosis, treatment, rehabilitation and palliation is needed especially in low- and middle-income countries, which in 2016 accounted for 85% of the 15 million premature deaths due to NCDs.

### NCD risk factors show mixed trends

The underlying causes of the main NCDs are complex. They include genetic predispositions, as well as modifiable risk behaviours (such as tobacco use, harmful use of alcohol, physical inactivity and unhealthy diets) and environmental risks (such as air pollution), the prevalence of which varies geographically, by income groups and by sex.

#### Modifiable risk factors

The rising mortality rates from diabetes are associated with – among other factors – the increasing prevalence of obesity, a major risk factor for diabetes. Since 2000, the age-standardized prevalence of obesity among adults (18 years and older) globally has increased 1.5 times, and the crude prevalence in children (5–19 years) has more than doubled (from 2.9% to 6.8%) in 2016 (3).

In addition to obesity, overweight among children has shown a concerning upward trend. Worldwide, an estimated 5.6% – or 38.3 million children under 5 years of age – were overweight in 2019, compared with approximately 30.3 million in 2000. In the WHO African Region, the proportion of children under 5 who were overweight decreased from 4.6% in 2000 to 3.1% in 2019, although their numbers increased from 5.1 million to 5.3 million. The prevalence of children under 5 years of age who are overweight has increased across almost all country income groups since 2000, and it was highest in the upper-middle income group (8.8%) in 2019 (Figure 3.3) (4).

Although not listed as official SDG indicators, the modifiable risk factors of unhealthy diets (e.g. insufficient consumption of fruit and vegetables, high salt intake and/or inadequate fat intake) and insufficient physical activity are also monitored as part of the NCD agenda for which global targets were adopted by the 2013 World Health Assembly. In 2016, the global age-standardized prevalence of physical inactivity1 for adults aged 18+ years was 27.5%.

1 Defined as not meeting the WHO recommendations of at least 150 minutes of moderate activity per week, or equivalent.

Women had higher levels of insufficient physical activity (31.7%) than men (23.4%) (5). Over four out of five school-going adolescents aged 11–17 years (81.0%) did not meet the WHO recommendations of doing at least one hour of physical activity daily in 2016 and, as with adults, levels were higher among girls (84.7%) as compared to boys (77.6%) (6).

Raised blood pressure (hypertension)2 is considered a major risk factor for the development of several NCDs, including heart and brain diseases. Global prevalence of hypertension decreased by 11% from 2000 to 2015. Disaggregation by World Bank country income groups shows that the prevalence of hypertension was highest in low-income countries (28.4%) and lowest in high-income countries (17.7%) in 2015 (7).

Tobacco use, another major risk factor, has decreased steadily among both adult men and women globally, and across all income groups, a trend that is projected to continue (Figure 3.4). A little under one quarter (23.6%) of adults (15 years and older) globally used tobacco in some form in 2018, down from one third (33.3%) in 2000. The average prevalence of tobacco use among men globally declined from 50.0% in 2000 to 38.6% in 2018. However, that rate is expected to remain above 35% until at least 2025 unless tobacco control policies are tightened immediately. Among women globally, tobacco use declined from 16.7% in 2000 to 8.5% in 2018 (8).

The total number of adult tobacco users remains very high, however: approximately 1.3 billion in 2018. Governments can protect citizens from tobacco-related harms by strengthening implementation of evidence-based measures set out in the WHO Framework Convention on Tobacco Control (WHO FCTC) and relatedly, its Protocol to Eliminate Illicit Trade in Tobacco Products. In the 181 Parties to the WHO FCTC, covering more than 90% of the world’s population,

2 Defined as systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg.
the status of implementation has consistently improved since the Convention's entry into force in 2005. However, more efforts are needed to swiftly and effectively reduce prevalence and deaths by 2030 (9).

Harmful use of alcohol resulted in more than 3 million deaths worldwide in 2016 (5.3% of all deaths); men made up more than three quarters of alcohol-related deaths (10). Worldwide alcohol consumption, measured in litres of pure alcohol per person of 15 years or older, has been relatively stable since 2010 and was estimated at 6.2 litres in 2018 (11). However, current trends and projections point to an anticipated increase in global alcohol per capita by 2025, largely driven by increases in the Americas, South-East Asia and the Western Pacific regions (10).

The WHO European Region continues to have the highest per capita consumption in the world (9.7 litres per capita in 2018), even though consumption has decreased by more than 10% since 2010. Across all regions, women are less likely than men to drink alcohol and those who do drink alcohol tend to drink less (Figure 3.5) (11). Effective control measures can reduce alcohol consumption. Those include increasing taxes on alcoholic beverages, bans or comprehensive restrictions on alcohol advertising, restricting the physical availability of alcohol, enacting and enforcing drink-driving laws, and providing brief psychosocial interventions (10).

Substantial reductions in NCD mortality require a strengthened health system in countries to deliver equitable and high-quality management of NCDs beginning with hypertension control, and policies that drastically reduce tobacco and alcohol use, prevent and control hypertension, and promote and facilitate healthier diets and physical activity.
Environmental risk factors

Air pollution is a major environmental risk to health. The combined effects of ambient and household air pollution caused about 7 million deaths in 2016, largely as a result of stroke, heart disease, chronic obstructive pulmonary disease, lung cancer and acute respiratory infections (1,12,13).

In 2016, nine out of ten people breathed air that did not meet the WHO air quality guidelines and more than half of the world’s population was exposed to air pollution levels at least 2.5 times above the safety standard set by WHO. People in low- and middle-income countries are disproportionately at risk and accounted for more than 90% of deaths attributable to air pollution in 2016 (1,12,13).

In addition to ambient or outdoor air pollution, household air pollution threatens the health of the estimated 2.8 billion people who relied primarily on polluting cooking systems (13). Although the proportion of the global population with access to clean cooking fuels and technologies has increased steadily since 2000 and reached 63% in 2018, the actual number of people without clean cooking has remained relatively constant over the past three decades. The regional disparities are stark: Only 18% of the population in the WHO African Region mainly use clean fuels and technologies for cooking, compared with more than 90% in the WHO European Region and the Region of the Americas (Figure 3.6).

Policies and investments promoting cleaner industries, power generation, transport and energy-efficient homes would reduce key sources of outdoor air pollution as well as mitigate the impact of climate change. Wider and more equitable availability of affordable, reliable and convenient clean cooking fuels and technologies would help reduce both household and outdoor air pollution.

Homicides, violence against women, suicides, road traffic injuries and unintentional poisoning

Homicides

An estimated 478 000 people were killed in homicides globally in 2017, four fifths of them boys or men. The rate of homicide deaths was highest in the WHO Region of the Americas, at 19.6 per 100 000 population – over three times the global average of 6.3 per 100 000 population (14).

Violence against women

Violence against women (VAW) is common worldwide and is associated with numerous, serious health problems for women and their children. The collection, analysis and reporting of data on intimate partner violence and other forms of VAW are important for developing effective and sustainable interventions to reduce such violence. WHO is working with other UN agencies to collate data on intimate partner violence and non-partner sexual violence from population-based prevalence surveys/studies and to produce estimates (see Section 4, Box 2 on Improving data on violence against women).

Suicides

There were almost 800 000 suicide deaths globally in 2016, equivalent to an annual suicide mortality rate of 10.6 per
Suicide mortality rates decreased by 16% in men and 21% in women globally between 2000 and 2016. Men were nearly twice as likely to die of suicide than women (13.5 and 7.7 deaths per 100 000 population, respectively, in 2016). Across country-income groups, suicide mortality rates were highest among men in high-income countries (21.0 per 100 000 population). Despite some progress made, the reduction of the global suicide rate at the current pace (8% reduction from 2010–2016) would not be sufficient to reach global targets by 2030.

Preventing homicides, suicides and non-fatal violence requires comprehensive multisectoral approaches that cover not only health and mental health services, but also go beyond the health sector and deal with the underlying causes, such as gender and socioeconomic inequalities, social norms that allow violence, access to highly hazardous pesticides, and irresponsible reporting by the media.

Road traffic injuries
The overall mortality rate due to road traffic injuries has stayed fairly constant between 2000 and 2016, at around 18 deaths per 100 000 population in 2016, despite the increasing numbers of motor vehicles in use. The mortality rate was more than three times higher in low-income countries (27.5 deaths per 100 000 population) than in high-income countries (8.3 deaths per 100 000 population). Globally, road traffic crashes killed 1.35 million people worldwide in 2016 – nearly 3700 deaths per day – and injured 50 million more people. More than half of global road traffic deaths are among pedestrians, cyclists and motorcyclists who still tend to be neglected in road traffic system design and safety strategies in many countries (15).

Unintentional poisoning
More than 106 000 people worldwide died due to unintentional poisoning in 2016. Across the WHO regions, the mortality rate was highest in the WHO African Region (2.7 per 100 000 population) and lowest in the Region of the Americas (0.6 per 100 000 population). Low-income countries had the greatest mortality burden (2.8 per 100 000 population), with death rates almost six times those of high-income countries (0.5 per 100 000 population) (1).

Countries need to put in place the proven measures that exist to improve road safety and reduce unintentional poisoning.
References


Global monitoring of progress towards the health-related SDG goals and targets, and the WHO’s GPW13, requires high-quality country data for tracking changes against specific indicators.

Ideally, global monitoring should use country-level data that are produced by national statistical systems. Those data should be comprehensive, accurate and comparable across countries and over time. Despite substantial progress in recent decades, however, national statistical systems and the health data they generate often have limitations. For example, administrative reporting systems (such as civil registration and vital statistics systems, and routine facility-based health information systems) may have incomplete coverage. Surveys may not be nationally representative or conducted frequently enough to allow for effective monitoring. Disease surveillance systems may suffer from under- or over-reporting of cases. Disaggregated data, essential for monitoring health inequalities, are often lacking.

Information bias, errors in the processing or reporting of the collected information, time lags in reporting, and the use of multiple definitions and methodologies in different countries, present additional difficulties, leading to outdated, incomplete or inaccurate data, undermining monitoring of health-related indicators and compromising progress towards the SDGs.

For each of the health-related SDG indicators, the preferred data sources have been identified (1–2). For global monitoring, ideally, high-quality country-produced primary data are used. However, when primary data are not sufficiently comparable, in some cases WHO and other international agencies use approaches such as mathematical or statistical models to produce comparable estimates, based on available primary data as the underlying data.

As a result, the country-level statistics presented in World health statistics 2020 are a combination of primary data for some indicators and comparable estimates for others. 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 some 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 (3).
This report presents each country-level statistic in Annex 2 in a way that indicates whether the statistic is based on recent or older underlying primary data, or whether it lacked direct underlying primary data.

The availability of recent underlying primary data is uneven (Figure 4.1), although it is likely that more data exist at the country level but were not available for use by the agencies, for various reasons. For most countries, recent primary or underlying data were available for between half and 80% of the health-related SDG and GPW13 indicators included in Annex 2. For almost one fifth of countries, however, over half of the indicators have no recent primary or direct underlying data. Low- and lower-middle-income countries are more likely to lack recent underlying data for comparable estimates, especially those requiring complete cause-of-death registration data. However, they tend to have more data for indicators that are derived from population-based surveys, such as indicators on child nutrition and family planning, compared to higher-income countries.

The underlying data for a given set of estimates may also vary in quality. This report considers underlying data that were used as input to generate estimates, regardless of the adjustments applied to them in the estimation process. Moreover, health-related SDG indicators have varying definitions and methodologies, so what is considered as underlying data in this report also varies. For complex indicators that are derived from multiple parameters, only the most important parameter(s) are considered as underlying data.

Significant gaps exist in the availability and quality of data to inform global health-related SDG monitoring. Many national health information systems require urgent improvements, starting with greater investments in human and technical resources and collaboration. Collecting, analysing and utilizing data of good quality is an important step to improving and addressing inequities in health care.

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1 For indicators reported as primary data, a statistic is considered recent if the reference year is 2015 or more recent. For comparable estimates, underlying primary data are considered recent if the latest year of reference period falls within four years of the year of the estimate.

2 Low data availability could mean that the estimates presented in the current edition date several years back (when more recent data were not yet available). It could also mean that more recent data were available but did not reach international agencies in time or did not meet the inclusion criteria to be used in reporting or in the estimation process. A report with a more detailed picture of actual country-level data availability and the quality of the underlying health information systems will be available in late 2020.

3 As the indicators included in this edition are not exactly the same as those in the World Health statistics 2019 report, and the data availability assessment criteria for some indicators have been refined, the changes between the two editions should not be interpreted as trends.
Monitoring health inequalities is essential for achieving health equity: it allows for identifying populations that are being ‘left behind’ and it helps inform equity-oriented policies, programmes and practices that can close existing gaps. Such monitoring requires various forms of disaggregated data, which currently are lacking for several health-related SDG indicators.

For example, geographical monitoring is crucial to reveal subnational variations in immunization coverage. The 2011–2020 Global Vaccine Action Plan has a goal of attaining 90% national coverage of the third dose of diphtheria, tetanus and pertussis (DTP3) vaccine, and it specifies a target of 80% coverage in every district. But district-level immunization inequality monitoring has been hindered by limited availability of data and data quality concerns.

One option was to use administrative immunization coverage data (collected by health facilities) at district (or second administrative) level, which the United Nations Children’s Fund (UNICEF) and WHO have collated annually at the global level since 2016, to monitor subnational inequalities in immunization. However, data quality issues (mainly denominator data issues due to inaccurate estimates of target populations) limit the ability of that data to accurately monitor subnational inequalities. To circumvent the problem, the DTP1–DTP3 dropout rate (or the proportion of children who received one dose of DTP-containing vaccine but who did not receive the third dose) was used as an indicator in 72 countries where country-reported administrative data allowed for calculating the dropout rate and for comparing subnational geographical inequalities across countries by grouping districts into quintiles which each country.

Across the 72 countries, reported national average DTP1–DTP3 dropout rates ranged from 0% to 28.6% (with a median of 5.3%). For most countries, however, national dropout rates conceal significant inequalities between districts. In the 20% of districts with the lowest dropout rates (quintile 5), the median dropout rate was 1.3%, compared with 14.7% in the 20% of districts with the highest dropout rates (quintile 1). Nineteen out of 72 countries had differences of over 20 percentage points between the district quintiles with the highest and lowest dropout rates. Moreover, most countries had a group of districts where DTP dropout rates tended to lag disproportionately. These findings can potentially be used to inform strategies to improve national DTP3 immunization coverage.

Using such administrative data, however, has limitations. Data quality is still a concern. In addition, DTP dropout rates only reflect one aspect of an immunization programme and do not include children who are unvaccinated. For effective equity monitoring, subnational dropout rates should therefore be combined with other indicators, such as the proportion of ‘zero-dose’ children. This underscores the need for continued strengthening of health information systems, so that sufficient data can be collected and used to monitor and inform equity-oriented immunization programmes.
The availability, quality and comparability of population-based data on violence against women (VAW), particularly intimate partner violence (IPV), are improving. At least 147 countries currently have population-based prevalence data on either physical, sexual and/or psychological IPV, compared with 87 in 2011.* A significant proportion of those data are from the ‘Domestic violence module’ of the Demographic and Health Surveys. Dedicated surveys, often conducted by national statistics offices, are another important source of data. WHO is also leading efforts to develop consensus on defining, measuring and reporting on psychological intimate partner violence, in order to produce more robust and reliable estimates of the prevalence of such violence. Improved measurement will enable reporting on all three types of partner violence in the future.

Some remaining challenges relate to the heterogeneity of data and a lack of age-disaggregated data (especially for older age groups). Some countries still lack VAW data entirely, while most have only ever conducted one representative survey on VAW. Additionally, data on non-partner sexual violence suffers from non-standardized measurement and/or lack of disaggregation by act and/or violence by a partner/non-partner. Further work is needed to strengthen measurement of different forms of sexual violence.

* Only survey data on physical and/or sexual violence from 58 countries were available for this report and met the criteria for inclusion in Annex 2.

References


Accurate, timely and comparable health-related statistics are essential for understanding health trends. Decision-makers need the information to develop appropriate policies, allocate resources and prioritize interventions. The data are also vital for Member States to monitor the impact of their efforts to achieve the SDG targets.

The health-related SDGs require numerous data systems to be functioning in each country, including civil registration and vital statistics (CRVS), routine health facility reporting and other administrative data, household and other population-based surveys, surveillance systems, and other sources. Some indicators also rely on non-health sector data sources (1). It is important to develop integrated health statistics/data systems that produce key metrics and provide information to inform policy decisions. As the COVID-19 emergency has illustrated, a functioning system must be flexible enough to adapt to unexpected situations, and provide timely, relevant data to inform decisions.

**Civil registration and vital statistics**
Robust public health decision-making is dependent on accurate statistics on births and deaths, including cause of death. This is best collected through a CRVS system. The latest assessment suggests that less than one third of countries have high-quality data on cause of death (2). The recent rapid advancement of digital technologies provides unprecedented opportunities to accelerate improvement in CRVS systems worldwide. There is no single blueprint for establishing and maintaining such systems – each country faces a different set of challenges, and strategies must be tailored accordingly.

There are many approaches to mortality surveillance worldwide, involving all-cause and cause-specific mortality systems in the health sector. A unified mortality surveillance system with high levels of coverage and completeness that captures all deaths from all causes can be used to generate necessary mortality data in a timely manner. In the context of health emergency such as COVID-19, rapid mortality surveillance capturing total, all-cause mortality enables measurement of sudden variations in mortality levels. WHO is rapidly modernizing its mortality database to facilitate the reporting of mortality data from countries and providing training and technical assistance to improve medical certification of cause of death to facilitate timely and reliable information.

In collaboration with UN agencies and partners, WHO is providing technical expertise to empower Member States to more effectively mobilize their health sector to engage and contribute to strengthening CRVS systems.
and ensuring maximum benefit from such systems for policy development. Through direct technical assistance to countries; strengthening capacity at the regional level to support all Member States; and offering an intensive in-service fellowship accessible to countries.

**Administrative, health services and facility data**

Administrative, health services and facility data are generated through several data systems and subsystems, such as routine health information systems (RHIS), registries, health facility surveys, and other logistics and health workforce information systems. The value of the data, however, is often hampered by disconnected systems, lack of standardization, poor quality data and limited analytical capacity. These limitations impede public health action.

WHO offers a suite of integrated tools and technical assistance packages to help address many of these issues by providing measurement tools to set standards, monitor and analyse information. For example, to strengthen RHIS, specialized modules (e.g. on HIV, TB, malaria, NTDs, road safety, NCDs and immunization) have been developed and can be configured into any digital and health information system such as District Health Information Software (DHIS2) and country-specific systems. The Data quality review toolkit (3) improves the quality of RHIS data using standardized data quality metrics and tools. Standardized health facility survey modules, covering key topics such as service availability, service readiness, quality of care and safety, and management and finance, assess the extent to which health facilities adhere to the service standards needed to provide quality health care.

**Population-based surveys**

Household and other population-based surveys are an indispensable part of a comprehensive health data system. They are particularly suited for measurement of multiple indicators and for providing key information to understand interrelationships between indicators. While in many countries the CRVS systems and administrative data systems are fragmented and inadequate to report meaningful health data, surveys can be implemented rapidly to collect representative data related to important health, social, economic and policy topics. Household surveys are particularly important to obtain more timely information on financial hardship.

The World Health Survey Plus (WHS+) (4) is a multi-topic, multi-platform, multi-modal survey, including the use of mobile technologies. It addresses critical data gaps and is designed to be tailored to country needs. The WHS+ is improving the understanding of linkages between financial hardship and service coverage at household level. During the COVID-19 pandemic, mobile phones offer a means of rapidly collecting rapid data to inform programmes and policies.

Collaboration across ministries and government institutions including ministries of health and finance, national statistics offices (NSOs), offices of the registrar general and academia is necessary to strengthen country statistical capacity, while ensuring careful coordination and oversight to avoid multiple surveys being conducted in a fragmented, duplicative and uncoordinated manner. It is critical for national ministries of health to collaborate with partners, particularly NSOs, in the design, analysis and scheduling of household surveys.

Data use for policy design is much more likely when governments, academia, and civil society fully understand and own every step of the measurement process, including data processing and data synthesis. It will be necessary to address process gaps collaboratively, for example where data exists but is not accessible or has very delayed availability.

**Country ownership**

Country ownership is a central principle - along with aligning WHO support with national health priorities and health system needs and harmonizing its work with that of United Nations and other partners. Each WHO Country Cooperation Strategy identifies a set of agreed joint priorities for WHO collaboration in the areas where the organization has a comparative advantage (3). The collection, management, strengthening analytical capacity and use of reliable health information is one such area. A core part of WHO’s work in countries entails support to improve national health information systems and strengthen capacities to collect, analyse, report and use health-related data.

**Review and assessment of existing data sources**

In order to address and close data gaps, it is important to understand the status of a country’s health information systems. Using the SCORE (Survey, Count, Optimize, Review, Enable) for health data packages, countries can identify strengths and weaknesses and identify gaps in country health information systems. SCORE facilitates tracking of progress towards the SDGs, monitors and measures the maturity of health information systems, supports interventions, and provides guidance on best practice measurement methods, standards and tools.

**Producing estimates**

WHO collaborates with countries and partner agencies to produce global, regional and country health estimates for agreed global indicators, helping to ensure that the data are comparable and of high quality. To do so, WHO adheres to several key principles and supports countries for the collection, analysis, use and sharing of data, including a commitment to make data a public good that is freely available and shared, while adhering to clear ethical and legal frameworks (6,7).
WHO supports partners to follow the Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER) (8), which identify 18 items that should be reported every time new global health estimates are published (including descriptions of input data and estimation methods). Adherence to those guidelines allows scientists and decision-makers to evaluate the quality and comparability of the data.

WHO data principles also include fostering local ownership of health indicator monitoring, collaborating closely with countries to enhance the quality of statistics, ensuring that the methods used to fill data gaps have demonstrated predictive validity, and consulting with countries prior to releasing health data.

**Strengthening world health data capacity**

In addition to targeted country support, WHO is working at the global level in:

- Developing standards and best practices for data collection, data processing and synthesis. This includes: following UN open data standards; making data accessible by using a coherent system for data sharing, collection, storage, analysis and use; promoting the GATHER guidelines; advancing population health metrics, digital and methodological standards through the WHO Reference Group on Health Statistics and Digital Health Technical Advisory Group.

- Consolidating and improving international data classification standards, for example, the International Classification of Diseases (ICD). The 11th ICD revision (ICD 11) is on a digital platform that facilitates easier reporting of timely and accurate cause of death data (9).

- Strengthening country capacity through training and mentoring. This includes statistical methods, epidemiology, quality assurance, analysis of big data, modelling and forecasting, inequality monitoring, and effective ways to communicate and use data to drive policy impact.

- Building a one-stop-shop World Health Data Platform that will include health statistics from the Global Health Observatory (home to data for over 1000 indicators), regional and country observatories, the ‘Triple Billions’ dashboards, health-related SDG indicators, and reference data and metadata sets.

WHO works with all Member States to strengthen and improve their national health systems. At global and regional levels, it provides direction and coordination on public health issues by defining norms and standards and by outlining policy options. At country level, it supports governments and other partners to translate that guidance into national health strategies, and to prioritize, monitor and act on health and health-related issues.

Through these and other collaborations with United Nations agencies and nongovernmental partners, WHO is supporting countries to make improvements in health data and surveillance at country level. Those improvements will enhance the scope and quality of health information and standardize processes to generate comparable estimates at the global level.

**Monitoring the implementation of International Health Regulations to strengthen health security**

The International Health Regulations (IHR) (2005) require that all 196 signatory countries and territories (State Parties) work together for global health security and build their capacities to detect, assess, report and respond to public health emergencies.

WHO plays an important role in supporting and monitoring the implementation of the IHR. By using the WHO monitoring framework, countries assess their capacities and report annually on the status of the 13 agreed core capacities (Figure 5.1). A preliminary analysis of reports from 165 State Parties for 2019 indicates steady progress across almost all the core capacities, except for those related to human resources.

Almost all States Parties are performing better on detection (such as surveillance and laboratory detection) and coordination, and on the functioning of IHR National Focal Points. There are still gaps, however, with respect to capacities required at points of entry (such as ports, airports and ground crossings) and in relation to chemical safety and radiation emergencies. Nonetheless, the reported data show that countries and territories are heeding their obligations to improve early warning systems to reduce and manage public health risks.

Those capacities have proved crucial for detecting, monitoring, reporting, planning and taking initial actions in response to the COVID-19 pandemic. As the world struggles to control the pandemic, the need for strong emergency preparedness, rapid scale-up response capacities, and close multisectoral and international collaboration is clearer than ever.

\(^{1}\) Data as of 23 March 2020.
Fig. 5.1
International Health Regulations States Parties capacities, 2018–2019

References


