

Levels & Trends in
**Child
Mortality**

Report 2021

Estimates developed by the
UN Inter-agency Group for
Child Mortality Estimation



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Introduction

Nearly two years after the first death due to COVID-19 was identified, the pandemic continues to challenge families around the world: Many are losing loved ones, experiencing disruptions to vital care and health services, and facing great economic insecurity. While the available evidence indicates the direct impact of COVID-19 on child and adolescent mortality is limited,¹ the indirect mortality effects of the pandemic – resulting from over-stretched health systems, disruptions to care-seeking and preventative interventions like vaccination and nutrition, household income loss, lockdowns, masking, handwashing and social distancing – are not yet well understood. This lack of clarity is particularly acute in the many low- and middle-income countries that do not have well-functioning surveillance and data systems.

An uncertain trajectory

As the pandemic unfolded and only fractured and limited empirical information on its impacts was available, some projections and models^{2, 3, 4} predicted high numbers of additional child deaths resulting from the indirect effects mentioned above. Based on the results of some of these modelling exercises, this report's [2020 edition](#) stressed the critical importance of maintaining life-saving interventions and services for children and women during the pandemic to ensure hard-won gains in combating child mortality were not lost. Now, the availability of empirical mortality data – reported birth, death and population counts from vital registration systems or health information systems in over 80 countries or areas – makes it possible to more directly, albeit partially, assess the mortality situation of children and youth in 2020, the most recent year reported in this round of UN Inter-agency Group for Child Mortality Estimation (UN IGME) estimates.

Incomplete picture, long-term outcomes unknown

Thus far, these data from over 80 countries and areas do not show the feared reversal in child mortality gains in 2020 that was projected by some early modelling based on assumed service disruptions. While about half the countries with available data for 2020 excess mortality analysis are high-income countries, evidence from low- and middle-income countries – e.g., Brazil, India, Kenya, Mexico, Mozambique and South Africa – similarly showed little impact on national-level child, adolescent and youth mortality in 2020. Following analysis of these data and recommendations from its Technical Advisory Group, the UN IGME has not adjusted the 2020 rate for COVID-19-related mortality (see 'Box: COVID-19 and Child and Youth Mortality in 2020' on p. 6 for more details). The estimates in this report are based on empirical data up to 2020, where available, or extrapolation to 2020 by continuing recent trends from the most recent empirical data point available.

Still, as more quality data become available for 2020, further monitoring is needed for a more complete picture of child, adolescent and youth mortality as well as the relevant contributing factors. For instance, fewer injuries, a decline in cases of certain infectious diseases, and reductions in exposure to air pollution due to social distancing, masking, and increased handwashing may have contributed to the observed continuous decline in child mortality. Meanwhile, warnings from various studies and organizations emphasizing the critical importance of maintaining life-saving interventions and services for children and women may have led countries and stakeholders to take action to protect more child and adolescent lives during the pandemic. Indeed, some health services and interventions rebounded in the latter half of 2020

after an initial reduction immediately following the onset of the pandemic⁵, and disruptions to interventions were rarely reported as severe^{6, 7}.

More data and research are urgently needed to foster a more nuanced understanding of how and why child mortality has changed since the pandemic began, and to ensure children and adolescents do not succumb to preventable deaths.

The pandemic itself is still unfolding – and because the data remain poor, outcomes for children and adolescents in 2021 and beyond remain unknown. The COVID-19 pandemic may affect child mortality differently by age group and socioeconomic status; for instance, newborns and children from poor households may require more protection and intervention to avoid unnecessary loss of life than other children. While the child and adolescent estimates published in this year's *Levels and Trends in Child Mortality* are the most robust estimates for 2020 based on available information and data as of the publication date, caution is needed when interpreting these results given the data limitations.

Too many lives lost

Even without COVID-19-related mortality adjustments, the death toll is still staggering: More than 5 million children died before turning 5 in 2020 alone. Tragically, much of this loss of life could have been prevented. These deaths are not carried equally around the world – children in sub-Saharan Africa and Southern Asia continue to face the highest risk of death and to bear the brunt of the child mortality burden. **As the world attempts to vaccinate widely to reduce preventable deaths due to COVID-19, it is also time to remember and renew our commitment to ending all preventable child deaths that devastate millions of families year after year.**

The Sustainable Development Goals (SDGs)⁸ call for an end to preventable deaths of newborns and children under age 5, with all countries aiming to have a neonatal mortality rate of 12 or fewer deaths per 1,000 live births and an under-five mortality rate of 25 or fewer deaths per 1,000 live births by 2030. If these goals are to be met, the global community must double down on its efforts to ensure the most vulnerable children survive, wherever they are.

But current trends are cause for alarm: More than 50 countries will not meet the under-five mortality target by 2030 and more than 60 countries will miss the neonatal mortality target without immediate action. Access to effective and high-quality care along with continued expansion of coverage of life-saving interventions and strong primary health care will bring countries closer to achieving these goals. If every country met or exceeded the SDG target, 10 million under-five deaths could be averted between 2021 and 2030.

Urgent need to fill data gaps

The burden of child deaths is disproportionately carried on the shoulders of too few. These inequitable deaths, coupled with the dynamic nature of the COVID-19 pandemic, leave no doubt that monitoring must be sustained and expanded to accurately track progress towards global goals, inform policy to ensure greater survival, and respond to sudden shocks like the pandemic. Timely, high-quality and disaggregated data are critical to achieving this goal. The substantial data gaps (e.g., only 40 countries have high-quality nationally representative under-five mortality data for 2020) pose enormous challenges to policy and decision-making. Investments in data collection systems and concerted efforts to improve the availability, quality and robustness of mortality data must be continued for greater accuracy and timeliness in monitoring the survival situation for children, adolescents and youth.

COVID-19 AND CHILD AND YOUTH MORTALITY IN 2020

Since the first deaths from COVID-19 were reported in early 2020, there has been immense concern as to the lethality and vulnerability to the illness by age. Even as evidence began to emerge in 2020 showing COVID-19's very modest direct impact on child and young people's mortality, numerous governments, aid organizations, and medical and scientific institutions grew concerned with the possible increase in indirect deaths among children and youth due to disruption of specific interventions and services that have proven to be critical in saving children and women's lives in low- and middle-income countries.

These deaths could stem from the repercussions of strained and under-resourced health systems, limitations on care-seeking and preventative measures like vaccination and nutrition supplements, or socioeconomic strains on households resulting from job losses, economic contractions or even deaths of parents due to COVID-19.

Early scenario-based modelling warned that increases in wasting coupled with severe and sustained reduction in the coverage of basic life-saving interventions – antenatal care, childbirth delivery care, postnatal care, vaccinations, and early childhood preventative and curative services – could substantially increase under-five deaths, essentially reversing a decades-long decline in global under-five mortality.² These scenarios were based on assumptions of large and blanket reductions (about 40 per cent to 50 per cent) in intervention coverage across all services, irrespective of service delivery platform, and increases in wasting. Later modelling using actual reports of observed service disruptions in a smaller number of countries did estimate some additional mortality, but to a lesser degree and with less severe disruptions to services than the earlier modelling.⁹ Modelling for specific causes of death has also used reported service disruptions to predict an increase in under-five

deaths. For instance, additional malaria-related child deaths have been estimated for 2020 triggered by service disruptions.¹⁰ Further modelling based on the well-documented inverse relationship between child mortality and economic output or wealth – i.e., economic downturn would be followed by increased numbers of deaths – suggested the damaging financial consequences of the pandemic could mean more children would die.¹¹

Looking back: Child and youth mortality in 2020

Models linking economic downturns or reductions in interventions to more child deaths demonstrate the importance of these factors in determining overall mortality under normal circumstances, and these models can be crucial tools in the absence of empirical evidence to plan and make policy. At the same time, it is also important to review the empirical evidence on child mortality (where available) to determine whether any adjustment is warranted, and if so, to what degree.

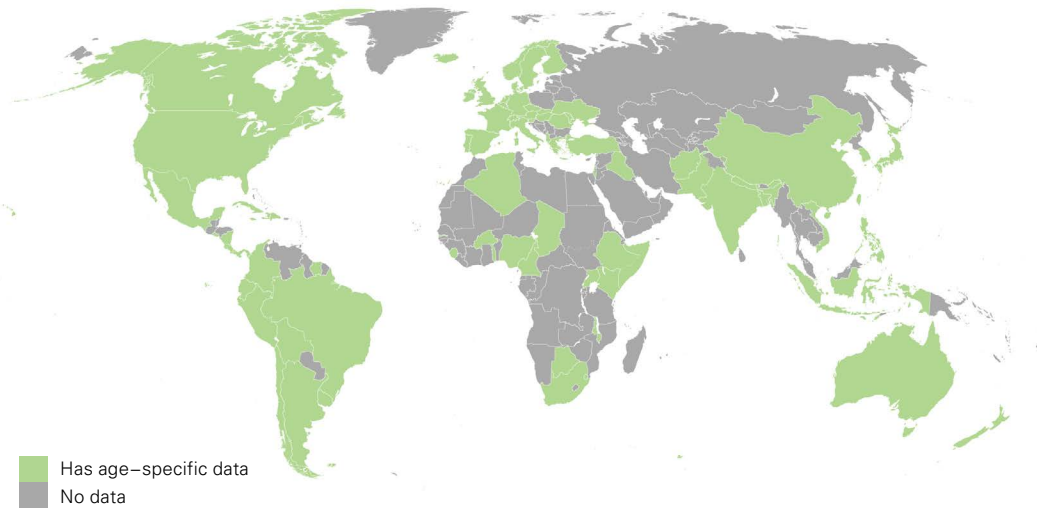
Empirical mortality data for 2020 has become more available throughout 2021. Based on these empirical data, the UN IGME determined that no COVID-19-related adjustment to its estimates was warranted for 2020. The UN IGME's data collection and analysis of child mortality in 2020 is described below, along with a brief explanation of the gap between the estimates presented in this report and those from the modelling efforts mentioned above.

Direct COVID-19 mortality

The evidence on deaths directly attributable to COVID-19 infection shows a strong age gradient, with children and adolescents least affected. The COVerAGE database, an open-access database compiled by Max Planck Institute for Demographic Research (MPIDR), contains age- and sex-specific data on COVID-19 deaths for

MAP
1

Countries with age-disaggregated data on direct COVID-19 deaths for 2020 in COVERAGE database



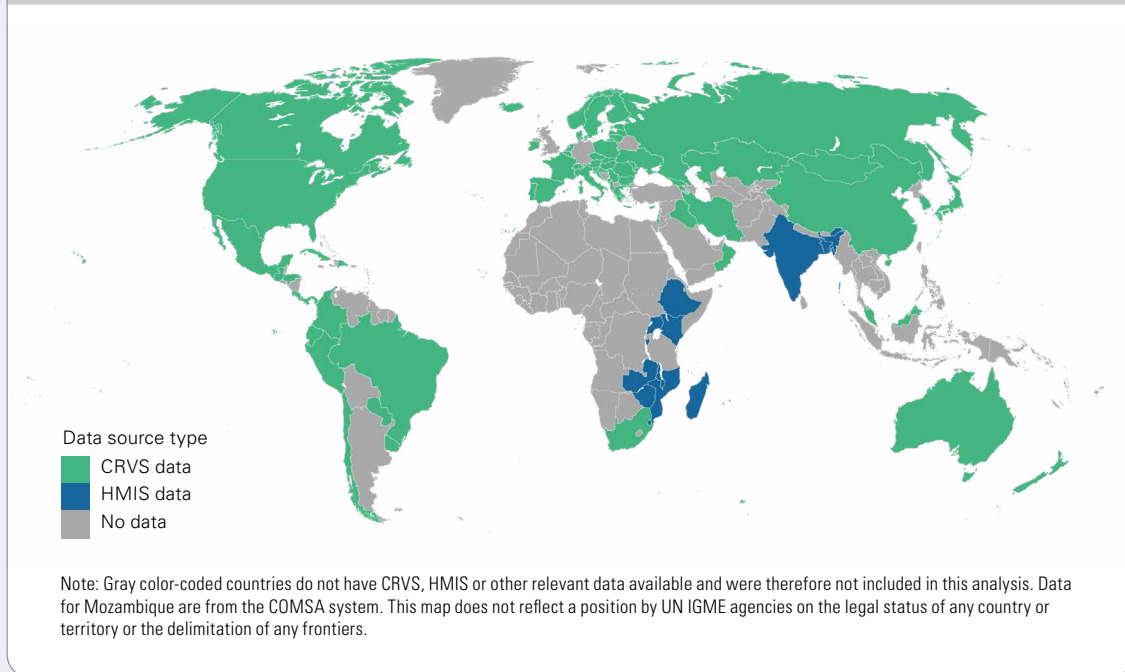
Note: This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.
Source: UN IGME analysis of COVERAGE database

77 countries in 2020 (see Map 1).¹² These data show children and adolescents under age 25 made up just 0.6 per cent of the total reported COVID-19 deaths in the database for 2020 (1.5 million), but 39 per cent of the total population in these countries.¹³ Moreover, the youngest children are least vulnerable: Of the over 9,900 deaths reported among children and adolescents in 2020, just 27 per cent occurred among children aged 0–9 years, while 42 per cent occurred among youth aged 20–24 years.¹⁴ The large number of countries not reporting age-specific deaths information notwithstanding, children and youth are not widely impacted by direct COVID-19 deaths in this dataset. More information about this dataset and its limitations can be found in the UNICEF dashboard [COVID-19 Confirmed Cases and Deaths: Age- and Sex-disaggregated Data](#), and further information on total COVID-19 deaths and cases by country can be found at the [WHO Coronavirus \(COVID-19\) Dashboard](#).

Excess mortality

So far, a relatively small number of direct COVID-19 deaths have been reported among children and young people, but they may be at increased risk of indirect death resulting from disruptions to services, decreased utilization of health services (due to lockdowns or fear of contracting the virus) or economic contractions. One way to analyse the contribution of these indirect deaths to overall mortality is to look at excess mortality during the period of concern, i.e., 2020. Excess mortality is defined as the difference between observed deaths (or mortality rates) over a given period of time, e.g., annual deaths in 2020, and a baseline or expected number of deaths typically based on historical data. Excess mortality results when observed deaths exceed expected deaths. Notably, excess mortality includes all causes of death, and should therefore capture any direct or indirect mortality among children and youth.

MAP 2 Countries with 2020 data included in the excess mortality analysis by data source type

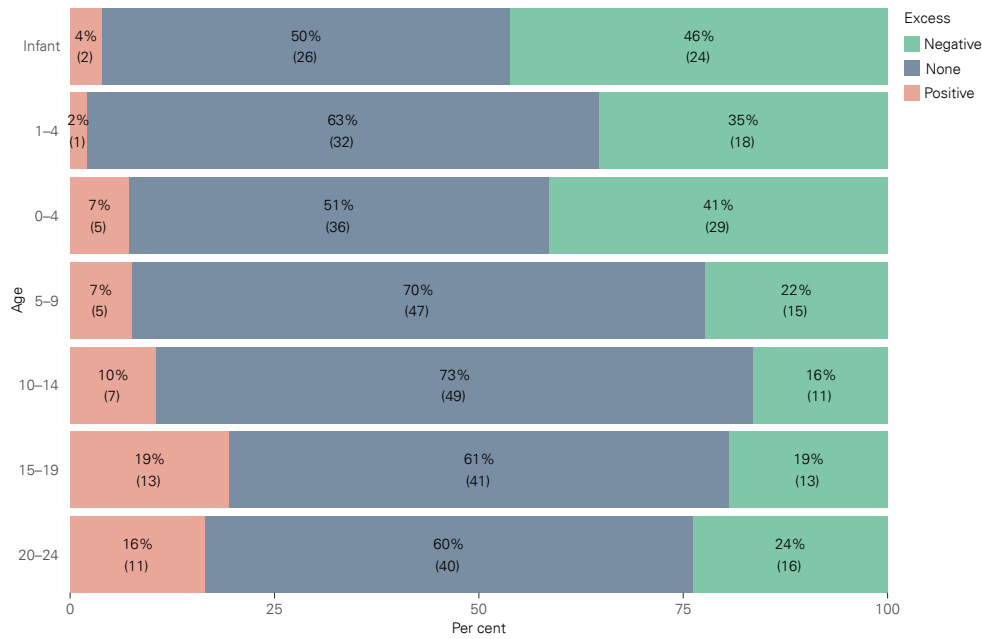


To calculate the possible excess mortality in all age groups of interest – neonatal, infant, under-five and 5–24 – the UN IGME undertook an analysis of empirical data derived from civil registration and vital statistics (CRVS) systems and health management information systems (HMIS), i.e., observed number of deaths, for more than 80 countries or areas (see Map 2). These countries or areas account for more than half of total live births and about a third of under-five deaths in 2020; of the 40 countries with the highest burden of under-five deaths, 15 also had data available for this analysis – including Brazil, China, Ethiopia, India, Mexico and South Africa. Likewise, about 50 per cent of the countries in the UN IGME excess mortality analysis are classified as low- or middle-income countries. The baseline or expected mortality was modelled using historical deaths for 2015–2019 to predict expected deaths for 2020 with 95 per cent confidence intervals, and ratios of observed deaths to expected deaths were

analysed to detect any significant deviations. When the uncertainty in the expected number of deaths is included, only five countries (7 per cent) showed significant, positive excess under-five mortality (see Figure 1), and these countries already had very low mortality in the preceding years. About 51 per cent of countries showed no significant deviation from the expected number of deaths, and 41 per cent showed significantly fewer deaths than would be expected based on historical data. The proportion of countries with significant excess mortality increases with age but maxes out at just 19 per cent of all countries in the 15–19 age group; again, these countries generally have very low mortality in these age groups to begin with.

As Map 2 makes clear, one limitation of the CRVS analysis is the reliance on data that disproportionately represent high-income countries – the pandemic is likely to impact countries from other income groups differently.

FIGURE 1 Proportion of countries with significant excess mortality in CRVS data for 2020 by age



Note: The number of countries in each category is shown in parenthesis. Not all countries had age-specific data available for all age groups, and four countries that are not among the 195 countries that UN IGME produces annual estimates for are excluded from this figure. Thus, the number of countries in each age category is not necessarily the same.
Source: UN IGME analysis

To address this gap, the UN IGME analysed monthly data on births and neonatal, infant and under-five deaths from a dozen low- and middle-income countries' HMIS or other data collection systems, including some with substantial child and youth populations like Bangladesh, Ethiopia, India and Kenya.

After applying a similar analysis to the approach used with CRVS data, the HMIS data confirmed the results of the CRVS analysis. Furthermore, data provided to the UN IGME from the Countrywide Mortality Surveillance for Action (COMSA) system in Mozambique and South Africa's Rapid Mortality Surveillance system also showed no excess child mortality in 2020. In fact, the South African data suggest a downward trend in child mortality for 2020.

UN IGME estimates and other modelled estimates

These empirical data on excess mortality and the UN IGME estimates for 2020 show a continued global decline in mortality, which diverges from the modelling efforts described earlier in this report that predicted the opposite. There are several reasons for this discrepancy. First, the continued decline, and in some cases faster decline, in child mortality in 2020 may be attributable to protective effects of pandemic control measures like mask wearing, handwashing and social distancing that are not considered by these other models. These COVID-19 preventive measures may also control various infectious diseases that still dominate the cause of death structure for young children in low- and middle-income settings and simultaneously

limit exposure to negative health factors like air pollution. For example, at end of 2020, reports began to emerge of moderate to minimal flu seasons in various parts of the world, which were thought to result from the dramatic decrease in mobility and social interaction.^{15, 16}

Indeed, the UN IGME analysis not only found scant evidence of increased child mortality in 2020, but also pointed to possible protective effects across childhood and adolescence, and especially in infancy, with far more countries showing lower than expected mortality than excess mortality (see Figure 1). Limits on mobility and social distancing measures may also contribute to declines in mortality at older ages, since adolescents and youth are less likely to die of causes like drowning, injuries or accidents. These protective effects have been observed in some limited cause of death data available from CRVS, and a reduction in mortality from injuries in these age groups has been observed in weekly data from the United States.¹⁷

In addition to the possible protective effects of pandemic control measures, it is important to consider the long- and short-term impacts of disruptions to certain interventions. Mortality outcomes for children and adolescents in 2021 and beyond remain unknown as the multiple indirect impacts of the pandemic on child mortality could take time to unfold – while intervention coverage may decrease sharply and suddenly, the impact of reduced specific interventions like nutrition campaigns and immunizations on mortality may take some time to be realized. For instance, in 2020, the number of completely unvaccinated children increased by 3.4 million,¹⁸ which is likely to show an impact on mortality over time. At the country level, shrinking government budgets may lead to reduced services for children, which can impact their health and well-being. At the household level, if families fall into poverty, their ability to afford food and services for children will be impacted, and food insecurity can lead to stunting and increased risk of death and poor

developmental outcomes in the long term. While the estimates presented in this report refer to the time period up to 2020, these possible long-term impacts on mortality must be considered when collecting and analysing data on excess mortality in 2021 and beyond.

Similarly, as the UN IGME produces national-level estimates and is therefore concerned with whether to make adjustments at that level, it must also be noted that national averages can obscure subnational-level variation. For instance, the pandemic's impact may vary regionally within a country or differentially impact families at opposite ends of household wealth scales. Therefore, along with continued national-level monitoring, analysis of disaggregated data (where available) will also be critical to fully understand the pandemic's effect on the health and survival of children and youth.

The UN IGME estimated mortality rates and assessed whether adjustments needed to be applied to 2020 based on empirical data on mortality itself; in other words, the model does not use covariates to estimate mortality but rather fits a smooth trend line through observed data on mortality. The modelling methods mentioned earlier take a different approach, using measures like service disruption or economic changes to predict the number of child deaths. Discrepancies can arise since these models do not consider other relevant factors in determining the total number of deaths, such as the protective effects discussed above. These models rightly demonstrate the potential impact of interventions or economic downturns on mortality, but do not factor in a possible counterbalance of fewer deaths resulting from protection from common causes of death.

Furthermore, some early modelling relied on service disruptions as covariates, and more recent modelling noted service disruptions were not as severe or as long in duration as originally assumed.⁹ For instance, vaccine dose data from January–December 2019 and 2020, WHO

regional office reports, and the WHO-led Pulse survey showed a global decline in the number of DTP3 and MCV1 doses administered in the first half of 2020, but this was followed by recovery in the second half of the year.⁵ Likewise, two WHO-led Pulse surveys on continuity of essential health services from mid-2020 and early 2021 showed that while nearly all countries reported disruption in at least one essential service, these disruptions were rarely reported as 'severe' (i.e., more than 50 per cent of users not serviced as usual).^{6,7} While Pulse surveys provide important information on the status of essential service provision, it is difficult to quantify the severity and duration of service disruption from these reports alone, which is the first step in modelling deaths resulting from service disruption.

Looking ahead: Strengthening data in 2021 and beyond

There appears to be a lack of widespread evidence demonstrating excess mortality among children and youth for 2020 based on available data. However, there is reason to take caution when interpreting these data. Like much data on mortality, the data on COVID-19 deaths are limited in their disaggregation by age and sex, yielding an incomplete picture of the age-specific burdens of direct mortality. They also tend to encompass high-income countries, where well-functioning CRVS systems were in place before 2020 to report detailed data on deaths. While analysis of HMIS data and supporting data from other low- and middle-income countries (e.g., India, Mozambique and South Africa) confirm the CRVS analysis results representing primarily high-income countries and deepen the UN IGME's understanding of the age-mortality dynamics of the pandemic, the excess mortality analysis is lacking in data representing the widest variation in country characteristics. Additionally, the HMIS data themselves have varying degrees of quality and may suffer from under-reporting of births and deaths if, for example, more births or deaths occurred outside of facilities – i.e., at home or in the community. These issues in data collection

related to incomplete or delayed reporting must be also be considered when analysing excess mortality data in the near future.

Along with the risk of overinterpreting these data, caution should also be taken in assuming 2021 will be like 2020. COVID-19 has shown its ability to change in unpredictable and unexpected ways. The surge of the Delta variant, the rollout and uneven access to vaccines both between and within countries, the relative decline in country-wide lockdown policies and personal precaution taking, and the economy in 2021 are just some of the pandemic's evolving aspects that could result in a different mortality outcome for children and youth in 2021 compared to 2020.

Finally, as mentioned above, the excess mortality data analysed also showed some variation by age, with a slight increase in the number of countries showing significant excess mortality at older ages, i.e., 15–24. Likewise, some HMIS data also showed possible excess stillbirths in 2020 in some countries, though neonatal and child mortality show no such increase. While this report does not include stillbirth estimates, more data and research are needed in this area for future sets of estimates.

Considering the data limitations and the dynamic nature of this pandemic, continued monitoring of child survival and health with appropriately disaggregated data is essential to early detection and action – particularly if the impact of COVID-19 were to worsen for children and youth. The pandemic has not only demonstrated the precariousness of survival gains, but also shed light on the inadequacy and inequity of many of our existing mortality monitoring systems to accurately reflect the health and survival situation in parts of the world that are already battling relatively high child and youth mortality rates. The paucity of these data nearly two years into the pandemic reiterate the urgent need to expand and better support the data systems needed to collect timely and detailed mortality data and enable quick responses to rapidly changing conditions.

Under-five mortality and SDG assessment

The continued burden of child mortality represents an enormous loss of life – in 2020 alone, 5.0 (4.8–5.5)¹⁹ million children died before reaching their fifth birthday, even without an increase in mortality attributable to COVID-19. Half of those deaths, 2.4 (2.2–2.6) million, occurred among newborns (Figure 2). Moreover, most of these deaths were preventable. The 5.0 million deaths among children under 5 that occurred in the 12 months of 2020 alone are all the more glaring now that the world has lost close to the same number of people to COVID-19²⁰ – and has mobilized to slow these vaccine-preventable deaths through immunization

programmes. This same level of commitment must be made to lessen the burden of child mortality.

Children are still facing wildly divergent chances of leading a healthy life simply based on where they are born and the economic circumstances they are born into. While the global under-five mortality rate (U5MR) fell to 37 (35–40) deaths per 1,000 live births in 2020, children born in sub-Saharan Africa continued to face the steepest odds of survival in the world. The 2020 U5MR for this region was 74 (68–86) deaths per 1,000 live births, 14 times higher than the risk for children

FIGURE 2 Global mortality rates and number of deaths by age, 2020

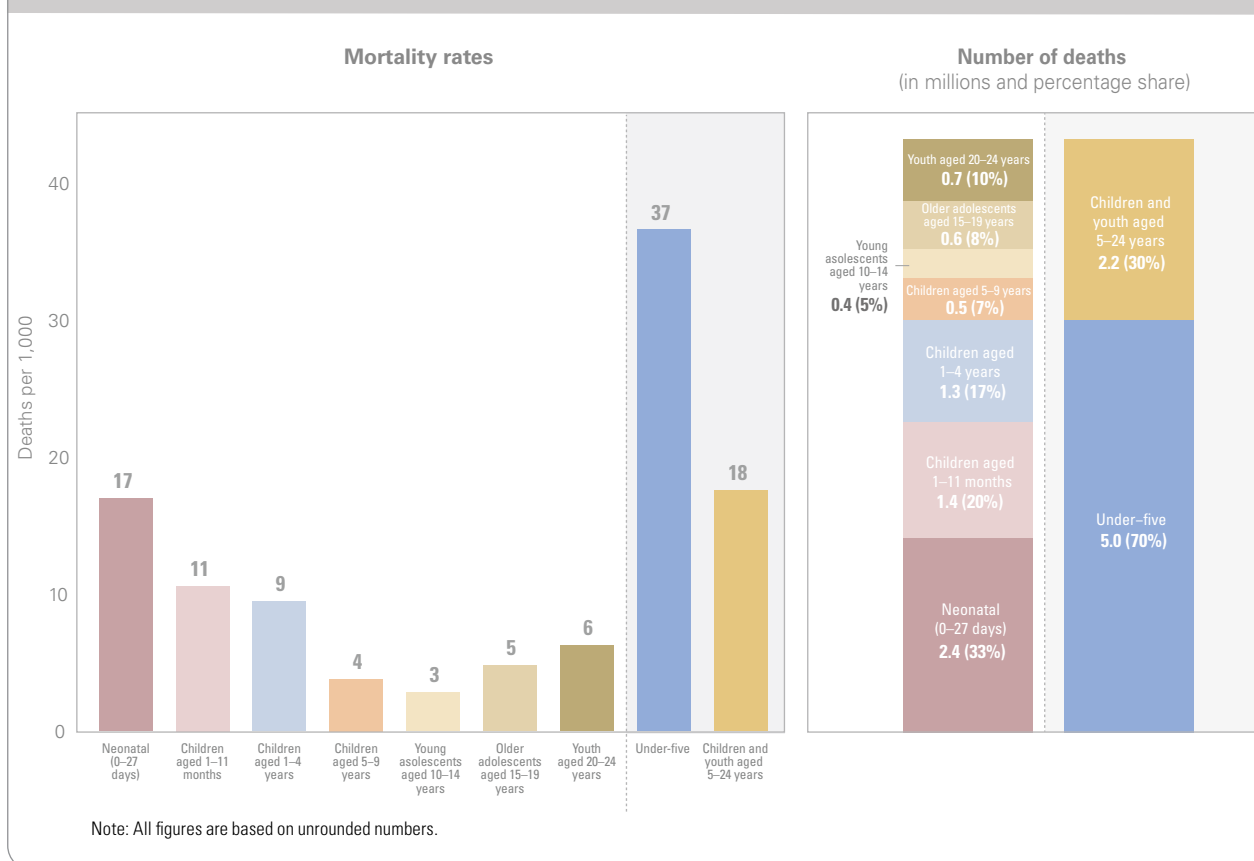


TABLE 1

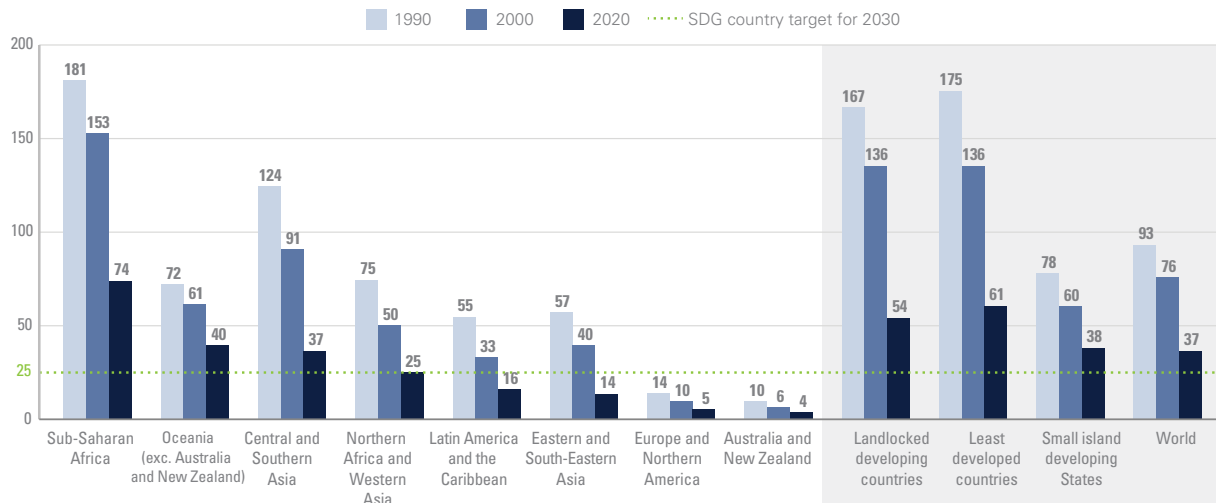
Levels and trends in the under-five mortality rate, by Sustainable Development Goal region, 1990-2020

Region	Under-five mortality rate (deaths per 1,000 live births)							Decline (per cent)	Annual rate of reduction (per cent)			
	1990	1995	2000	2005	2010	2015	2020		1990-2020	1990-1999	2000-2009	2010-2020
Sub-Saharan Africa	181	172	153	125	102	86	74	59	3.0	1.5	4.0	3.2
Northern Africa and Western Asia	75	62	50	40	33	29	25	66	3.6	3.9	4.4	2.6
Northern Africa	84	71	59	49	39	32	28	66	3.6	3.4	4.2	3.2
Western Asia	65	53	42	33	26	26	22	67	3.7	4.3	4.8	1.9
Central and Southern Asia	124	108	91	74	59	46	37	71	4.1	3.1	4.2	4.8
Central Asia	71	72	61	43	30	23	19	73	4.4	1.1	7.0	4.7
Southern Asia	127	109	92	75	60	47	37	70	4.1	3.2	4.1	4.8
Eastern and South-Eastern Asia	57	49	40	29	22	17	14	76	4.8	3.5	6.0	4.7
Eastern Asia	51	45	35	23	15	10	7	86	6.5	3.5	8.4	7.3
South-Eastern Asia	72	58	48	40	33	28	24	67	3.7	4.0	3.9	3.2
Latin America and the Caribbean	55	43	33	26	25	18	16	70	4.1	4.7	4.5	4.2
Oceania	35	33	32	29	25	22	20	44	1.9	1.1	2.3	2.4
Australia and New Zealand	10	7	6	6	5	4	4	60	3.0	4.2	2.3	2.6
Oceania (exc. Australia and New Zealand)	72	66	61	57	51	45	40	45	2.0	1.6	1.7	2.6
Europe and Northern America	14	12	10	8	7	6	5	63	3.3	3.8	3.4	2.8
Europe	15	13	10	8	7	6	5	70	4.0	3.9	4.6	3.7
Northern America	11	9	8	8	7	7	6	43	1.9	3.0	1.3	1.5
Landlocked developing countries	167	155	136	107	82	65	54	67	3.7	1.9	4.9	4.2
Least developed countries	175	158	136	109	89	72	61	65	3.5	2.5	4.4	3.8
Small island developing States	78	69	60	54	48	43	38	51	2.4	2.6	2.2	7.1
World	93	87	76	63	51	43	37	61	3.1	1.9	4.0	3.3

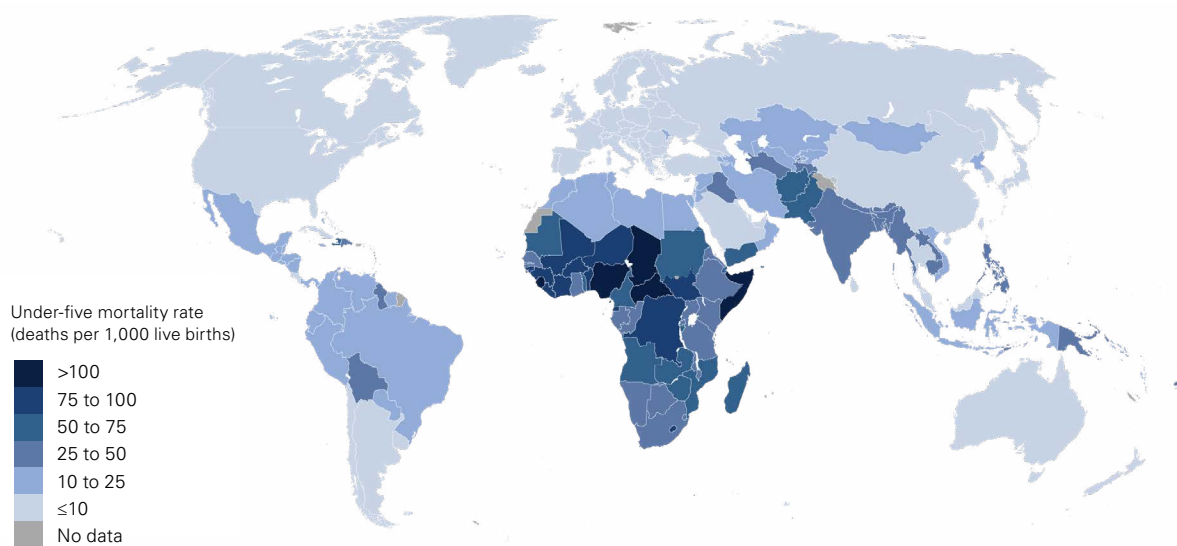
Note: All calculations are based on unrounded numbers.

FIGURE 3

Under-five mortality rate (deaths per 1,000 live births) by Sustainable Development Goal region, 1990, 2000 and 2020



Note: All figures are based on unrounded numbers.



Note: This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

in Europe and Northern America and 19 times higher than the region of Australia and New Zealand (see Table 1 and Figure 3). Likewise, children born in low-income countries, where 2020 U5MR was 66 (60–78) deaths per 1,000 live births, were 14 times more likely to die before reaching age 5 than children born in high-income countries (2020 U5MR 5 (5–5) deaths per 1,000 live births). At the country level, under-five mortality rates in 2020 ranged from 2 deaths per 1,000 live births to 115 deaths per 1,000 live births, and the risk of dying before turning 5 for a child born in the highest-mortality country was about 65 times higher than in the lowest-mortality country (see Map 3).

The first month of life is the most vulnerable period of child survival. Nearly half (47 per cent) of all under-five deaths in 2020 occurred during the neonatal period – the first 28 days of life. This is an increase from 1990 (40 per cent), as the global level of under-five mortality declines faster than neonatal mortality (see Table 2). Likewise, divergent chances at survival start from the earliest ages – sub-Saharan Africa has the highest neonatal mortality rate in the world, at 27 (25–32) deaths per 1,000 live births, followed by Southern Asia at 23 (21–26) deaths (see Table 3). A child

born in sub-Saharan Africa is 11 times more likely to die in the first month of life than a child born in the region of Australia and New Zealand, and a child born in a high-income country has a risk of death in the first month that is just one tenth the risk to a child born in a low-income country. At the country level, neonatal mortality rates in 2020 ranged from 1 death per 1,000 live births to 44, and the risk of dying before the 28th day of life for a child born in the highest-mortality country was about 56 times higher than in the lowest-mortality country (see Map 4).

Communicable and infectious diseases continue to be leading causes of under-five deaths.

Globally, premature birth and birth complications (birth asphyxia/trauma), pneumonia, diarrhoea and malaria remain the leading causes of preventable deaths of children under 5 years old.²¹ For older children, adolescents and young adults aged 5–24 years, injuries (unintentional and intentional) become the more prominent cause of preventable mortality.²²

The burden of child deaths falls hardest on just two regions. In sub-Saharan Africa alone, 2.7 (2.5–3.1) million children died before reaching their fifth birthday – this is 54 per cent of all

TABLE 2 Levels and trends in the number of neonatal deaths, by Sustainable Development Goal region, 1990-2020

Region	Number of neonatal deaths (thousands)							Decline (per cent)	Neonatal deaths as a share of under-five deaths (per cent)			
	1990	1995	2000	2005	2010	2015	2020	1990-2020	1990	2000	2010	2020
Sub-Saharan Africa	986	1,047	1,077	1,063	1,055	1,044	1,024	-4	26	28	33	38
Northern Africa and Western Asia	283	244	213	193	181	167	152	46	42	46	52	53
Northern Africa	153	131	116	109	106	99	90	41	40	45	52	54
Western Asia	131	113	97	84	75	68	61	53	44	48	53	51
Central and Southern Asia	2,279	2,074	1,831	1,568	1,305	1,063	866	62	46	50	56	62
Central Asia	44	40	32	28	25	20	16	64	40	44	55	52
Southern Asia	2,235	2,034	1,799	1,540	1,280	1,043	850	62	46	50	56	62
Eastern and South-Eastern Asia	1,100	824	633	463	346	261	196	82	48	51	51	49
Eastern Asia	764	538	392	247	155	99	61	92	54	57	53	46
South-Eastern Asia	336	285	241	215	191	162	135	60	39	44	49	50
Latin America and the Caribbean	268	229	187	144	120	106	94	65	42	49	45	56
Oceania	7	8	8	8	7	7	7	11	41	45	47	50
Australia and New Zealand	1	1	1	1	1	1	1	36	49	55	57	62
Oceania (exc. Australia and New Zealand)	6	7	7	7	6	6	6	5	39	44	45	49
Europe and Northern America	98	75	59	53	46	41	34	66	51	53	54	54
Europe	74	54	40	33	28	25	19	74	51	52	53	55
Northern America	24	21	20	20	18	17	15	40	52	55	56	54
Landlocked developing countries	520	527	515	485	456	417	386	26	30	32	39	45
Least developed countries	1,119	1,102	1,065	994	927	868	816	27	31	32	37	42
Small island developing States	32	30	28	27	27	25	23	29	35	39	28	49
World	5,021	4,500	4,008	3,490	3,061	2,690	2,372	53	40	41	44	47

Note: All calculations are based on unrounded numbers.

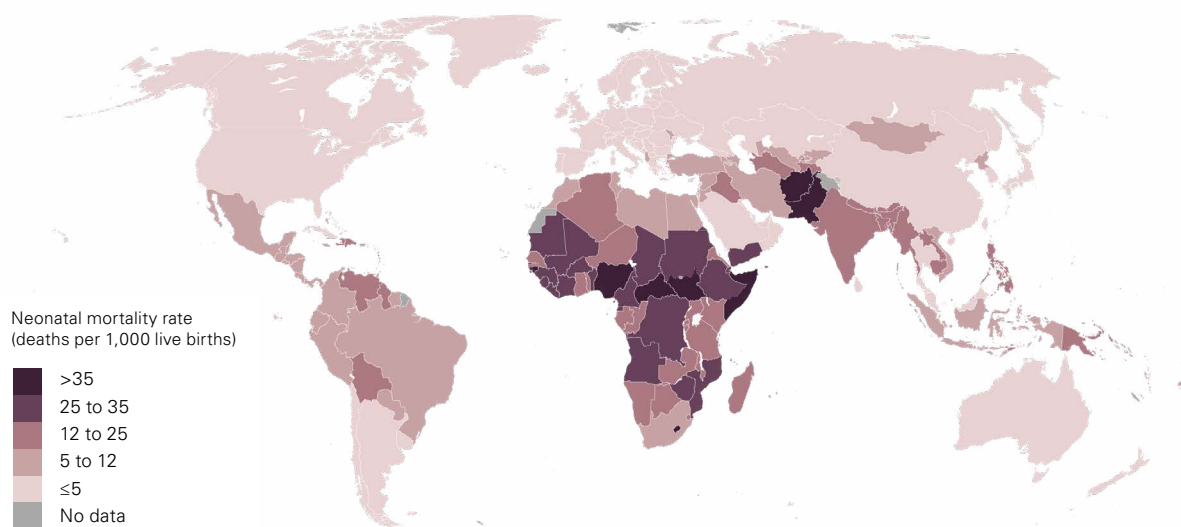
TABLE 3 Levels and trends in the neonatal mortality rate, by Sustainable Development Goal region, 1990-2020

Region	Neonatal mortality rate (deaths per 1,000 live births)							Decline (per cent)	Annual rate of reduction (per cent)			
	1990	1995	2000	2005	2010	2015	2020	1990-2020	1990-2020	1990-1999	2000-2009	2010-2020
Sub-Saharan Africa	46	44	40	36	32	30	27	41	1.7	1.1	2.3	1.8
Northern Africa and Western Asia	30	26	23	20	17	15	13	56	2.8	2.8	3.2	2.3
Northern Africa	33	29	26	23	20	17	15	54	2.6	2.3	2.9	2.5
Western Asia	28	24	20	16	14	12	11	60	3.1	3.4	3.7	2.1
Central and Southern Asia	56	51	45	38	33	28	23	60	3.0	2.2	3.1	3.8
Central Asia	28	29	27	22	16	12	10	65	3.5	0.2	4.8	5.0
Southern Asia	57	52	45	39	34	28	23	59	3.0	2.2	3.0	3.7
Eastern and South-Eastern Asia	28	25	20	15	11	8	7	76	4.7	3.0	6.1	5.0
Eastern Asia	28	25	20	13	8	5	3	88	7.0	3.2	9.1	8.5
South-Eastern Asia	28	24	21	18	16	14	12	57	2.8	2.8	2.6	3.0
Latin America and the Caribbean	23	19	16	13	11	10	9	60	3.0	3.3	3.9	2.1
Oceania	14	14	14	13	12	11	10	31	1.2	0.1	1.9	1.6
Australia and New Zealand	5	4	4	3	3	2	2	48	2.1	2.9	2.2	1.5
Oceania (exc. Australia and New Zealand)	28	28	26	25	23	21	19	31	1.2	0.5	1.3	1.8
Europe and Northern America	7	6	5	4	4	3	3	61	3.2	3.6	3.4	2.6
Europe	8	7	5	4	3	3	3	69	3.9	3.9	4.8	3.2
Northern America	6	5	5	4	4	4	3	40	1.7	2.2	1.1	1.9
Landlocked developing countries	47	45	41	36	31	27	24	50	2.3	1.3	2.7	2.7
Least developed countries	52	47	42	37	32	28	25	52	2.4	2.1	2.7	2.5
Small island developing States	27	25	23	23	22	20	19	30	1.2	1.4	0.7	1.6
World	37	34	30	26	22	19	17	54	2.6	1.8	3.2	2.6

Note: All calculations are based on unrounded numbers.

MAP
4

Neonatal mortality rate (deaths per 1,000 live births) by country, 2020



Note: This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

TABLE
4 Levels and trends in the number of deaths of children under age five, by Sustainable Development Goal region, 1990-2020

Region	Under-five deaths (thousands)							Decline (per cent) 1990-2020	Share of global under-five deaths (per cent)		
	1990	1995	2000	2005	2010	2015	2020		1990	2000	2020
Sub-Saharan Africa	3,736	3,932	3,885	3,557	3,206	2,943	2,715	27	29.8	39.8	53.9
Northern Africa and Western Asia	682	567	461	385	345	333	286	58	5.4	4.7	5.7
Northern Africa	382	315	258	221	204	190	166	56	3.0	2.6	3.3
Western Asia	300	252	204	164	141	142	119	60	2.4	2.1	2.4
Central and Southern Asia	4,971	4,351	3,660	2,996	2,345	1,780	1,395	72	39.7	37.5	27.7
Central Asia	110	102	74	54	45	38	31	72	0.9	0.8	0.6
Southern Asia	4,861	4,249	3,586	2,942	2,300	1,743	1,365	72	38.8	36.8	27.1
Eastern and South-Eastern Asia	2,284	1,688	1,239	892	678	524	402	82	18.2	12.7	8.0
Eastern Asia	1,422	1,007	689	431	291	200	132	91	11.4	7.1	2.6
South-Eastern Asia	863	681	550	461	387	324	270	69	6.9	5.6	5.4
Latin America and the Caribbean	644	505	382	288	265	193	168	74	5.1	3.9	3.3
Oceania	18	18	17	17	16	15	13	27	0.1	0.2	0.3
Australia and New Zealand	3	2	2	2	2	2	1	50	0.0	0.0	0.0
Oceania (exc. Australia and New Zealand)	15	15	15	15	14	13	12	23	0.1	0.2	0.2
Europe and Northern America	191	144	112	97	85	74	62	68	1.5	1.1	1.2
Europe	144	104	76	62	53	45	35	76	1.2	0.8	0.7
Northern America	47	40	35	35	32	29	27	43	0.4	0.4	0.5
Landlocked developing countries	1,749	1,744	1,626	1,381	1,164	983	861	51	14.0	16.7	17.1
Least developed countries	3,608	3,536	3,303	2,867	2,497	2,151	1,926	47	28.8	33.9	38.2
Small island developing States	93	82	72	64	94	52	46	50	0.7	0.7	0.9
World	12,526	11,204	9,756	8,231	6,940	5,862	5,041	60	100.0	100.0	100.0

Note: All calculations are based on unrounded numbers.

under-five deaths (see Table 4) but the region accounts for just 27 per cent of 2020 live births. Another 27 per cent of the global total of deaths occurred in Southern Asia, with 1.4 (1.2–1.5) million under-five deaths; Southern Asia accounted for 26 per cent of live births in 2020. These two regions also bear most of the world’s newborn deaths, with sub-Saharan Africa leading in the global share of these deaths at 43 per cent (1.0 (0.9–1.2) million), followed by Southern Asia at 36 per cent (0.9 (0.8–0.9) million (see Table 2). Notably, the Southern Asia region has unusually high neonatal mortality given the level of under-five mortality, and neonatal deaths have stagnated at 1 million deaths annually in sub-Saharan Africa even as mortality rates have declined. This is due to an increase in live births in the region in recent years.¹³

Children living in fragile and conflict-affected situations are especially vulnerable. The under-five mortality rate in the 38 countries classified as fragile and conflict-affected situations²³ was 76 deaths per 1,000 live births in 2020, a three-fold increase in risk compared to all other countries. About 43 per cent of global under-five deaths in

2020 occurred in fragile and conflict-affected situations.

If current trends continue, 54 countries will not meet the SDG target for under-five mortality. Of the 195 countries analysed in this report, 125 have already met the SDG target on under-five mortality, and 16 countries are expected to do so by 2030. But the pace of mortality decline must quicken if the remaining 54 countries are to meet the target on time. Of these 54, 38 countries will need to more than double their current rate of progress to achieve the SDG target by 2030, without considering the additional challenges brought on by the COVID-19 pandemic or other emergencies (see Figure 4).

Even more countries are at risk of missing the SDG target for neonatal mortality. While 122 countries have already achieved the neonatal mortality target, 61 countries will need to accelerate progress to meet the neonatal mortality target by 2030 (see Figure 4) – and 53 countries will need to more than double their current rate of decline to meet the target on time.

FIGURE 4 Projected year to achieve the SDG target in neonatal mortality and under-five mortality if current trends continue in the countries that have not achieved the SDG targets

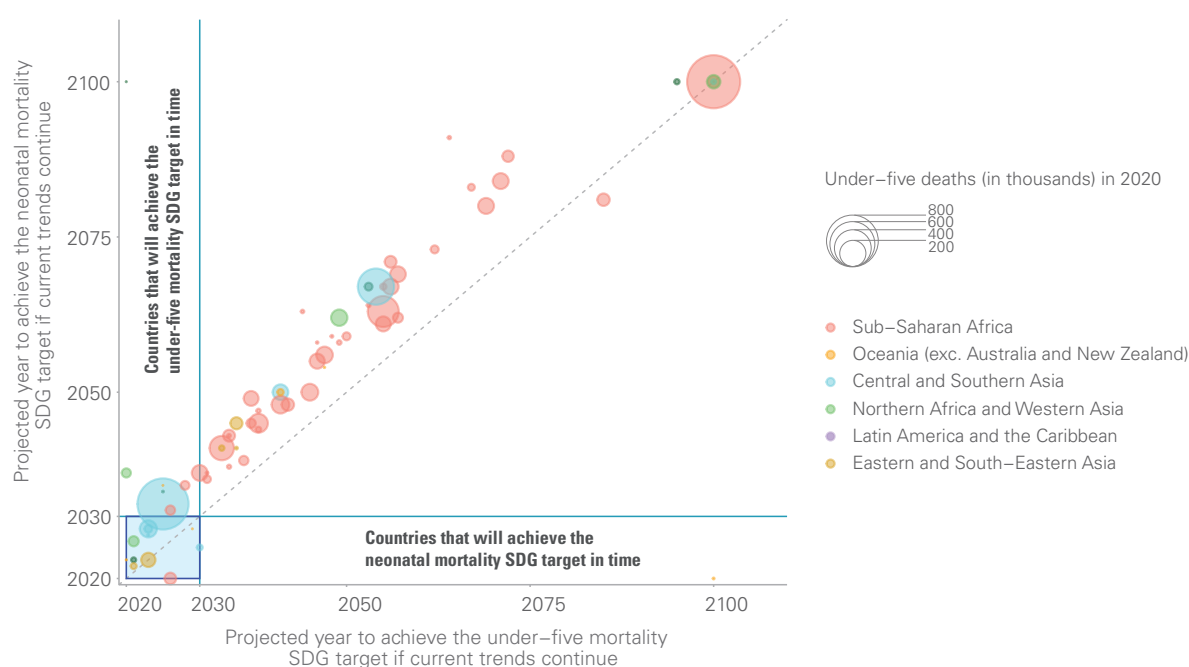


FIGURE 5

Scenario-based projections of under-five mortality rate and number of under-five deaths

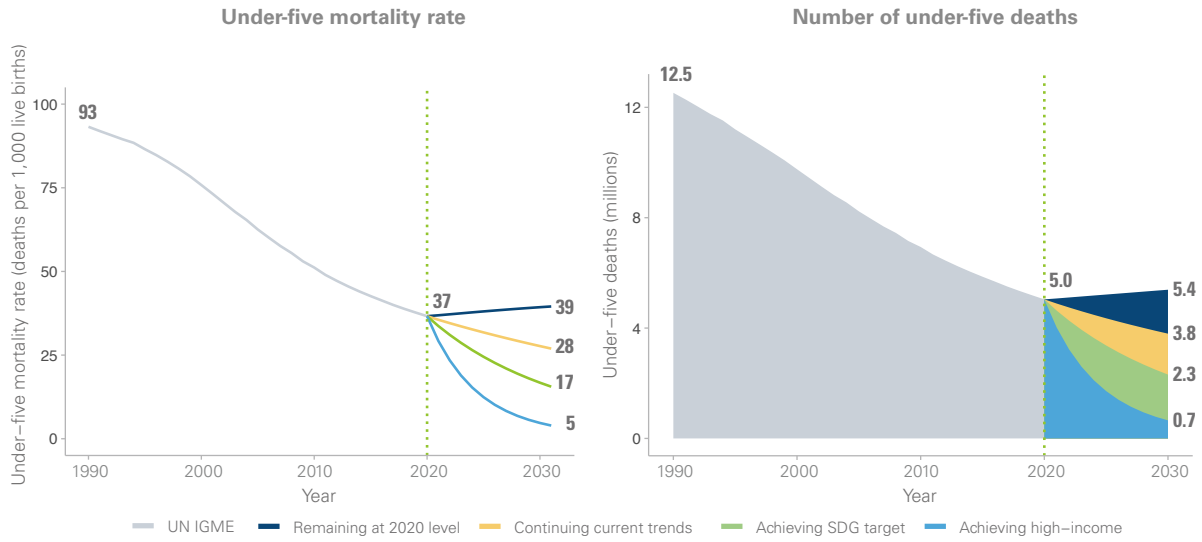
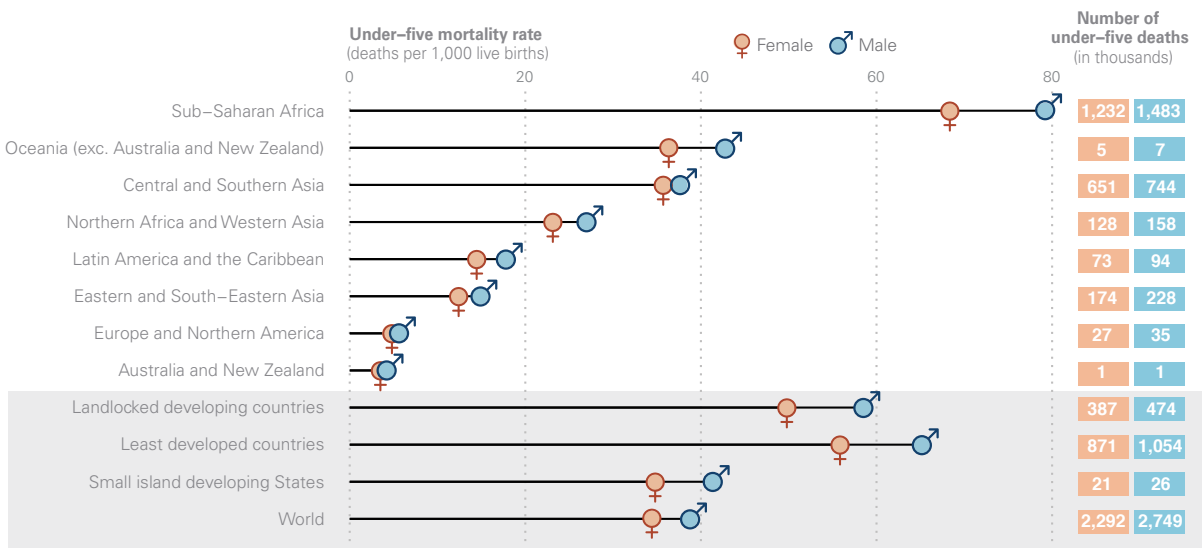


FIGURE 6

Under-five mortality rate and number of under-five deaths by sex and Sustainable Development Goal region, 2020



Note: This figure shows unrounded under-five mortality rates.

Geographic and economic disparities, along with fragile and conflict-affected situations, heighten the risk of death for children and threaten universal achievement of the SDGs. Of the 54 countries off track to meet the SDG target on under-five mortality, nearly 75 per cent (40) are in sub-Saharan Africa (see Figure 4), 85 per cent (46) are classified as low- or lower-middle-income countries, and about half are classified as fragile and conflict-affected situations. For the neonatal mortality target, 70 per cent of the countries at risk of missing the target are in sub-Saharan Africa, 84 per cent (51) are low- or lower-middle-income, and 39 per cent are classified as fragile and conflict-affected situations.

If countries at risk of missing the SDG target on under-five mortality accelerated progress to achieve it by 2030, 10 million children's lives would be saved. On current trends,²⁴ more than 43 million children younger than 5 will die before 2030, half of them newborns. Well over half of these deaths – 58 per cent – will take place in sub-Saharan Africa (25 million), with another 24 per cent occurring in Southern Asia (10 million). Meeting the SDG target in the 54 countries that are off track would avert 10 million

under-five deaths between 2021 and 2030 and reduce the annual number of under-five deaths to 2.5 million in 2030 (see Figure 5). Even more lives could be saved – almost 25 million – if all countries were able to reach an under-five mortality rate equivalent to the average under-five mortality rate in high-income countries (5 deaths per 1,000 live births). Under this scenario, there would be just 700,000 under-five deaths in 2030.

Fewer countries showed gender disparities in under-five mortality. The estimated under-five mortality rate for boys in 2020 was 39 (37–42) deaths per 1,000 live births and 34 (33–38) deaths per 1,000 live births for girls. In 2020, an estimated 2.7 (2.6–3.0) million boys and 2.3 (2.2–2.5) girls died before reaching age 5 (see Figure 6). On average, boys are expected to have a higher under-five mortality rate than girls. In some countries, the under-five mortality rate for girls is significantly higher than what would be expected based on global sex-ratio patterns. The number of countries showing higher than expected mortality for girls has fallen from 22 to 5 since 1990.



Mortality among children, adolescents and youth

Across all regions, the risk of dying between the ages of 5 and 24 is lower than for children under 5 years old. At about half the level of global under-five mortality, the probability of dying among children and youth aged 5–24 years was 18 (17–19) deaths per 1,000 children aged 5 years in 2020 (see Table 5 and Figure 7). Notably, exposure to the risk of death is four times longer in the age group 5–24 than the under-five age group. Globally, the age pattern of child and youth mortality rates sees mortality fall from the peak of under-five mortality to a low among 10–14 year-olds, then increase again. While the level of mortality differs considerably between regions, this age pattern is generally consistent across

regions except for the regions of Australia and New Zealand, Europe and Northern America, and Latin America and the Caribbean, which see the lowest mortality among 5–9 year olds (see Table 5 and Figure 7). Despite lower rates compared to children under 5, an estimated 2.2 (2.1–2.4) million children and young people aged 5–24 years died in 2020, with more than half of those deaths occurring among those aged 15–24 years (see Table 6 and Figure 2).

Nearly 1 million adolescents died in 2020. The probability of dying among adolescents aged 10–19 years was estimated at 7.6 (7.3–8.4) deaths per 1,000 children aged 10 years in 2020. While

TABLE 5 Levels and trends in mortality among children and youth aged 5–24 years and in five-year age groups, by Sustainable Development Goal region, 1990–2020

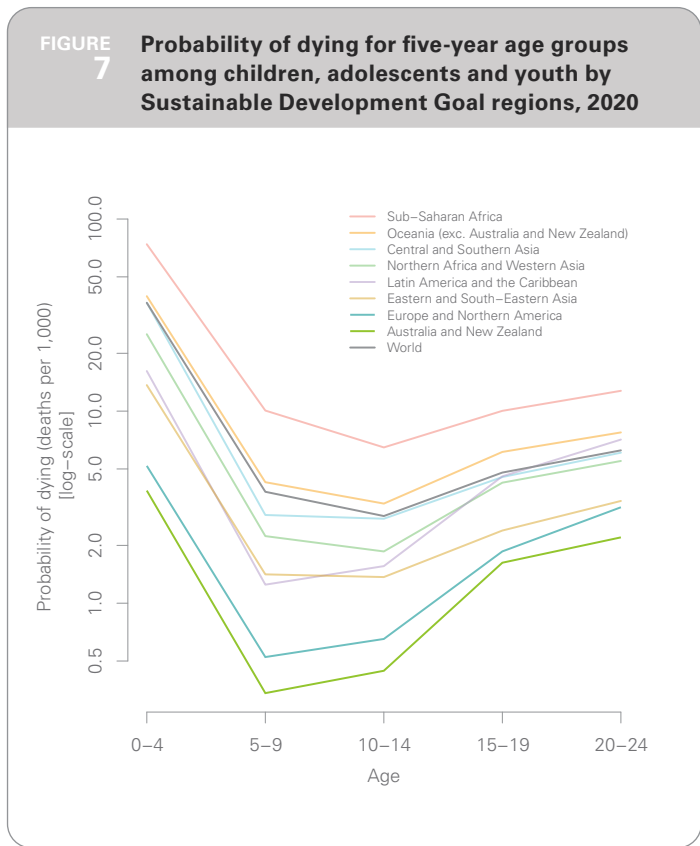
Region	Probability of dying among (deaths per 1,000)										Annual rate of reduction 1990–2019 (per cent)				
	Age 5–9		Age 10–14		Age 15–19		Age 20–24		Age 5–24		Age 5–9	Age 10–14	Age 15–19	Age 20–24	Age 5–24
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020					
Sub-Saharan Africa	26	10	13	6	18	10	24	13	79	39	3.2	2.3	2.0	2.1	2.4
Northern Africa and Western Asia	7	2	4	2	7	4	8	6	26	14	3.7	2.6	1.9	1.2	2.1
Northern Africa	8	3	5	2	7	5	9	6	29	16	3.5	2.8	1.4	1.3	2.0
Western Asia	6	2	3	2	7	4	7	5	23	12	4.1	2.3	2.4	1.0	2.2
Central and Southern Asia	13	3	7	3	11	5	14	6	43	16	4.9	3.1	2.8	2.7	3.3
Central Asia	4	1	3	2	5	3	7	4	18	9	3.2	2.2	1.6	2.5	2.3
Southern Asia	13	3	7	3	11	5	14	6	44	16	5.0	3.1	2.9	2.8	3.3
Eastern and South-Eastern Asia	6	1	3	1	6	2	5	3	19	9	4.7	2.8	2.8	1.0	2.6
Eastern Asia	4	1	3	1	5	1	4	2	15	6	5.2	3.5	4.3	1.3	3.4
South-Eastern Asia	9	2	4	2	7	4	8	5	28	14	4.5	2.3	1.9	1.5	2.4
Latin America and the Caribbean	3	1	3	2	6	5	9	7	20	14	3.0	1.8	0.9	0.7	1.2
Oceania	4	2	2	2	5	3	6	4	17	11	2.0	1.5	1.3	1.4	1.5
Australia and New Zealand	1	0	1	0	4	2	5	2	10	5	3.4	2.9	2.6	2.6	2.7
Oceania (exc. Australia and New Zealand)	8	4	5	3	9	6	11	8	32	21	2.0	1.5	1.2	1.2	1.4
Europe and Northern America	2	1	1	1	4	2	5	3	12	6	3.6	2.7	2.4	1.7	2.2
Europe	2	0	2	1	4	2	5	2	12	5	4.1	3.1	2.8	2.5	2.9
Northern America	1	1	1	1	4	2	5	4	12	8	2.2	1.9	2.1	0.7	1.4
Landlocked developing countries	25	7	12	5	17	9	23	11	75	30	4.4	2.8	2.3	2.7	3.0
Least developed countries	26	8	12	5	18	10	22	12	76	34	4.0	2.7	2.1	2.2	2.7
Small island developing States	8	4	5	3	8	5	10	7	31	19	2.7	2.0	1.4	0.9	1.6
World	10	4	5	3	8	5	9	6	31	18	3.1	1.9	1.7	1.2	1.9

Note: All calculations are based on unrounded numbers.

that risk is relatively low compared to other age groups presented in this report, 0.9 (0.9–1.0) million adolescents died in 2020. Globally, about 43 per cent of the deaths among those aged 5–24 years occurred among adolescents (see Table 6).

Survival chances for children and youth aged 5–24 years depend heavily on the regions and countries they are born into. At 39 (38–44) deaths per 1,000 children aged 5 years, sub-Saharan Africa has the highest regional probability of dying for the age group 5–24 in 2020, followed by Oceania (excluding Australia and New Zealand) with 21 (17–26) deaths per 1,000, and Southern Asia 16 (15–19) deaths per 1,000 (see Table 5). Sub-Saharan Africa and Oceania (excluding Australia and New Zealand) have the highest regional mortality rates across all four five-year age groups in 2020, save for Latin America and the Caribbean, which replaces Central and Southern Asia with the third highest regional rate for older adolescents aged 15–19 years and youth aged 20–24 years (see Table 5 and Figure 7). The average probability of a five-year-old dying before reaching age 25 was eight times higher in sub-Saharan Africa than in the Australia and New Zealand region, which has the lowest mortality rate for 5–24-year-olds. At the country level, mortality rates for 5–9-year-olds ranged from 0.2 to 16.1 deaths per 1,000 children aged 5 years; for 10–14-year-olds, from 0.2 to 12.9 deaths per 1,000 adolescents aged 10 years ; for 15–19-year-olds, from 0.8 to 18.0 deaths per 1,000 adolescents aged 15 years; and for 20–24-year-olds, from 1.0 to 24.3 deaths per 1,000 youths aged 20 years.

Sub-Saharan Africa and Southern Asia carry the heaviest death burden for children and youth



aged 5–24 years. Over 70 per cent of all deaths among 5–24-year-olds occurred in sub-Saharan Africa (45 per cent) and Southern Asia (26 per cent) (see Table 6).

If current trends continue, nearly 21 million children and youth aged 5–24 years will die between 2021 and 2030. Of these projected deaths, 8.9 million will occur among adolescents aged 10–19 years, and 72 per cent will occur in just two regions: sub-Saharan Africa (9.9 million) and Southern Asia (4.9 million)

TABLE
6

Level and trends in number of deaths among children and youth aged 5–24 years and among adolescents aged 10–19 year by Sustainable Development Goal regions, 1990–2019

Region	Deaths age 5-24 (thousands)				Decline (per cent)	Deaths age 10-19 (thousands)				Decline (per cent)
	1990	2000	2010	2020	1990-2020	1990	2000	2010	2020	1990-2020
Sub-Saharan Africa	942	1,014	970	981	-4	348	392	390	413	-19
Northern Africa and Western Asia	167	146	126	127	24	73	65	56	55	24
Northern Africa	92	82	71	70	24	39	35	31	30	22
Western Asia	76	64	54	57	24	34	29	26	25	27
Central and Southern Asia	1,192	1,014	817	594	50	466	428	360	271	42
Central Asia	19	21	16	11	39	8	9	7	5	34
Southern Asia	1,173	993	801	583	50	458	419	353	266	42
Eastern and South-Eastern Asia	690	496	358	260	62	315	233	153	112	65
Eastern Asia	404	254	171	107	74	199	126	66	42	79
South-Eastern Asia	286	242	187	153	47	116	107	87	70	40
Latin America and the Caribbean	187	178	253	155	17	82	79	117	65	20
Oceania	8	7	7	7	16	4	3	3	3	14
Australia and New Zealand	3	2	2	2	48	2	1	1	1	49
Oceania (exc. Australia and New Zealand)	5	5	5	5	-8	2	2	2	2	-13
Europe and Northern America	176	165	113	78	56	75	70	42	31	59
Europe	126	123	74	40	68	53	51	26	17	68
Northern America	50	42	38	38	24	22	19	15	14	37
Landlocked developing countries	465	455	372	356	23	168	179	157	158	6
Least developed countries	939	889	872	800	15	343	353	374	350	-2
Small island developing States	29	26	103	21	27	12	11	49	9	27
World	3,363	3,020	2,643	2,200	35	1,362	1,271	1,122	950	30

Note: All calculations are based on unrounded numbers.



Data gaps in child mortality

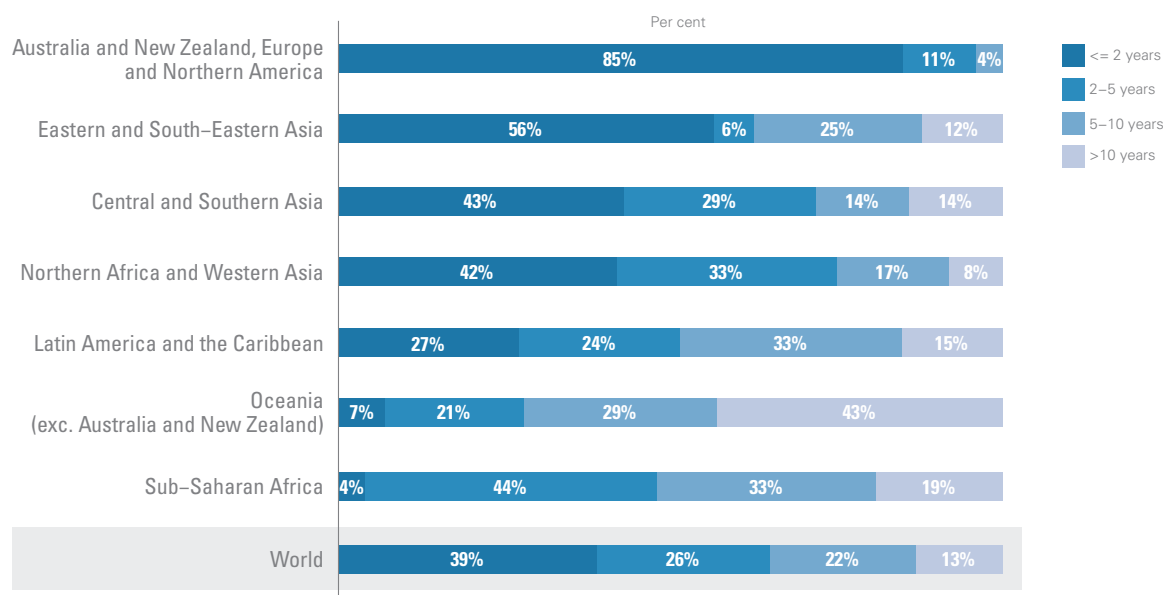
Timely, reliable data on child mortality for all countries remain elusive. On average, the most recent quality data point on child mortality across all countries was 4.8 years old, with half the countries in the world having a data point within the past 3.5 years. For about a third of all countries, the latest available child mortality data point was more than five years old (see Figure 8 and Map 5).

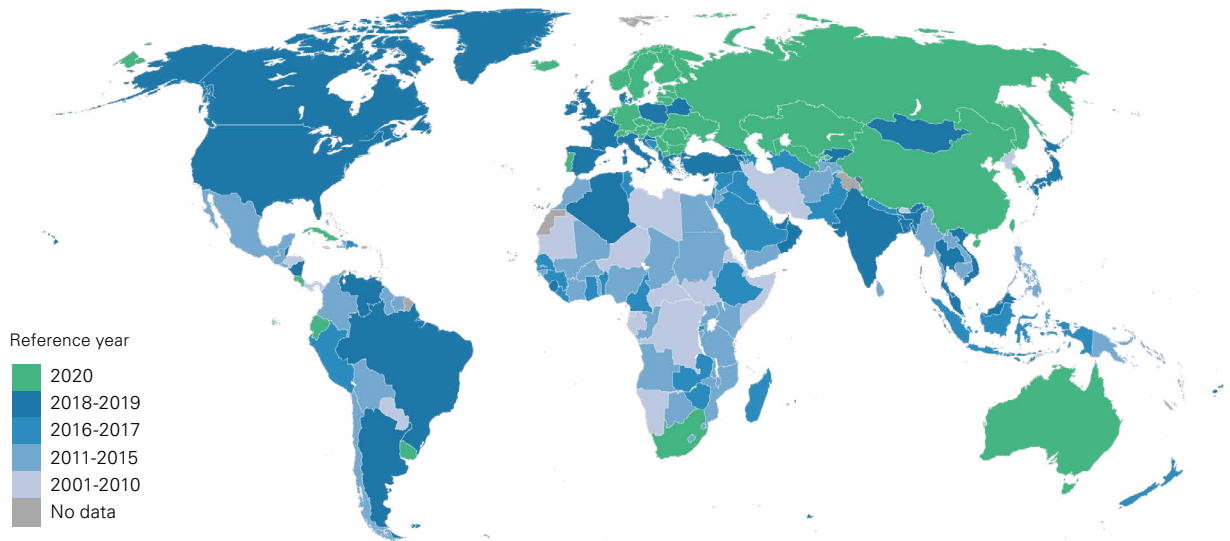
Data availability worsens for some regions and income groups. In sub-Saharan Africa, more than half of all countries in the region have a gap of more than five years between the most recent available data point and the common reference year 2020 – globally, just 35 per cent of countries have a most recent data point this old (see Figure 8). Similarly, on average, the most recent data point among low-income countries was 7.3 years

old, among middle-income countries 5.1 years old, and among high-income countries 2.6 years old; two thirds of all low- and middle-income countries have no reliable data on under-five mortality in the past three years. Recent data are also rare in fragile and conflict-affected situations – on average, fragile and conflict-affected situations had a most recent data point that was 8.2 years old.

Countries at risk of missing the SDGs are less likely to have recent, reliable data on child mortality. Among the countries at risk of missing the SDG target on under-five mortality, the most recent data point on average was 7.4 years old, while countries already achieving the target had an average most recent data point that was just 3.5 years old. Fewer recent data means greater

FIGURE 8 Distribution of the country extrapolation periods in each Sustainable Development Goal region and the world





Note: This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

uncertainty in the recent period and greater reliance on extrapolation.

Just 40 countries had high-quality national data for 2020 included in the estimation model, though national or subnational data were available for more than 80 countries or areas to help analyse excess mortality due to COVID-19. The countries shown in green in Map 5 have an included data point for 2020 in the estimation model, and data availability for the excess mortality analysis is described in the box on COVID-19 and child mortality (see p. 8). Overall, there are fewer countries with data for 2020 included in the estimation model than those that have information on age-specific deaths

in 2020 for the excess analysis; this is because some countries' CRVS data may not meet data completeness thresholds for inclusion in the model and some death data for use in the excess analysis did not have appropriate denominators for calculating rates or only had preliminary data for 2020.²⁵ Furthermore, countries that rely on survey data to describe child mortality are unlikely to have 2020 data even if they have conducted a recent survey due to the retrospective nature of child mortality estimation from birth histories. Given the intense focus on mortality in the context of the pandemic, increased data sharing and availability will be crucial for adequately tracking child mortality related to COVID-19, if any.



Conclusion

While the world was gripped by the unfolding COVID-19 pandemic in 2020, children continued to face the same crisis they have for decades: intolerably high mortality rates and vastly inequitable chances at life. In total, 5.0 million children under age 5, including 2.4 million newborns, along with 2.2 million children and youth aged 5 to 24 years – 43 per cent of whom are adolescents – died in 2020. This tragic and massive loss of life, most of which was due to preventable or treatable causes, is a stark reminder of the urgent need to end preventable deaths of children and young people.

Based on the best available empirical evidence, representing more than 80 countries and areas, and acknowledging that estimates in this report differ from some models that predicted increased deaths in 2020 due to service disruptions or economic downturns, the UN IGME did not find significant excess mortality among children in 2020 and therefore makes no adjustment to its 2020 estimates. Still, these data have limitations in their representativeness, and the pandemic and resulting mortality profile could change substantially from what has been observed thus far. We must continue to collect data, where available, to monitor the mortality situation of children and youth.

Even as child and youth mortality in 2020 continued to show a downward trend from years prior, the task of ending preventable child deaths remains unfinished. If current trends continue, 54 countries will not meet the SDG target on under-five mortality, more than 60 countries will miss the target on neonatal mortality and 43 million under-five deaths are projected to take place between 2021 and 2030. About half of these deaths will be newborns and more than half will take place in sub-Saharan Africa. In addition, without urgent action, almost 21 million children, adolescents and youth aged 5–24 years are projected to die before 2030.

In contrast, if every country met the SDG target on under-five mortality, 10 million under-five deaths could be averted between 2021 and 2030. However, achieving the target in all countries is hindered by large and persistent regional and income class disparities in mortality. If current trends continue, 58 per cent of the projected 43 million under-five deaths before 2030 will take place in sub-Saharan Africa and another 24 per cent will occur in Southern Asia. Close to 75 per cent of the countries at risk of missing the SDG under-five mortality target are in sub-Saharan Africa and 85 per cent are low- or lower-middle income countries. Likewise, more than 80 per cent of the total under-five deaths in 2020 occurred in just two regions: sub-Saharan Africa and Southern Asia.

If the world is to address the still substantial annual child death burden, it must target action and attention to the most vulnerable regions, countries and ages. Though sub-Saharan Africa was not as hard hit as some other regions in terms of COVID-19-related mortality in 2020, the region's doggedly high mortality rates and future demographics call for increased focus on this region. Coupled with an increase in births and the under-five population in sub-Saharan Africa – a projected 408 million births are expected to take place between 2021 and 2030 and the under-five population is projected to increase by 17 per cent, to about 199 million, by 2030 – persistently high neonatal mortality rates across the region could lead to further stagnation or even increases in the number of neonatal deaths. The neonatal period is the riskiest time for a child's survival, and globally, as the level of under-five mortality falls, a greater share of all under-five deaths is taking place during the neonatal period, calling for increased attention to this period of life and urgent action to prevent newborn deaths. Addressing sub-Saharan Africa's demographic changes and pressing neonatal mortality will require strengthening and investing in health

systems to improve the coverage and equity of care in delivering high-quality and high-impact maternal, newborn and child survival interventions.

It will also require investment and expansion of the data collection systems required to monitor mortality in the future. As mentioned, data to assess excess mortality in 2020 are limited in age-disaggregation and geographic representativeness, and just about one fifth of the 195 countries covered in this report had high-quality under-five mortality data for 2020 available at the time these estimates were generated. Moreover, in the places where estimated mortality rates are highest, data tend to be most outdated – in sub-Saharan Africa, the most recent data point on child mortality was more than five years old in over half the countries in the region. These

data gaps present serious challenges to timely and accurate estimation and monitoring of child mortality.

The world is urgently engaged in limiting the mortality impact of the COVID-19 virus – this same focus must be applied to avert the millions of equally tragic child and adolescent deaths from all other causes that are projected to take place in the coming years, if we maintain the status quo. The COVID-19 pandemic has forced businesses, organizations and individuals to leave behind pre-pandemic mindsets and reevaluate ways of working to develop new methods that increase effectiveness. It is also time to leave behind the pre-COVID complacency around child mortality and recommit to every child's right to survive. With proper attention and action, ending preventable child deaths is still possible.

Country consultation

In accordance with the decision by the Statistical Commission and the United Nations Economic and Social Council resolution 2006/6, UN IGME child mortality estimates, which are used for the compilation of global indicators for SDG monitoring, are produced in consultation with countries.²⁶ UNICEF and the WHO undertook joint country consultations in 2021. The country consultation process gave each country's ministry of health, national statistics office or relevant agency the opportunity to review all data inputs, the estimation methodology, and the draft estimates for under-five mortality and mortality among children and young

adolescents aged 5–14 years and youth aged 15–24 years. The objective was to identify relevant data that were not included in the UN IGME database and to allow countries to review and provide feedback on estimates. In 2021, 102 of 195 countries sent comments or additional data. After the consultations, the UN IGME draft estimates for mortality in children under age 5 were revised for 95 countries using new or updated data, and the estimates for mortality in children and young adolescents aged 5–14 years or in youth aged 15–24 years were revised for 100 countries, given new or updated data. All countries were informed about changes in their estimates.

Estimating child mortality

This chapter summarizes the methods the UN IGME uses to generate mortality estimates for children under age 5, older children and young adolescents aged 5–14 years, and older adolescents and youth aged 15–24 years.

The UN IGME updates its estimates of neonatal, infant, under-five mortality and mortality among children aged 5–14 years and mortality among youth aged 15–24 years annually after reviewing newly available data and assessing their quality. These estimates are widely used in UNICEF’s flagship publications, the United Nations Secretary-General’s annual SDG report, and publications by other United Nations agencies, governments and donors.

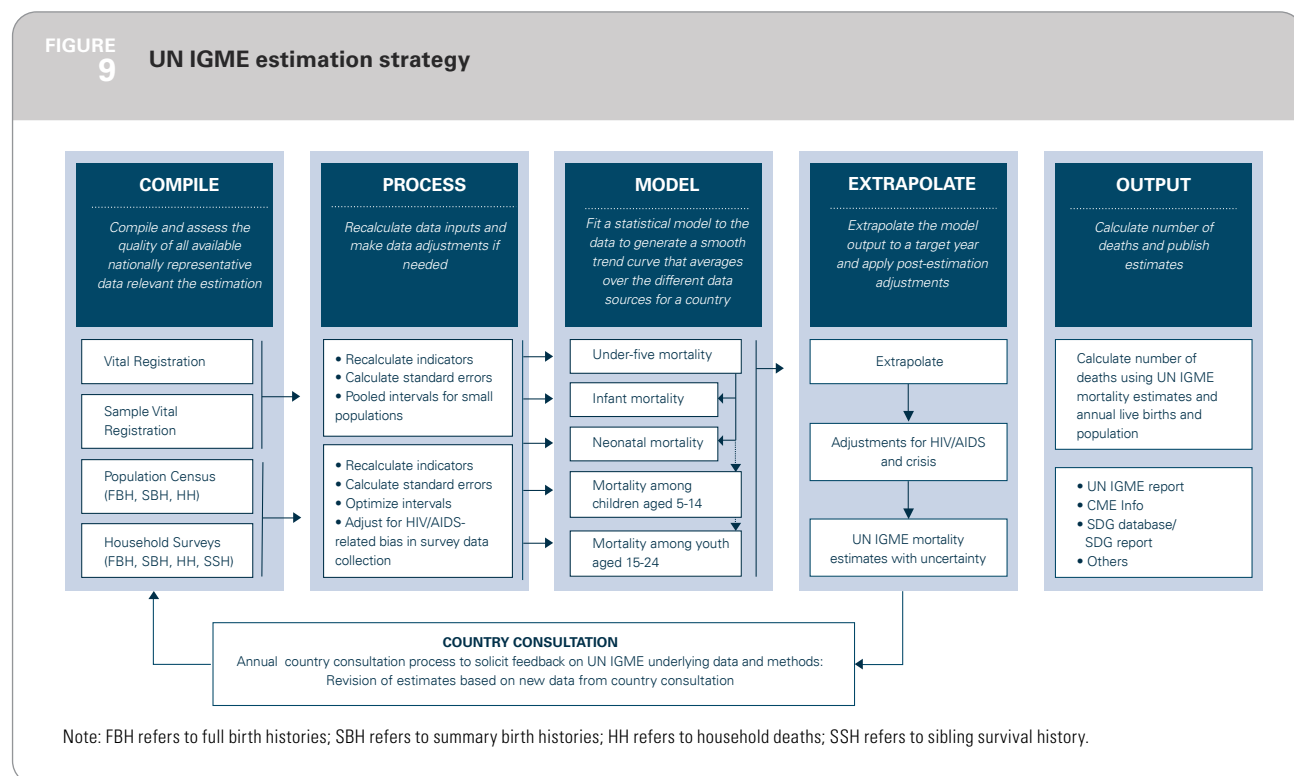
The UN IGME, which includes members from UNICEF, WHO, the World Bank Group and United Nations Population Division, was established in 2004 to advance the work on monitoring progress towards the achievement of

child survival goals. Its Technical Advisory Group (TAG), comprising leading academic scholars and independent experts in demography and biostatistics, provides guidance on estimation methods, technical issues, and strategies for data analysis and data quality assessment.

Overview

The UN IGME employs the following broad strategy (Figure 9) to arrive at annual estimates of child mortality:

1. Compile and assess the quality of all available nationally representative data relevant to the estimation of child mortality, including data from vital registration systems, population censuses, household surveys and sample registration systems;
2. Recalculate data inputs and make adjustments as needed by applying standard methods;



3. Fit a statistical model to these data to generate a smooth trend curve that averages possibly disparate estimates from the different data sources for a country; and
4. Extrapolate the model to a target year (in this case, 2020).

To increase the transparency of the estimation process, the UN IGME has developed a child mortality web portal, Child Mortality Estimation (CME) Info, available at <childmortality.org>. It includes all available data and shows estimates for each country as well as which data are currently officially used by the UN IGME. Once new estimates are finalized, CME Info is updated accordingly.

The UN IGME applies a common methodology across countries and uses empirical data from each country to produce comparable estimates, i.e., country values for the same reference year produced using a common method. Applying a consistent methodology allows for comparisons between countries, despite the varied number and types of data sources. UN IGME estimates are based on nationally available data from censuses, surveys or vital registration systems. The UN IGME does not use covariates to derive its estimates, but, rather, applies a curve-fitting method to empirical data after data quality assessment.

Countries may use a single data source for their official estimates or apply valid methods different from those used by the UN IGME. The UN IGME does not report figures produced by individual countries using other methods, as these estimates would not be comparable across countries. The differences between UN IGME and national official estimates are usually not large if the empirical data are of good quality. The UN IGME aims to minimize errors for each estimate, harmonize trends over time, and produce up-to-date and comparable estimates of child mortality. Because errors are inevitable in data, there will always be uncertainty around data and estimates. To allow for added comparability, the UN IGME generates all child mortality estimates with uncertainty bounds.

Data sources

Nationally representative estimates of under-five mortality can be derived from several different sources, including civil registration and sample surveys. Demographic surveillance sites and hospital data are excluded as they are not nationally representative. The preferred source of data is a civil registration system that records births and deaths on a continuous basis. If registration is complete and this system functions efficiently, the resulting estimates will be accurate and timely. However, many low- and middle-income countries do not have well-functioning vital registration systems. Therefore, household surveys such as the UNICEF-supported Multiple Indicator Cluster Surveys, the USAID-supported Demographic and Health Surveys, and periodic population censuses have become the primary sources of data on mortality among children under age 5 and children, adolescents and youth aged 5–24 years. These surveys ask women about the survival of their children and about the survival of their siblings, and it is these reports (or microdata upon availability) that provide the basis for childhood, adolescent and youth mortality estimates for a majority of low- and middle-income countries.

The first step in the process of arriving at estimates of levels and recent trends of child mortality is to compile all newly available data and add the data to the UN IGME database. Newly available data will include recently released vital statistics from a civil registration system, results from recent censuses and household surveys and, occasionally, results from older censuses or surveys not previously available.

The full set of empirical data used in this analysis is publicly available from the UN IGME web portal, CME Info <childmortality.org>. In this round of estimation, a substantial amount of newly available data has been added to the underlying database for under-five, infant and neonatal mortality. Data from 96 new surveys or censuses were added for 55 countries and new years of data from vital registration systems or sample vital registration systems were added for 81 countries. In total, more than 4,600 country-year data points from about 180 series were added or updated. The database, as of December 2021,

contains over 21,900 country-year data points from more than 1,600 series across 195 countries from 1990 (or earlier, back to 1911) to 2020. The databases for mortality among children aged 5–14 years and for mortality among children aged 15–24 years each contain more than 7,900 data points.

The increased empirical data have substantially changed UN IGME estimates for some countries from previous editions, partly because the fitted trend line is based on the entire time series of data available for each country. The estimates presented in this report may differ from and are not necessarily comparable with previous sets of UN IGME estimates or the most recent underlying country data.

Whatever the method used to derive the estimates, data quality is critical. The UN IGME assesses data quality and does not include data sources with substantial non-sampling errors or omissions as underlying empirical data in its statistical model.

Civil registration data

Data from civil registration systems are the preferred data source for child mortality estimation. The calculation of under-five mortality rates (U5MR, the probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births), infant mortality rates (IMR, the probability of dying between birth and exactly one year of age, expressed per 1,000 live births), mortality rates among children aged 5–14 years (the probability a five-year-old would die before reaching age 15, expressed per 1,000 children aged 5 years) and mortality rates among youth aged 15–24 years (the probability a 15-year-old would die before reaching age 25, expressed per 1,000 youths aged 15 years) are derived from a standard period abridged life table using the age-specific deaths and midyear population counts from civil registration data. The neonatal mortality rate (NMR, the probability of dying between birth and exactly 28 days of age, expressed per 1,000 live births) is calculated with the number of deaths of infants under 28 days of age and the number of live births in a given year.

For civil registration data (with available data on

the number of deaths and mid-year populations), annual observations were initially constructed for all observation years in a country. For country-years in which the coefficient of variation exceeded 10 per cent for children under 5 years or 20 per cent for children aged 5–14 years, deaths and midyear populations were pooled over longer periods. Starting from the most recent years, deaths and population were combined with adjacent previous years to reduce spurious fluctuations in countries where small numbers of births and deaths were observed. The coefficient of variation is defined to be the stochastic standard error of ${}_5q_0$ (${}_5q_0 = \text{U5MR}/1,000$) or ${}_1q_0$ (${}_1q_0 = \text{IMR}/1,000$) observation divided by the value of the ${}_5q_0$ or ${}_1q_0$ observation. The stochastic standard error of the observation is calculated with a Poisson approximation using live birth numbers, given by $\sqrt{{}_5q_0/\text{lb}}$ or similarly $\sqrt{{}_1q_0/\text{lb}}$, where lb is the number of live births in the year of the observation.²⁷ After this recalculation of the civil registration data, the standard errors are set to a minimum of 2.5 per cent for input into the model. A similar approach was used for neonatal mortality and mortality among children and youth aged 5–24 years.

To select country-years for which vital registration data are included for older children, adolescents and youth aged 5–24 years and to compute adjustment factors in case of incomplete registration, a hybrid of the generalized growth balance method (GGB) and the synthetic extinct generation method (SEG), the GGBSEG method was used. The GGBSEG method is one of several demographic methods known as “death distribution methods”²⁸ and has been shown to perform better than the GGB and SEG methods in isolation. The GGBSEG method is implemented in the DDM package of the R statistical software.²⁹ Completeness was estimated for each country for periods between pairs of recent censuses for which an age distribution of the population was available in the Demographic Yearbook.³⁰ The sex-specific completeness estimates were combined to obtain an estimate for both sexes. When the estimated completeness was less than 80 per cent, mortality rates derived from vital registration data were excluded from the model fit. When completeness was greater than or equal to 95 per cent, the registration was

considered virtually complete and no adjustment was used to adjust mortality estimates upwards. If completeness was between 80 and 95 per cent, the inverse of the completeness rate was multiplied by the number of deaths to obtain adjusted estimates. These adjustments are only applied to mortality data above age 5 as the death distribution methods cannot be applied to estimate completeness of registration of under-five deaths.

Survey data

The majority of survey data on child mortality comes in one of two forms: the full birth history (FBH), whereby women are asked for the date of birth of each of their children, whether the child is still alive, and if not, the child's age at death; and the summary birth history (SBH), whereby women are asked only about the number of children ever born to them and the number who have died (or equivalently, the number still alive).

FBH data, collected by all Demographic and Health Surveys and increasingly, by Multiple Indicator Cluster Surveys and other nationally representative surveys, allow for the calculation of child mortality indicators for specific time periods in the past. This enables these survey programmes to publish under-five child mortality estimates for three 5-year periods before the survey; that is, 0 to 4, 5 to 9, and 10 to 14.^{31, 32, 33} The UN IGME has recalculated estimates to refer to calendar year periods using single calendar years for periods shortly before the survey and gradually increasing the number of years for periods further in the past, whenever microdata from the survey are available. The cut-off points of a given survey for shifting from estimates for single calendar years to two years, or two years to three, etc., are based on the coefficients of variation of the estimates.³⁴

Mortality estimates of children aged 5–14 years can also be derived from the FBH module, but the probability of dying among children in this age group ($_{10}q_5$) is estimated for the period 0–12 years before the survey and divided into periods according to the coefficient of variation of the estimates (< 20 per cent).

In general, SBH data collected by censuses and many household surveys use the woman's age

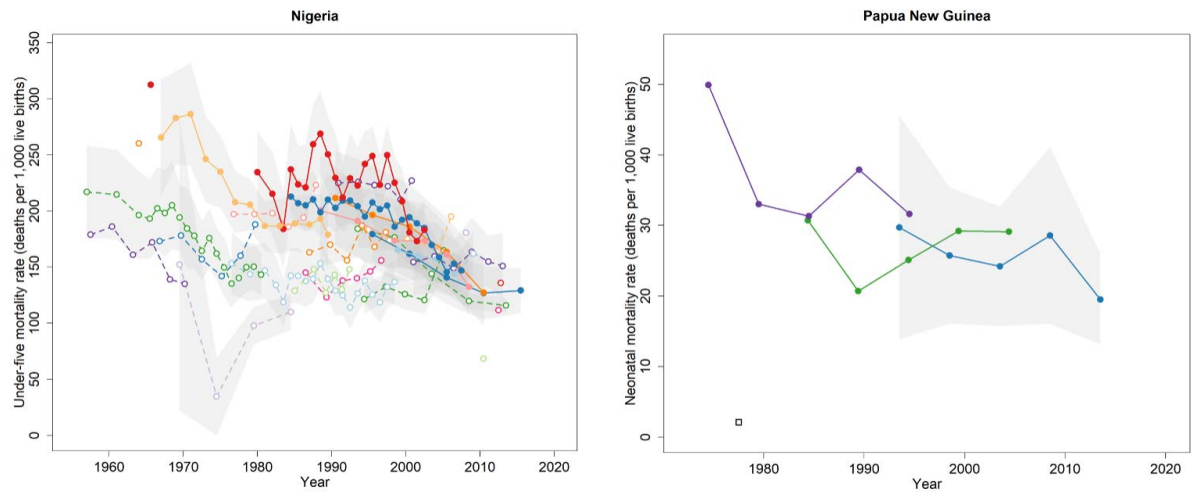
as an indicator of the age of her children and their exposure time to the risk of dying, and employ models to estimate mortality indicators for periods in the past for women ages 25 to 29 through ages 45 to 49. This method is well known but has several shortcomings. Starting with the 2014 round of estimation, the UN IGME changed the method of estimation for SBHs to one based on classification of women by the time that had passed since their first birth. This method has several benefits over the previous one. Firstly, it generally has lower sampling errors and, secondly, it avoids the problematic assumption that the mortality estimates derived for each age group of women adequately represent the mortality of the whole population. As a result, it has less susceptibility to the selection effect of young women who give birth early, since all women who give birth necessarily must have a first birth and therefore, are not selected for. Thirdly, the method tends to show less fluctuation across time, particularly in countries with relatively low fertility and mortality. The UN IGME considers the improvements in estimates based on time since first birth worthwhile when compared to the estimates derived from the classification by age of mother. Hence, in cases where the microdata are available, the UN IGME has reanalysed the data using the new method. Due to known biases in the estimation for the 0–4 year period by time since first birth and for the 15–19 and 20–24 age groups of women, these data points are excluded in the estimation model.

Moreover, following advice from UN IGME's TAG, child mortality estimates from SBH were not included if estimates from FBH in the same survey were available.³⁵ SBH data are not used to derive neonatal mortality or mortality among children aged 5–14 years.

Mortality estimates of youth aged 15–24 years were derived from the sibling survival histories (SSH). In SSH, women aged 15–49 years are asked to list all their siblings born to the same mother by birth order and to report on each sibling's gender, survival status, current age, if alive, or age at death and years since death, if deceased. Sibling histories have been extensively used to model adult mortality in countries lacking vital registration and to monitor trends in maternal

FIGURE 10

Empirical child mortality data in Nigeria and Papua New Guinea



Note: All data available for the country are shown as coloured points, with observations from the same data series joined by lines, and each colour identifying different data sources. Solid circles and lines represent data series/observations that were included in the statistical model. Unfilled circles and dash lines represent data series/observations that were excluded. Grey bands represent the standard errors of the observations where available or applicable.

mortality.^{36, 37, 38} SSH were used to estimate the probability of a 15-year-old dying before reaching age 25 ($_{10}q_{15}$) for a period of 0–12 years prior to each survey. This period was divided in intervals of various length (6, 4, 3, 2, 1 years) depending on the coefficient of the variation of the estimates.

Adjustment for missing mothers in high-HIV settings

In populations severely affected by HIV/AIDS, HIV-positive children will be more likely to die than other children and will also be less likely to be reported since their mothers will also have been more likely to die. Child mortality estimates will thus be biased downwards. The magnitude of the bias will depend on the extent to which the elevated under-five mortality of HIV-positive children is not reported because of the deaths of their mothers. The TAG developed a method to adjust HIV/AIDS-related mortality for each survey data observation from FBH during HIV/AIDS epidemics (1980–present) by adopting a set of simplified but reasonable assumptions about the distribution of births to HIV-positive women, primarily relating to the duration of their infection, vertical transmission rates, and survival times of both mothers and children

from the time of the birth.³⁹ This method was applied to all direct estimates from FBHs. The model was improved to incorporate the impact of antiretroviral therapies (ART) and prevention of mother to child transmission (PMTCT).⁴⁰ No adjustment was included for HIV-related biases in the age group 5–14, since no method currently exists to estimate the magnitude of this bias in the probability $_{10}q_{15}$. For mortality at ages 15–24, the vertical transmission of the virus is unlikely to introduce biases in the estimates, as mortality rates relate to the survival of the siblings of adult respondents.

Systematic and random measurement error

Data from these different sources require varied calculation methods and may suffer from different errors, such as random errors in sample surveys or systematic errors due to misreporting. Thus, different surveys often yield widely divergent estimates of U5MR for a given time period, as illustrated in Figure 10. In order to reconcile these differences and take better account of the systematic biases associated with the various types of data inputs, the TAG developed an estimation method to fit a smoothed trend curve to a set of observations and to

extrapolate that trend to a defined time point, in this case, 2020. This method is described in the following section.

Estimation of under-five mortality rates

Estimation and projection of under-five mortality rates was undertaken using the Bayesian B-splines bias-adjusted model, referred to as the B3 model. This model was developed, validated and used to produce previous rounds of UN IGME child mortality estimates, including the previously published round in 2020.^{41, 42}

In the B3 model, $\log(\text{U5MR})$ is estimated with a flexible splines regression model. The spline regression model is fitted to all U5MR observations in the country. An observed value for U5MR is considered to be the true value for U5MR multiplied by an error multiplier, i.e., $\text{observed U5MR} = \text{true U5MR} * \text{error multiplier}$, or on the log scale, $\log(\text{observed U5MR}) = \log(\text{true U5MR}) + \log(\text{error multiplier})$. The error multiplier refers to the relative difference between an observation and the truth with error multiplier equal to 1 (and $\log(\text{error multiplier})$ equal to zero) meaning no error.

While estimating the true U5MR, properties of the errors that provide information about the quality of the observation or in other words, the extent of error that we expect, are taken into account. These properties include: the standard error of the observation; its source type (e.g., Demographic and Health Surveys versus census); and whether the observation is part of a data series from a specific survey (and how far the data series is from other series with overlapping observation periods). These properties are summarized in the data model. When estimating the U5MR, the data model adjusts for errors in observations, including the average systematic biases associated with different types of data sources, using information on data quality for different source types from all countries.

Figure 11 displays the U5MR data and B3 model fit over time for Senegal, used here for illustrative purposes.

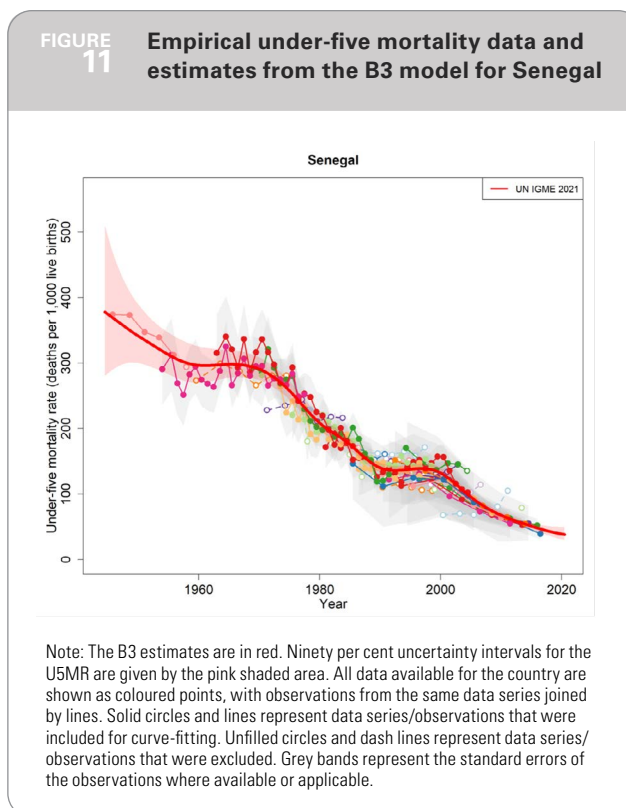
Compared with the previously applied LOESS (locally estimated scatterplot smoothing)

estimation approach,⁴³ the B3 model better accounts for data errors, including biases and sampling and non-sampling errors in the data. It can more accurately capture short-term fluctuations in the U5MR and its annual rate of reduction and, thus, is better able to account for evidence of acceleration in the decline of under-five mortality from new surveys. Validation exercises show that the B3 model also performs better in short-term projections.²⁷

The B3 method was developed and implemented for the UN IGME by Leontine Alkema and Jin Rou New with guidance and review by the UN IGME's TAG. A more complete technical description of the B3 model is available elsewhere.^{27, 42}

Estimation of infant mortality rates

In general, the B3 model described above is applied to the U5MR for all countries (except the Democratic People's Republic of Korea where a non-standard method was employed). For countries with high-quality vital registration data (covering a sufficient period of time and deemed to have high levels of completeness and coverage), the B3 model is also used to estimate the IMR but is fitted to the logit transform of



r, i.e., $\log(r/1-r)$ where r is the ratio of the IMR estimate to the median B3 estimate of U5MR in the corresponding country-year. This is to restrict the IMR estimate to be lower than the U5MR estimate for any given year. For the remaining countries, the IMR is derived from the U5MR through the use of model life tables that contain known regularities in age patterns of child mortality.⁴⁴ The advantage of this approach is that it avoids potential problems with the underreporting of neonatal deaths in some countries and ensures that the internal relationships of the three indicators are consistent with established norms. For countries in the Sahel region of Africa (Burkina Faso, Chad, the Gambia, Mali, Mauritania, Niger and Senegal) the relationship from model life tables does not apply between infant and child mortality, thus a logit transform of the ratio of IMR/U5MR is used to estimate IMR from U5MR using data from FBHs and a multilevel regression with country-specific intercept.

Adjustment for rapidly changing child mortality driven by HIV/AIDS

To capture the extraordinarily rapid changes in child mortality driven by HIV/AIDS over the epidemic period in some countries, the regression models were fitted to data points for the U5MR from all causes other than HIV/AIDS. UNAIDS estimates of HIV/AIDS under-five mortality were then added to estimates from the regression model. This method was used for 17 countries where the HIV prevalence rate exceeded 5 per cent at any point in time since 1980. Steps were as follows:

1. Compile and assess the quality of all newly available nationally representative data relevant to the estimation of child mortality;
2. Adjust survey data to account for possible biases in data collection and in HIV/AIDS epidemic;
3. Use UNAIDS estimates of HIV/AIDS child mortality⁴⁵ to adjust the data points from 1980 onwards to exclude HIV/AIDS deaths;
4. Fit the standard statistical model to the observations to HIV-free data points;

5. Extrapolate the model to the target year; in this case 2020;
6. Add back estimates of deaths due to HIV/AIDS (from UNAIDS); and
7. Derive a non-AIDS curve of IMR from the estimated U5MR using model life tables; add the UNAIDS estimates of HIV/AIDS deaths for children under age 1 to generate the final IMR estimates.

Estimation of under-five and infant mortality rates by sex

In 2012, the UN IGME produced estimates of U5MR for males and females separately for the first time.⁴⁶ In many countries, fewer sources have provided data by sex than for both sexes combined. For this reason, the UN IGME, rather than estimate U5MR trends by sex directly from reported mortality levels by sex, uses the available data by sex to estimate a time trend in the sex ratio (male/female ratio) of U5MR instead. Bayesian methods for the UN IGME estimation of sex ratios, with a focus on the estimation and identification of countries with outlying levels or trends, were used. A more complete technical description of the model is available elsewhere.⁴⁷

Estimation of neonatal mortality rates

The NMR is defined as the the probability of dying between birth and exactly 28 days of age, expressed per 1,000 live births. In 2015, the UN IGME method for estimating NMR was updated to a Bayesian methodology similar to that used to estimate U5MR and derive estimates by sex. It has the advantage that, compared to the previous model, it can capture data-driven trends in NMR within countries and over time, for all countries. A more complete technical description of the model is available elsewhere.⁴⁸

For neonatal mortality in HIV-affected and crisis-affected populations, the ratio is estimated initially for non-AIDS and non-crisis mortality. After estimation, crisis neonatal deaths are added back on to the neonatal deaths to compute the total estimated neonatal mortality rate. No AIDS deaths are added to the NMR, thereby assuming these deaths only affect child mortality after the first month of life.

Estimation of mortality rates among children aged 5–14 years and youth aged 15–24 years

Since 2017, the UN IGME has generated country-specific trend estimates of the mortality in children aged 5–14 years – that is, the probability a five-year-old would die before reaching age 15 ($_{10}q_5$). Since 2020, the UN IGME has also generated estimates of the mortality in youth aged 15–24 years – that is, the probability a 15-year-old would die before reaching age 25 ($_{10}q_{15}$). The methods used are similar to those used to estimate the U5MR. The B3 statistical model was applied to the 5–14 and 15–24 age groups separately and used to obtain smooth trend curves in the probability of a five-year-old dying before age 15 ($_{10}q_5$) and the probability of a 15-year-old dying before age 25 ($_{10}q_{15}$).

There were not enough data inputs from vital registration, surveys or censuses to estimate the probability $_{10}q_5$ in 30 countries and $_{10}q_{15}$ in 36 countries. For these cases, the probability, $_{10}q_5$ or $_{10}q_{15}$ was modelled on the draft estimates of U5MR and an expected relationship between mortality in the 0–4 and 5–14 or 15–24 age groups, as observed in countries with sufficient data series. A hierarchical linear regression was used to regress $\log(_{10}q_5)$ or $\log(_{10}q_{15})$ against $\log(\text{U5MR})$ and the coefficients of this regression were used to predict the probability $_{10}q_5$ and $_{10}q_{15}$ between 1990 and 2020 for countries with insufficient data sources. The advantage of this approach is that no model life tables are used (such life tables are based on the historical experience of countries with high-quality vital registration data and do not always adequately reflect mortality age patterns in low- and middle-income countries). A more complete technical description of the model is available elsewhere.⁴⁹

It is worth noting that for all non-vital registration data series, non-sampling biases specific to data series are estimated with the B3 model. We observed that full birth histories from surveys tend to slightly underestimate mortality in the age group 5–14 when compared to other data series. Sibling histories used to model the probability $_{10}q_{15}$ also tend to underestimate mortality in the age group 15–24, especially for reference periods that are located further in the past from the survey date. This is likely due to omissions of some deaths or systematic age misstatements. As

a result, in countries where the trend in mortality is largely informed by survey data, the final estimates are adjusted upwards and therefore, the final estimated series may fall slightly above the original survey data points.

Estimation of child mortality due to conflict and natural disasters

Estimated deaths from major crises were derived from various data sources from 1950 to the present. Data on natural disasters were obtained from the Centre for Research on the Epidemiology of Disasters' International Disaster Database.⁵⁰ Conflict death data were taken from the Uppsala Conflict Data Program/Peace Research Institute Oslo datasets,^{51, 52} Armed Conflict Location & Event Data Project⁵³ Center for Systemic Peace/Integrated Network for Societal Conflict Research dataset,⁵⁴ as well as from reports prepared by the UN and other organizations. Estimated child and youth deaths due to major crises were included if they met the following criteria: (1) the crisis was isolated to a few years; (2) under-five crisis deaths, crisis deaths among children aged 5–14 years or crisis deaths among youth aged 15–24 years were greater than 10 per cent of non-crisis deaths in the age group; (3) crisis U5MR, crisis $_{10}q_5$ or crisis $_{10}q_{15}$ was > 0.2 deaths per 1,000; (4) the number of crisis deaths among children under 5 years, or among those 5–14 or 15–24 years old was > 10 deaths.

These criteria resulted in 43 different crises for 32 countries being explicitly incorporated into UN IGME estimates for under-five mortality, 67 different crises for 53 countries being incorporated into the mortality estimates among children aged 5–14 years, and 69 different crises for 48 countries being incorporated into the mortality estimates among children aged 15–24 years. Because background mortality rates were relatively low in the older age groups, crisis deaths represented a larger share of deaths and thus, more crises met the criteria for inclusion than for under-five mortality. Crisis deaths were included in the estimates by first excluding data points from crisis years, then fitting the B3 model to the remaining data and adding the crisis-specific mortality rate to the fitted B3 curve. Crisis death estimates are uncertain but, presently, no uncertainty around crisis deaths is included in the uncertainty intervals of the estimates. Instead, we assume the relative uncertainty in the adjusted

estimates is equal to the relative uncertainty in the non-adjusted estimates; this assumption will be revisited in the near future.

The UN IGME has assessed recent humanitarian crises and, based on the scarcity of currently available data and the difficulties of estimating the broader impact of these crises on health systems, decided to hold the estimates constant from the start of the crisis while increasing the uncertainty over the crisis time for three countries: South Sudan, Venezuela (Bolivarian Republic of) and Yemen. Where applicable, direct crisis deaths have been added to the constant trend estimate. The UN IGME will review new data, if available, in the next estimation round and revise estimates accordingly.

Estimation of uncertainty intervals

Given the inherent uncertainty in child mortality estimates, 90 per cent uncertainty intervals are used by the UN IGME instead of the more conventional 95 per cent intervals. Reporting intervals based on higher levels of uncertainty (i.e., 95 per cent instead of 90 per cent) has the advantage that the chance of not having included the true value in the interval is smaller. The disadvantage of choosing higher uncertainty levels, however, is that intervals lose their utility to present meaningful summaries of a range of likely outcomes if the indicator of interest is highly uncertain. Given this trade-off and the substantial uncertainty associated with child mortality estimates, the UN IGME chose to report 90 per cent uncertainty intervals or in other words, intervals for which there is a 90 per cent chance that they contain the true value, to encourage wider use and interpretation of uncertainty intervals.

Extrapolation to common reference year

If the underlying empirical data refer to an earlier reference period than the end year of the period the estimates are reported, the UN IGME extrapolates the estimates to the common end year; in this round, to 2020. The UN IGME does not use covariates to derive the estimates but uses the past trend in a country and the global trend to extrapolate to the target year. The average extrapolation period in the 2021 round of estimation was 4.8 years for under-five mortality with half of the countries having data points within the past 3.5 years.

Calculating number of deaths

Under-five, infant and neonatal deaths

A birth-week cohort method is used to calculate the absolute number of deaths among neonates, infants and children under age 5. First, each annual birth cohort is divided into 52 equal birth-week cohorts. Then each birth-week cohort is exposed throughout the first five years of life to the appropriate calendar year- and age-specific mortality rates depending on cohort age. For example, the 20th birth-week cohort of the year 2000 will be exposed to the infant mortality rates in both 2000 and 2001. All deaths from birth-week cohorts occurring as a result of exposure to the mortality rate for a given calendar year are allocated to that year and are summed by age group at death to get the total number of deaths for a given year and age group. Continuing with the above example, deaths from the 20th birth-week cohort of the year 2000 would contribute to infant deaths in year 2000 and 2001. Any deaths occurring among the 20th birth-week cohort of year 2000 after the 20th week in 2001 would contribute to under-five deaths for year 2001 and so forth. Under-five deaths in each calendar year are calculated by summing up all the deaths under age 5 across all age group cohorts in that year. The annual estimate of the number of live births in each country from the *World Population Prospects 2019*¹³ is used to calculate the number of deaths.

Deaths among children aged 5–14 years and youth aged 15–24

The absolute number of deaths among those aged 5–14 years in a given year and country is calculated using the central death rates of age groups 5–9 and 10–14 years, ${}_5M_5$ and ${}_5M_{10}$, computed from the estimated ${}_5q_5$ and ${}_5q_{10}$. The central death rates are then multiplied by the country population estimates for the respective age groups from the *World Population Prospects 2019*¹³ to calculate the number of deaths. A similar approach is used for calculating the number of deaths in the age group 15–24: the estimated ${}_5q_{15}$ and ${}_5q_{20}$ are converted in central death rates ${}_5M_{15}$ and ${}_5M_{20}$ and multiplied by the population estimates.

COVID-19

The 2021 UN IGME estimates do not include any adjustment in the year 2020 for COVID-19-related mortality as the evidence is insufficient to

support an adjustment at this time. First, direct COVID-19 deaths in the age groups estimated in this report are rare, and thus unlikely to impact national-level estimates. Second, while some scenario-based projections have suggested a large number of additional under-five deaths could result indirectly from extended pandemic-related disruption to critical care and interventions, a UN IGME analysis of excess mortality using empirical data on deaths in 2020 from more than 80 countries and areas (more than 70 countries or areas had vital registration data available for this analysis and 11 countries had data from their Health Management Information System (HMIS) available for excess mortality analysis, along with data from the COMSA system in Mozambique) found no evidence of systematic excess mortality among children or youth in 2020 – perhaps reflecting recent reports suggesting an earlier and more robust rebound than anticipated in the provision of some of these interventions or protective effects of pandemic mitigation measures like social distancing, handwashing and masking.

Excess mortality analysis for 2020

For the analysis of excess mortality from vital registration data in 2020, death counts for 72 countries or area by age group and year between 2015 and 2020 are retrieved from various sources including the WHO, UN Population Division, Population Division of the United Nations Economic Commission for Latin America and the Caribbean (CELADE), Eurostat,⁵⁵ the Short-Term Mortality Fluctuations Data series (STMF),⁵⁶ Human Mortality Database (HMD),⁵⁷ country-specific statistical offices and ministries of health offices, and country-consultation data reported directly to UNICEF. Death counts are grouped in ages 0, 1–4, 5–9, 10–14, 15–19 and 20–24, where this configuration was possible. Data on infant mortality (<1 year) was available in 52 countries. In the 20 populations where data configuration does not allow for estimates of infant mortality, child mortality is analysed for the full age interval 0–4. For the 72 populations under analysis during the period 2015–2020, 5,435,802 deaths among children and youth aged younger than 24 years were included. Of these deaths, 900,263 occurred in 2020.

Excess mortality in 2020 is defined as the difference between the observed and expected

all-cause mortality (also denoted as the baseline mortality) in 2020. The baseline mortality is obtained by fitting a Generalized Linear Model with quasi-Poisson distribution to observed mortality between 2015 and 2019 in each age group and sex. The model is defined as:

$$\log(\text{deaths}_{x,s,t}^c) = \beta_0 + \beta t + \log(\text{exposure}_{x,s,t}^c)$$

where $\text{deaths}_{x,t}^c$ and $\text{exposure}_{x,t}^c$ indicate, respectively, the death counts and population at risk for each age group x , sex s , and country c , during years t (between years 2015 and 2019), β_0 accounts for the intercept and βt for the secular change in mortality (as an exponential trend). Confidence intervals, 95 per cent, were predicted after obtaining robust standard errors.

For exposure, population estimates by single year of age and period, between 2015 and 2020, were obtained from the World Population Prospects projection. In order to account for variations in fertility during the pandemic, data on population counts were complemented with annual births counts where this information was available. Fertility data are retrieved from the Short-Term Fertility Fluctuations Data series (STFF)⁵⁸ and statistical offices. In total, annual birth counts were included in 59 countries.

In order to be able to compare the excess magnitudes between populations, p-scores, which are estimated as the ratio of the baseline to the observed mortality ($\frac{\text{deaths}_{x,s,2020}^c}{\text{baseline}_{x,s,2020}^c}$), were computed for each age and sex.

HMIS data were analysed for 11 countries (Bangladesh, Burundi, Eswatini, Ethiopia, India, Kenya, Madagascar, Malawi, Uganda, Zambia, and Zimbabwe), along with COMSA data for Mozambique. Trends and excess 2020 deaths were analysed for neonatal, infant and under-five age groups (where available –not all data had sufficient age disaggregation for analysis of all these age groups) from these data. Given the time span and granularity of available HMIS data, monthly observations were analysed to include additional data points for the prediction of baselines. The baseline for neonatal mortality was obtained by fitting a Generalized Additive Model (GAM) with quasi-Poisson distribution, which allows for the inclusion of non-linear terms to account for seasonality. The model is defined as:

$$\log(\text{deaths}_{x,s,t}^c) = \beta_0 + \beta t + \text{cps}(\text{mth}) + \log(\text{exposure}_{x,s,t}^c)$$

where $\text{deaths}_{x,t}^c$ and $\text{exposure}_{x,t}^c$ indicate, respectively, the death counts (either neonatal or fetal deaths) and exposure at risk, during month t . β_0 accounts for the intercept, βt for the secular change in mortality (as an exponential trend), and $\text{cps}(\text{mth})$ is a cyclical p-spline that accounts for seasonal variations. Confidence intervals, 95 per cent, were predicted using bootstrapping with 2,000 iterations. For the analysis of neonatal mortality rates, we use monthly live births as exposures. The monthly baseline of infant and child excess mortality were also obtained by fitting a GAM model with quasi-Poisson distribution, similar to the model employed for neonatal mortality. However, the model employed for infant and child mortality does not account for monthly variations in the exposure, as these data were not available in the HMIS data and it is not expected to vary considerably during the observation months. As with the vital registration analysis, the monthly observations were assessed to detect any significant deviations from the expected number of deaths based on historical data.

Data from the Siaya Health and Demographic Surveillance Site in Kenya were also analysed in a similar manner to that described above and found no evidence of increased under-five or neonatal mortality in 2020.

It should be noted that geographic and income variation in the data on excess deaths analysed by the UN IGME thus far is limited, and data collection continues to gather a more complete picture of COVID-19-related mortality among children and youth in 2020 and beyond. While these data do not support national-level adjustments for child mortality in 2020, the pandemic continues to evolve in unpredictable ways due to uneven vaccine rollouts, the emergence of more infectious variants and ongoing variation in pandemic response policy, among other factors. Thus, the UN IGME will continue to collect data for assessing excess deaths in 2020 and begin to assess excess mortality impact for 2021. The UN IGME will revisit this issue and generate adjustments where applicable and as needed based on evidence as it becomes available.



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Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2020	
	1990	2000	2020	1990-2020	1990	2000	2020	Male	Female	Male	Female
Afghanistan	178 (163 - 195)	129 (120 - 139)	58 (44 - 74)	3.7 (2.9 - 4.7)	110 (101 - 120)	126 (117 - 135)	70 (53 - 89)	182 (167 - 200)	174 (159 - 191)	67 (47 - 79)	54 (41 - 69)
Albania	41 (37 - 46)	27 (25 - 30)	10 (9 - 11)	4.8 (4.3 - 5.3)	3 (3 - 4)	1 (1 - 2)	0 (0 - 0)	45 (40 - 51)	37 (33 - 42)	11 (10 - 12)	9 (8 - 10)
Algeria	49 (46 - 53)	40 (39 - 41)	23 (22 - 24)	2.6 (2.3 - 2.9)	41 (38 - 44)	24 (24 - 25)	23 (22 - 24)	53 (49 - 57)	45 (41 - 48)	24 (23 - 25)	21 (20 - 22)
Andorra	15 (5 - 45)	8 (5 - 13)	3 (2 - 4)	6.0 (1.3 - 10.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	17 (6 - 52)	13 (4 - 38)	3 (2 - 5)	2 (1 - 4)
Angola	223 (197 - 251)	204 (179 - 233)	71 (31 - 141)	3.8 (1.5 - 6.6)	125 (111 - 141)	153 (134 - 174)	91 (40 - 178)	234 (207 - 264)	211 (187 - 238)	77 (34 - 152)	65 (29 - 130)
Antigua and Barbuda	14 (12 - 16)	15 (14 - 17)	6 (4 - 9)	2.6 (1.2 - 4.0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	15 (13 - 17)	13 (11 - 14)	7 (5 - 10)	6 (4 - 9)
Argentina	29 (28 - 29)	20 (19 - 20)	9 (8 - 9)	4.0 (3.8 - 4.2)	21 (20 - 21)	14 (14 - 14)	6 (6 - 7)	32 (31 - 32)	26 (25 - 26)	10 (9 - 10)	7 (7 - 8)
Armenia	49 (44 - 54)	31 (28 - 34)	11 (8 - 14)	5.0 (4.1 - 6.1)	4 (3 - 4)	1 (1 - 1)	0 (0 - 1)	54 (49 - 60)	44 (40 - 49)	12 (9 - 15)	10 (7 - 12)
Australia	9 (9 - 9)	6 (6 - 6)	4 (4 - 4)	3.0 (2.9 - 3.2)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	10 (10 - 10)	8 (8 - 8)	4 (4 - 4)	3 (3 - 3)
Austria	10 (9 - 10)	6 (5 - 6)	4 (3 - 4)	3.2 (3.0 - 3.5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	11 (10 - 11)	8 (8 - 9)	4 (4 - 4)	3 (3 - 4)
Azerbaijan	95 (86 - 105)	74 (66 - 84)	19 (12 - 32)	5.3 (3.6 - 7.0)	19 (18 - 21)	11 (10 - 12)	3 (2 - 5)	101 (91 - 112)	89 (80 - 99)	21 (13 - 35)	17 (11 - 29)
Bahamas	23 (22 - 25)	16 (15 - 17)	12 (9 - 16)	2.2 (1.2 - 3.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	25 (24 - 27)	22 (20 - 23)	13 (10 - 18)	11 (8 - 15)
Bahrain	23 (22 - 24)	12 (12 - 13)	7 (5 - 9)	4.1 (3.1 - 5.0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	24 (23 - 25)	22 (21 - 23)	7 (5 - 9)	6 (5 - 9)
Bangladesh	146 (142 - 151)	86 (83 - 89)	29 (26 - 32)	5.4 (5.0 - 5.7)	521 (505 - 538)	300 (291 - 310)	84 (76 - 93)	150 (145 - 155)	142 (138 - 147)	31 (28 - 34)	27 (24 - 30)
Barbados	18 (17 - 19)	15 (14 - 16)	12 (8 - 18)	1.3 (0.0 - 2.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	20 (19 - 21)	16 (15 - 18)	13 (9 - 20)	11 (8 - 17)
Belarus^b	15 (15 - 16)	13 (12 - 13)	3 (3 - 3)	5.5 (5.2 - 5.9)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	17 (17 - 18)	13 (13 - 13)	3 (3 - 4)	3 (2 - 3)
Belgium	10 (10 - 10)	6 (6 - 6)	4 (4 - 5)	2.9 (2.4 - 3.3)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)	11 (11 - 12)	9 (8 - 9)	5 (4 - 5)	4 (3 - 4)
Belize	38 (34 - 44)	24 (22 - 25)	12 (10 - 14)	4.0 (3.2 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	42 (37 - 48)	35 (30 - 39)	13 (11 - 15)	11 (9 - 13)
Benin	173 (163 - 184)	137 (129 - 146)	86 (72 - 102)	2.3 (1.8 - 2.9)	38 (36 - 40)	38 (36 - 41)	36 (30 - 43)	180 (170 - 192)	165 (156 - 176)	92 (77 - 109)	80 (67 - 95)
Bhutan	127 (113 - 147)	77 (70 - 86)	28 (17 - 44)	5.1 (3.4 - 6.9)	2 (2 - 3)	1 (1 - 1)	0 (0 - 1)	132 (116 - 153)	123 (108 - 142)	30 (18 - 49)	25 (15 - 40)
Bolivia (Plurinational State of)	122 (115 - 128)	76 (71 - 81)	25 (18 - 35)	5.2 (4.2 - 6.3)	29 (27 - 30)	19 (18 - 20)	6 (4 - 9)	128 (121 - 135)	115 (109 - 122)	28 (20 - 38)	23 (16 - 32)
Bosnia and Herzegovina	18 (18 - 19)	10 (10 - 10)	6 (5 - 7)	3.8 (3.1 - 4.5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	20 (20 - 21)	16 (16 - 17)	6 (5 - 8)	5 (4 - 6)
Botswana	49 (42 - 57)	80 (64 - 99)	45 (25 - 89)	0.3 (-2.1 - 2.4)	2 (2 - 3)	2 (3 - 5)	2 (1 - 5)	53 (45 - 62)	44 (38 - 52)	49 (27 - 97)	41 (23 - 81)
Brazil	63 (59 - 68)	35 (32 - 37)	15 (13 - 17)	4.9 (4.4 - 5.4)	234 (218 - 251)	122 (114 - 131)	42 (37 - 48)	69 (64 - 74)	57 (53 - 62)	16 (14 - 19)	13 (11 - 15)
Brunei Darussalam	13 (13 - 14)	10 (10 - 11)	12 (10 - 13)	0.5 (-0.1 - 1.0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	14 (14 - 15)	12 (11 - 13)	13 (11 - 15)	10 (9 - 12)
Bulgaria	18 (18 - 19)	18 (17 - 18)	6 (6 - 7)	3.7 (3.4 - 3.9)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	21 (20 - 21)	16 (16 - 17)	7 (6 - 7)	6 (5 - 6)
Burkina Faso	199 (186 - 213)	179 (167 - 192)	85 (60 - 123)	2.8 (1.6 - 4.0)	79 (74 - 85)	91 (85 - 98)	64 (45 - 92)	206 (193 - 221)	191 (179 - 205)	90 (63 - 130)	80 (56 - 116)
Burundi	170 (153 - 189)	154 (140 - 171)	54 (34 - 85)	3.8 (2.2 - 5.4)	44 (40 - 49)	42 (38 - 46)	24 (15 - 37)	178 (160 - 198)	162 (145 - 180)	59 (37 - 93)	50 (31 - 78)
Cabo Verde	60 (58 - 63)	38 (37 - 39)	14 (11 - 18)	4.8 (4.1 - 5.6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	65 (62 - 67)	56 (54 - 58)	15 (12 - 19)	13 (10 - 16)
Cambodia	116 (108 - 126)	106 (97 - 116)	26 (13 - 51)	5.0 (2.8 - 7.3)	44 (41 - 48)	36 (33 - 39)	9 (5 - 18)	124 (115 - 135)	108 (100 - 117)	29 (14 - 56)	23 (11 - 45)
Cameroon	136 (127 - 146)	144 (134 - 155)	72 (58 - 90)	2.1 (1.4 - 2.9)	69 (64 - 74)	89 (83 - 96)	65 (52 - 80)	144 (134 - 155)	128 (119 - 138)	78 (62 - 97)	66 (53 - 83)
Canada	8 (8 - 8)	6 (6 - 6)	5 (5 - 5)	1.7 (1.5 - 1.8)	3 (3 - 3)	2 (2 - 2)	2 (2 - 2)	9 (9 - 9)	7 (7 - 7)	5 (5 - 6)	5 (4 - 5)
Central African Republic	177 (158 - 197)	169 (150 - 189)	103 (58 - 189)	1.8 (-0.3 - 3.8)	20 (18 - 23)	24 (22 - 27)	17 (10 - 31)	184 (164 - 205)	169 (151 - 188)	109 (61 - 199)	97 (54 - 177)
Chad	212 (196 - 229)	184 (171 - 199)	110 (80 - 149)	2.2 (1.1 - 3.2)	60 (56 - 65)	74 (69 - 80)	72 (52 - 98)	222 (205 - 240)	202 (187 - 219)	116 (85 - 158)	103 (75 - 140)
Chile	19 (19 - 19)	11 (11 - 11)	7 (5 - 9)	3.5 (2.4 - 4.6)	6 (5 - 6)	3 (3 - 3)	2 (1 - 2)	21 (20 - 21)	17 (17 - 18)	7 (5 - 10)	6 (4 - 9)
China	54 (50 - 58)	37 (35 - 39)	7 (7 - 8)	6.6 (6.2 - 7.1)	1,378 (1,273 - 1,498)	651 (616 - 691)	121 (110 - 135)	56 (51 - 61)	51 (47 - 56)	8 (7 - 9)	7 (6 - 8)
Colombia	36 (33 - 38)	25 (23 - 27)	13 (9 - 19)	3.3 (2.0 - 4.6)	32 (29 - 34)	22 (20 - 24)	10 (7 - 14)	39 (37 - 42)	32 (29 - 34)	15 (10 - 22)	12 (8 - 17)
Comoros	125 (110 - 140)	101 (81 - 118)	61 (28 - 139)	2.4 (-0.4 - 5.0)	2 (2 - 2)	2 (2 - 2)	2 (1 - 4)	132 (116 - 148)	117 (103 - 132)	66 (30 - 149)	56 (26 - 127)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
Afghanistan	121 (112 - 131)	45 (35 - 56)	76 (70 - 82)	54 (43 - 67)	74 (66 - 83)	61 (55 - 67)	35 (26 - 45)	2.5 (1.5 - 3.5)	48 (43 - 54)	62 (57 - 68)	43 (32 - 55)
Albania	36 (32 - 40)	9 (8 - 10)	3 (3 - 3)	0 (0 - 0)	13 (10 - 16)	12 (10 - 15)	8 (7 - 9)	1.6 (0.7 - 2.5)	1 (1 - 1)	1 (0 - 1)	0 (0 - 0)
Algeria	41 (39 - 44)	19 (18 - 21)	34 (32 - 37)	19 (18 - 21)	23 (20 - 26)	21 (19 - 23)	16 (15 - 17)	1.2 (0.7 - 1.6)	19 (17 - 22)	13 (11 - 14)	16 (15 - 17)
Andorra	12 (4 - 37)	2 (1 - 4)	0 (0 - 0)	0 (0 - 0)	7 (2 - 24)	4 (2 - 6)	1 (1 - 2)	5.8 (0.8 - 10.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Angola	132 (118 - 148)	48 (25 - 87)	76 (68 - 85)	62 (32 - 112)	54 (44 - 67)	50 (42 - 61)	27 (11 - 56)	2.3 (-0.3 - 5.3)	32 (26 - 40)	40 (33 - 48)	36 (15 - 73)
Antigua and Barbuda	11 (10 - 13)	5 (4 - 8)	0 (0 - 0)	0 (0 - 0)	8 (7 - 9)	10 (9 - 11)	3 (2 - 5)	2.8 (1.3 - 4.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Argentina	25 (25 - 26)	8 (7 - 8)	18 (18 - 19)	6 (5 - 6)	15 (14 - 16)	11 (11 - 11)	5 (4 - 5)	4.0 (3.7 - 4.2)	11 (10 - 11)	8 (8 - 8)	3 (3 - 4)
Armenia	42 (38 - 46)	10 (7 - 12)	3 (3 - 3)	0 (0 - 0)	23 (20 - 26)	16 (14 - 18)	6 (4 - 8)	4.6 (3.4 - 6.0)	2 (1 - 2)	1 (1 - 1)	0 (0 - 0)
Australia	8 (7 - 8)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	5 (4 - 5)	4 (3 - 4)	2 (2 - 2)	2.2 (2.1 - 2.4)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)
Austria	8 (8 - 8)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	5 (4 - 5)	3 (3 - 3)	2 (2 - 2)	2.3 (2.0 - 2.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Azerbaijan	76 (69 - 83)	17 (11 - 28)	15 (14 - 17)	3 (2 - 4)	30 (25 - 36)	34 (29 - 41)	10 (6 - 17)	3.8 (1.8 - 5.8)	6 (5 - 7)	5 (4 - 6)	2 (1 - 3)
Bahamas	20 (19 - 21)	11 (8 - 14)	0 (0 - 0)	0 (0 - 0)	14 (13 - 15)	8 (7 - 9)	7 (5 - 9)	2.5 (1.3 - 3.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Bahrain	20 (19 - 20)	6 (4 - 8)	0 (0 - 0)	0 (0 - 0)	15 (14 - 16)	5 (4 - 5)	3 (2 - 4)	5.5 (4.3 - 6.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Bangladesh	101 (98 - 104)	24 (22 - 27)	360 (350 - 370)	70 (64 - 77)	66 (62 - 69)	44 (42 - 46)	17 (15 - 20)	4.4 (4.0 - 4.9)	237 (224 - 251)	155 (147 - 163)	51 (45 - 57)
Barbados	16 (15 - 17)	11 (8 - 17)	0 (0 - 0)	0 (0 - 0)	12 (11 - 13)	9 (8 - 10)	8 (5 - 12)	1.2 (-0.2 - 2.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Belarus^b	12 (12 - 12)	2 (2 - 2)	2 (2 - 2)	0 (0 - 0)	8 (7 - 10)	6 (5 - 7)	1 (1 - 1)	7.0 (5.8 - 8.4)	1 (1 - 1)	1 (0 - 1)	0 (0 - 0)
Belgium	8 (8 - 9)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	5 (4 - 5)	3 (3 - 3)	2 (2 - 3)	2.2 (1.7 - 2.7)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Belize	31 (28 - 35)	10 (8 - 12)	0 (0 - 0)	0 (0 - 0)	19 (16 - 22)	12 (11 - 13)	8 (6 - 9)	2.9 (2.1 - 3.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Benin	105 (99 - 110)	57 (49 - 66)	23 (22 - 25)	24 (21 - 28)	45 (41 - 50)	39 (35 - 43)	30 (24 - 36)	1.4 (0.7 - 2.1)	10 (9 - 11)	11 (10 - 13)	13 (10 - 16)
Bhutan	89 (80 - 102)	23 (14 - 36)	2 (2 - 2)	0 (0 - 0)	42 (31 - 55)	32 (26 - 38)	15 (9 - 26)	3.4 (1.2 - 5.6)	1 (1 - 1)	1 (0 - 1)	0 (0 - 0)
Bolivia (Plurinational State of)	84 (80 - 88)	21 (15 - 28)	20 (19 - 21)	5 (4 - 7)	41 (37 - 45)	30 (26 - 33)	13 (9 - 19)	3.7 (2.5 - 5.0)	10 (9 - 11)	8 (7 - 8)	3 (2 - 5)
Bosnia and Herzegovina	16 (16 - 16)	5 (4 - 6)	1 (1 - 1)	0 (0 - 0)	11 (11 - 12)	7 (7 - 7)	4 (3 - 5)	3.4 (2.6 - 4.1)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Botswana	38 (33 - 43)	36 (21 - 66)	2 (1 - 2)	2 (1 - 4)	24 (19 - 29)	17 (13 - 21)	22 (11 - 45)	0.2 (-2.3 - 2.6)	1 (1 - 1)	1 (1 - 1)	1 (1 - 3)
Brazil	53 (49 - 56)	13 (12 - 15)	194 (182 - 207)	38 (33 - 43)	25 (22 - 29)	19 (16 - 21)	9 (8 - 10)	3.6 (3.0 - 4.2)	94 (83 - 106)	65 (57 - 74)	25 (22 - 28)
Brunei Darussalam	10 (10 - 11)	10 (8 - 11)	0 (0 - 0)	0 (0 - 0)	6 (5 - 6)	5 (4 - 5)	6 (5 - 7)	-0.3 (-1.1 - 0.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Bulgaria	15 (14 - 15)	5 (5 - 6)	2 (2 - 2)	0 (0 - 0)	8 (8 - 8)	8 (8 - 8)	3 (3 - 3)	3.3 (3.0 - 3.6)	1 (1 - 1)	1 (0 - 1)	0 (0 - 0)
Burkina Faso	99 (94 - 104)	53 (41 - 69)	40 (38 - 42)	40 (31 - 52)	46 (41 - 51)	41 (36 - 46)	26 (17 - 40)	1.9 (0.4 - 3.4)	19 (17 - 21)	22 (19 - 25)	20 (13 - 31)
Burundi	103 (94 - 113)	39 (27 - 56)	27 (25 - 30)	17 (12 - 25)	39 (34 - 46)	37 (32 - 42)	21 (13 - 33)	2.1 (0.5 - 3.8)	11 (9 - 12)	10 (9 - 12)	9 (6 - 15)
Cabo Verde	47 (45 - 48)	12 (10 - 15)	1 (1 - 1)	0 (0 - 0)	20 (17 - 23)	18 (16 - 21)	9 (6 - 11)	2.8 (1.8 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Cambodia	85 (80 - 90)	22 (11 - 43)	32 (30 - 34)	8 (4 - 15)	40 (36 - 45)	35 (31 - 40)	13 (7 - 26)	3.7 (1.4 - 6.1)	15 (14 - 17)	12 (11 - 13)	5 (2 - 10)
Cameroon	85 (80 - 90)	48 (40 - 58)	44 (41 - 46)	44 (36 - 52)	40 (36 - 45)	36 (32 - 40)	26 (20 - 34)	1.4 (0.5 - 2.4)	21 (19 - 24)	23 (20 - 26)	24 (18 - 31)
Canada	7 (7 - 7)	4 (4 - 5)	3 (3 - 3)	2 (2 - 2)	4 (4 - 5)	4 (4 - 4)	3 (3 - 3)	1.1 (0.9 - 1.3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)
Central African Republic	116 (107 - 125)	77 (48 - 121)	13 (12 - 14)	13 (8 - 20)	52 (45 - 60)	49 (39 - 61)	39 (20 - 74)	1.0 (-1.3 - 3.1)	6 (5 - 7)	7 (6 - 9)	7 (3 - 13)
Chad	112 (105 - 119)	67 (53 - 85)	33 (31 - 35)	45 (36 - 56)	52 (46 - 59)	44 (39 - 50)	33 (22 - 47)	1.5 (0.2 - 2.9)	16 (14 - 18)	19 (17 - 21)	22 (15 - 32)
Chile	16 (16 - 16)	6 (4 - 8)	5 (5 - 5)	1 (1 - 2)	9 (8 - 9)	6 (5 - 6)	4 (3 - 6)	2.2 (1.0 - 3.5)	3 (2 - 3)	1 (1 - 2)	1 (1 - 1)
China	43 (39 - 46)	5 (5 - 6)	1,085 (1,003 - 1,180)	89 (81 - 99)	30 (26 - 33)	21 (20 - 23)	3 (3 - 4)	7.2 (6.5 - 7.8)	744 (663 - 836)	376 (346 - 408)	56 (49 - 64)
Colombia	29 (27 - 31)	11 (8 - 17)	26 (24 - 28)	8 (6 - 12)	18 (17 - 20)	13 (12 - 15)	7 (5 - 11)	3.1 (1.7 - 4.5)	16 (15 - 18)	12 (11 - 13)	5 (3 - 8)
Comoros	88 (79 - 97)	47 (24 - 96)	2 (1 - 2)	1 (1 - 3)	50 (41 - 59)	41 (26 - 56)	29 (10 - 73)	1.8 (-1.4 - 5.2)	1 (1 - 1)	1 (1 - 1)	1 (0 - 2)

Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2020	
	1990	2000	2020		1990	2000	2020	Male	Female	Male	Female
Congo	91 (80 - 104)	114 (103 - 127)	45 (25 - 78)	2.4 (0.5 - 4.3)	8 (7 - 9)	13 (12 - 15)	8 (4 - 14)	97 (85 - 110)	85 (75 - 97)	49 (28 - 85)	41 (23 - 71)
Cook Islands	24 (21 - 27)	18 (16 - 20)	7 (4 - 13)	3.9 (1.9 - 5.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	26 (23 - 29)	22 (20 - 25)	8 (4 - 14)	7 (4 - 13)
Costa Rica	17 (16 - 17)	13 (13 - 13)	8 (8 - 8)	2.5 (2.3 - 2.7)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	19 (18 - 19)	15 (14 - 15)	8 (8 - 9)	7 (7 - 8)
Cote d'Ivoire	153 (143 - 164)	143 (133 - 155)	78 (60 - 100)	2.2 (1.4 - 3.1)	75 (70 - 81)	93 (86 - 100)	70 (54 - 90)	165 (153 - 177)	140 (130 - 151)	86 (66 - 110)	70 (53 - 90)
Croatia	13 (12 - 13)	8 (8 - 9)	5 (4 - 5)	3.5 (3.1 - 3.8)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	15 (14 - 15)	11 (11 - 12)	5 (5 - 6)	4 (4 - 5)
Cuba	14 (12 - 15)	9 (8 - 10)	5 (4 - 6)	3.3 (2.4 - 4.0)	2 (2 - 3)	1 (1 - 1)	1 (0 - 1)	15 (14 - 17)	12 (11 - 13)	6 (5 - 7)	5 (4 - 6)
Cyprus	11 (11 - 12)	6 (6 - 7)	3 (2 - 4)	4.7 (3.5 - 5.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	12 (12 - 13)	10 (9 - 11)	3 (2 - 4)	3 (2 - 4)
Czechia	12 (12 - 12)	5 (5 - 6)	3 (3 - 3)	4.7 (4.5 - 5.0)	2 (2 - 2)	0 (0 - 1)	0 (0 - 0)	14 (13 - 14)	11 (10 - 11)	3 (3 - 4)	3 (2 - 3)
Democratic People's Republic of Korea	43 (34 - 56)	60 (47 - 77)	17 (13 - 21)	3.2 (3.2 - 3.2)	18 (14 - 23)	25 (20 - 32)	6 (5 - 7)	47 (37 - 61)	39 (31 - 51)	18 (14 - 23)	15 (12 - 19)
Democratic Republic of the Congo	186 (168 - 206)	159 (144 - 176)	81 (50 - 131)	2.8 (1.1 - 4.4)	283 (256 - 312)	331 (300 - 366)	284 (177 - 455)	194 (174 - 215)	177 (160 - 197)	87 (54 - 141)	74 (46 - 120)
Denmark	9 (9 - 9)	6 (5 - 6)	4 (3 - 4)	3.0 (2.6 - 3.4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	10 (10 - 10)	8 (8 - 8)	4 (4 - 4)	3 (3 - 4)
Djibouti	118 (102 - 137)	101 (86 - 119)	56 (32 - 96)	2.5 (0.6 - 4.4)	3 (2 - 3)	2 (2 - 3)	1 (1 - 2)	126 (108 - 146)	110 (94 - 128)	61 (35 - 104)	51 (29 - 87)
Dominica	16 (15 - 17)	17 (16 - 18)	35 (32 - 45)	-2.6 (-3.4 - -2.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	18 (16 - 19)	15 (14 - 16)	41 (35 - 48)	35 (30 - 42)
Dominican Republic	60 (56 - 64)	40 (37 - 43)	34 (26 - 44)	1.9 (1.0 - 2.8)	12 (12 - 13)	8 (8 - 9)	7 (5 - 9)	64 (60 - 68)	55 (51 - 59)	37 (28 - 48)	31 (23 - 40)
Ecuador	54 (49 - 60)	30 (26 - 33)	13 (12 - 14)	4.8 (4.3 - 5.2)	16 (15 - 18)	9 (8 - 11)	4 (4 - 5)	59 (53 - 66)	49 (44 - 54)	14 (13 - 16)	11 (10 - 13)
Egypt	86 (82 - 90)	47 (44 - 50)	19 (13 - 29)	4.9 (3.6 - 6.2)	158 (151 - 166)	83 (77 - 88)	50 (34 - 74)	85 (81 - 90)	86 (82 - 90)	21 (14 - 31)	18 (12 - 27)
El Salvador	60 (55 - 66)	33 (30 - 37)	13 (8 - 21)	5.1 (3.4 - 6.7)	10 (9 - 11)	5 (4 - 5)	1 (1 - 2)	65 (59 - 71)	55 (50 - 61)	14 (9 - 23)	12 (7 - 19)
Equatorial Guinea	178 (157 - 200)	156 (139 - 177)	78 (45 - 136)	2.7 (0.9 - 4.6)	3 (3 - 3)	4 (3 - 4)	3 (2 - 6)	187 (164 - 211)	169 (148 - 192)	84 (48 - 145)	72 (41 - 126)
Eritrea	153 (140 - 167)	85 (78 - 94)	39 (22 - 69)	4.5 (2.7 - 6.4)	14 (13 - 15)	6 (6 - 7)	4 (2 - 7)	166 (152 - 182)	139 (126 - 152)	44 (25 - 78)	34 (19 - 60)
Estonia	18 (17 - 18)	11 (10 - 12)	2 (2 - 3)	7.1 (6.5 - 7.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	20 (19 - 21)	15 (15 - 16)	2 (2 - 3)	2 (2 - 2)
Eswatini	67 (60 - 75)	112 (101 - 124)	47 (29 - 75)	1.2 (-0.4 - 2.8)	2 (2 - 2)	4 (3 - 4)	1 (1 - 2)	73 (65 - 82)	61 (54 - 69)	51 (32 - 82)	42 (26 - 68)
Ethiopia	201 (188 - 217)	141 (131 - 151)	49 (39 - 60)	4.7 (4.0 - 5.5)	435 (406 - 467)	394 (367 - 422)	173 (138 - 215)	214 (199 - 230)	188 (175 - 203)	54 (43 - 68)	43 (34 - 54)
Fiji	29 (25 - 34)	22 (21 - 23)	27 (25 - 30)	0.2 (-0.4 - 0.8)	1 (1 - 1)	0 (0 - 0)	1 (0 - 1)	31 (27 - 36)	27 (23 - 31)	30 (27 - 32)	25 (23 - 27)
Finland	7 (6 - 7)	4 (4 - 4)	2 (2 - 3)	3.6 (3.2 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	7 (7 - 8)	6 (6 - 6)	3 (2 - 3)	2 (2 - 2)
France	9 (9 - 9)	5 (5 - 6)	4 (4 - 5)	2.4 (2.2 - 2.6)	7 (7 - 7)	4 (4 - 4)	3 (3 - 3)	10 (10 - 10)	8 (7 - 8)	5 (5 - 5)	4 (4 - 4)
Gabon	93 (80 - 106)	83 (72 - 95)	42 (26 - 68)	2.7 (1.0 - 4.3)	3 (3 - 4)	3 (3 - 4)	3 (2 - 4)	99 (86 - 114)	85 (73 - 98)	46 (28 - 74)	37 (23 - 61)
Gambia	166 (151 - 184)	113 (104 - 124)	49 (39 - 62)	4.0 (3.2 - 4.9)	7 (6 - 8)	6 (6 - 7)	4 (3 - 5)	175 (159 - 195)	157 (142 - 174)	54 (43 - 68)	45 (35 - 56)
Georgia	48 (43 - 53)	37 (32 - 42)	9 (8 - 11)	5.5 (4.9 - 6.1)	4 (4 - 5)	2 (2 - 2)	0 (0 - 1)	53 (47 - 59)	43 (38 - 48)	10 (9 - 12)	8 (7 - 10)
Germany	9 (8 - 9)	5 (5 - 5)	4 (4 - 4)	2.8 (2.7 - 2.9)	7 (7 - 7)	4 (4 - 4)	3 (3 - 3)	10 (9 - 10)	7 (7 - 8)	4 (4 - 4)	3 (3 - 3)
Ghana	127 (120 - 135)	100 (94 - 106)	45 (35 - 58)	3.5 (2.6 - 4.4)	73 (69 - 77)	67 (63 - 71)	39 (30 - 51)	135 (127 - 143)	119 (112 - 126)	49 (38 - 64)	40 (31 - 52)
Greece	10 (10 - 11)	6 (6 - 7)	4 (4 - 5)	3.1 (2.7 - 3.5)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	11 (11 - 12)	10 (9 - 10)	4 (4 - 5)	4 (3 - 4)
Grenada	22 (21 - 24)	15 (14 - 17)	16 (13 - 21)	1.0 (0.2 - 1.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	24 (22 - 26)	21 (19 - 22)	18 (14 - 22)	15 (12 - 19)
Guatemala	80 (75 - 85)	52 (48 - 56)	24 (17 - 32)	4.1 (3.1 - 5.1)	28 (27 - 30)	21 (20 - 23)	10 (7 - 14)	86 (80 - 92)	75 (70 - 80)	26 (19 - 35)	21 (16 - 28)
Guinea	232 (217 - 248)	164 (153 - 176)	96 (79 - 117)	3.0 (2.3 - 3.6)	67 (63 - 72)	58 (54 - 62)	43 (36 - 53)	239 (223 - 257)	224 (209 - 240)	101 (83 - 125)	89 (73 - 110)
Guinea-Bissau	222 (199 - 249)	174 (157 - 193)	77 (47 - 123)	3.5 (1.9 - 5.2)	10 (9 - 11)	8 (8 - 9)	5 (3 - 8)	233 (208 - 262)	211 (188 - 237)	83 (50 - 132)	71 (43 - 113)
Guyana	61 (55 - 67)	46 (42 - 52)	28 (17 - 48)	2.5 (0.8 - 4.2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 1)	67 (61 - 75)	53 (48 - 59)	32 (19 - 54)	25 (15 - 41)
Haiti	145 (136 - 155)	104 (96 - 112)	60 (44 - 85)	2.9 (1.8 - 4.0)	38 (35 - 40)	28 (25 - 30)	16 (12 - 23)	154 (143 - 165)	136 (127 - 146)	66 (48 - 92)	55 (40 - 77)
Honduras	58 (54 - 63)	37 (34 - 40)	16 (10 - 26)	4.3 (2.7 - 5.8)	11 (10 - 12)	8 (7 - 9)	3 (2 - 5)	63 (58 - 69)	53 (49 - 57)	18 (11 - 28)	14 (9 - 23)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
Congo	60 (53 - 67)	33 (20 - 52)	5 (5 - 6)	6 (4 - 9)	28 (24 - 32)	31 (27 - 35)	19 (10 - 34)	1.3 (-0.7 - 3.3)	2 (2 - 3)	4 (3 - 4)	3 (2 - 6)
Cook Islands	20 (18 - 22)	6 (4 - 11)	0 (0 - 0)	0 (0 - 0)	13 (10 - 16)	10 (7 - 13)	4 (2 - 8)	4.0 (1.7 - 6.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Costa Rica	14 (14 - 14)	7 (6 - 7)	1 (1 - 1)	0 (0 - 0)	9 (9 - 9)	8 (7 - 8)	6 (5 - 6)	1.6 (1.4 - 1.8)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Cote d'Ivoire	104 (98 - 111)	58 (46 - 72)	52 (49 - 56)	53 (42 - 65)	49 (44 - 54)	46 (41 - 51)	33 (24 - 44)	1.3 (0.3 - 2.4)	25 (23 - 28)	31 (28 - 34)	31 (23 - 41)
Croatia	11 (11 - 12)	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	8 (8 - 9)	6 (5 - 6)	3 (3 - 3)	3.3 (2.8 - 3.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Cuba	11 (10 - 12)	4 (3 - 5)	2 (2 - 2)	0 (0 - 1)	7 (6 - 8)	4 (4 - 5)	2 (2 - 3)	3.6 (2.8 - 4.3)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Cyprus	10 (9 - 11)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	4 (3 - 4)	2 (1 - 2)	4.5 (3.0 - 5.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Czechia	10 (10 - 11)	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	3 (3 - 3)	2 (1 - 2)	5.1 (4.8 - 5.4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Democratic People's Republic of Korea	33 (26 - 43)	12 (9 - 15)	14 (11 - 18)	4 (3 - 5)	22 (15 - 31)	27 (17 - 41)	9 (5 - 13)	3.0 (2.1 - 4.4)	9 (6 - 13)	11 (7 - 17)	3 (2 - 5)
Democratic Republic of the Congo	119 (111 - 129)	64 (43 - 92)	186 (172 - 200)	225 (150 - 325)	42 (35 - 49)	38 (33 - 45)	27 (16 - 45)	1.5 (-0.4 - 3.4)	67 (57 - 78)	84 (72 - 97)	96 (56 - 163)
Denmark	7 (7 - 8)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	3 (3 - 4)	3 (2 - 3)	1.9 (1.3 - 2.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Djibouti	92 (80 - 105)	47 (28 - 76)	2 (2 - 2)	1 (1 - 2)	49 (41 - 59)	44 (36 - 53)	30 (17 - 54)	1.6 (-0.4 - 3.7)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Dominica	13 (12 - 14)	32 (27 - 37)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	13 (12 - 14)	30 (25 - 36)	-3.5 (-4.3 - -2.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Dominican Republic	46 (44 - 49)	28 (22 - 35)	10 (9 - 10)	6 (4 - 7)	24 (22 - 27)	23 (21 - 25)	23 (18 - 31)	0.1 (-0.9 - 1.1)	5 (5 - 6)	5 (4 - 5)	5 (4 - 6)
Ecuador	42 (39 - 46)	11 (10 - 12)	13 (12 - 14)	4 (3 - 4)	22 (19 - 26)	14 (12 - 16)	7 (6 - 8)	4.0 (3.3 - 4.6)	7 (6 - 8)	5 (4 - 5)	2 (2 - 3)
Egypt	63 (60 - 66)	17 (11 - 24)	116 (111 - 121)	43 (29 - 62)	33 (31 - 36)	22 (21 - 24)	10 (7 - 16)	3.9 (2.5 - 5.3)	62 (57 - 66)	40 (37 - 43)	26 (18 - 40)
El Salvador	46 (43 - 50)	11 (7 - 18)	8 (7 - 8)	1 (1 - 2)	23 (20 - 26)	15 (13 - 17)	6 (4 - 11)	4.3 (2.4 - 6.2)	4 (3 - 4)	2 (2 - 2)	1 (0 - 1)
Equatorial Guinea	121 (108 - 135)	58 (36 - 95)	2 (2 - 2)	3 (2 - 4)	48 (38 - 63)	44 (36 - 56)	29 (14 - 54)	1.7 (-0.6 - 4.4)	1 (1 - 1)	1 (1 - 1)	1 (1 - 2)
Eritrea	94 (87 - 102)	30 (18 - 47)	9 (8 - 9)	3 (2 - 5)	35 (31 - 40)	27 (24 - 30)	18 (10 - 32)	2.3 (0.3 - 4.2)	3 (3 - 4)	2 (2 - 2)	2 (1 - 3)
Estonia	14 (13 - 14)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	10 (9 - 10)	5 (5 - 6)	1 (1 - 1)	7.8 (7.0 - 8.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Eswatini	51 (46 - 57)	37 (24 - 57)	2 (1 - 2)	1 (1 - 2)	22 (19 - 26)	25 (22 - 29)	20 (12 - 34)	0.3 (-1.6 - 2.2)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Ethiopia	120 (112 - 128)	35 (29 - 42)	265 (249 - 283)	127 (105 - 151)	59 (53 - 66)	49 (44 - 54)	27 (21 - 34)	2.6 (1.8 - 3.5)	136 (122 - 150)	141 (127 - 155)	97 (77 - 123)
Fiji	24 (21 - 28)	23 (21 - 25)	1 (0 - 1)	0 (0 - 0)	14 (11 - 17)	10 (9 - 11)	12 (10 - 14)	0.5 (-0.6 - 1.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Finland	6 (5 - 6)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	2 (2 - 3)	1 (1 - 2)	3.5 (3.1 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
France	7 (7 - 8)	3 (3 - 4)	6 (5 - 6)	2 (2 - 3)	4 (3 - 4)	3 (3 - 3)	3 (2 - 3)	1.2 (0.9 - 1.5)	3 (3 - 3)	2 (2 - 2)	2 (2 - 2)
Gabon	60 (53 - 68)	31 (20 - 45)	2 (2 - 2)	2 (1 - 3)	31 (26 - 37)	27 (23 - 32)	20 (12 - 33)	1.5 (-0.3 - 3.3)	1 (1 - 1)	1 (1 - 1)	1 (1 - 2)
Gambia	81 (76 - 88)	35 (30 - 41)	3 (3 - 4)	3 (3 - 4)	50 (41 - 59)	41 (35 - 46)	26 (20 - 33)	2.2 (1.1 - 3.3)	2 (2 - 3)	2 (2 - 3)	2 (2 - 3)
Georgia	41 (37 - 45)	8 (7 - 10)	4 (3 - 4)	0 (0 - 0)	25 (22 - 29)	23 (20 - 27)	5 (4 - 6)	5.4 (4.6 - 6.1)	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)
Germany	7 (7 - 7)	3 (3 - 3)	6 (6 - 6)	2 (2 - 3)	3 (3 - 3)	3 (3 - 3)	2 (2 - 2)	1.4 (1.2 - 1.5)	3 (3 - 3)	2 (2 - 2)	2 (2 - 2)
Ghana	80 (76 - 84)	33 (27 - 41)	46 (44 - 49)	29 (24 - 36)	42 (38 - 46)	36 (33 - 39)	23 (18 - 30)	2.0 (1.1 - 2.9)	25 (23 - 27)	25 (22 - 27)	20 (16 - 27)
Greece	9 (9 - 9)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	6 (6 - 7)	4 (4 - 4)	2 (2 - 3)	3.2 (2.8 - 3.7)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Grenada	18 (17 - 19)	15 (11 - 18)	0 (0 - 0)	0 (0 - 0)	12 (11 - 14)	8 (7 - 9)	11 (8 - 14)	0.4 (-0.6 - 1.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Guatemala	60 (56 - 63)	20 (15 - 27)	21 (20 - 22)	9 (6 - 11)	28 (25 - 31)	21 (19 - 24)	11 (8 - 15)	3.1 (2.0 - 4.3)	10 (9 - 11)	9 (8 - 10)	5 (3 - 7)
Guinea	137 (128 - 147)	62 (52 - 74)	40 (38 - 43)	28 (24 - 34)	61 (55 - 69)	46 (40 - 51)	30 (22 - 40)	2.4 (1.4 - 3.4)	19 (17 - 21)	17 (15 - 18)	14 (10 - 19)
Guinea-Bissau	131 (118 - 147)	51 (34 - 77)	6 (5 - 7)	3 (2 - 5)	64 (54 - 75)	55 (48 - 63)	35 (21 - 57)	2.0 (0.2 - 3.8)	3 (2 - 3)	3 (2 - 3)	2 (1 - 4)
Guyana	47 (43 - 51)	24 (15 - 38)	1 (1 - 1)	0 (0 - 1)	31 (27 - 35)	27 (24 - 31)	17 (10 - 30)	1.9 (0.1 - 3.8)	1 (1 - 1)	1 (0 - 1)	0 (0 - 0)
Haiti	101 (95 - 107)	47 (35 - 62)	26 (24 - 28)	12 (9 - 17)	39 (34 - 44)	30 (26 - 34)	25 (17 - 37)	1.5 (0.1 - 2.9)	10 (9 - 11)	8 (7 - 9)	7 (4 - 10)
Honduras	45 (42 - 48)	14 (9 - 22)	8 (8 - 9)	3 (2 - 5)	22 (19 - 25)	18 (16 - 20)	9 (5 - 15)	3.0 (1.3 - 4.8)	4 (4 - 5)	4 (3 - 4)	2 (1 - 3)

Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2020	
	1990	2000	2020	1990-2020	1990	2000	2020	Male	Female	Male	Female
Hungary	17 (17-18)	10 (10-10)	4 (4-4)	4.8 (4.6-5.1)	2 (2-2)	1 (1-1)	0 (0-0)	19 (19-20)	15 (15-16)	4 (4-5)	4 (3-4)
Iceland	6 (6-7)	4 (4-5)	2 (1-3)	4.0 (3.0-5.0)	0 (0-0)	0 (0-0)	0 (0-0)	7 (6-8)	6 (5-7)	2 (2-3)	2 (1-2)
India^c	126 (122-131)	92 (88-95)	33 (29-37)	4.5 (4.1-5.0)	3,418 (3,305-3,538)	2,529 (2,436-2,631)	783 (688-882)	122 (118-127)	130 (126-135)	32 (28-36)	33 (29-37)
Indonesia	84 (80-88)	52 (50-55)	23 (19-28)	4.3 (3.6-5.0)	393 (375-412)	237 (225-249)	110 (89-136)	90 (86-95)	77 (74-81)	25 (21-31)	20 (17-25)
Iran (Islamic Republic of)	57 (53-63)	36 (33-40)	13 (8-22)	5.0 (3.1-6.8)	106 (97-115)	43 (39-47)	20 (12-34)	58 (53-63)	57 (52-62)	14 (8-23)	12 (7-21)
Iraq	54 (49-59)	44 (41-49)	25 (19-33)	2.5 (1.6-3.5)	35 (32-38)	36 (33-40)	28 (22-37)	58 (53-63)	50 (45-55)	28 (21-37)	23 (17-30)
Ireland	9 (9-10)	7 (7-7)	3 (3-4)	3.7 (3.2-4.3)	0 (0-1)	0 (0-0)	0 (0-0)	10 (10-11)	8 (8-9)	3 (3-4)	3 (2-3)
Israel	12 (11-12)	7 (7-7)	4 (3-4)	3.9 (3.7-4.2)	1 (1-1)	1 (1-1)	1 (1-1)	12 (12-13)	11 (11-11)	4 (4-4)	3 (3-4)
Italy	10 (9-10)	6 (5-6)	3 (3-3)	4.0 (3.8-4.2)	5 (5-6)	3 (3-3)	1 (1-1)	11 (10-11)	9 (9-9)	3 (3-3)	3 (3-3)
Jamaica	30 (26-36)	22 (19-26)	13 (7-25)	2.8 (0.7-4.9)	2 (2-2)	1 (1-1)	1 (0-1)	34 (29-40)	27 (23-32)	15 (8-28)	12 (6-22)
Japan	6 (6-6)	5 (4-5)	2 (2-3)	3.1 (2.9-3.3)	8 (8-9)	5 (5-5)	2 (2-2)	7 (7-7)	6 (6-6)	3 (2-3)	2 (2-2)
Jordan	36 (34-38)	27 (25-29)	15 (11-21)	2.9 (1.8-4.0)	4 (4-5)	4 (4-5)	3 (2-4)	38 (35-41)	34 (31-36)	16 (12-23)	14 (10-19)
Kazakhstan	52 (47-57)	42 (39-47)	10 (10-10)	5.5 (5.1-5.8)	20 (18-22)	10 (9-11)	4 (4-4)	58 (53-64)	45 (41-50)	11 (11-12)	9 (8-9)
Kenya	102 (95-108)	98 (91-106)	42 (30-60)	3.0 (1.8-4.1)	100 (94-107)	121 (112-130)	62 (44-89)	107 (100-115)	96 (89-102)	46 (32-65)	38 (27-55)
Kiribati	92 (81-104)	68 (60-77)	50 (28-90)	2.1 (0.0-4.1)	0 (0-0)	0 (0-0)	0 (0-0)	98 (86-111)	86 (75-97)	54 (30-98)	45 (25-82)
Kuwait	16 (16-17)	12 (12-13)	9 (8-10)	2.0 (1.8-2.3)	1 (1-1)	1 (1-1)	0 (0-1)	18 (17-18)	15 (14-15)	10 (9-10)	8 (7-9)
Kyrgyzstan	65 (58-74)	50 (45-55)	18 (16-19)	4.4 (3.8-4.9)	9 (8-10)	5 (5-6)	3 (2-3)	71 (62-81)	59 (52-67)	19 (18-21)	15 (14-17)
Lao People's Democratic Republic	154 (141-168)	107 (98-117)	44 (31-60)	4.2 (3.1-5.3)	27 (25-29)	18 (17-20)	7 (5-10)	163 (149-177)	145 (132-158)	49 (35-66)	39 (28-54)
Latvia	17 (16-18)	14 (14-15)	4 (3-5)	4.8 (4.3-5.3)	1 (1-1)	0 (0-0)	0 (0-0)	19 (18-20)	15 (14-15)	4 (4-5)	4 (3-4)
Lebanon	32 (29-36)	20 (17-24)	7 (3-14)	5.1 (2.8-7.7)	3 (2-3)	2 (1-2)	1 (0-2)	34 (30-38)	31 (28-35)	7 (3-15)	7 (3-13)
Lesotho	84 (76-93)	107 (98-116)	90 (60-135)	-0.2 (-1.6-1.2)	5 (5-6)	7 (6-7)	5 (3-8)	91 (82-101)	77 (69-85)	97 (65-146)	82 (55-124)
Liberia	264 (243-288)	190 (176-204)	78 (60-104)	4.1 (3.1-5.0)	25 (23-27)	21 (19-22)	13 (10-17)	279 (256-304)	250 (229-272)	84 (64-112)	72 (55-96)
Libya	42 (36-49)	28 (27-30)	11 (7-19)	4.4 (2.6-6.3)	5 (5-6)	3 (3-3)	1 (1-2)	45 (39-53)	38 (32-45)	12 (7-21)	10 (6-17)
Lithuania	15 (15-16)	11 (10-11)	3 (3-4)	5.1 (4.6-5.6)	1 (1-1)	0 (0-0)	0 (0-0)	17 (16-17)	13 (13-14)	4 (3-4)	3 (3-3)
Luxembourg	9 (8-10)	5 (4-5)	3 (2-4)	3.9 (3.0-4.7)	0 (0-0)	0 (0-0)	0 (0-0)	10 (9-11)	8 (7-9)	3 (2-4)	3 (2-3)
Madagascar	156 (146-167)	105 (98-113)	50 (39-65)	3.8 (2.9-4.7)	76 (71-82)	66 (62-71)	44 (34-56)	164 (152-176)	148 (138-159)	55 (42-71)	46 (35-59)
Malawi	246 (232-260)	175 (165-185)	39 (24-60)	6.2 (4.7-7.8)	101 (96-107)	81 (77-86)	24 (15-38)	257 (242-273)	234 (220-248)	43 (26-67)	34 (21-53)
Malaysia	17 (16-17)	10 (10-10)	9 (8-9)	2.2 (1.9-2.5)	8 (8-9)	5 (5-5)	5 (4-5)	18 (18-19)	15 (14-16)	9 (9-10)	8 (7-9)
Maldives	86 (78-94)	39 (35-43)	6 (6-7)	8.6 (8.0-9.2)	1 (1-1)	0 (0-0)	0 (0-0)	91 (83-100)	80 (72-88)	7 (6-8)	6 (5-7)
Mali	231 (217-245)	187 (176-200)	91 (70-117)	3.1 (2.3-4.0)	92 (86-97)	95 (89-101)	73 (56-93)	239 (225-254)	222 (209-236)	96 (75-124)	85 (66-109)
Malta	11 (11-12)	8 (7-9)	6 (5-8)	1.9 (1.2-2.5)	0 (0-0)	0 (0-0)	0 (0-0)	12 (11-13)	10 (9-11)	7 (6-8)	6 (5-7)
Marshall Islands	47 (40-56)	42 (36-49)	31 (19-50)	1.4 (-0.3-3.2)	0 (0-0)	0 (0-0)	0 (0-0)	52 (44-61)	43 (36-50)	34 (21-56)	27 (16-45)
Mauritania	118 (106-131)	112 (100-127)	71 (34-144)	1.7 (-0.7-4.1)	9 (8-10)	11 (10-12)	11 (5-21)	125 (112-140)	110 (98-123)	76 (37-155)	65 (31-133)
Mauritius	23 (22-24)	19 (18-20)	17 (13-20)	1.1 (0.4-1.8)	1 (0-1)	0 (0-0)	0 (0-0)	26 (25-27)	20 (19-21)	18 (15-22)	15 (12-18)
Mexico	45 (42-49)	28 (26-30)	14 (12-16)	4.0 (3.5-4.5)	109 (102-117)	67 (62-72)	30 (27-34)	49 (46-53)	42 (39-45)	15 (13-17)	12 (11-14)
Micronesia (Federated States of)	49 (41-59)	38 (30-48)	25 (11-54)	2.3 (-0.4-4.9)	0 (0-0)	0 (0-0)	0 (0-0)	55 (46-66)	43 (36-52)	28 (13-62)	21 (9-47)
Monaco	8 (7-9)	5 (5-5)	3 (2-5)	3.1 (1.7-4.6)	0 (0-0)	0 (0-0)	0 (0-0)	9 (8-10)	7 (6-8)	3 (2-5)	3 (2-4)
Mongolia	107 (99-117)	63 (58-69)	15 (15-16)	6.5 (6.2-6.8)	8 (7-8)	3 (3-3)	1 (1-1)	119 (110-130)	95 (87-104)	17 (16-18)	14 (13-14)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
Hungary	15 (15 - 16)	3 (3 - 4)	2 (2 - 2)	0 (0 - 0)	11 (11 - 12)	6 (6 - 6)	2 (2 - 2)	5.5 (5.2 - 5.9)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Iceland	5 (5 - 6)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 2)	1 (1 - 1)	4.2 (3.0 - 5.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
India^c	89 (86 - 91)	27 (24 - 30)	2,400 (2,328 - 2,474)	648 (575 - 721)	57 (54 - 60)	45 (42 - 47)	20 (18 - 23)	3.4 (3.0 - 3.9)	1,573 (1,484 - 1,664)	1,246 (1,173 - 1,321)	490 (425 - 558)
Indonesia	62 (59 - 64)	20 (16 - 24)	288 (276 - 300)	93 (76 - 113)	31 (29 - 33)	23 (21 - 24)	12 (9 - 15)	3.2 (2.4 - 4.0)	144 (134 - 154)	105 (98 - 113)	56 (45 - 70)
Iran (Islamic Republic of)	45 (41 - 48)	11 (7 - 19)	81 (75 - 87)	17 (10 - 29)	25 (16 - 32)	20 (16 - 23)	8 (4 - 15)	3.7 (1.0 - 6.3)	44 (29 - 58)	23 (18 - 27)	12 (6 - 23)
Iraq	42 (39 - 46)	21 (16 - 27)	28 (25 - 30)	24 (18 - 31)	26 (23 - 30)	24 (21 - 27)	14 (11 - 19)	2.0 (0.9 - 3.1)	17 (15 - 20)	20 (18 - 22)	16 (12 - 22)
Ireland	8 (7 - 8)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 5)	4 (4 - 4)	2 (2 - 2)	2.9 (2.3 - 3.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Israel	10 (9 - 10)	3 (3 - 3)	1 (1 - 1)	0 (0 - 1)	6 (6 - 7)	4 (3 - 4)	2 (2 - 2)	4.0 (3.6 - 4.3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Italy	8 (8 - 9)	2 (2 - 3)	5 (5 - 5)	1 (1 - 1)	6 (6 - 7)	3 (3 - 4)	2 (2 - 2)	4.4 (4.1 - 4.7)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)
Jamaica	25 (22 - 29)	11 (6 - 21)	2 (1 - 2)	1 (0 - 1)	20 (15 - 25)	17 (14 - 20)	9 (5 - 18)	2.5 (0.1 - 5.0)	1 (1 - 2)	1 (1 - 1)	0 (0 - 1)
Japan	5 (4 - 5)	2 (2 - 2)	6 (6 - 6)	2 (2 - 2)	3 (2 - 3)	2 (2 - 2)	1 (1 - 1)	3.7 (3.4 - 3.9)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)
Jordan	30 (28 - 31)	13 (9 - 18)	4 (3 - 4)	3 (2 - 4)	20 (18 - 22)	16 (14 - 18)	9 (6 - 12)	2.7 (1.5 - 4.0)	3 (2 - 3)	3 (2 - 3)	2 (1 - 3)
Kazakhstan	44 (40 - 48)	9 (9 - 9)	17 (15 - 18)	3 (3 - 3)	23 (20 - 26)	24 (21 - 27)	5 (4 - 5)	5.2 (4.7 - 5.7)	9 (7 - 10)	6 (5 - 6)	2 (2 - 2)
Kenya	65 (61 - 69)	31 (23 - 42)	64 (61 - 68)	46 (35 - 62)	28 (25 - 30)	28 (25 - 31)	20 (14 - 30)	1.0 (-0.3 - 2.3)	28 (25 - 31)	36 (33 - 40)	31 (21 - 45)
Kiribati	67 (60 - 74)	39 (23 - 66)	0 (0 - 0)	0 (0 - 0)	35 (28 - 45)	28 (23 - 34)	21 (10 - 42)	1.6 (-0.8 - 4.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Kuwait	14 (14 - 14)	8 (7 - 8)	1 (1 - 1)	0 (0 - 0)	10 (9 - 10)	7 (6 - 7)	5 (4 - 5)	2.2 (1.8 - 2.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Kyrgyzstan	54 (48 - 61)	16 (15 - 17)	7 (7 - 8)	2 (2 - 3)	24 (20 - 29)	21 (17 - 24)	12 (9 - 14)	2.5 (1.4 - 3.5)	3 (3 - 4)	2 (2 - 3)	2 (1 - 2)
Lao People's Democratic Republic	106 (98 - 114)	35 (26 - 46)	19 (17 - 20)	6 (4 - 8)	47 (42 - 53)	38 (34 - 43)	22 (15 - 30)	2.6 (1.4 - 3.9)	9 (8 - 10)	7 (6 - 7)	4 (3 - 5)
Latvia	13 (13 - 14)	3 (3 - 4)	0 (0 - 1)	0 (0 - 0)	8 (8 - 9)	7 (7 - 8)	2 (2 - 3)	4.4 (3.7 - 5.0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Lebanon	27 (24 - 30)	6 (3 - 12)	2 (2 - 2)	1 (0 - 1)	21 (18 - 24)	12 (9 - 14)	4 (2 - 8)	5.5 (2.9 - 8.5)	2 (1 - 2)	1 (1 - 1)	0 (0 - 1)
Lesotho	68 (62 - 74)	70 (49 - 101)	4 (4 - 4)	4 (3 - 6)	40 (35 - 45)	40 (36 - 44)	44 (28 - 68)	-0.4 (-1.9 - 1.2)	2 (2 - 3)	2 (2 - 3)	2 (2 - 4)
Liberia	176 (162 - 192)	58 (46 - 74)	16 (15 - 18)	9 (7 - 12)	60 (52 - 69)	48 (43 - 54)	31 (22 - 42)	2.3 (1.1 - 3.4)	6 (5 - 6)	6 (5 - 6)	5 (4 - 7)
Libya	36 (31 - 41)	10 (6 - 16)	5 (4 - 5)	1 (1 - 2)	21 (18 - 26)	15 (13 - 18)	6 (3 - 10)	4.2 (2.3 - 6.3)	3 (2 - 3)	2 (1 - 2)	1 (0 - 1)
Lithuania	12 (12 - 12)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	8 (7 - 8)	5 (4 - 5)	2 (2 - 2)	4.7 (4.1 - 5.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Luxembourg	7 (7 - 8)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	2 (2 - 3)	2 (1 - 2)	3.1 (2.0 - 4.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Madagascar	96 (90 - 101)	36 (29 - 45)	48 (45 - 51)	32 (26 - 39)	39 (35 - 43)	31 (28 - 34)	20 (15 - 27)	2.1 (1.1 - 3.2)	20 (18 - 22)	20 (18 - 22)	18 (14 - 24)
Malawi	143 (135 - 151)	29 (19 - 42)	60 (57 - 63)	18 (12 - 26)	50 (45 - 56)	39 (35 - 43)	19 (12 - 30)	3.2 (1.7 - 4.9)	22 (19 - 24)	19 (17 - 21)	12 (8 - 19)
Malaysia	14 (14 - 15)	7 (7 - 8)	7 (7 - 7)	4 (4 - 4)	7 (6 - 9)	5 (4 - 6)	5 (4 - 5)	1.5 (0.7 - 2.3)	4 (3 - 4)	2 (2 - 3)	2 (2 - 3)
Maldives	63 (58 - 68)	6 (5 - 6)	1 (1 - 1)	0 (0 - 0)	39 (31 - 47)	22 (19 - 26)	4 (3 - 5)	7.5 (6.4 - 8.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mali	120 (114 - 126)	59 (49 - 71)	49 (46 - 51)	47 (39 - 57)	67 (60 - 74)	51 (46 - 57)	32 (23 - 43)	2.5 (1.4 - 3.6)	28 (25 - 31)	27 (24 - 30)	26 (19 - 35)
Malta	10 (9 - 11)	6 (5 - 7)	0 (0 - 0)	0 (0 - 0)	8 (7 - 8)	5 (5 - 6)	4 (4 - 5)	1.9 (1.2 - 2.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Marshall Islands	38 (33 - 43)	26 (16 - 40)	0 (0 - 0)	0 (0 - 0)	18 (15 - 23)	19 (15 - 23)	14 (8 - 25)	0.9 (-1.3 - 3.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mauritania	71 (66 - 77)	49 (28 - 83)	6 (5 - 6)	7 (4 - 12)	46 (40 - 53)	42 (36 - 50)	31 (14 - 67)	1.3 (-1.3 - 4.1)	4 (3 - 4)	4 (4 - 5)	5 (2 - 10)
Mauritius	20 (19 - 21)	15 (12 - 18)	0 (0 - 0)	0 (0 - 0)	15 (14 - 15)	12 (12 - 13)	11 (9 - 13)	1.1 (0.4 - 1.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mexico	36 (34 - 39)	12 (10 - 13)	87 (82 - 93)	26 (23 - 29)	22 (20 - 25)	14 (13 - 16)	8 (7 - 10)	3.3 (2.7 - 3.9)	54 (49 - 61)	34 (30 - 38)	18 (16 - 21)
Micronesia (Federated States of)	39 (33 - 45)	21 (9 - 42)	0 (0 - 0)	0 (0 - 0)	24 (17 - 32)	20 (13 - 29)	13 (5 - 31)	2.1 (-0.8 - 5.0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Monaco	6 (6 - 7)	2 (2 - 4)	0 (0 - 0)	0 (0 - 0)	4 (3 - 5)	3 (2 - 4)	2 (1 - 3)	3.1 (1.3 - 5.0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mongolia	77 (71 - 83)	13 (13 - 14)	5 (5 - 6)	1 (1 - 1)	30 (26 - 34)	24 (21 - 27)	8 (7 - 9)	4.4 (3.8 - 5.0)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)

Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2020	
	1990	2000	2020	1990-2020	1990	2000	2020	Male	Female	Male	Female
Montenegro	16 (16 - 17)	14 (13 - 15)	2 (2 - 3)	6.4 (5.8 - 7.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	17 (17 - 19)	15 (15 - 16)	3 (2 - 3)	2 (2 - 3)
Morocco	81 (75 - 87)	52 (48 - 58)	19 (13 - 25)	4.9 (3.8 - 6.0)	59 (55 - 63)	33 (30 - 37)	13 (9 - 17)	85 (79 - 92)	76 (70 - 82)	21 (15 - 28)	17 (12 - 23)
Mozambique	245 (225 - 266)	170 (157 - 185)	71 (48 - 107)	4.1 (2.7 - 5.5)	142 (130 - 154)	128 (119 - 139)	79 (54 - 120)	254 (232 - 276)	236 (216 - 257)	75 (51 - 114)	66 (45 - 99)
Myanmar	116 (105 - 127)	90 (83 - 97)	44 (29 - 64)	3.2 (2.0 - 4.7)	131 (120 - 144)	101 (93 - 110)	41 (27 - 59)	123 (112 - 136)	108 (98 - 119)	48 (31 - 70)	39 (26 - 57)
Namibia	73 (66 - 80)	76 (68 - 85)	40 (22 - 78)	2.0 (-0.2 - 4.0)	4 (3 - 4)	4 (4 - 5)	3 (2 - 5)	78 (70 - 86)	68 (61 - 75)	44 (24 - 85)	36 (20 - 70)
Nauru	67 (54 - 85)	43 (37 - 49)	28 (15 - 53)	2.9 (0.6 - 5.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	72 (57 - 92)	62 (49 - 79)	31 (16 - 58)	25 (13 - 47)
Nepal	139 (130 - 148)	79 (74 - 85)	28 (23 - 35)	5.3 (4.5 - 6.1)	98 (92 - 104)	60 (56 - 64)	16 (13 - 20)	140 (131 - 149)	138 (129 - 147)	30 (24 - 38)	26 (21 - 33)
Netherlands	8 (8 - 8)	6 (6 - 6)	4 (4 - 4)	2.3 (2.2 - 2.5)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	9 (9 - 10)	7 (7 - 7)	5 (4 - 5)	4 (4 - 4)
New Zealand	11 (11 - 11)	7 (7 - 8)	5 (4 - 6)	2.9 (2.3 - 3.5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	12 (12 - 13)	10 (9 - 10)	5 (4 - 6)	4 (4 - 5)
Nicaragua	67 (62 - 72)	39 (35 - 42)	16 (14 - 19)	4.8 (4.1 - 5.4)	10 (9 - 11)	5 (5 - 6)	2 (2 - 3)	72 (67 - 78)	61 (56 - 66)	18 (15 - 22)	14 (12 - 17)
Niger	330 (309 - 352)	225 (208 - 243)	78 (47 - 128)	4.8 (3.1 - 6.5)	138 (129 - 147)	127 (118 - 137)	81 (49 - 133)	332 (310 - 355)	327 (306 - 350)	81 (49 - 133)	73 (44 - 121)
Nigeria	210 (197 - 224)	183 (172 - 195)	114 (87 - 153)	2.0 (1.0 - 3.0)	850 (795 - 906)	920 (865 - 978)	844 (645 - 1,140)	220 (206 - 235)	199 (186 - 213)	130 (92 - 162)	107 (82 - 145)
Niue	25 (21 - 29)	32 (24 - 42)	25 (11 - 57)	0.0 (-2.7 - 2.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	28 (23 - 33)	22 (19 - 26)	27 (12 - 63)	22 (9 - 50)
Norway	9 (8 - 9)	5 (5 - 5)	2 (2 - 2)	4.6 (4.2 - 4.9)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	10 (9 - 10)	8 (7 - 8)	2 (2 - 3)	2 (2 - 2)
Oman	39 (34 - 45)	16 (14 - 19)	11 (10 - 12)	4.2 (3.6 - 4.8)	3 (2 - 3)	1 (1 - 1)	1 (1 - 1)	42 (37 - 49)	36 (31 - 41)	12 (11 - 14)	10 (9 - 11)
Pakistan	140 (135 - 145)	108 (103 - 112)	65 (54 - 79)	2.5 (1.9 - 3.2)	596 (575 - 619)	522 (500 - 543)	389 (320 - 469)	143 (137 - 149)	136 (131 - 142)	70 (57 - 84)	60 (50 - 73)
Palau	35 (30 - 41)	28 (24 - 33)	17 (8 - 36)	2.5 (-0.1 - 5.0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	39 (33 - 45)	32 (27 - 37)	19 (9 - 40)	15 (7 - 32)
Panama	31 (27 - 35)	26 (22 - 30)	14 (7 - 28)	2.6 (0.4 - 4.8)	2 (2 - 2)	2 (2 - 2)	1 (1 - 2)	34 (30 - 39)	28 (24 - 31)	16 (8 - 31)	13 (7 - 25)
Papua New Guinea	85 (77 - 93)	71 (64 - 79)	44 (31 - 63)	2.2 (0.9 - 3.4)	13 (12 - 15)	14 (12 - 15)	10 (7 - 15)	89 (81 - 98)	80 (73 - 88)	47 (33 - 68)	40 (28 - 58)
Paraguay	46 (41 - 51)	34 (28 - 41)	19 (10 - 38)	2.9 (0.6 - 5.2)	6 (6 - 7)	5 (4 - 6)	3 (1 - 5)	49 (44 - 55)	42 (37 - 46)	21 (10 - 42)	17 (9 - 34)
Peru	80 (76 - 84)	38 (36 - 41)	13 (10 - 16)	6.1 (5.3 - 6.9)	54 (51 - 57)	24 (22 - 25)	7 (6 - 9)	84 (80 - 89)	76 (72 - 80)	14 (11 - 18)	12 (9 - 15)
Philippines	57 (53 - 61)	38 (35 - 41)	26 (19 - 36)	2.5 (1.5 - 3.6)	113 (106 - 121)	86 (80 - 92)	58 (42 - 79)	62 (58 - 67)	51 (48 - 55)	29 (21 - 40)	24 (17 - 32)
Poland	17 (17 - 18)	9 (9 - 10)	4 (4 - 5)	4.6 (4.4 - 4.8)	10 (10 - 10)	4 (4 - 4)	2 (1 - 2)	19 (19 - 20)	15 (15 - 16)	5 (4 - 5)	4 (4 - 4)
Portugal	15 (14 - 15)	7 (7 - 7)	3 (3 - 4)	5.0 (4.7 - 5.3)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	16 (16 - 17)	13 (13 - 13)	4 (3 - 4)	3 (3 - 3)
Qatar	21 (20 - 22)	12 (12 - 13)	6 (5 - 6)	4.3 (3.9 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	23 (21 - 24)	19 (18 - 20)	6 (6 - 7)	5 (5 - 6)
Republic of Korea	16 (15 - 16)	8 (7 - 8)	3 (3 - 3)	5.5 (5.2 - 5.7)	10 (10 - 11)	4 (4 - 5)	1 (1 - 1)	17 (16 - 18)	14 (13 - 15)	3 (3 - 3)	3 (3 - 3)
Republic of Moldova	34 (29 - 39)	32 (26 - 38)	14 (11 - 19)	2.8 (1.7 - 3.9)	3 (2 - 3)	2 (1 - 2)	1 (0 - 1)	37 (32 - 43)	30 (25 - 35)	16 (12 - 22)	13 (10 - 17)
Republic of North Macedonia	37 (36 - 38)	16 (15 - 17)	6 (5 - 7)	6.1 (5.7 - 6.5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	39 (38 - 40)	35 (33 - 36)	6 (6 - 7)	6 (5 - 6)
Romania	31 (31 - 32)	22 (21 - 22)	7 (7 - 7)	5.1 (4.9 - 5.2)	11 (10 - 11)	5 (5 - 5)	1 (1 - 1)	35 (34 - 35)	28 (27 - 29)	7 (7 - 8)	6 (6 - 7)
Russian Federation ^d	22 (21 - 22)	19 (19 - 20)	5 (5 - 6)	4.6 (4.5 - 4.7)	46 (45 - 47)	25 (25 - 26)	10 (9 - 10)	25 (24 - 25)	18 (18 - 19)	6 (6 - 6)	5 (5 - 5)
Rwanda	150 (141 - 160)	185 (174 - 197)	40 (26 - 63)	4.4 (2.9 - 5.8)	48 (45 - 51)	53 (50 - 56)	16 (10 - 25)	159 (149 - 169)	142 (133 - 151)	44 (28 - 68)	37 (24 - 58)
Saint Kitts and Nevis	30 (28 - 33)	24 (21 - 27)	15 (10 - 22)	2.4 (1.0 - 3.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	33 (30 - 37)	27 (25 - 30)	16 (11 - 24)	13 (9 - 20)
Saint Lucia	22 (21 - 23)	18 (17 - 19)	24 (21 - 28)	-0.4 (-0.9 - 0.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	20 (23 - 25)	20 (19 - 21)	26 (23 - 31)	22 (19 - 26)
Saint Vincent and the Grenadines	24 (22 - 25)	22 (20 - 24)	14 (11 - 19)	1.7 (0.8 - 2.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	26 (24 - 27)	22 (20 - 24)	15 (12 - 20)	13 (10 - 17)
Samoa	30 (26 - 34)	21 (19 - 24)	17 (12 - 24)	1.9 (0.6 - 3.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	33 (28 - 37)	27 (24 - 31)	19 (13 - 26)	15 (11 - 22)
San Marino	14 (10 - 20)	6 (4 - 8)	2 (1 - 4)	6.9 (4.1 - 9.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	15 (11 - 22)	12 (9 - 18)	2 (1 - 4)	2 (1 - 3)
Sao Tome and Principe	108 (95 - 122)	82 (73 - 92)	16 (9 - 28)	6.3 (4.5 - 8.2)	0 (0 - 1)	0 (0 - 1)	0 (0 - 0)	114 (100 - 129)	102 (90 - 116)	18 (10 - 30)	14 (8 - 25)
Saudi Arabia	44 (37 - 53)	22 (20 - 25)	7 (5 - 9)	6.1 (5.0 - 7.2)	25 (21 - 30)	12 (11 - 14)	4 (3 - 5)	46 (38 - 55)	43 (36 - 51)	7 (6 - 10)	7 (5 - 9)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
Montenegro	15 (14 - 16)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	11 (10 - 12)	9 (8 - 9)	1 (1 - 1)	7.5 (6.5 - 8.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Morocco	63 (60 - 67)	16 (11 - 22)	46 (43 - 49)	11 (8 - 15)	37 (33 - 40)	28 (25 - 32)	12 (8 - 16)	3.9 (2.7 - 5.1)	27 (24 - 29)	18 (16 - 20)	8 (5 - 11)
Mozambique	163 (150 - 177)	53 (38 - 76)	95 (87 - 103)	60 (43 - 85)	63 (56 - 70)	47 (42 - 52)	28 (19 - 44)	2.6 (1.1 - 4.1)	38 (34 - 42)	37 (33 - 41)	33 (22 - 51)
Myanmar	82 (75 - 89)	35 (24 - 49)	92 (85 - 100)	33 (22 - 45)	48 (42 - 56)	38 (33 - 43)	22 (14 - 34)	2.6 (1.0 - 4.2)	55 (47 - 64)	43 (38 - 49)	21 (13 - 32)
Namibia	49 (45 - 53)	30 (17 - 52)	3 (2 - 3)	2 (1 - 4)	28 (25 - 32)	23 (21 - 27)	20 (11 - 40)	1.1 (-1.2 - 3.3)	2 (1 - 2)	1 (1 - 1)	1 (1 - 3)
Nauru	51 (42 - 63)	24 (13 - 41)	0 (0 - 0)	0 (0 - 0)	32 (23 - 43)	26 (22 - 31)	18 (9 - 35)	1.9 (-0.8 - 4.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Nepal	97 (91 - 102)	24 (19 - 29)	69 (65 - 73)	13 (11 - 16)	58 (53 - 63)	39 (36 - 43)	17 (13 - 21)	4.1 (3.3 - 5.0)	42 (39 - 46)	30 (27 - 32)	9 (7 - 12)
Netherlands	7 (7 - 7)	4 (3 - 4)	1 (1 - 1)	1 (1 - 1)	5 (4 - 5)	4 (4 - 4)	3 (3 - 3)	1.8 (1.5 - 2.0)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
New Zealand	9 (9 - 9)	4 (3 - 5)	1 (1 - 1)	0 (0 - 0)	4 (4 - 5)	4 (3 - 4)	3 (2 - 3)	1.7 (0.8 - 2.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Nicaragua	51 (48 - 54)	14 (12 - 17)	8 (7 - 8)	2 (2 - 2)	23 (20 - 26)	17 (15 - 19)	9 (8 - 11)	3.0 (2.2 - 3.7)	3 (3 - 4)	2 (2 - 3)	1 (1 - 2)
Niger	133 (126 - 141)	46 (33 - 64)	57 (54 - 61)	49 (35 - 69)	55 (49 - 61)	43 (38 - 48)	24 (14 - 41)	2.7 (0.9 - 4.5)	27 (22 - 27)	26 (23 - 29)	26 (15 - 45)
Nigeria	125 (117 - 132)	72 (57 - 94)	510 (480 - 541)	541 (429 - 703)	50 (45 - 55)	46 (42 - 51)	35 (26 - 49)	1.1 (0.0 - 2.2)	210 (188 - 233)	245 (221 - 271)	271 (199 - 374)
Niue	21 (18 - 25)	21 (9 - 44)	0 (0 - 0)	0 (0 - 0)	13 (10 - 18)	17 (11 - 26)	13 (5 - 32)	0.1 (-2.9 - 3.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Norway	7 (7 - 7)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (3 - 3)	1 (1 - 1)	3.8 (3.3 - 4.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Oman	32 (28 - 36)	9 (8 - 11)	2 (2 - 3)	1 (1 - 1)	17 (15 - 21)	7 (6 - 9)	5 (3 - 7)	4.2 (3.1 - 5.6)	1 (1 - 1)	0 (0 - 1)	0 (0 - 1)
Pakistan	107 (103 - 111)	54 (45 - 64)	461 (446 - 477)	324 (272 - 382)	64 (59 - 68)	57 (53 - 61)	40 (33 - 49)	1.5 (0.8 - 2.3)	284 (263 - 303)	280 (262 - 298)	244 (198 - 298)
Palau	30 (26 - 35)	16 (8 - 33)	0 (0 - 0)	0 (0 - 0)	19 (14 - 25)	15 (10 - 21)	9 (4 - 20)	2.5 (-0.2 - 5.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Panama	26 (23 - 29)	12 (6 - 23)	2 (1 - 2)	1 (1 - 2)	18 (14 - 21)	15 (11 - 18)	8 (4 - 16)	2.7 (0.3 - 4.9)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Papua New Guinea	62 (58 - 68)	35 (25 - 48)	10 (9 - 11)	8 (6 - 11)	32 (28 - 36)	30 (26 - 34)	21 (14 - 32)	1.3 (-0.1 - 2.7)	5 (4 - 6)	6 (5 - 7)	5 (3 - 8)
Paraguay	36 (33 - 40)	16 (8 - 31)	5 (5 - 6)	2 (1 - 4)	22 (19 - 25)	18 (15 - 22)	10 (5 - 21)	2.6 (0.1 - 5.0)	3 (3 - 4)	3 (2 - 3)	1 (1 - 3)
Peru	57 (54 - 59)	10 (8 - 13)	38 (36 - 40)	6 (5 - 7)	28 (26 - 30)	16 (15 - 18)	7 (5 - 9)	4.7 (3.9 - 5.6)	19 (17 - 20)	10 (9 - 11)	4 (3 - 5)
Philippines	40 (38 - 42)	21 (15 - 28)	81 (76 - 85)	46 (33 - 60)	19 (17 - 21)	17 (15 - 18)	13 (9 - 18)	1.4 (0.2 - 2.6)	39 (36 - 43)	38 (35 - 42)	27 (20 - 39)
Poland	15 (15 - 16)	4 (4 - 4)	9 (8 - 9)	1 (1 - 1)	11 (11 - 11)	6 (6 - 6)	3 (3 - 3)	4.7 (4.5 - 5.0)	6 (6 - 6)	2 (2 - 2)	1 (1 - 1)
Portugal	12 (11 - 12)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	3 (3 - 4)	2 (2 - 2)	4.6 (4.3 - 5.0)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Qatar	18 (17 - 19)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	12 (9 - 14)	7 (6 - 7)	4 (3 - 4)	3.9 (2.9 - 4.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Republic of Korea	13 (13 - 14)	3 (2 - 3)	9 (8 - 9)	1 (1 - 1)	7 (6 - 8)	3 (3 - 4)	1 (1 - 2)	5.4 (4.8 - 6.0)	5 (4 - 6)	2 (2 - 2)	1 (0 - 1)
Republic of Moldova	28 (24 - 32)	12 (9 - 17)	2 (2 - 3)	0 (0 - 1)	18 (16 - 22)	20 (17 - 25)	11 (8 - 15)	1.9 (0.6 - 3.1)	1 (1 - 2)	1 (1 - 1)	0 (0 - 1)
Republic of North Macedonia	33 (32 - 34)	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	17 (16 - 18)	10 (9 - 10)	4 (3 - 4)	5.0 (4.5 - 5.5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Romania	25 (24 - 25)	6 (5 - 6)	8 (8 - 8)	1 (1 - 1)	16 (12 - 21)	11 (9 - 12)	3 (3 - 4)	5.1 (3.9 - 6.3)	5 (4 - 7)	2 (2 - 3)	1 (1 - 1)
Russian Federation ^d	17 (17 - 18)	4 (4 - 4)	36 (35 - 36)	8 (8 - 8)	11 (8 - 14)	9 (8 - 10)	2 (2 - 3)	5.2 (4.0 - 6.4)	22 (17 - 28)	12 (11 - 13)	4 (4 - 5)
Rwanda	92 (87 - 97)	30 (21 - 43)	29 (28 - 31)	12 (8 - 17)	41 (37 - 45)	43 (39 - 48)	18 (11 - 28)	2.8 (1.2 - 4.3)	13 (12 - 14)	13 (12 - 14)	7 (5 - 11)
Saint Kitts and Nevis	25 (23 - 28)	13 (9 - 18)	0 (0 - 0)	0 (0 - 0)	19 (17 - 22)	17 (15 - 19)	10 (7 - 15)	2.2 (0.7 - 3.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Saint Lucia	18 (17 - 19)	22 (19 - 25)	0 (0 - 0)	0 (0 - 0)	12 (11 - 13)	11 (10 - 12)	13 (11 - 16)	-0.2 (-1.0 - 0.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Saint Vincent and the Grenadines	20 (18 - 21)	13 (10 - 17)	0 (0 - 0)	0 (0 - 0)	13 (11 - 14)	13 (12 - 15)	9 (6 - 12)	1.2 (0.2 - 2.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Samoa	25 (22 - 28)	15 (10 - 20)	0 (0 - 0)	0 (0 - 0)	13 (10 - 17)	9 (7 - 11)	7 (4 - 10)	2.2 (0.4 - 4.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
San Marino	12 (9 - 18)	2 (1 - 3)	0 (0 - 0)	0 (0 - 0)	7 (5 - 12)	3 (2 - 4)	1 (0 - 2)	7.3 (4.0 - 11.0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Sao Tome and Principe	69 (62 - 77)	13 (7 - 22)	0 (0 - 0)	0 (0 - 0)	26 (20 - 33)	22 (17 - 27)	8 (4 - 14)	4.0 (1.7 - 6.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Saudi Arabia	35 (30 - 41)	6 (5 - 8)	20 (17 - 24)	4 (3 - 5)	22 (16 - 29)	11 (9 - 14)	3 (2 - 5)	6.1 (4.5 - 7.9)	13 (9 - 17)	6 (5 - 8)	2 (1 - 3)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
Senegal	71 (68 - 74)	29 (24 - 35)	22 (22 - 23)	16 (13 - 19)	40 (37 - 44)	38 (35 - 42)	21 (16 - 27)	2.2 (1.3 - 3.2)	13 (12 - 14)	15 (13 - 16)	12 (9 - 15)
Serbia	24 (24 - 25)	5 (5 - 5)	3 (3 - 4)	0 (0 - 0)	17 (16 - 19)	8 (7 - 8)	4 (3 - 4)	5.3 (4.8 - 5.7)	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)
Seychelles	14 (13 - 15)	12 (9 - 16)	0 (0 - 0)	0 (0 - 0)	11 (10 - 12)	9 (8 - 10)	8 (6 - 12)	0.9 (-0.4 - 2.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Sierra Leone	154 (145 - 164)	80 (70 - 91)	29 (28 - 31)	20 (18 - 23)	52 (46 - 60)	48 (43 - 55)	31 (25 - 39)	1.7 (0.8 - 2.7)	10 (9 - 12)	10 (9 - 11)	8 (6 - 10)
Singapore	6 (6 - 6)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	2 (1 - 2)	1 (1 - 1)	5.5 (4.8 - 6.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Slovakia	13 (12 - 13)	5 (4 - 5)	1 (1 - 1)	0 (0 - 0)	9 (8 - 9)	5 (5 - 5)	3 (3 - 3)	3.6 (3.3 - 3.9)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Slovenia	9 (8 - 9)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	6 (5 - 6)	3 (3 - 4)	1 (1 - 1)	5.2 (4.5 - 5.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Solomon Islands	31 (28 - 35)	17 (10 - 25)	0 (0 - 0)	0 (0 - 1)	15 (12 - 18)	13 (11 - 15)	8 (5 - 13)	2.1 (0.3 - 4.0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Somalia	108 (92 - 131)	73 (39 - 146)	36 (31 - 44)	47 (25 - 93)	46 (35 - 60)	45 (32 - 62)	37 (15 - 88)	0.7 (-2.2 - 3.6)	16 (12 - 21)	19 (14 - 27)	24 (10 - 58)
South Africa	47 (43 - 51)	26 (24 - 28)	52 (48 - 57)	30 (28 - 33)	21 (18 - 25)	17 (14 - 21)	11 (8 - 13)	2.3 (1.4 - 3.3)	24 (20 - 28)	17 (15 - 21)	12 (10 - 16)
South Sudan	148 (121 - 175)	63 (26 - 128)	37 (30 - 43)	24 (10 - 49)	63 (42 - 88)	56 (41 - 76)	40 (13 - 96)	1.5 (-1.9 - 5.5)	16 (11 - 22)	15 (11 - 20)	16 (5 - 37)
Spain	7 (7 - 8)	3 (3 - 3)	3 (3 - 3)	1 (1 - 1)	5 (5 - 5)	3 (3 - 3)	2 (2 - 2)	3.6 (3.2 - 3.9)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)
Sri Lanka	19 (19 - 20)	6 (5 - 8)	7 (7 - 7)	2 (2 - 2)	14 (13 - 14)	10 (9 - 10)	4 (3 - 5)	4.1 (3.2 - 5.1)	5 (5 - 5)	3 (3 - 4)	1 (1 - 2)
State of Palestine	36 (33 - 39)	14 (11 - 19)	3 (3 - 4)	2 (2 - 3)	23 (20 - 25)	17 (15 - 19)	10 (8 - 14)	2.6 (1.4 - 3.8)	2 (2 - 2)	2 (2 - 2)	1 (1 - 2)
Sudan	82 (77 - 88)	40 (30 - 53)	68 (64 - 73)	54 (41 - 72)	43 (38 - 48)	37 (33 - 41)	27 (18 - 39)	1.6 (0.3 - 2.8)	36 (33 - 40)	40 (36 - 45)	37 (25 - 54)
Suriname	39 (34 - 45)	16 (10 - 25)	0 (0 - 1)	0 (0 - 0)	21 (13 - 28)	17 (13 - 21)	11 (6 - 18)	2.1 (-0.5 - 4.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Sweden	6 (6 - 6)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	4 (3 - 4)	2 (2 - 2)	1 (1 - 2)	3.0 (2.6 - 3.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Switzerland	7 (6 - 7)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	4 (4 - 4)	3 (3 - 4)	3 (3 - 3)	1.1 (0.8 - 1.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Syrian Arab Republic	30 (27 - 33)	18 (10 - 24)	13 (12 - 15)	8 (4 - 10)	17 (14 - 19)	12 (11 - 14)	11 (5 - 15)	1.4 (0.1 - 3.7)	7 (6 - 8)	6 (5 - 7)	5 (2 - 6)
Tajikistan	81 (74 - 88)	28 (18 - 46)	17 (16 - 18)	8 (5 - 13)	31 (26 - 37)	28 (24 - 33)	14 (8 - 24)	2.6 (0.6 - 4.9)	7 (5 - 8)	5 (5 - 6)	4 (2 - 7)
Thailand	30 (29 - 32)	7 (6 - 9)	33 (31 - 35)	5 (4 - 7)	21 (17 - 24)	12 (9 - 15)	5 (3 - 7)	4.8 (3.7 - 6.2)	23 (18 - 26)	11 (8 - 14)	3 (2 - 5)
Timor-Leste	132 (120 - 144)	37 (21 - 62)	4 (4 - 4)	1 (1 - 2)	57 (49 - 67)	38 (33 - 44)	19 (10 - 37)	3.6 (1.3 - 6.1)	2 (2 - 2)	1 (1 - 2)	1 (0 - 1)
Togo	91 (85 - 97)	44 (37 - 55)	14 (13 - 15)	12 (10 - 14)	44 (39 - 49)	37 (33 - 41)	24 (18 - 33)	1.9 (0.9 - 3.0)	7 (6 - 8)	7 (6 - 8)	7 (5 - 9)
Tonga	19 (16 - 22)	10 (5 - 16)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	7 (6 - 9)	5 (3 - 9)	2.3 (0.1 - 4.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Trinidad and Tobago	27 (22 - 31)	15 (6 - 36)	1 (1 - 1)	0 (0 - 1)	20 (16 - 23)	18 (12 - 26)	11 (4 - 26)	2.1 (-1.1 - 5.1)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)
Tunisia	43 (39 - 48)	14 (13 - 16)	9 (8 - 10)	3 (2 - 3)	28 (24 - 32)	18 (16 - 22)	12 (10 - 14)	2.9 (2.2 - 3.6)	6 (5 - 7)	3 (3 - 4)	2 (2 - 3)
Turkey	56 (52 - 59)	8 (7 - 9)	77 (73 - 82)	11 (9 - 12)	33 (30 - 37)	18 (16 - 20)	5 (4 - 6)	6.3 (5.7 - 6.9)	46 (42 - 51)	25 (22 - 28)	7 (6 - 8)
Turkmenistan	65 (58 - 73)	36 (25 - 51)	8 (7 - 9)	5 (3 - 7)	27 (22 - 32)	30 (25 - 35)	24 (15 - 35)	0.4 (-1.1 - 2.0)	4 (3 - 4)	3 (3 - 4)	3 (2 - 5)
Tuvalu	41 (36 - 48)	19 (11 - 30)	0 (0 - 0)	0 (0 - 0)	28 (22 - 35)	24 (21 - 28)	10 (6 - 18)	3.4 (1.3 - 5.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Uganda	107 (101 - 113)	32 (24 - 42)	90 (85 - 94)	53 (40 - 68)	39 (35 - 44)	32 (29 - 36)	19 (14 - 28)	2.4 (1.1 - 3.6)	34 (30 - 38)	37 (33 - 41)	32 (23 - 46)
Ukraine	17 (15 - 19)	7 (7 - 7)	11 (10 - 12)	3 (3 - 3)	12 (10 - 14)	11 (9 - 13)	5 (3 - 7)	3.0 (1.8 - 5.2)	8 (6 - 9)	4 (4 - 5)	2 (1 - 3)
United Arab Emirates	14 (12 - 17)	6 (5 - 6)	1 (1 - 1)	1 (0 - 1)	8 (7 - 10)	6 (5 - 7)	4 (3 - 4)	2.8 (1.9 - 3.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
United Kingdom	8 (8 - 8)	4 (3 - 4)	6 (6 - 6)	3 (3 - 3)	4 (4 - 5)	4 (4 - 4)	3 (2 - 3)	1.6 (1.3 - 2.0)	3 (3 - 4)	3 (3 - 3)	2 (2 - 2)
United Republic of Tanzania	100 (95 - 106)	35 (26 - 46)	109 (103 - 114)	74 (56 - 97)	40 (36 - 44)	34 (31 - 37)	20 (14 - 29)	2.3 (1.0 - 3.5)	44 (41 - 49)	47 (43 - 52)	43 (30 - 62)
United States of America	9 (9 - 10)	5 (5 - 6)	37 (36 - 38)	21 (21 - 22)	6 (6 - 6)	5 (5 - 5)	3 (3 - 4)	1.8 (1.6 - 1.9)	23 (22 - 23)	18 (18 - 19)	13 (13 - 14)
Uruguay	20 (20 - 21)	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	11 (9 - 14)	9 (8 - 9)	4 (4 - 5)	3.4 (2.3 - 4.1)	1 (0 - 1)	0 (0 - 1)	0 (0 - 0)
Uzbekistan ^e	58 (52 - 65)	12 (11 - 14)	41 (37 - 45)	8 (8 - 10)	31 (26 - 36)	28 (23 - 33)	8 (5 - 10)	4.6 (3.5 - 6.0)	22 (18 - 25)	16 (13 - 19)	5 (4 - 7)
Vanuatu	29 (25 - 34)	21 (12 - 35)	0 (0 - 0)	0 (0 - 0)	16 (13 - 22)	12 (9 - 15)	11 (6 - 19)	1.5 (-0.8 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)

Country, regional and global estimates of mortality among children under age 5

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
	1990	2000	2020		1990-2020	1990	2000	2020	1990		2020
				Male					Female	Male	Female
Venezuela (Bolivarian Republic of)	30 (29 - 30)	22 (21 - 22)	24 (19 - 31)	0.7 (-0.2 - 1.5)	16 (16 - 17)	12 (12 - 13)	12 (10 - 16)	32 (31 - 33)	27 (26 - 27)	26 (20 - 34)	22 (17 - 29)
Viet Nam	52 (48 - 56)	30 (26 - 34)	21 (18 - 24)	3.0 (2.5 - 3.5)	99 (91 - 108)	43 (37 - 49)	33 (29 - 37)	59 (55 - 65)	43 (40 - 47)	24 (21 - 28)	17 (15 - 20)
Yemen	126 (118 - 135)	95 (88 - 103)	60 (29 - 115)	2.5 (0.3 - 4.9)	75 (70 - 80)	65 (60 - 70)	52 (25 - 100)	132 (123 - 141)	121 (113 - 129)	64 (31 - 123)	55 (27 - 107)
Zambia ¹	182 (170 - 193)	156 (145 - 167)	61 (46 - 83)	3.6 (2.6 - 4.6)	64 (60 - 68)	70 (65 - 75)	39 (29 - 53)	190 (178 - 203)	173 (162 - 184)	66 (49 - 90)	56 (42 - 77)
Zimbabwe	79 (72 - 86)	96 (87 - 105)	54 (39 - 75)	1.3 (0.1 - 2.4)	29 (27 - 32)	35 (32 - 39)	24 (17 - 33)	85 (78 - 93)	72 (66 - 79)	59 (42 - 82)	49 (35 - 69)

Estimates of mortality among children under age 5 by Sustainable Development Goal region⁹

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
	1990	2000	2020		1990-2020	1990	2000	2020	1990		2020
				Male					Female	Male	Female
Sub-Saharan Africa	181 (177 - 185)	153 (150 - 156)	74 (68 - 86)	3.0 (2.5 - 3.3)	3,736 (3,662 - 3,820)	3,885 (3,811 - 3,975)	2,715 (2,500 - 3,137)	190 (186 - 194)	172 (168 - 176)	79 (73 - 92)	68 (63 - 79)
Northern Africa and Western Asia	75 (73 - 76)	50 (49 - 52)	25 (22 - 31)	3.6 (2.9 - 4.1)	682 (667 - 699)	461 (449 - 475)	286 (247 - 351)	78 (76 - 80)	71 (70 - 73)	27 (23 - 33)	23 (20 - 28)
Northern Africa	84 (81 - 87)	59 (57 - 62)	28 (23 - 35)	3.6 (2.9 - 4.3)	382 (370 - 395)	258 (248 - 269)	166 (138 - 207)	87 (84 - 90)	81 (78 - 84)	30 (25 - 38)	26 (22 - 32)
Western Asia	65 (63 - 68)	42 (41 - 44)	22 (17 - 31)	3.7 (2.5 - 4.5)	300 (290 - 311)	204 (196 - 212)	119 (92 - 169)	68 (66 - 71)	62 (60 - 64)	23 (18 - 33)	20 (15 - 29)
Central and Southern Asia	124 (121 - 128)	91 (88 - 93)	37 (34 - 40)	4.1 (3.8 - 4.4)	4,971 (4,852 - 5,097)	3,660 (3,563 - 3,765)	1,395 (1,278 - 1,529)	123 (120 - 126)	126 (123 - 129)	38 (34 - 41)	36 (33 - 39)
Central Asia	71 (67 - 75)	61 (57 - 65)	19 (16 - 23)	4.4 (3.7 - 4.9)	110 (104 - 117)	74 (69 - 80)	31 (27 - 37)	78 (74 - 83)	63 (59 - 67)	21 (18 - 26)	16 (14 - 20)
Southern Asia	127 (123 - 130)	92 (89 - 94)	37 (34 - 41)	4.1 (3.7 - 4.4)	4,861 (4,742 - 4,986)	3,586 (3,489 - 3,690)	1,365 (1,247 - 1,498)	125 (121 - 128)	129 (125 - 132)	38 (35 - 42)	37 (33 - 40)
Eastern and South-Eastern Asia	57 (54 - 60)	40 (38 - 41)	14 (13 - 15)	4.8 (4.4 - 5.1)	2,284 (2,177 - 2,409)	1,239 (1,200 - 1,284)	402 (370 - 446)	60 (57 - 64)	54 (51 - 57)	15 (14 - 16)	12 (11 - 14)
Eastern Asia	51 (47 - 55)	35 (33 - 37)	7 (7 - 8)	6.5 (6.1 - 6.9)	1,422 (1,316 - 1,543)	689 (653 - 730)	132 (120 - 145)	53 (49 - 58)	48 (44 - 53)	8 (7 - 8)	7 (6 - 7)
South-Eastern Asia	72 (70 - 74)	48 (47 - 50)	24 (21 - 28)	3.7 (3.2 - 4.1)	863 (839 - 889)	550 (533 - 568)	270 (241 - 312)	78 (76 - 80)	66 (64 - 68)	26 (24 - 31)	21 (19 - 24)
Latin America and the Caribbean	55 (53 - 56)	33 (32 - 34)	16 (15 - 18)	4.1 (3.8 - 4.3)	644 (626 - 663)	382 (372 - 393)	168 (159 - 181)	59 (58 - 61)	50 (49 - 52)	18 (17 - 19)	14 (14 - 16)
Oceania	35 (33 - 38)	32 (29 - 34)	20 (15 - 26)	1.9 (0.9 - 2.9)	18 (17 - 20)	17 (16 - 19)	13 (10 - 18)	38 (35 - 41)	33 (30 - 35)	21 (16 - 29)	18 (14 - 24)
Australia and New Zealand	10 (9 - 10)	6 (6 - 7)	4 (4 - 4)	3.0 (2.9 - 3.2)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	11 (10 - 11)	8 (8 - 9)	4 (4 - 4)	3 (3 - 4)
Oceania (exc. Australia and New Zealand)	72 (67 - 78)	61 (56 - 68)	40 (29 - 55)	2.0 (0.9 - 3.0)	15 (14 - 17)	15 (14 - 17)	12 (9 - 16)	76 (70 - 83)	68 (62 - 74)	43 (31 - 59)	36 (27 - 50)
Europe and Northern America	14 (14 - 14)	10 (10 - 10)	5 (5 - 5)	3.3 (3.2 - 3.4)	191 (189 - 194)	112 (111 - 113)	62 (61 - 63)	16 (15 - 16)	12 (12 - 12)	6 (6 - 6)	5 (5 - 5)
Europe	15 (15 - 16)	10 (10 - 11)	5 (5 - 5)	4.0 (4.0 - 4.1)	144 (143 - 146)	76 (75 - 77)	35 (35 - 36)	17 (17 - 18)	13 (13 - 14)	5 (5 - 5)	4 (4 - 4)
Northern America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.9 (1.8 - 2.0)	47 (46 - 48)	35 (35 - 36)	27 (26 - 28)	12 (12 - 12)	10 (10 - 10)	7 (7 - 7)	6 (5 - 6)
Landlocked developing countries	167 (163 - 171)	136 (133 - 139)	54 (50 - 62)	3.7 (3.3 - 4.0)	1,749 (1,711 - 1,791)	1,626 (1,592 - 1,665)	861 (799 - 978)	174 (170 - 179)	158 (155 - 162)	58 (54 - 66)	50 (46 - 57)
Least developed countries	175 (173 - 179)	136 (133 - 138)	61 (57 - 70)	3.5 (3.1 - 3.8)	3,608 (3,552 - 3,672)	3,303 (3,250 - 3,373)	1,926 (1,800 - 2,212)	183 (180 - 186)	168 (165 - 171)	65 (61 - 75)	56 (52 - 64)
Small island developing States	78 (76 - 81)	60 (58 - 63)	38 (33 - 46)	2.4 (1.8 - 2.8)	93 (90 - 96)	72 (69 - 75)	46 (41 - 56)	83 (80 - 86)	73 (71 - 76)	41 (36 - 50)	35 (30 - 42)
World	93 (92 - 95)	76 (75 - 77)	37 (35 - 40)	3.1 (2.8 - 3.3)	12,526 (12,354 - 12,729)	9,756 (9,631 - 9,907)	5,041 (4,813 - 5,512)	96 (94 - 97)	90 (89 - 92)	39 (37 - 42)	34 (33 - 38)

Country, regional and global estimates of mortality among children under age 5

Country	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
Venezuela (Bolivarian Republic of)	25 (24 - 25)	21 (16 - 27)	14 (13 - 14)	11 (8 - 14)	13 (12 - 14)	11 (10 - 12)	15 (12 - 18)	-0.4 (-1.1 - 0.2)	7 (7 - 8)	6 (6 - 7)	7 (6 - 9)
Viet Nam	37 (35 - 40)	17 (15 - 19)	72 (67 - 77)	26 (23 - 30)	24 (21 - 27)	15 (12 - 18)	10 (7 - 14)	2.9 (1.7 - 4.2)	46 (41 - 52)	21 (17 - 25)	16 (11 - 22)
Yemen	89 (84 - 94)	46 (24 - 81)	54 (51 - 57)	40 (21 - 70)	44 (40 - 47)	37 (33 - 41)	28 (13 - 55)	1.5 (-0.8 - 3.9)	27 (25 - 30)	26 (23 - 28)	25 (12 - 48)
Zambia^f	108 (102 - 114)	42 (33 - 54)	38 (36 - 41)	27 (21 - 34)	36 (33 - 40)	34 (31 - 38)	24 (17 - 33)	1.4 (0.3 - 2.5)	13 (12 - 15)	16 (15 - 18)	16 (11 - 22)
Zimbabwe	50 (47 - 54)	38 (29 - 50)	19 (17 - 20)	16 (13 - 21)	24 (22 - 27)	25 (22 - 27)	26 (18 - 37)	-0.2 (-1.5 - 1.1)	9 (8 - 10)	9 (8 - 10)	11 (8 - 16)

Estimates of mortality among children under age 5 by Sustainable Development Goal region^g (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
Sub-Saharan Africa	108 (106 - 110)	51 (47 - 57)	2,267 (2,227 - 2,314)	1,880 (1,748 - 2,108)	46 (44 - 48)	40 (39 - 42)	27 (25 - 32)	1.7 (1.2 - 2.1)	986 (949 - 1,030)	1,077 (1,038 - 1,123)	1,024 (930 - 1,201)
Northern Africa and Western Asia	55 (54 - 56)	20 (18 - 24)	507 (497 - 518)	228 (201 - 271)	30 (29 - 32)	23 (22 - 24)	13 (11 - 16)	2.8 (2.1 - 3.3)	283 (273 - 294)	213 (205 - 222)	152 (132 - 185)
Northern Africa	61 (59 - 63)	22 (19 - 27)	278 (271 - 286)	131 (111 - 158)	33 (32 - 35)	26 (25 - 28)	15 (13 - 19)	2.6 (1.9 - 3.2)	153 (146 - 160)	116 (110 - 122)	90 (75 - 112)
Western Asia	50 (48 - 51)	18 (14 - 23)	229 (222 - 236)	97 (77 - 128)	28 (26 - 30)	20 (19 - 21)	11 (9 - 16)	3.1 (1.9 - 3.9)	131 (124 - 138)	97 (93 - 102)	61 (48 - 86)
Central and Southern Asia	89 (87 - 91)	30 (28 - 33)	3,546 (3,470 - 3,625)	1,155 (1,067 - 1,254)	56 (54 - 58)	45 (43 - 47)	23 (21 - 25)	3.0 (2.6 - 3.4)	2,279 (2,180 - 2,378)	1,831 (1,754 - 1,913)	866 (785 - 960)
Central Asia	58 (55 - 61)	17 (15 - 20)	90 (86 - 95)	27 (24 - 32)	28 (25 - 31)	27 (24 - 29)	10 (8 - 12)	3.5 (2.7 - 4.2)	44 (40 - 48)	32 (29 - 35)	16 (13 - 20)
Southern Asia	90 (88 - 92)	31 (29 - 34)	3,455 (3,380 - 3,534)	1,128 (1,039 - 1,226)	57 (55 - 60)	45 (43 - 47)	23 (21 - 26)	3.0 (2.6 - 3.4)	2,235 (2,137 - 2,334)	1,799 (1,722 - 1,881)	850 (769 - 943)
Eastern and South-Eastern Asia	44 (42 - 46)	11 (10 - 12)	1,746 (1,662 - 1,844)	319 (294 - 351)	28 (26 - 30)	20 (19 - 21)	7 (6 - 8)	4.7 (4.2 - 5.2)	1,100 (1,019 - 1,195)	633 (601 - 669)	196 (177 - 223)
Eastern Asia	40 (37 - 44)	5 (5 - 6)	1,119 (1,036 - 1,214)	97 (88 - 107)	28 (25 - 31)	20 (18 - 22)	3 (3 - 4)	7.0 (6.4 - 7.6)	764 (683 - 855)	392 (362 - 425)	61 (54 - 69)
South-Eastern Asia	52 (51 - 54)	20 (18 - 22)	627 (612 - 643)	222 (199 - 252)	28 (27 - 29)	21 (20 - 22)	12 (10 - 14)	2.8 (2.2 - 3.3)	336 (321 - 353)	241 (230 - 253)	135 (118 - 160)
Latin America and the Caribbean	43 (42 - 45)	14 (13 - 15)	510 (498 - 524)	143 (135 - 154)	23 (22 - 24)	16 (15 - 17)	9 (8 - 10)	3.0 (2.7 - 3.3)	268 (255 - 283)	187 (177 - 197)	94 (87 - 103)
Oceania	27 (25 - 28)	16 (13 - 21)	14 (13 - 15)	11 (9 - 14)	14 (13 - 15)	14 (13 - 15)	10 (7 - 14)	1.2 (0.1 - 2.2)	7 (7 - 8)	8 (7 - 9)	7 (5 - 9)
Australia and New Zealand	8 (8 - 8)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	5 (4 - 5)	4 (3 - 4)	2 (2 - 3)	2.1 (1.9 - 2.4)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)
Oceania (exc. Australia and New Zealand)	54 (50 - 58)	32 (24 - 42)	12 (11 - 12)	10 (7 - 13)	28 (25 - 31)	26 (23 - 29)	19 (13 - 27)	1.2 (-0.1 - 2.4)	6 (5 - 7)	7 (6 - 8)	6 (4 - 8)
Europe and Northern America	12 (11 - 12)	4 (4 - 4)	157 (156 - 159)	52 (51 - 53)	7 (7 - 8)	5 (5 - 5)	3 (3 - 3)	3.2 (2.9 - 3.4)	98 (92 - 105)	59 (58 - 61)	34 (32 - 35)
Europe	13 (13 - 13)	4 (4 - 4)	118 (116 - 119)	29 (29 - 29)	8 (7 - 9)	5 (5 - 6)	3 (2 - 3)	3.9 (3.5 - 4.3)	74 (68 - 80)	40 (38 - 42)	19 (18 - 20)
Northern America	9 (9 - 9)	5 (5 - 6)	40 (39 - 40)	23 (22 - 24)	6 (5 - 6)	5 (4 - 5)	3 (3 - 4)	1.7 (1.6 - 1.9)	24 (24 - 25)	20 (19 - 20)	15 (14 - 15)
Landlocked developing countries	100 (98 - 102)	38 (36 - 42)	1,072 (1,051 - 1,096)	608 (573 - 666)	47 (45 - 49)	41 (40 - 43)	24 (22 - 28)	2.3 (1.8 - 2.6)	520 (499 - 543)	515 (495 - 537)	386 (350 - 447)
Least developed countries	109 (107 - 110)	44 (41 - 49)	2,266 (2,235 - 2,301)	1,397 (1,312 - 1,552)	52 (50 - 54)	42 (41 - 43)	25 (23 - 29)	2.4 (1.9 - 2.7)	1,119 (1,082 - 1,161)	1,065 (1,034 - 1,102)	816 (752 - 954)
Small island developing States	56 (54 - 58)	30 (27 - 35)	67 (65 - 69)	36 (32 - 43)	27 (25 - 28)	23 (22 - 25)	19 (16 - 23)	1.2 (0.4 - 1.7)	32 (31 - 34)	28 (27 - 30)	23 (20 - 28)
World	65 (64 - 66)	27 (26 - 29)	8,748 (8,631 - 8,886)	3,789 (3,639 - 4,056)	37 (36 - 38)	30 (30 - 31)	17 (16 - 19)	2.6 (2.2 - 2.8)	5,021 (4,880 - 5,181)	4,008 (3,905 - 4,122)	2,372 (2,245 - 2,606)

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by UNICEF region⁹

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2020	
	1990	2000	2020		1990	2000	2020	Male	Female	Male	Female
Sub-Saharan Africa	179 (176 - 183)	151 (148 - 154)	73 (68 - 85)	3.0 (2.5 - 3.3)	3,842 (3,768 - 3,927)	3,994 (3,919 - 4,084)	2,791 (2,577 - 3,218)	188 (184 - 192)	170 (166 - 174)	79 (72 - 91)	68 (62 - 78)
West and Central Africa	197 (191 - 203)	168 (163 - 173)	91 (80 - 110)	2.6 (1.9 - 3.0)	2,024 (1,961 - 2,091)	2,189 (2,124 - 2,260)	1,800 (1,576 - 2,161)	206 (199 - 213)	187 (181 - 194)	97 (85 - 117)	85 (75 - 103)
Eastern and Southern Africa	163 (159 - 168)	134 (131 - 138)	54 (49 - 64)	3.7 (3.1 - 4.0)	1,818 (1,775 - 1,867)	1,806 (1,763 - 1,858)	991 (908 - 1,173)	172 (167 - 176)	154 (150 - 158)	58 (53 - 69)	49 (45 - 58)
Middle East and North Africa	65 (64 - 67)	43 (41 - 44)	21 (18 - 27)	3.7 (2.9 - 4.3)	550 (535 - 566)	329 (319 - 339)	212 (180 - 271)	67 (66 - 69)	63 (62 - 65)	23 (19 - 29)	20 (17 - 25)
South Asia	130 (127 - 133)	93 (91 - 96)	38 (35 - 42)	4.1 (3.7 - 4.4)	4,755 (4,637 - 4,880)	3,544 (3,446 - 3,648)	1,345 (1,227 - 1,476)	128 (124 - 131)	132 (128 - 136)	39 (36 - 43)	38 (34 - 41)
East Asia and Pacific	57 (54 - 60)	39 (38 - 41)	14 (13 - 15)	4.7 (4.4 - 5.0)	2,303 (2,195 - 2,427)	1,256 (1,217 - 1,301)	416 (384 - 460)	60 (57 - 63)	53 (51 - 56)	15 (14 - 17)	13 (12 - 14)
Latin America and Caribbean	55 (53 - 56)	33 (32 - 34)	16 (15 - 18)	4.1 (3.8 - 4.3)	644 (626 - 663)	382 (372 - 393)	168 (159 - 181)	59 (58 - 61)	50 (49 - 52)	18 (17 - 19)	14 (14 - 16)
North America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.9 (1.8 - 2.0)	47 (46 - 48)	35 (35 - 36)	27 (26 - 28)	12 (12 - 12)	10 (10 - 10)	7 (7 - 7)	6 (5 - 6)
Europe and Central Asia	31 (30 - 32)	21 (21 - 22)	8 (7 - 8)	4.7 (4.4 - 4.9)	386 (376 - 396)	216 (209 - 223)	82 (78 - 90)	33 (33 - 34)	28 (27 - 29)	8 (8 - 9)	7 (6 - 7)
Eastern Europe and Central Asia	46 (45 - 48)	35 (34 - 37)	11 (10 - 12)	4.9 (4.5 - 5.2)	328 (319 - 339)	185 (179 - 193)	64 (59 - 71)	50 (49 - 52)	42 (41 - 44)	12 (11 - 13)	10 (9 - 11)
Western Europe	11 (10 - 11)	6 (6 - 6)	4 (4 - 4)	3.4 (3.3 - 3.5)	58 (57 - 58)	30 (30 - 31)	18 (18 - 19)	12 (12 - 12)	9 (9 - 9)	4 (4 - 4)	3 (3 - 4)
World	93 (92 - 95)	76 (75 - 77)	37 (35 - 40)	3.1 (2.8 - 3.3)	12,526 (12,354 - 12,729)	9,756 (9,631 - 9,907)	5,041 (4,813 - 5,512)	96 (94 - 97)	90 (89 - 92)	39 (37 - 42)	34 (33 - 38)

Estimates of mortality among children under age 5 by World Health Organization region⁹

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2020	
	1990	2000	2020		1990	2000	2020	Male	Female	Male	Female
Africa	176 (173 - 180)	150 (147 - 153)	72 (66 - 83)	3.0 (2.5 - 3.3)	3,714 (3,641 - 3,796)	3,836 (3,761 - 3,920)	2,664 (2,445 - 3,070)	185 (181 - 189)	167 (164 - 171)	77 (71 - 89)	66 (61 - 77)
Americas	43 (42 - 44)	26 (26 - 27)	13 (13 - 14)	3.9 (3.7 - 4.1)	691 (673 - 711)	417 (407 - 428)	195 (186 - 208)	47 (45 - 48)	39 (38 - 40)	15 (14 - 16)	12 (11 - 13)
Eastern Mediterranean	103 (101 - 106)	80 (78 - 83)	45 (40 - 53)	2.8 (2.2 - 3.2)	1,379 (1,349 - 1,413)	1,130 (1,100 - 1,167)	796 (712 - 938)	106 (104 - 109)	100 (98 - 103)	48 (43 - 57)	41 (37 - 49)
Europe	31 (30 - 31)	21 (20 - 22)	8 (7 - 8)	4.7 (4.4 - 4.9)	387 (377 - 397)	217 (210 - 224)	83 (78 - 90)	33 (32 - 34)	28 (27 - 29)	8 (8 - 9)	7 (6 - 7)
South-East Asia	119 (116 - 122)	84 (81 - 86)	30 (28 - 33)	4.5 (4.2 - 4.9)	4,637 (4,520 - 4,761)	3,283 (3,189 - 3,387)	1,051 (952 - 1,155)	118 (114 - 121)	120 (117 - 123)	31 (28 - 34)	30 (27 - 33)
Western Pacific	52 (48 - 55)	35 (33 - 37)	11 (10 - 12)	5.2 (4.8 - 5.6)	1,715 (1,609 - 1,836)	870 (833 - 910)	251 (231 - 279)	54 (51 - 58)	49 (45 - 52)	12 (11 - 13)	10 (9 - 11)
World	93 (92 - 95)	76 (75 - 77)	37 (35 - 40)	3.1 (2.8 - 3.3)	12,526 (12,354 - 12,729)	9,756 (9,631 - 9,907)	5,041 (4,813 - 5,512)	96 (94 - 97)	90 (89 - 92)	39 (37 - 42)	34 (33 - 38)

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by UNICEF region^a (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
Sub-Saharan Africa	107 (105 - 109)	50 (47 - 56)	2,335 (2,296 - 2,382)	1,935 (1,803 - 2,164)	46 (44 - 48)	40 (39 - 42)	27 (25 - 32)	1.7 (1.2 - 2.1)	1,022 (984 - 1,067)	1,117 (1,077 - 1,164)	1,061 (967 - 1,242)
West and Central Africa	115 (111 - 118)	61 (55 - 71)	1,201 (1,168 - 1,237)	1,221 (1,086 - 1,417)	48 (46 - 51)	43 (41 - 46)	30 (26 - 37)	1.5 (0.9 - 2)	520 (492 - 551)	590 (559 - 624)	617 (532 - 756)
Eastern and Southern Africa	100 (98 - 103)	38 (36 - 44)	1,134 (1,111 - 1,162)	714 (661 - 815)	43 (41 - 45)	38 (36 - 39)	24 (21 - 28)	2.0 (1.4 - 2.4)	502 (479 - 528)	527 (506 - 553)	444 (400 - 532)
Middle East and North Africa	50 (49 - 51)	18 (15 - 22)	420 (411 - 431)	177 (152 - 217)	28 (26 - 30)	21 (20 - 22)	12 (10 - 15)	2.8 (2 - 3.4)	235 (219 - 250)	164 (157 - 171)	119 (101 - 150)
South Asia	92 (90 - 94)	32 (29 - 35)	3,375 (3,300 - 3,453)	1,112 (1,023 - 1,208)	59 (56 - 61)	46 (44 - 48)	24 (22 - 26)	3.0 (2.6 - 3.4)	2,190 (2,095 - 2,288)	1,776 (1,699 - 1,858)	838 (757 - 930)
East Asia and Pacific	44 (42 - 46)	11 (10 - 12)	1,760 (1,676 - 1,857)	330 (305 - 363)	28 (26 - 30)	20 (19 - 21)	7 (6 - 8)	4.7 (4.2 - 5.1)	1,107 (1,026 - 1,203)	641 (609 - 676)	203 (184 - 230)
Latin America and Caribbean	43 (42 - 45)	14 (13 - 15)	510 (498 - 524)	143 (135 - 154)	23 (22 - 24)	16 (15 - 17)	9 (8 - 10)	3.0 (2.7 - 3.3)	268 (255 - 283)	187 (177 - 197)	94 (87 - 103)
North America	9 (9 - 9)	5 (5 - 6)	40 (39 - 40)	23 (22 - 24)	6 (5 - 6)	5 (4 - 5)	3 (3 - 4)	1.7 (1.6 - 1.9)	24 (24 - 25)	20 (19 - 20)	15 (14 - 15)
Europe and Central Asia	25 (24 - 25)	7 (6 - 7)	308 (301 - 315)	70 (66 - 76)	14 (13 - 15)	10 (10 - 11)	4 (4 - 5)	4.1 (3.7 - 4.5)	174 (166 - 184)	104 (99 - 109)	43 (40 - 48)
Eastern Europe and Central Asia	37 (36 - 38)	9 (9 - 10)	259 (253 - 267)	55 (51 - 61)	20 (19 - 22)	17 (16 - 18)	5 (5 - 6)	4.4 (3.9 - 4.8)	144 (136 - 153)	87 (82 - 92)	33 (29 - 37)
Western Europe	9 (9 - 9)	3 (3 - 3)	48 (48 - 49)	15 (15 - 16)	6 (5 - 6)	3 (3 - 4)	2 (2 - 2)	3.0 (2.9 - 3.1)	30 (30 - 31)	17 (17 - 17)	11 (11 - 11)
World	65 (64 - 66)	27 (26 - 29)	8,748 (8,631 - 8,886)	3,789 (3,639 - 4,056)	37 (36 - 38)	30 (30 - 31)	17 (16 - 19)	2.6 (2.2 - 2.8)	5,021 (4,880 - 5,181)	4,008 (3,905 - 4,122)	2,372 (2,245 - 2,606)

Estimates of mortality among children under age 5 by World Health Organization region^a (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
Africa	106 (104 - 108)	49 (46 - 55)	2,263 (2,224 - 2,309)	1,852 (1,718 - 2,071)	45 (43 - 47)	40 (38 - 42)	27 (24 - 31)	1.7 (1.2 - 2.1)	988 (950 - 1,032)	1,069 (1,030 - 1,114)	1,015 (922 - 1,183)
Americas	34 (33 - 35)	11 (11 - 12)	550 (537 - 564)	166 (158 - 177)	18 (17 - 19)	13 (12 - 14)	7 (7 - 8)	3.0 (2.7 - 3.2)	292 (279 - 307)	206 (196 - 217)	108 (102 - 118)
Eastern Mediterranean	76 (75 - 78)	36 (32 - 41)	1,025 (1,005 - 1,048)	635 (575 - 727)	44 (42 - 46)	38 (37 - 40)	25 (22 - 29)	1.9 (1.3 - 2.3)	598 (570 - 626)	551 (530 - 575)	449 (398 - 530)
Europe	25 (24 - 25)	6 (6 - 7)	309 (302 - 316)	71 (67 - 77)	14 (13 - 15)	10 (10 - 11)	4 (4 - 4)	4.1 (3.7 - 4.5)	175 (166 - 184)	104 (100 - 109)	44 (40 - 49)
South-East Asia	84 (82 - 86)	25 (23 - 27)	3,268 (3,194 - 3,345)	870 (795 - 947)	53 (50 - 55)	41 (39 - 42)	18 (16 - 20)	3.5 (3.1 - 3.9)	2,090 (1,999 - 2,184)	1,607 (1,533 - 1,684)	635 (570 - 708)
Western Pacific	40 (38 - 43)	8 (8 - 9)	1,330 (1,247 - 1,426)	193 (178 - 213)	27 (24 - 30)	19 (18 - 20)	5 (5 - 6)	5.5 (4.9 - 6)	875 (795 - 968)	469 (439 - 501)	119 (106 - 135)
World	65 (64 - 66)	27 (26 - 29)	8,748 (8,631 - 8,886)	3,789 (3,639 - 4,056)	37 (36 - 38)	30 (30 - 31)	17 (16 - 19)	2.6 (2.2 - 2.8)	5,021 (4,880 - 5,181)	4,008 (3,905 - 4,122)	2,372 (2,245 - 2,606)

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by World Bank region⁹

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)				
								1990		2020		
	1990	2000	2020		1990-2020	1990	2000	2020	Male	Female	Male	Female
East Asia and Pacific	57 (54 - 60)	39 (38 - 41)	14 (13 - 15)	4.7 (4.4 - 5.0)	2,303 (2,195 - 2,427)	1,256 (1,217 - 1,301)	415 (384 - 460)	60 (57 - 63)	53 (51 - 56)	15 (14 - 17)	13 (12 - 14)	
Europe and Central Asia	31 (30 - 32)	21 (21 - 22)	8 (7 - 8)	4.7 (4.4 - 4.9)	385 (376 - 396)	216 (209 - 223)	82 (78 - 90)	33 (33 - 34)	28 (27 - 29)	8 (8 - 9)	7 (6 - 7)	
Latin America and the Caribbean	55 (53 - 56)	33 (32 - 34)	16 (15 - 18)	4.1 (3.8 - 4.3)	644 (626 - 663)	382 (372 - 393)	168 (159 - 181)	59 (58 - 61)	50 (49 - 52)	18 (17 - 19)	14 (14 - 16)	
Middle East and North Africa	66 (64 - 67)	43 (42 - 44)	21 (18 - 27)	3.7 (2.9 - 4.3)	552 (538 - 568)	331 (322 - 342)	214 (181 - 273)	68 (66 - 70)	63 (62 - 65)	23 (19 - 29)	20 (17 - 25)	
North America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.9 (1.8 - 2.0)	47 (46 - 48)	35 (35 - 36)	27 (26 - 28)	12 (12 - 12)	10 (10 - 10)	7 (7 - 7)	6 (5 - 6)	
South Asia	130 (127 - 133)	93 (91 - 96)	38 (35 - 42)	4.1 (3.7 - 4.4)	4,755 (4,637 - 4,880)	3,544 (3,446 - 3,648)	1,345 (1,227 - 1,476)	128 (124 - 131)	132 (128 - 136)	39 (36 - 43)	38 (34 - 41)	
Sub-Saharan Africa	179 (176 - 183)	151 (148 - 154)	73 (68 - 85)	3.0 (2.5 - 3.3)	3,839 (3,766 - 3,924)	3,992 (3,917 - 4,082)	2,790 (2,575 - 3,217)	188 (184 - 192)	170 (167 - 174)	79 (72 - 91)	68 (62 - 78)	
Low income	185 (181 - 190)	145 (142 - 149)	66 (60 - 78)	3.4 (2.9 - 3.7)	2,309 (2,260 - 2,365)	2,287 (2,238 - 2,348)	1,458 (1,336 - 1,711)	194 (189 - 199)	176 (173 - 181)	71 (65 - 83)	61 (56 - 72)	
Lower middle income	120 (118 - 122)	93 (91 - 95)	45 (42 - 50)	3.3 (2.9 - 3.5)	7,721 (7,590 - 7,864)	6,126 (6,015 - 6,252)	3,132 (2,902 - 3,496)	122 (119 - 124)	118 (116 - 121)	47 (44 - 53)	43 (39 - 48)	
Upper middle income	52 (49 - 55)	35 (34 - 36)	11 (11 - 12)	5.1 (4.8 - 5.3)	2,313 (2,206 - 2,436)	1,233 (1,196 - 1,276)	379 (364 - 401)	55 (52 - 58)	49 (46 - 51)	12 (12 - 13)	10 (10 - 11)	
High income	12 (12 - 13)	8 (8 - 8)	5 (5 - 5)	3.1 (3.0 - 3.2)	167 (162 - 172)	98 (97 - 100)	60 (58 - 62)	14 (13 - 14)	11 (11 - 12)	5 (5 - 5)	4 (4 - 5)	
World	93 (92 - 95)	76 (75 - 77)	37 (35 - 40)	3.1 (2.8 - 3.3)	12,526 (12,354 - 12,729)	9,756 (9,631 - 9,907)	5,041 (4,813 - 5,512)	96 (94 - 97)	90 (89 - 92)	39 (37 - 42)	34 (33 - 38)	

Estimates of mortality among children under age 5 by United Nations Population Division region⁹

Region	Under-five mortality rate (U5MR) (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths (thousands) ^a			Sex-specific under-five mortality rate (deaths per 1,000 live births)				
								1990		2020		
	1990	2000	2020		1990-2020	1990	2000	2020	Male	Female	Male	Female
More developed regions	13 (13 - 13)	9 (9 - 9)	5 (5 - 5)	3.3 (3.2 - 3.3)	203 (201 - 205)	119 (118 - 120)	66 (65 - 67)	15 (15 - 15)	12 (12 - 12)	5 (5 - 6)	4 (4 - 5)	
Less developed regions	103 (102 - 105)	83 (82 - 84)	40 (38 - 44)	3.2 (2.9 - 3.3)	12,324 (12,152 - 12,526)	9,638 (9,512 - 9,788)	4,975 (4,748 - 5,447)	106 (104 - 107)	100 (99 - 102)	42 (40 - 46)	38 (36 - 41)	
Least developed countries	175 (173 - 179)	136 (133 - 138)	61 (57 - 70)	3.5 (3.1 - 3.8)	3,608 (3,552 - 3,672)	3,303 (3,250 - 3,373)	1,926 (1,800 - 2,212)	183 (180 - 186)	168 (165 - 171)	65 (61 - 75)	56 (52 - 64)	
Excluding least developed countries	88 (86 - 90)	69 (68 - 70)	33 (30 - 37)	3.3 (2.9 - 3.6)	8,713 (8,547 - 8,900)	6,330 (6,215 - 6,459)	3,046 (2,823 - 3,388)	90 (88 - 92)	86 (84 - 88)	34 (32 - 38)	31 (29 - 35)	
Excluding China	116 (115 - 118)	91 (90 - 93)	45 (43 - 49)	3.2 (2.9 - 3.3)	10,946 (10,806 - 11,102)	8,986 (8,867 - 9,131)	4,853 (4,626 - 5,325)	119 (117 - 121)	113 (111 - 115)	47 (45 - 52)	42 (40 - 46)	
Sub-Saharan Africa	181 (178 - 185)	153 (150 - 156)	74 (68 - 86)	3.0 (2.5 - 3.3)	3,735 (3,662 - 3,820)	3,885 (3,811 - 3,975)	2,715 (2,500 - 3,136)	190 (186 - 194)	172 (168 - 176)	79 (73 - 92)	68 (63 - 79)	
Africa	164 (161 - 168)	140 (137 - 143)	68 (63 - 78)	3.0 (2.5 - 3.2)	4,117 (4,044 - 4,203)	4,143 (4,068 - 4,233)	2,881 (2,667 - 3,312)	172 (169 - 176)	156 (153 - 159)	73 (67 - 84)	63 (58 - 72)	
Asia	90 (88 - 92)	67 (65 - 68)	26 (25 - 28)	4.1 (3.8 - 4.3)	7,556 (7,400 - 7,734)	5,102 (4,999 - 5,216)	1,917 (1,796 - 2,072)	91 (89 - 93)	89 (87 - 91)	27 (26 - 30)	25 (24 - 27)	
Europe	15 (15 - 16)	10 (10 - 11)	5 (5 - 5)	4.0 (4.0 - 4.1)	144 (143 - 146)	76 (75 - 77)	35 (35 - 36)	17 (17 - 18)	13 (13 - 14)	5 (5 - 5)	4 (4 - 4)	
Latin America and the Caribbean	55 (53 - 56)	33 (32 - 34)	16 (15 - 18)	4.1 (3.8 - 4.3)	644 (626 - 663)	382 (372 - 393)	168 (159 - 181)	59 (58 - 61)	50 (49 - 52)	18 (17 - 19)	14 (14 - 16)	
Northern America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.9 (1.8 - 2.0)	47 (46 - 48)	35 (35 - 36)	27 (26 - 28)	12 (12 - 12)	10 (10 - 10)	7 (7 - 7)	6 (5 - 6)	
Oceania	35 (33 - 38)	32 (29 - 34)	20 (15 - 26)	1.9 (0.9 - 2.9)	18 (17 - 20)	17 (16 - 19)	13 (10 - 18)	38 (35 - 41)	33 (30 - 35)	21 (16 - 29)	18 (14 - 24)	
World	93 (92 - 95)	76 (75 - 77)	37 (35 - 40)	3.1 (2.8 - 3.3)	12,526 (12,354 - 12,729)	9,756 (9,631 - 9,907)	5,041 (4,813 - 5,512)	96 (94 - 97)	90 (89 - 92)	39 (37 - 42)	34 (33 - 38)	

Country, regional and global estimates of mortality among children under age 5

Estimates of mortality among children under age 5 by World Bank region⁹ (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
East Asia and Pacific	44 (42 - 46)	11 (10 - 12)	1,760 (1,676 - 1,857)	330 (305 - 363)	28 (26 - 30)	20 (19 - 21)	7 (6 - 8)	4.7 (4.2 - 5.1)	1,107 (1,026 - 1,203)	641 (609 - 676)	203 (184 - 230)
Europe and Central Asia	25 (24 - 25)	7 (6 - 7)	308 (301 - 315)	70 (66 - 76)	14 (13 - 15)	10 (10 - 11)	4 (4 - 5)	4.1 (3.7 - 4.5)	174 (166 - 184)	104 (99 - 109)	43 (40 - 48)
Latin America and the Caribbean	43 (42 - 45)	14 (13 - 15)	510 (498 - 524)	143 (135 - 154)	23 (22 - 24)	16 (15 - 17)	9 (8 - 10)	3.0 (2.7 - 3.3)	268 (255 - 283)	187 (177 - 197)	94 (87 - 103)
Middle East and North Africa	50 (49 - 51)	18 (15 - 22)	422 (413 - 433)	178 (153 - 218)	28 (26 - 30)	21 (20 - 22)	12 (10 - 15)	2.8 (2 - 3.4)	236 (220 - 252)	165 (158 - 172)	119 (102 - 151)
North America	9 (9 - 9)	5 (5 - 6)	40 (39 - 40)	23 (22 - 24)	6 (5 - 6)	5 (4 - 5)	3 (3 - 4)	1.7 (1.6 - 1.9)	24 (24 - 25)	20 (19 - 20)	15 (14 - 15)
South Asia	92 (90 - 94)	32 (29 - 35)	3,375 (3,300 - 3,453)	1,112 (1,023 - 1,208)	59 (56 - 61)	46 (44 - 48)	24 (22 - 26)	3.0 (2.6 - 3.4)	2,190 (2,095 - 2,288)	1,776 (1,699 - 1,858)	838 (757 - 930)
Sub-Saharan Africa	107 (105 - 109)	50 (47 - 56)	2,333 (2,293 - 2,380)	1,934 (1,802 - 2,163)	46 (44 - 48)	40 (39 - 42)	27 (25 - 32)	1.7 (1.2 - 2.1)	1,021 (983 - 1,066)	1,116 (1,076 - 1,163)	1,060 (966 - 1,241)
Low income	111 (108 - 113)	47 (43 - 53)	1,407 (1,380 - 1,437)	1,048 (966 - 1,187)	49 (47 - 51)	42 (40 - 44)	26 (24 - 32)	2.1 (1.5 - 2.4)	643 (617 - 673)	689 (662 - 720)	599 (540 - 717)
Lower middle income	83 (82 - 84)	34 (32 - 37)	5,361 (5,280 - 5,449)	2,373 (2,229 - 2,586)	48 (46 - 49)	39 (38 - 40)	22 (20 - 24)	2.6 (2.2 - 2.9)	3,133 (3,022 - 3,245)	2,611 (2,522 - 2,707)	1,543 (1,430 - 1,711)
Upper middle income	41 (39 - 43)	9 (9 - 10)	1,828 (1,745 - 1,925)	307 (295 - 324)	26 (24 - 28)	19 (18 - 20)	6 (5 - 6)	5.1 (4.7 - 5.4)	1,154 (1,071 - 1,249)	650 (618 - 685)	190 (180 - 206)
High income	10 (10 - 11)	4 (4 - 4)	138 (135 - 142)	51 (49 - 52)	6 (6 - 7)	4 (4 - 4)	3 (3 - 3)	2.8 (2.6 - 3)	84 (81 - 89)	52 (51 - 54)	33 (32 - 34)
World	65 (64 - 66)	27 (26 - 29)	8,748 (8,631 - 8,886)	3,789 (3,639 - 4,056)	37 (36 - 38)	30 (30 - 31)	17 (16 - 19)	2.6 (2.2 - 2.8)	5,021 (4,880 - 5,181)	4,008 (3,905 - 4,122)	2,372 (2,245 - 2,606)

Estimates of mortality among children under age 5 by United Nations Population Division region⁹ (continued)

Region	Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands) ^a		Neonatal mortality rate (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of neonatal deaths (thousands) ^a		
	1990	2020	1990	2020	1990	2000	2020	1990-2020	1990	2000	2020
More developed regions	11 (11 - 11)	4 (4 - 4)	166 (164 - 167)	55 (54 - 56)	7 (6 - 7)	5 (5 - 5)	3 (3 - 3)	3.1 (2.9 - 3.4)	103 (97 - 110)	63 (61 - 65)	35 (34 - 37)
Less developed regions	71 (70 - 73)	30 (29 - 32)	8,582 (8,466 - 8,720)	3,734 (3,584 - 4,001)	40 (39 - 42)	33 (32 - 34)	18 (17 - 20)	2.6 (2.3 - 2.8)	4,918 (4,776 - 5,078)	3,946 (3,844 - 4,058)	2,337 (2,210 - 2,571)
Least developed countries	109 (107 - 110)	44 (41 - 49)	2,266 (2,235 - 2,301)	1,397 (1,312 - 1,552)	52 (50 - 54)	42 (41 - 43)	25 (23 - 29)	2.4 (1.9 - 2.7)	1,119 (1,082 - 1,161)	1,065 (1,034 - 1,102)	816 (752 - 954)
Excluding least developed countries	64 (62 - 65)	25 (24 - 27)	6,315 (6,200 - 6,444)	2,334 (2,194 - 2,535)	38 (36 - 39)	31 (30 - 32)	16 (15 - 18)	2.8 (2.5 - 3.1)	3,798 (3,666 - 3,941)	2,879 (2,786 - 2,978)	1,520 (1,411 - 1,677)
Excluding China	79 (78 - 80)	33 (32 - 36)	7,497 (7,413 - 7,593)	3,645 (3,494 - 3,912)	43 (42 - 44)	35 (34 - 36)	21 (20 - 23)	2.4 (2.1 - 2.6)	4,174 (4,054 - 4,302)	3,570 (3,474 - 3,677)	2,280 (2,154 - 2,515)
Sub-Saharan Africa	108 (106 - 110)	51 (47 - 57)	2,267 (2,227 - 2,314)	1,880 (1,748 - 2,108)	46 (44 - 48)	40 (39 - 42)	27 (25 - 32)	1.7 (1.2 - 2.1)	986 (949 - 1,030)	1,077 (1,038 - 1,123)	1,024 (930 - 1,201)
Africa	100 (98 - 102)	47 (44 - 52)	2,545 (2,505 - 2,592)	2,011 (1,879 - 2,244)	43 (42 - 45)	38 (37 - 40)	26 (23 - 30)	1.8 (1.3 - 2.1)	1,139 (1,099 - 1,185)	1,193 (1,152 - 1,240)	1,114 (1,020 - 1,298)
Asia	66 (64 - 67)	22 (20 - 23)	5,521 (5,412 - 5,646)	1,572 (1,479 - 1,683)	41 (40 - 43)	33 (32 - 34)	15 (14 - 17)	3.3 (3 - 3.6)	3,509 (3,381 - 3,646)	2,561 (2,477 - 2,652)	1,124 (1,043 - 1,229)
Europe	13 (13 - 13)	4 (4 - 4)	118 (116 - 119)	29 (29 - 29)	8 (7 - 9)	5 (5 - 6)	3 (2 - 3)	3.9 (3.5 - 4.3)	74 (68 - 80)	40 (38 - 42)	19 (18 - 20)
Latin America and the Caribbean	43 (42 - 45)	14 (13 - 15)	510 (498 - 524)	143 (135 - 154)	23 (22 - 24)	16 (15 - 17)	9 (8 - 10)	3.0 (2.7 - 3.3)	268 (255 - 283)	187 (177 - 197)	94 (87 - 103)
Northern America	9 (9 - 9)	5 (5 - 6)	40 (39 - 40)	23 (22 - 24)	6 (5 - 6)	5 (4 - 5)	3 (3 - 4)	1.7 (1.6 - 1.9)	24 (24 - 25)	20 (19 - 20)	15 (14 - 15)
Oceania	27 (25 - 28)	16 (13 - 21)	14 (13 - 15)	11 (9 - 14)	14 (13 - 15)	14 (13 - 15)	10 (7 - 14)	1.2 (0.1 - 2.2)	7 (7 - 8)	8 (7 - 9)	7 (5 - 9)
World	65 (64 - 66)	27 (26 - 29)	8,748 (8,631 - 8,886)	3,789 (3,639 - 4,056)	37 (36 - 38)	30 (30 - 31)	17 (16 - 19)	2.6 (2.2 - 2.8)	5,021 (4,880 - 5,181)	4,008 (3,905 - 4,122)	2,372 (2,245 - 2,606)

Country, regional and global estimates of mortality among older children, adolescents and youth aged 5–24 years

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands) ^a		Probability of dying among youth aged 15–24 years (per 1,000 children aged 15)		Number of deaths among youth aged 15–24 (thousands) ^a		Probability of dying among adolescents aged 10–19 years (per 1,000 children aged 10)		Number of deaths among adolescents aged 10–19 (thousands) ^a	
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020
Afghanistan	22 (11 - 39)	6 (2 - 10)	8 (4 - 14)	6 (2 - 11)	55 (29 - 119)	30 (17 - 55)	13 (7 - 28)	26 (15 - 47)	30 (19 - 49)	15 (10 - 23)	9 (5 - 15)	15 (10 - 22)
Albania	6 (6 - 7)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	8 (8 - 8)	3 (3 - 4)	1 (0 - 1)	0 (0 - 0)	6 (5 - 6)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Algeria	9 (9 - 10)	3 (3 - 3)	7 (6 - 7)	3 (3 - 3)	11 (10 - 13)	6 (6 - 6)	6 (5 - 7)	3 (3 - 4)	9 (8 - 10)	4 (4 - 4)	6 (5 - 6)	3 (3 - 3)
Andorra	3 (2 - 4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	10 (8 - 12)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	6 (4 - 7)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)
Angola	55 (43 - 70)	16 (13 - 21)	20 (15 - 25)	16 (12 - 20)	63 (49 - 80)	30 (24 - 39)	14 (11 - 18)	19 (15 - 25)	45 (35 - 58)	19 (15 - 24)	13 (10 - 16)	14 (11 - 18)
Antigua and Barbuda	3 (2 - 3)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	14 (6 - 28)	6 (4 - 9)	0 (0 - 0)	0 (0 - 0)	8 (5 - 12)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)
Argentina	3 (3 - 3)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	9 (8 - 9)	8 (7 - 8)	5 (4 - 5)	5 (5 - 6)	5 (5 - 6)	4 (4 - 4)	3 (3 - 3)	3 (3 - 3)
Armenia	3 (3 - 4)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Australia	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	8 (8 - 8)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)
Austria	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	8 (8 - 8)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	4 (4 - 5)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)
Azerbaijan	6 (5 - 6)	4 (3 - 4)	1 (1 - 1)	1 (1 - 1)	7 (7 - 7)	15 (12 - 20)	1 (1 - 1)	2 (2 - 3)	5 (5 - 5)	7 (7 - 8)	1 (1 - 1)	1 (1 - 1)
Bahamas	4 (4 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	12 (11 - 14)	12 (10 - 14)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)
Bahrain	4 (3 - 4)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	4 (4 - 5)	0 (0 - 0)	0 (0 - 0)	5 (4 - 5)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Bangladesh	25 (22 - 27)	6 (4 - 10)	70 (63 - 77)	19 (11 - 32)	23 (21 - 26)	11 (8 - 15)	50 (46 - 55)	34 (25 - 47)	18 (15 - 21)	9 (6 - 13)	44 (37 - 52)	26 (18 - 40)
Barbados	3 (2 - 3)	2 (1 - 3)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	6 (4 - 10)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	3 (2 - 5)	0 (0 - 0)	0 (0 - 0)
Belarus	4 (4 - 4)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	11 (11 - 12)	4 (4 - 4)	2 (2 - 2)	0 (0 - 0)	6 (6 - 6)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)
Belgium	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	8 (7 - 8)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	4 (4 - 4)	1 (1 - 2)	1 (1 - 1)	0 (0 - 0)
Belize	5 (4 - 6)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	9 (7 - 11)	12 (10 - 14)	0 (0 - 0)	0 (0 - 0)	5 (4 - 6)	6 (5 - 7)	0 (0 - 0)	0 (0 - 0)
Benin	42 (37 - 49)	19 (15 - 26)	6 (5 - 7)	6 (5 - 8)	29 (24 - 36)	22 (15 - 34)	3 (2 - 3)	5 (4 - 8)	28 (21 - 37)	18 (12 - 27)	3 (2 - 4)	5 (3 - 8)
Bhutan	17 (11 - 26)	8 (4 - 13)	0 (0 - 0)	0 (0 - 0)	31 (18 - 51)	12 (6 - 23)	0 (0 - 1)	0 (0 - 0)	19 (12 - 33)	10 (6 - 17)	0 (0 - 0)	0 (0 - 0)
Bolivia (Plurinational State of)	12 (10 - 14)	4 (2 - 8)	2 (2 - 2)	1 (1 - 2)	24 (20 - 29)	10 (5 - 20)	3 (3 - 4)	2 (1 - 4)	16 (13 - 20)	7 (4 - 11)	2 (2 - 3)	2 (1 - 3)
Bosnia and Herzegovina	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	4 (3 - 5)	0 (0 - 1)	0 (0 - 0)	4 (4 - 4)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Botswana	20 (16 - 25)	7 (5 - 10)	1 (1 - 1)	0 (0 - 1)	39 (30 - 51)	11 (7 - 17)	1 (1 - 1)	0 (0 - 1)	20 (14 - 27)	8 (5 - 12)	1 (0 - 1)	0 (0 - 1)
Brazil	4 (4 - 4)	2 (2 - 3)	14 (14 - 15)	7 (7 - 7)	13 (13 - 14)	12 (11 - 13)	39 (38 - 40)	40 (38 - 43)	8 (7 - 8)	6 (6 - 7)	23 (23 - 24)	20 (19 - 21)
Brunei Darussalam	4 (3 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	12 (10 - 15)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	8 (7 - 9)	2 (1 - 3)	0 (0 - 0)	0 (0 - 0)
Bulgaria	4 (4 - 4)	2 (1 - 2)	0 (0 - 1)	0 (0 - 0)	8 (8 - 8)	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	5 (5 - 6)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)
Burkina Faso	39 (33 - 45)	17 (9 - 32)	10 (9 - 12)	10 (6 - 19)	38 (32 - 45)	18 (10 - 34)	7 (6 - 8)	8 (4 - 14)	29 (21 - 37)	13 (7 - 27)	6 (4 - 8)	7 (3 - 14)
Burundi	61 (49 - 77)	21 (12 - 37)	10 (8 - 12)	7 (4 - 12)	76 (46 - 134)	17 (10 - 31)	8 (5 - 13)	4 (2 - 7)	52 (36 - 73)	17 (9 - 34)	6 (4 - 9)	5 (2 - 10)
Cabo Verde	6 (5 - 7)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	10 (8 - 11)	6 (5 - 7)	0 (0 - 0)	0 (0 - 0)	7 (5 - 8)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)
Cambodia	33 (26 - 40)	5 (3 - 8)	8 (7 - 10)	2 (1 - 3)	38 (30 - 49)	8 (4 - 15)	7 (5 - 8)	2 (1 - 5)	28 (18 - 39)	5 (3 - 9)	5 (3 - 7)	2 (1 - 3)
Cameroon	32 (29 - 36)	23 (16 - 30)	11 (10 - 12)	16 (12 - 22)	31 (26 - 37)	30 (20 - 43)	7 (6 - 8)	16 (11 - 22)	25 (19 - 30)	21 (13 - 31)	7 (5 - 8)	13 (8 - 20)
Canada	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	4 (4 - 5)	3 (3 - 3)	2 (2 - 2)	5 (4 - 5)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)

Country, regional and global estimates of mortality among older children, adolescents and youth aged 5–24 years

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands) ^a		Probability of dying among youth aged 15–24 years (per 1,000 children aged 15)		Number of deaths among youth aged 15–24 (thousands) ^a		Probability of dying among adolescents aged 10–19 years (per 1,000 children aged 10)		Number of deaths among adolescents aged 10–19 (thousands) ^a	
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020
Central African Republic	29 (23 - 37)	28 (18 - 46)	2 (2 - 3)	4 (3 - 6)	45 (37 - 56)	34 (15 - 81)	2 (2 - 3)	4 (2 - 9)	30 (22 - 40)	23 (11 - 44)	2 (1 - 3)	3 (1 - 6)
Chad	51 (42 - 62)	24 (18 - 31)	9 (8 - 11)	11 (9 - 15)	59 (48 - 72)	35 (21 - 56)	7 (5 - 8)	12 (7 - 19)	43 (30 - 58)	26 (17 - 37)	6 (4 - 8)	11 (7 - 15)
Chile	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	8 (8 - 9)	5 (5 - 5)	2 (2 - 2)	1 (1 - 1)	5 (5 - 5)	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)
China	7 (6 - 8)	2 (1 - 3)	147 (127 - 171)	31 (19 - 51)	9 (7 - 11)	4 (2 - 6)	223 (180 - 285)	65 (38 - 111)	8 (6 - 10)	2 (2 - 3)	184 (151 - 220)	37 (27 - 55)
Colombia	5 (4 - 5)	2 (2 - 2)	4 (3 - 4)	2 (2 - 2)	26 (22 - 31)	11 (11 - 11)	18 (15 - 21)	10 (9 - 10)	12 (11 - 13)	6 (5 - 6)	9 (8 - 9)	5 (5 - 5)
Comoros	17 (13 - 21)	8 (4 - 17)	0 (0 - 0)	0 (0 - 0)	25 (17 - 39)	9 (5 - 18)	0 (0 - 0)	0 (0 - 0)	18 (12 - 25)	6 (3 - 15)	0 (0 - 0)	0 (0 - 0)
Congo	29 (16 - 49)	8 (4 - 14)	2 (1 - 3)	1 (1 - 2)	59 (32 - 97)	16 (9 - 30)	3 (2 - 5)	2 (1 - 3)	35 (19 - 62)	8 (4 - 15)	2 (1 - 4)	1 (0 - 2)
Cook Islands	5 (4 - 6)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	17 (14 - 22)	9 (4 - 19)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	7 (4 - 9)	0 (0 - 0)	0 (0 - 0)
Costa Rica	3 (3 - 3)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	7 (7 - 8)	0 (0 - 0)	1 (1 - 1)	4 (4 - 4)	4 (3 - 4)	0 (0 - 0)	0 (0 - 0)
Cote d'Ivoire	29 (24 - 34)	24 (16 - 38)	10 (8 - 11)	17 (11 - 26)	32 (27 - 39)	27 (15 - 48)	7 (6 - 8)	15 (8 - 26)	24 (18 - 31)	21 (11 - 37)	6 (5 - 8)	13 (7 - 23)
Croatia	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	10 (9 - 10)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	5 (4 - 5)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)
Cuba	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	11 (10 - 11)	5 (4 - 5)	2 (2 - 2)	1 (1 - 1)	7 (6 - 7)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)
Cyprus	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	4 (3 - 4)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)
Czechia	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	7 (7 - 7)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)
Democratic People's Republic of Korea	8 (6 - 11)	4 (3 - 5)	3 (2 - 4)	1 (1 - 2)	15 (11 - 19)	9 (7 - 11)	7 (5 - 9)	3 (3 - 4)	10 (8 - 13)	6 (4 - 7)	4 (3 - 5)	2 (2 - 3)
Democratic Republic of the Congo	37 (29 - 48)	23 (16 - 33)	36 (29 - 46)	59 (43 - 83)	47 (29 - 79)	37 (22 - 65)	31 (20 - 52)	65 (39 - 111)	31 (19 - 47)	27 (18 - 40)	24 (14 - 37)	56 (35 - 85)
Denmark	2 (2 - 2)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	5 (5 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Djibouti	26 (20 - 33)	13 (10 - 16)	0 (0 - 1)	0 (0 - 0)	42 (33 - 53)	26 (20 - 33)	0 (0 - 1)	0 (0 - 1)	27 (21 - 34)	16 (12 - 20)	0 (0 - 0)	0 (0 - 0)
Dominica	4 (3 - 5)	3 (2 - 5)	0 (0 - 0)	0 (0 - 0)	7 (5 - 8)	7 (4 - 11)	0 (0 - 0)	0 (0 - 0)	5 (4 - 7)	3 (2 - 6)	0 (0 - 0)	0 (0 - 0)
Dominican Republic	7 (6 - 8)	3 (2 - 5)	1 (1 - 2)	1 (0 - 1)	13 (9 - 19)	12 (7 - 22)	2 (1 - 3)	2 (1 - 4)	10 (7 - 13)	6 (4 - 9)	2 (1 - 2)	1 (1 - 2)
Ecuador	7 (7 - 7)	2 (2 - 3)	2 (2 - 2)	1 (1 - 1)	14 (14 - 15)	9 (8 - 9)	3 (3 - 3)	3 (3 - 3)	9 (9 - 10)	5 (4 - 5)	2 (2 - 2)	1 (1 - 1)
Egypt	11 (11 - 11)	4 (4 - 4)	16 (15 - 16)	9 (9 - 10)	12 (12 - 13)	8 (7 - 8)	13 (12 - 13)	13 (12 - 14)	11 (11 - 11)	6 (5 - 6)	13 (13 - 13)	10 (10 - 11)
El Salvador	6 (6 - 6)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	29 (29 - 30)	12 (11 - 12)	3 (3 - 3)	1 (1 - 2)	14 (13 - 14)	7 (6 - 7)	2 (2 - 2)	1 (1 - 1)
Equatorial Guinea	35 (27 - 45)	16 (12 - 20)	0 (0 - 1)	1 (0 - 1)	41 (32 - 52)	25 (19 - 32)	0 (0 - 0)	1 (1 - 1)	31 (24 - 39)	18 (14 - 22)	0 (0 - 0)	0 (0 - 1)
Eritrea	43 (34 - 52)	7 (3 - 16)	3 (2 - 3)	1 (0 - 2)	49 (39 - 63)	21 (16 - 26)	2 (2 - 3)	1 (1 - 2)	34 (23 - 47)	12 (8 - 20)	2 (1 - 2)	1 (1 - 2)
Estonia	5 (5 - 5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	14 (13 - 15)	4 (3 - 4)	0 (0 - 0)	0 (0 - 0)	8 (8 - 9)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Eswatini	11 (6 - 20)	12 (6 - 26)	0 (0 - 0)	0 (0 - 1)	28 (22 - 37)	22 (17 - 28)	0 (0 - 1)	1 (0 - 1)	18 (11 - 29)	10 (7 - 25)	0 (0 - 1)	0 (0 - 1)
Ethiopia	75 (61 - 93)	8 (4 - 12)	106 (88 - 130)	23 (14 - 34)	75 (62 - 93)	16 (9 - 28)	68 (56 - 83)	41 (24 - 68)	54 (35 - 75)	11 (7 - 17)	59 (36 - 86)	30 (18 - 44)
Fiji	11 (9 - 14)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	16 (9 - 27)	10 (9 - 12)	0 (0 - 0)	0 (0 - 0)	12 (8 - 16)	7 (6 - 8)	0 (0 - 0)	0 (0 - 0)
Finland	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	8 (8 - 9)	5 (5 - 5)	1 (1 - 1)	0 (0 - 0)	4 (4 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)
France	2 (2 - 2)	1 (1 - 1)	2 (1 - 2)	1 (1 - 1)	8 (8 - 8)	3 (3 - 3)	7 (6 - 7)	2 (2 - 2)	4 (4 - 4)	1 (1 - 2)	3 (3 - 3)	1 (1 - 1)
Gabon	19 (13 - 28)	12 (5 - 28)	0 (0 - 1)	1 (0 - 1)	24 (17 - 34)	15 (7 - 30)	0 (0 - 1)	1 (0 - 1)	18 (9 - 29)	14 (7 - 29)	0 (0 - 1)	1 (0 - 1)

Country, regional and global estimates of mortality among older children, adolescents and youth aged 5–24 years

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands) ^a		Probability of dying among youth aged 15–24 years (per 1,000 children aged 15)		Number of deaths among youth aged 15–24 (thousands) ^a		Probability of dying among adolescents aged 10–19 years (per 1,000 children aged 10)		Number of deaths among adolescents aged 10–19 (thousands) ^a	
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020
Gambia	33 (25 - 42)	10 (8 - 13)	1 (1 - 1)	1 (1 - 1)	39 (31 - 50)	19 (15 - 24)	1 (1 - 1)	1 (1 - 1)	29 (23 - 38)	13 (10 - 16)	1 (0 - 1)	1 (1 - 1)
Georgia	4 (3 - 4)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	9 (9 - 9)	6 (6 - 7)	1 (1 - 1)	0 (0 - 0)	5 (5 - 5)	4 (3 - 4)	0 (0 - 0)	0 (0 - 0)
Germany	2 (2 - 2)	1 (1 - 1)	2 (2 - 2)	1 (1 - 1)	6 (6 - 7)	3 (2 - 3)	7 (7 - 7)	2 (2 - 2)	4 (4 - 4)	1 (1 - 2)	3 (3 - 3)	1 (1 - 1)
Ghana	26 (22 - 30)	11 (8 - 14)	11 (9 - 12)	8 (6 - 10)	31 (19 - 52)	15 (8 - 28)	9 (6 - 16)	9 (5 - 16)	22 (15 - 31)	12 (8 - 18)	8 (5 - 11)	8 (5 - 12)
Greece	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	7 (7 - 7)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	4 (3 - 4)	2 (1 - 2)	1 (1 - 1)	0 (0 - 0)
Grenada	5 (4 - 6)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	11 (9 - 13)	6 (4 - 8)	0 (0 - 0)	0 (0 - 0)	6 (4 - 7)	4 (3 - 6)	0 (0 - 0)	0 (0 - 0)
Guatemala	13 (12 - 13)	4 (3 - 4)	3 (3 - 3)	1 (1 - 2)	20 (20 - 21)	15 (12 - 17)	4 (4 - 4)	6 (5 - 7)	13 (12 - 13)	8 (8 - 9)	3 (3 - 3)	3 (3 - 3)
Guinea	44 (37 - 52)	19 (15 - 26)	8 (7 - 9)	7 (5 - 9)	34 (28 - 43)	31 (19 - 52)	4 (3 - 5)	9 (5 - 15)	34 (24 - 44)	20 (13 - 30)	5 (3 - 6)	6 (4 - 10)
Guinea-Bissau	46 (19 - 117)	15 (10 - 24)	1 (1 - 3)	1 (1 - 1)	47 (36 - 60)	24 (19 - 31)	1 (1 - 1)	1 (1 - 1)	36 (19 - 113)	16 (10 - 25)	1 (0 - 3)	1 (0 - 1)
Guyana	5 (5 - 6)	5 (3 - 7)	0 (0 - 0)	0 (0 - 0)	14 (14 - 15)	17 (12 - 24)	0 (0 - 0)	0 (0 - 0)	8 (7 - 9)	8 (7 - 10)	0 (0 - 0)	0 (0 - 0)
Haiti	28 (24 - 34)	11 (7 - 16)	6 (5 - 7)	3 (2 - 4)	42 (33 - 55)	18 (11 - 29)	5 (4 - 7)	4 (3 - 6)	29 (22 - 39)	11 (6 - 18)	4 (3 - 6)	3 (2 - 4)
Honduras	9 (8 - 11)	5 (3 - 9)	1 (1 - 2)	1 (1 - 2)	19 (15 - 24)	10 (8 - 13)	2 (1 - 2)	2 (2 - 3)	11 (9 - 14)	7 (5 - 11)	1 (1 - 2)	1 (1 - 2)
Hungary	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	8 (8 - 9)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	5 (5 - 5)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)
Iceland	3 (2 - 4)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	7 (6 - 8)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	5 (4 - 6)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)
India	21 (20 - 22)	5 (4 - 7)	449 (429 - 469)	133 (107 - 161)	25 (23 - 27)	10 (8 - 13)	423 (389 - 458)	251 (192 - 326)	18 (17 - 19)	7 (6 - 8)	335 (308 - 363)	172 (146 - 202)
Indonesia	14 (12 - 15)	5 (4 - 7)	61 (55 - 68)	24 (18 - 34)	13 (11 - 15)	10 (5 - 18)	49 (41 - 59)	45 (25 - 83)	11 (9 - 14)	7 (5 - 10)	47 (39 - 57)	32 (22 - 46)
Iran (Islamic Republic of)	14 (11 - 17)	3 (3 - 4)	23 (19 - 28)	4 (4 - 5)	22 (16 - 32)	10 (8 - 12)	24 (17 - 34)	11 (9 - 13)	17 (14 - 22)	6 (6 - 7)	22 (17 - 28)	7 (7 - 8)
Iraq	10 (7 - 14)	6 (3 - 12)	5 (4 - 7)	6 (3 - 11)	11 (9 - 14)	8 (6 - 11)	4 (3 - 5)	7 (5 - 8)	10 (6 - 14)	7 (4 - 12)	4 (2 - 6)	6 (3 - 11)
Ireland	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Israel	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	5 (5 - 5)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)
Italy	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	6 (6 - 6)	2 (2 - 2)	6 (6 - 6)	1 (1 - 1)	4 (4 - 4)	1 (1 - 1)	3 (3 - 3)	1 (1 - 1)
Jamaica	5 (4 - 6)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	14 (11 - 17)	9 (7 - 11)	1 (1 - 1)	0 (0 - 1)	8 (6 - 10)	5 (4 - 6)	0 (0 - 1)	0 (0 - 0)
Japan	2 (2 - 2)	1 (1 - 1)	3 (3 - 3)	1 (1 - 1)	5 (5 - 5)	3 (2 - 3)	9 (9 - 9)	3 (3 - 3)	3 (3 - 3)	1 (1 - 1)	6 (6 - 6)	2 (1 - 2)
Jordan	5 (4 - 6)	3 (1 - 4)	1 (0 - 1)	1 (0 - 1)	10 (7 - 12)	7 (5 - 9)	1 (1 - 1)	1 (1 - 2)	7 (5 - 8)	4 (3 - 6)	1 (0 - 1)	1 (1 - 1)
Kazakhstan	6 (6 - 6)	3 (2 - 3)	2 (2 - 2)	1 (1 - 1)	14 (14 - 14)	7 (7 - 7)	4 (4 - 4)	2 (1 - 2)	8 (8 - 8)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)
Kenya	17 (14 - 20)	10 (6 - 18)	12 (11 - 14)	14 (8 - 25)	24 (19 - 29)	16 (9 - 28)	11 (9 - 14)	18 (10 - 31)	15 (11 - 19)	11 (6 - 20)	8 (6 - 11)	14 (7 - 25)
Kiribati	15 (12 - 20)	9 (7 - 12)	0 (0 - 0)	0 (0 - 0)	22 (17 - 28)	16 (12 - 20)	0 (0 - 0)	0 (0 - 0)	16 (12 - 20)	11 (9 - 14)	0 (0 - 0)	0 (0 - 0)
Kuwait	5 (4 - 5)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	11 (10 - 12)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)
Kyrgyzstan	6 (5 - 6)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	11 (11 - 12)	6 (6 - 7)	1 (1 - 1)	1 (1 - 1)	7 (6 - 7)	4 (4 - 5)	1 (1 - 1)	0 (0 - 0)
Lao People's Democratic Republic	40 (29 - 57)	9 (6 - 13)	5 (4 - 7)	1 (1 - 2)	28 (15 - 47)	12 (7 - 22)	2 (1 - 4)	2 (1 - 3)	27 (11 - 50)	9 (5 - 16)	3 (1 - 5)	1 (1 - 2)
Latvia	6 (5 - 6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	15 (14 - 15)	6 (5 - 7)	1 (1 - 1)	0 (0 - 0)	9 (8 - 9)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)
Lebanon	6 (5 - 8)	2 (1 - 2)	0 (0 - 1)	0 (0 - 0)	50 (39 - 63)	5 (4 - 6)	3 (2 - 4)	1 (0 - 1)	18 (14 - 23)	3 (2 - 4)	1 (1 - 1)	0 (0 - 0)

Country, regional and global estimates of mortality among older children, adolescents and youth aged 5–24 years

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands) ^a		Probability of dying among youth aged 15–24 years (per 1,000 children aged 15)		Number of deaths among youth aged 15–24 (thousands) ^a		Probability of dying among adolescents aged 10–19 years (per 1,000 children aged 10)		Number of deaths among adolescents aged 10–19 (thousands) ^a	
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020
Lesotho	17 (14 - 21)	9 (6 - 12)	1 (1 - 1)	0 (0 - 1)	31 (17 - 50)	27 (17 - 45)	1 (1 - 2)	1 (1 - 2)	21 (15 - 30)	14 (9 - 21)	1 (1 - 1)	1 (0 - 1)
Liberia	31 (25 - 43)	18 (12 - 27)	2 (1 - 2)	2 (2 - 4)	121 (85 - 177)	29 (20 - 43)	5 (3 - 7)	3 (2 - 4)	48 (33 - 66)	22 (14 - 33)	2 (2 - 3)	3 (2 - 4)
Libya	8 (6 - 11)	3 (1 - 8)	1 (1 - 1)	0 (0 - 1)	10 (8 - 13)	6 (5 - 8)	1 (1 - 1)	1 (1 - 1)	8 (5 - 12)	4 (2 - 9)	1 (1 - 1)	0 (0 - 1)
Lithuania	4 (4 - 5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	12 (12 - 13)	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)
Luxembourg	2 (2 - 3)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	10 (8 - 11)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Madagascar	36 (32 - 42)	17 (12 - 25)	12 (11 - 14)	12 (8 - 18)	32 (27 - 38)	22 (11 - 47)	7 (6 - 9)	13 (7 - 27)	28 (22 - 35)	18 (11 - 29)	8 (6 - 10)	11 (7 - 18)
Malawi	39 (36 - 43)	12 (10 - 15)	10 (9 - 11)	6 (5 - 8)	42 (35 - 49)	19 (12 - 28)	7 (6 - 9)	7 (5 - 11)	31 (25 - 38)	12 (9 - 17)	7 (5 - 8)	6 (4 - 8)
Malaysia	5 (5 - 5)	3 (2 - 3)	2 (2 - 2)	1 (1 - 1)	11 (10 - 12)	6 (6 - 7)	4 (3 - 4)	4 (3 - 4)	7 (7 - 7)	4 (4 - 5)	3 (3 - 3)	2 (2 - 2)
Maldives	9 (8 - 10)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	13 (12 - 14)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	9 (8 - 10)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)
Mali	40 (36 - 46)	22 (17 - 28)	10 (9 - 11)	13 (10 - 17)	37 (31 - 45)	22 (15 - 32)	6 (5 - 7)	9 (6 - 13)	30 (24 - 39)	19 (12 - 27)	6 (5 - 8)	9 (6 - 14)
Malta	1 (1 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	5 (4 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	3 (2 - 3)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)
Marshall Islands	9 (7 - 11)	6 (5 - 8)	0 (0 - 0)	0 (0 - 0)	15 (12 - 20)	12 (10 - 16)	0 (0 - 0)	0 (0 - 0)	11 (8 - 14)	8 (6 - 10)	0 (0 - 0)	0 (0 - 0)
Mauritania	19 (16 - 23)	7 (2 - 20)	1 (1 - 1)	1 (0 - 2)	32 (25 - 41)	23 (18 - 30)	1 (1 - 2)	2 (2 - 3)	20 (14 - 26)	12 (9 - 25)	1 (1 - 1)	1 (1 - 3)
Mauritius	3 (3 - 4)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	8 (8 - 9)	8 (7 - 9)	0 (0 - 0)	0 (0 - 0)	5 (5 - 6)	4 (4 - 5)	0 (0 - 0)	0 (0 - 0)
Mexico	5 (5 - 5)	2 (2 - 3)	11 (11 - 11)	6 (5 - 6)	12 (11 - 12)	12 (11 - 12)	20 (20 - 21)	26 (25 - 27)	7 (7 - 7)	6 (6 - 6)	14 (14 - 15)	13 (13 - 13)
Micronesia (Federated States of)	9 (7 - 12)	5 (4 - 7)	0 (0 - 0)	0 (0 - 0)	16 (12 - 20)	11 (9 - 14)	0 (0 - 0)	0 (0 - 0)	11 (8 - 14)	7 (6 - 9)	0 (0 - 0)	0 (0 - 0)
Monaco	2 (1 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	6 (5 - 8)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)
Mongolia	11 (11 - 12)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	16 (15 - 17)	7 (7 - 8)	1 (1 - 1)	0 (0 - 0)	11 (10 - 11)	5 (5 - 6)	1 (0 - 1)	0 (0 - 0)
Montenegro	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	4 (3 - 4)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Morocco	10 (9 - 11)	3 (1 - 4)	6 (6 - 7)	2 (1 - 3)	13 (10 - 15)	5 (3 - 10)	6 (5 - 8)	3 (2 - 6)	10 (8 - 12)	3 (2 - 5)	6 (4 - 7)	2 (1 - 3)
Mozambique	62 (46 - 83)	14 (8 - 26)	25 (18 - 33)	12 (7 - 22)	39 (31 - 49)	31 (16 - 57)	10 (8 - 12)	19 (10 - 36)	42 (22 - 67)	16 (9 - 29)	14 (6 - 23)	12 (6 - 22)
Myanmar	29 (22 - 42)	4 (2 - 8)	31 (23 - 44)	4 (2 - 8)	27 (18 - 43)	9 (5 - 15)	23 (16 - 37)	9 (5 - 15)	21 (12 - 39)	5 (3 - 9)	20 (11 - 37)	5 (3 - 9)
Namibia	15 (12 - 18)	14 (10 - 19)	1 (0 - 1)	1 (1 - 1)	28 (23 - 33)	22 (12 - 38)	1 (1 - 1)	1 (1 - 2)	17 (13 - 22)	14 (9 - 21)	1 (0 - 1)	1 (0 - 1)
Nauru	12 (9 - 15)	6 (5 - 7)	0 (0 - 0)	0 (0 - 0)	18 (14 - 24)	12 (9 - 15)	0 (0 - 0)	0 (0 - 0)	13 (10 - 17)	8 (6 - 10)	0 (0 - 0)	0 (0 - 0)
Nepal	27 (23 - 31)	5 (3 - 9)	14 (12 - 16)	3 (2 - 5)	21 (17 - 25)	10 (6 - 16)	7 (6 - 9)	7 (4 - 11)	19 (13 - 25)	7 (4 - 11)	8 (5 - 11)	4 (3 - 7)
Netherlands	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	5 (4 - 5)	2 (2 - 3)	1 (1 - 1)	0 (0 - 1)	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
New Zealand	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	11 (11 - 12)	4 (3 - 5)	1 (1 - 1)	0 (0 - 0)	6 (6 - 7)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Nicaragua	8 (6 - 10)	4 (2 - 8)	1 (1 - 1)	0 (0 - 1)	23 (18 - 29)	10 (8 - 13)	2 (1 - 2)	1 (1 - 2)	12 (9 - 15)	6 (4 - 10)	1 (1 - 1)	1 (1 - 1)
Niger	67 (58 - 77)	28 (16 - 48)	16 (14 - 19)	21 (13 - 35)	41 (32 - 49)	27 (15 - 50)	6 (5 - 7)	13 (7 - 23)	38 (25 - 52)	23 (12 - 42)	7 (4 - 10)	14 (7 - 26)
Nigeria	39 (34 - 45)	21 (16 - 26)	107 (94 - 121)	120 (97 - 150)	39 (28 - 57)	19 (14 - 26)	70 (52 - 101)	75 (56 - 101)	32 (23 - 41)	15 (10 - 22)	70 (50 - 90)	72 (44 - 109)
Niue	5 (4 - 7)	5 (4 - 7)	0 (0 - 0)	0 (0 - 0)	11 (9 - 14)	11 (9 - 14)	0 (0 - 0)	0 (0 - 0)	7 (6 - 9)	7 (6 - 9)	0 (0 - 0)	0 (0 - 0)
Norway	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	6 (6 - 6)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)

Country, regional and global estimates of mortality among older children, adolescents and youth aged 5–24 years

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands) ^a		Probability of dying among youth aged 15–24 years (per 1,000 children aged 15)		Number of deaths among youth aged 15–24 (thousands) ^a		Probability of dying among adolescents aged 10–19 years (per 1,000 children aged 10)		Number of deaths among adolescents aged 10–19 (thousands) ^a	
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020
Oman	8 (6 - 10)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	6 (5 - 8)	0 (0 - 0)	0 (0 - 0)	9 (7 - 11)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)
Pakistan	14 (13 - 15)	8 (5 - 13)	39 (37 - 41)	40 (26 - 64)	21 (18 - 25)	11 (6 - 21)	43 (38 - 50)	48 (26 - 90)	16 (14 - 18)	9 (6 - 14)	37 (33 - 41)	41 (26 - 66)
Palau	7 (5 - 9)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	16 (13 - 20)	29 (18 - 45)	0 (0 - 0)	0 (0 - 0)	9 (7 - 12)	10 (5 - 18)	0 (0 - 0)	0 (0 - 0)
Panama	5 (5 - 5)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)	11 (11 - 12)	9 (9 - 10)	1 (1 - 1)	1 (1 - 1)	7 (6 - 7)	5 (5 - 6)	0 (0 - 0)	0 (0 - 0)
Papua New Guinea	14 (11 - 18)	8 (7 - 11)	2 (1 - 2)	2 (1 - 2)	21 (16 - 27)	15 (12 - 19)	2 (2 - 2)	3 (2 - 3)	15 (12 - 19)	10 (8 - 13)	2 (1 - 2)	2 (2 - 2)
Paraguay	7 (6 - 9)	3 (1 - 6)	1 (1 - 1)	0 (0 - 1)	17 (13 - 22)	11 (8 - 14)	1 (1 - 2)	1 (1 - 2)	10 (7 - 12)	6 (4 - 9)	1 (1 - 1)	1 (1 - 1)
Peru	10 (9 - 11)	3 (2 - 4)	6 (5 - 6)	1 (1 - 2)	19 (16 - 22)	6 (3 - 13)	8 (8 - 10)	3 (2 - 6)	13 (11 - 15)	4 (2 - 6)	7 (6 - 8)	2 (1 - 3)
Philippines	8 (8 - 9)	5 (4 - 5)	13 (12 - 14)	10 (10 - 11)	14 (13 - 16)	9 (9 - 10)	18 (16 - 19)	19 (18 - 21)	9 (8 - 10)	6 (6 - 6)	13 (12 - 14)	13 (12 - 14)
Poland	3 (3 - 3)	1 (1 - 1)	2 (2 - 2)	0 (0 - 0)	9 (8 - 9)	5 (4 - 5)	5 (4 - 5)	2 (2 - 2)	5 (5 - 5)	2 (2 - 2)	3 (3 - 3)	1 (1 - 1)
Portugal	4 (4 - 4)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	11 (11 - 11)	3 (3 - 3)	2 (2 - 2)	0 (0 - 0)	7 (6 - 7)	2 (1 - 2)	1 (1 - 1)	0 (0 - 0)
Qatar	4 (3 - 5)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	7 (6 - 8)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Republic of Korea	4 (4 - 5)	1 (1 - 1)	3 (3 - 4)	0 (0 - 0)	9 (9 - 9)	3 (3 - 3)	8 (8 - 8)	2 (2 - 2)	6 (6 - 6)	2 (1 - 2)	5 (5 - 5)	1 (1 - 1)
Republic of Moldova	5 (5 - 6)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	13 (12 - 13)	7 (7 - 7)	1 (1 - 1)	0 (0 - 0)	7 (7 - 7)	4 (4 - 5)	0 (0 - 1)	0 (0 - 0)
Republic of North Macedonia	3 (3 - 4)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	5 (5 - 6)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	4 (3 - 4)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Romania	5 (5 - 5)	2 (1 - 2)	2 (2 - 2)	0 (0 - 0)	9 (9 - 9)	4 (4 - 5)	3 (3 - 4)	1 (1 - 1)	6 (6 - 6)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)
Russian Federation	5 (5 - 5)	2 (2 - 2)	12 (11 - 12)	3 (3 - 3)	14 (14 - 14)	8 (7 - 8)	27 (27 - 28)	10 (10 - 11)	8 (8 - 8)	4 (4 - 4)	16 (16 - 17)	6 (6 - 6)
Rwanda	62 (52 - 74)	16 (10 - 28)	14 (12 - 17)	5 (3 - 9)	69 (53 - 90)	10 (6 - 16)	10 (8 - 13)	2 (2 - 4)	55 (40 - 71)	11 (4 - 23)	9 (7 - 13)	3 (1 - 7)
Saint Kitts and Nevis	5 (4 - 6)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	9 (7 - 12)	16 (10 - 24)	0 (0 - 0)	0 (0 - 0)	6 (5 - 8)	7 (5 - 10)	0 (0 - 0)	0 (0 - 0)
Saint Lucia	4 (3 - 5)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	11 (10 - 13)	9 (7 - 12)	0 (0 - 0)	0 (0 - 0)	6 (5 - 8)	5 (4 - 7)	0 (0 - 0)	0 (0 - 0)
Saint Vincent and the Grenadines	4 (3 - 4)	5 (3 - 7)	0 (0 - 0)	0 (0 - 0)	9 (8 - 10)	14 (10 - 19)	0 (0 - 0)	0 (0 - 0)	5 (4 - 6)	9 (7 - 12)	0 (0 - 0)	0 (0 - 0)
Samoa	5 (3 - 9)	2 (2 - 4)	0 (0 - 0)	0 (0 - 0)	26 (8 - 76)	7 (4 - 12)	0 (0 - 0)	0 (0 - 0)	10 (3 - 21)	5 (3 - 7)	0 (0 - 0)	0 (0 - 0)
San Marino	3 (2 - 4)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	9 (7 - 12)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 7)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)
Sao Tome and Principe	21 (17 - 27)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	25 (7 - 84)	18 (9 - 35)	0 (0 - 0)	0 (0 - 0)	19 (11 - 29)	8 (5 - 12)	0 (0 - 0)	0 (0 - 0)
Saudi Arabia	8 (7 - 11)	2 (1 - 2)	3 (3 - 4)	1 (1 - 1)	14 (6 - 44)	10 (6 - 15)	4 (2 - 14)	4 (3 - 7)	12 (8 - 17)	5 (4 - 8)	4 (2 - 5)	2 (2 - 3)
Senegal	34 (30 - 40)	9 (6 - 12)	8 (7 - 9)	4 (3 - 5)	26 (21 - 32)	12 (8 - 18)	4 (3 - 5)	4 (3 - 6)	23 (17 - 30)	11 (7 - 15)	4 (3 - 5)	4 (3 - 6)
Serbia	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	7 (7 - 7)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	4 (4 - 5)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)
Seychelles	4 (3 - 5)	2 (2 - 4)	0 (0 - 0)	0 (0 - 0)	9 (7 - 10)	11 (7 - 16)	0 (0 - 0)	0 (0 - 0)	4 (3 - 6)	7 (5 - 9)	0 (0 - 0)	0 (0 - 0)
Sierra Leone	42 (25 - 98)	25 (19 - 34)	5 (3 - 11)	5 (4 - 7)	59 (28 - 714)	36 (20 - 51)	5 (2 - 83)	6 (4 - 8)	43 (22 - 101)	27 (17 - 39)	4 (2 - 11)	5 (3 - 7)
Singapore	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	6 (6 - 6)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Slovakia	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	7 (7 - 7)	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	4 (4 - 4)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)
Slovenia	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	9 (8 - 9)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)
Solomon Islands	7 (6 - 9)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	14 (11 - 18)	10 (8 - 12)	0 (0 - 0)	0 (0 - 0)	9 (7 - 12)	6 (5 - 8)	0 (0 - 0)	0 (0 - 0)
Somalia	39 (30 - 50)	25 (20 - 33)	8 (6 - 10)	12 (9 - 15)	55 (43 - 70)	41 (32 - 53)	8 (6 - 10)	14 (11 - 18)	37 (29 - 47)	26 (21 - 34)	6 (5 - 8)	10 (8 - 13)
South Africa	8 (5 - 11)	5 (5 - 6)	7 (5 - 10)	6 (5 - 7)	22 (17 - 28)	19 (17 - 21)	15 (12 - 20)	19 (17 - 21)	11 (7 - 16)	10 (9 - 11)	8 (6 - 12)	10 (9 - 11)

Country, regional and global estimates of mortality among older children, adolescents and youth aged 5–24 years

Country	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands) ^a		Probability of dying among youth aged 15–24 years (per 1,000 children aged 15)		Number of deaths among youth aged 15–24 (thousands) ^a		Probability of dying among adolescents aged 10–19 years (per 1,000 children aged 10)		Number of deaths among adolescents aged 10–19 (thousands) ^a	
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020
South Sudan	53 (41 - 68)	22 (17 - 28)	8 (6 - 10)	7 (5 - 8)	68 (53 - 87)	37 (29 - 48)	7 (6 - 9)	8 (7 - 11)	46 (36 - 60)	24 (18 - 30)	6 (4 - 7)	6 (5 - 8)
Spain	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	8 (8 - 9)	2 (2 - 2)	6 (5 - 6)	1 (1 - 1)	4 (4 - 5)	1 (1 - 1)	3 (3 - 3)	1 (1 - 1)
Sri Lanka	6 (6 - 6)	2 (1 - 2)	2 (2 - 2)	1 (0 - 1)	21 (20 - 21)	4 (3 - 6)	7 (7 - 7)	1 (1 - 2)	11 (10 - 11)	3 (2 - 3)	4 (4 - 4)	1 (1 - 1)
State of Palestine	6 (5 - 8)	4 (2 - 6)	0 (0 - 0)	0 (0 - 1)	12 (9 - 15)	7 (5 - 9)	0 (0 - 1)	1 (1 - 1)	8 (6 - 11)	5 (3 - 8)	0 (0 - 1)	1 (0 - 1)
Sudan	26 (21 - 34)	9 (5 - 16)	15 (13 - 20)	10 (6 - 17)	45 (35 - 58)	26 (20 - 33)	18 (14 - 23)	23 (18 - 30)	27 (19 - 37)	14 (10 - 21)	13 (9 - 18)	14 (9 - 21)
Suriname	5 (5 - 6)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	15 (13 - 16)	11 (10 - 13)	0 (0 - 0)	0 (0 - 0)	9 (8 - 10)	7 (6 - 8)	0 (0 - 0)	0 (0 - 0)
Sweden	1 (1 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	5 (5 - 5)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)
Switzerland	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	9 (8 - 9)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	4 (4 - 4)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)
Syrian Arab Republic	10 (9 - 11)	5 (4 - 7)	4 (3 - 4)	2 (1 - 2)	14 (10 - 22)	11 (5 - 23)	4 (3 - 6)	3 (2 - 7)	12 (10 - 15)	6 (5 - 9)	4 (3 - 4)	2 (1 - 3)
Tajikistan	8 (8 - 8)	2 (2 - 2)	1 (1 - 1)	0 (0 - 1)	10 (10 - 10)	2 (1 - 4)	1 (1 - 1)	0 (0 - 1)	7 (7 - 8)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)
Thailand	6 (6 - 7)	4 (4 - 4)	8 (7 - 8)	3 (3 - 4)	16 (15 - 16)	12 (12 - 13)	19 (19 - 20)	12 (11 - 12)	10 (10 - 10)	8 (8 - 9)	12 (12 - 12)	7 (7 - 8)
Timor-Leste	26 (21 - 34)	8 (6 - 10)	0 (0 - 1)	0 (0 - 0)	22 (10 - 45)	31 (16 - 64)	0 (0 - 1)	1 (0 - 2)	19 (14 - 26)	19 (14 - 26)	0 (0 - 0)	1 (0 - 1)
Togo	34 (29 - 40)	12 (9 - 17)	4 (3 - 4)	3 (2 - 4)	25 (20 - 32)	17 (10 - 30)	2 (1 - 2)	3 (2 - 5)	21 (14 - 29)	12 (7 - 19)	2 (1 - 3)	2 (1 - 4)
Tonga	3 (3 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	7 (5 - 10)	8 (6 - 11)	0 (0 - 0)	0 (0 - 0)	4 (3 - 6)	4 (3 - 6)	0 (0 - 0)	0 (0 - 0)
Trinidad and Tobago	4 (4 - 4)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	11 (10 - 11)	14 (11 - 18)	0 (0 - 0)	0 (0 - 0)	6 (6 - 6)	6 (5 - 7)	0 (0 - 0)	0 (0 - 0)
Tunisia	7 (6 - 7)	3 (3 - 4)	1 (1 - 1)	1 (1 - 1)	9 (7 - 11)	8 (6 - 9)	1 (1 - 2)	1 (1 - 1)	7 (6 - 8)	5 (4 - 5)	1 (1 - 1)	1 (1 - 1)
Turkey	9 (8 - 11)	2 (2 - 2)	12 (10 - 15)	2 (2 - 3)	16 (11 - 23)	4 (4 - 4)	17 (12 - 24)	5 (5 - 6)	12 (6 - 16)	3 (3 - 3)	13 (7 - 19)	4 (4 - 4)
Turkmenistan	7 (7 - 8)	4 (3 - 5)	1 (1 - 1)	0 (0 - 1)	13 (13 - 13)	10 (8 - 14)	1 (1 - 1)	1 (1 - 1)	9 (8 - 9)	6 (5 - 7)	1 (1 - 1)	1 (1 - 1)
Tuvalu	10 (8 - 12)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	16 (13 - 21)	10 (8 - 13)	0 (0 - 0)	0 (0 - 0)	11 (9 - 15)	6 (5 - 8)	0 (0 - 0)	0 (0 - 0)
Uganda	30 (26 - 34)	14 (10 - 20)	15 (13 - 17)	19 (14 - 26)	49 (41 - 58)	27 (17 - 44)	16 (14 - 19)	26 (17 - 42)	29 (23 - 36)	19 (13 - 27)	11 (9 - 14)	21 (14 - 31)
Ukraine	4 (4 - 5)	2 (2 - 2)	3 (3 - 3)	1 (1 - 1)	11 (11 - 12)	6 (6 - 6)	8 (8 - 8)	3 (2 - 3)	6 (6 - 7)	3 (3 - 3)	5 (5 - 5)	1 (1 - 1)
United Arab Emirates	4 (3 - 5)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	7 (6 - 9)	5 (4 - 6)	0 (0 - 0)	1 (0 - 1)	5 (4 - 7)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)
United Kingdom	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	6 (6 - 6)	3 (3 - 4)	5 (5 - 5)	3 (2 - 3)	4 (3 - 4)	2 (2 - 2)	3 (3 - 3)	1 (1 - 1)
United Republic of Tanzania	28 (24 - 33)	14 (9 - 25)	20 (18 - 24)	23 (15 - 41)	29 (23 - 35)	17 (10 - 33)	14 (12 - 18)	20 (12 - 38)	22 (17 - 28)	12 (7 - 24)	13 (10 - 17)	17 (10 - 35)
United States of America	2 (2 - 2)	1 (1 - 1)	9 (8 - 9)	6 (5 - 6)	10 (10 - 10)	7 (6 - 7)	37 (36 - 38)	30 (28 - 32)	6 (6 - 6)	3 (3 - 3)	20 (20 - 21)	13 (13 - 14)
Uruguay	3 (3 - 3)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	8 (8 - 9)	9 (9 - 10)	0 (0 - 0)	0 (0 - 0)	6 (5 - 6)	4 (4 - 5)	0 (0 - 0)	0 (0 - 0)
Uzbekistan^e	7 (7 - 7)	3 (3 - 3)	4 (3 - 4)	2 (2 - 2)	11 (11 - 11)	7 (7 - 7)	4 (4 - 4)	4 (3 - 4)	7 (7 - 8)	5 (5 - 5)	3 (3 - 3)	3 (3 - 3)
Vanuatu	7 (5 - 9)	5 (4 - 7)	0 (0 - 0)	0 (0 - 0)	13 (10 - 17)	11 (9 - 14)	0 (0 - 0)	0 (0 - 0)	9 (7 - 11)	7 (6 - 9)	0 (0 - 0)	0 (0 - 0)
Venezuela (Bolivarian Republic of)	4 (4 - 5)	4 (3 - 4)	2 (2 - 2)	2 (2 - 2)	12 (12 - 13)	29 (25 - 34)	5 (5 - 5)	13 (11 - 16)	8 (7 - 8)	12 (11 - 13)	3 (3 - 3)	6 (6 - 7)
Viet Nam	10 (9 - 12)	3 (2 - 3)	17 (15 - 20)	4 (3 - 5)	13 (10 - 17)	6 (5 - 8)	18 (13 - 24)	8 (6 - 11)	9 (6 - 12)	4 (4 - 6)	13 (10 - 18)	6 (5 - 7)
Yemen	19 (16 - 22)	6 (3 - 10)	7 (6 - 8)	4 (3 - 7)	16 (12 - 20)	20 (16 - 26)	3 (3 - 4)	13 (10 - 16)	15 (11 - 19)	10 (8 - 14)	4 (3 - 5)	7 (5 - 10)
Zambia	27 (24 - 32)	11 (7 - 16)	7 (6 - 8)	6 (4 - 8)	50 (42 - 59)	22 (14 - 32)	8 (7 - 9)	8 (6 - 12)	29 (23 - 36)	14 (9 - 21)	6 (4 - 7)	6 (4 - 9)
Zimbabwe	14 (11 - 16)	13 (9 - 18)	4 (3 - 5)	5 (4 - 7)	22 (19 - 26)	24 (16 - 37)	5 (4 - 6)	7 (5 - 11)	13 (10 - 17)	19 (13 - 25)	3 (2 - 4)	7 (5 - 9)

Country, regional and global estimates of mortality among older children, adolescents and youth aged 5–24 years

Estimates of mortality among older children, adolescents and youth aged 5–24 years by World Health Organization region⁹

Region	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands) ^a		Probability of dying among youth aged 15–24 years (per 1,000 children aged 15)		Number of deaths among youth aged 15–24 (thousands) ^a		Probability of dying among adolescents aged 10–19 years (per 1,000 children aged 10)		Number of deaths among adolescents aged 10–19 (thousands) ^a	
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020
Africa	37 (36 - 41)	16 (15 - 18)	545 (531 - 591)	478 (457 - 549)	40 (38 - 55)	22 (21 - 26)	393 (377 - 528)	483 (457 - 577)	30 (28 - 34)	16 (15 - 19)	347 (323 - 399)	405 (382 - 485)
Americas	5 (5 - 5)	2 (2 - 3)	69 (68 - 71)	35 (34 - 38)	13 (13 - 13)	10 (10 - 11)	168 (164 - 172)	157 (153 - 164)	8 (8 - 8)	5 (5 - 5)	104 (102 - 106)	79 (77 - 82)
Eastern Mediterranean	14 (13 - 15)	6 (5 - 8)	139 (132 - 149)	98 (84 - 126)	21 (19 - 25)	13 (11 - 17)	148 (137 - 174)	171 (146 - 220)	15 (14 - 17)	9 (8 - 11)	126 (117 - 138)	119 (104 - 150)
Europe	4 (4 - 4)	1 (1 - 1)	54 (52 - 57)	17 (16 - 17)	10 (9 - 10)	4 (4 - 5)	124 (119 - 131)	47 (46 - 48)	6 (5 - 6)	3 (3 - 3)	76 (70 - 81)	27 (27 - 28)
South-East Asia	20 (19 - 21)	5 (5 - 6)	638 (615 - 666)	188 (162 - 223)	23 (21 - 24)	10 (8 - 13)	587 (552 - 627)	363 (301 - 452)	17 (16 - 18)	7 (6 - 8)	474 (445 - 511)	251 (223 - 289)
Western Pacific	7 (7 - 8)	2 (2 - 3)	202 (182 - 227)	53 (41 - 74)	9 (8 - 11)	5 (3 - 6)	294 (253 - 357)	110 (83 - 157)	8 (7 - 9)	3 (2 - 4)	235 (202 - 272)	67 (57 - 85)
World	15 (14 - 15)	7 (6 - 7)	1,649 (1,613 - 1,706)	869 (833 - 956)	17 (16 - 18)	11 (10 - 12)	1,714 (1,662 - 1,861)	1,331 (1,270 - 1,491)	13 (13 - 14)	8 (7 - 8)	1,362 (1,312 - 1,439)	950 (914 - 1,050)

Estimates of mortality among older children, adolescents and youth aged 5–24 years by World Bank region⁹

Region	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands) ^a		Probability of dying among youth aged 15–24 years (per 1,000 children aged 15)		Number of deaths among youth aged 15–24 (thousands) ^a		Probability of dying among adolescents aged 10–19 years (per 1,000 children aged 10)		Number of deaths among adolescents aged 10–19 (thousands) ^a	
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020
East Asia and Pacific	9 (8 - 10)	3 (2 - 4)	305 (283 - 335)	87 (73 - 110)	10 (9 - 12)	6 (5 - 8)	393 (350 - 460)	180 (146 - 243)	9 (8 - 10)	4 (3 - 5)	319 (285 - 363)	115 (101 - 139)
Europe and Central Asia	4 (4 - 4)	1 (1 - 1)	54 (52 - 57)	16 (16 - 17)	10 (9 - 10)	4 (4 - 5)	124 (119 - 131)	46 (46 - 47)	6 (5 - 6)	3 (3 - 3)	76 (69 - 81)	27 (27 - 28)
Latin America and the Caribbean	6 (6 - 6)	3 (3 - 3)	60 (59 - 61)	29 (28 - 32)	15 (14 - 15)	12 (11 - 12)	127 (124 - 132)	126 (122 - 132)	9 (9 - 9)	6 (6 - 6)	82 (80 - 84)	65 (63 - 68)
Middle East and North Africa	11 (10 - 12)	4 (3 - 5)	76 (72 - 82)	34 (31 - 41)	15 (13 - 18)	9 (8 - 10)	73 (66 - 88)	64 (60 - 72)	12 (11 - 13)	6 (5 - 7)	68 (62 - 75)	44 (41 - 51)
North America	2 (2 - 2)	1 (1 - 1)	9 (9 - 10)	6 (6 - 6)	10 (9 - 10)	7 (6 - 7)	40 (39 - 41)	32 (30 - 34)	6 (5 - 6)	3 (3 - 3)	22 (22 - 23)	14 (14 - 15)
South Asia	20 (20 - 21)	6 (5 - 7)	583 (562 - 606)	200 (172 - 243)	25 (23 - 27)	11 (9 - 13)	544 (510 - 584)	367 (304 - 459)	18 (17 - 19)	7 (7 - 9)	436 (408 - 467)	259 (229 - 304)
Sub-Saharan Africa	38 (37 - 42)	16 (15 - 19)	561 (547 - 608)	497 (476 - 569)	42 (40 - 57)	23 (22 - 27)	414 (397 - 549)	517 (491 - 613)	31 (29 - 35)	16 (16 - 19)	360 (336 - 413)	427 (403 - 508)
Low income	43 (40 - 47)	15 (14 - 17)	353 (333 - 387)	265 (244 - 306)	47 (44 - 66)	25 (22 - 31)	264 (248 - 367)	337 (304 - 412)	34 (30 - 39)	17 (16 - 20)	226 (201 - 265)	263 (239 - 312)
Lower middle income	20 (19 - 20)	8 (7 - 9)	1,006 (984 - 1,045)	508 (476 - 578)	23 (22 - 25)	11 (11 - 14)	890 (855 - 953)	685 (626 - 804)	17 (16 - 18)	8 (8 - 10)	744 (712 - 794)	519 (486 - 598)
Upper middle income	7 (6 - 7)	2 (2 - 3)	252 (232 - 277)	81 (69 - 103)	11 (10 - 12)	7 (6 - 8)	437 (396 - 501)	234 (207 - 281)	8 (7 - 9)	4 (4 - 5)	322 (289 - 359)	132 (122 - 151)
High income	3 (3 - 3)	1 (1 - 1)	35 (34 - 36)	13 (13 - 14)	8 (8 - 8)	5 (4 - 5)	118 (115 - 128)	62 (59 - 66)	5 (5 - 5)	2 (2 - 2)	67 (66 - 69)	30 (29 - 31)
World	15 (14 - 15)	7 (6 - 7)	1,649 (1,613 - 1,706)	869 (833 - 956)	17 (16 - 18)	11 (10 - 12)	1,714 (1,662 - 1,861)	1,331 (1,270 - 1,491)	13 (13 - 14)	8 (7 - 8)	1,362 (1,312 - 1,439)	950 (914 - 1,050)

Country, regional and global estimates of mortality among older children, adolescents and youth aged 5–24 years

Estimates of mortality among older children, adolescents and youth aged 5–24 years 25 by United Nations Population Division region⁹

Region	Probability of dying among children aged 5–14 years (per 1,000 children aged 5)		Number of deaths among children aged 5–14 (thousands) ^a		Probability of dying among youth aged 15–24 years (per 1,000 children aged 15)		Number of deaths among youth aged 15–24 (thousands) ^a		Probability of dying among adolescents aged 10–19 years (per 1,000 children aged 10)		Number of deaths among adolescents aged 10–19 (thousands) ^a	
	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020	1990	2020
More developed regions	3 (3 - 3)	1 (1 - 1)	45 (45 - 46)	16 (16 - 16)	9 (9 - 9)	5 (5 - 5)	146 (144 - 147)	67 (65 - 70)	5 (5 - 5)	2 (2 - 2)	83 (82 - 83)	33 (33 - 34)
Less developed regions	17 (16 - 17)	7 (7 - 8)	1,603 (1,572 - 1,665)	853 (821 - 944)	19 (18 - 20)	12 (11 - 13)	1,568 (1,519 - 1,719)	1,264 (1,207 - 1,428)	14 (14 - 15)	8 (8 - 9)	1,280 (1,233 - 1,360)	916 (884 - 1,021)
Least developed countries	38 (37 - 41)	13 (13 - 16)	543 (530 - 594)	350 (335 - 410)	40 (39 - 52)	21 (20 - 26)	396 (385 - 514)	450 (426 - 542)	29 (28 - 34)	15 (14 - 18)	343 (322 - 397)	350 (334 - 417)
Excluding least developed countries	13 (13 - 13)	6 (5 - 6)	1,060 (1,028 - 1,096)	502 (466 - 564)	16 (15 - 17)	9 (9 - 11)	1,172 (1,117 - 1,266)	813 (745 - 933)	12 (12 - 13)	6 (6 - 7)	936 (889 - 991)	566 (528 - 635)
Excluding China	19 (19 - 20)	8 (8 - 9)	1,456 (1,430 - 1,512)	822 (791 - 911)	23 (23 - 26)	13 (13 - 15)	1,346 (1,314 - 1,483)	1,199 (1,144 - 1,351)	17 (16 - 18)	9 (9 - 10)	1,096 (1,059 - 1,165)	879 (848 - 980)
Sub-Saharan Africa	39 (37 - 42)	16 (16 - 19)	546 (532 - 593)	487 (467 - 558)	42 (40 - 57)	23 (21 - 27)	396 (380 - 531)	494 (468 - 589)	31 (29 - 35)	16 (16 - 19)	348 (324 - 401)	413 (390 - 493)
Africa	33 (32 - 36)	15 (14 - 17)	593 (577 - 638)	512 (490 - 583)	36 (35 - 48)	21 (20 - 25)	441 (424 - 575)	539 (513 - 634)	27 (25 - 30)	15 (14 - 18)	387 (361 - 438)	443 (419 - 524)
Asia	14 (13 - 14)	4 (4 - 5)	951 (921 - 991)	311 (281 - 362)	15 (15 - 17)	8 (7 - 10)	1,006 (954 - 1,092)	600 (533 - 716)	12 (12 - 13)	6 (5 - 6)	815 (771 - 871)	407 (377 - 462)
Europe	3 (3 - 3)	1 (1 - 1)	33 (32 - 33)	9 (9 - 9)	9 (9 - 9)	4 (4 - 4)	94 (93 - 94)	31 (31 - 32)	5 (5 - 5)	2 (2 - 2)	53 (53 - 54)	17 (17 - 17)
Latin America and the Caribbean	6 (6 - 6)	3 (3 - 3)	60 (59 - 61)	29 (28 - 32)	15 (14 - 15)	12 (11 - 12)	127 (124 - 132)	126 (122 - 132)	9 (9 - 9)	6 (6 - 6)	82 (80 - 84)	65 (63 - 68)
Northern America	2 (2 - 2)	1 (1 - 1)	9 (9 - 10)	6 (6 - 6)	10 (9 - 10)	7 (6 - 7)	40 (39 - 41)	32 (30 - 34)	6 (5 - 6)	3 (3 - 3)	22 (22 - 23)	14 (14 - 15)
Oceania	6 (5 - 7)	4 (3 - 4)	3 (2 - 3)	2 (2 - 3)	11 (11 - 13)	8 (7 - 9)	5 (5 - 6)	5 (4 - 5)	8 (7 - 9)	5 (4 - 6)	4 (3 - 4)	3 (3 - 4)
World	15 (14 - 15)	7 (6 - 7)	1,649 (1,613 - 1,706)	869 (833 - 956)	17 (16 - 18)	11 (10 - 12)	1,714 (1,662 - 1,861)	1,331 (1,270 - 1,491)	13 (13 - 14)	8 (7 - 8)	1,362 (1,312 - 1,439)	950 (914 - 1,050)

Definitions

Under-five mortality rate: Probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births.

Infant mortality rate: Probability of dying between birth and exactly 1 year of age, expressed per 1,000 live births.

Neonatal mortality rate: Probability of dying in the first 28 days of life, expressed per 1,000 live births.

Probability of dying among children aged 5–14 years: Probability of dying among children aged 5–14 years expressed per 1,000 children aged 5.

Probability of dying at age 15–24 years: Probability of dying among youth aged 15–24 years expressed per 1,000 adolescents aged 15.

Probability of dying among adolescents aged 10–19 years: Probability of dying among adolescents aged 10–19 years expressed per 1,000 children aged 10.

Note: Values in parentheses represent the 90 per cent uncertainty intervals. Estimates are generated by the United Nations Inter-agency Group for Child Mortality Estimation to ensure comparability; they are not necessarily the official statistics of United Nations Member States, which may use alternative rigorous methods.

a. Number of deaths are rounded to thousands. A zero indicates that the number of deaths is below 500. Unrounded number of deaths are available at <www.childmortality.org> for download.

b. The UN IGME estimates are not necessarily the official statistics of the National Statistical Committee of the Republic of Belarus.

c. The most recent national official estimates of under-five mortality rate in India are from the India Sample Registration System with a rate of 36 deaths per 1,000 live births in the year 2018. The most recent national official estimates of infant mortality rate in India are from the India Sample Registration System with a rate of 30 deaths per 1,000 live births in the year 2019. The most recent national official estimates of neonatal mortality rate in India are from the India Sample Registration System with a rate of 23 deaths per 1,000 live births in the year 2018.

d. The mortality rates used as underlying data and shown as "VR submitted to WHO/UNIGME 2020 version (VR)" are calculated by UN IGME using standard methods with data from Rosstat.

e. The most recent national official estimates of neonatal, infant and under-five mortality rates in Uzbekistan are from the vital registration system with a rate of 6, 9 and 12 deaths per 1,000 live births, respectively, in the year 2020. The most recent official estimates from the vital registration system for the probability of dying among children aged 5–14 is 2 deaths per 1,000 children aged 5 and the probability of dying among youths aged 15–24 is 6 deaths per 1,000 youths aged 15.

f. The most recent national official estimates of neonatal, infant and under-five mortality rates in Zambia are from the 2018 Zambia Demographic and Health Survey (2018 ZDHS) with a rate of 27, 42 and 61 deaths per 1,000 live births, respectively, in the 5-year period before the survey.

g. The sum of the number of deaths by region may differ from the world total because of rounding.



Regional Classifications

The regional classifications that are referred to in the report and for which aggregate data are provided in the statistical table are Sustainable Development Goal regions (see below). Aggregates presented for member organizations of the United Nations Inter-agency Group for Child Mortality Estimation may differ and regional classifications with the same name from different member organizations (e.g., “Sub-Saharan Africa”) may include different countries.

Whether a country belongs to the group of Least developed countries (LDC), Landlocked developing countries (LLDC) and/or Small island developing States (SIDS) is indicated in the brackets after the country name.

Sub-Saharan Africa

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

Northern Africa and Western Asia

Northern Africa

Algeria, Egypt, Libya, Morocco, Sudan (LDC), Tunisia

Western Asia

Armenia (LLDC), Azerbaijan, Bahrain, Cyprus, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, State of Palestine, Syrian Arab Republic, Turkey, United Arab Emirates, Yemen (LDC)

Central and Southern Asia

Central Asia

Kazakhstan (LLDC), Kyrgyzstan (LLDC), Tajikistan (LLDC), Turkmenistan (LLDC), Uzbekistan (LLDC)

Southern Asia

Afghanistan (LDC, LLDC), Bangladesh (LDC), Bhutan (LLDC), India, Iran (Islamic Republic of), Maldives (SIDS), Nepal (LDC, LLDC), Pakistan, Sri Lanka

Eastern and South-Eastern Asia

Eastern Asia

China, Democratic People's Republic of Korea, Japan, Mongolia (LLDC), Republic of Korea

South-Eastern Asia

Brunei Darussalam, Cambodia (LDC), Indonesia, Lao People's Democratic Republic (LDC, LLDC), Malaysia, Myanmar (LDC), Philippines, Singapore (SIDS), Thailand, Timor-Leste (LDC, SIDS), Viet Nam

Latin America and the Caribbean

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

Oceania

Australia and New Zealand

Australia, New Zealand

Oceania (excluding Australia and New Zealand)

Cook Islands (SIDS), Fiji (SIDS), Kiribati (LDC, SIDS), Marshall Islands (SIDS), Micronesia (Federated States of) (SIDS), Nauru (SIDS), Niue (SIDS), Palau (SIDS), Papua New Guinea (SIDS), Samoa (SIDS), Solomon Islands (LDC, SIDS), Tonga (SIDS), Tuvalu (LDC, SIDS), Vanuatu (LDC, SIDS)

Europe and Northern America

Northern America

Canada, United States of America

Europe

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



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The UN IGME’s independent Technical Advisory Group, comprising leading academic scholars and independent experts in demography and biostatistics, provides technical guidance on estimation methods, technical issues and strategies for data analysis and data quality assessment.

The UN IGME updates its child mortality estimates annually after reviewing newly available data and assessing data quality. This report contains the latest UN IGME estimates of child mortality at the country, regional and global levels. Country-specific estimates and the data used to derive them are available at <www.childmortality.org>.

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