Levels & Trends in

Child Mortality

Report 2023

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

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8 THINGS TO KNOW ABOUT NEWBORN, CHILD, ADOLESCENT AND YOUTH MORTALITY

1. **Good progress has led to fewer children dying before turning 5 than ever recorded. This is an opportune moment to note what has been achieved and reflect on what must be done to save more lives.**
   In 2022, the annual number of under-five deaths dropped to 4.9 million.[1] And since 2000, the global under-five mortality rate (U5MR) has declined by more than half. This notable achievement has been driven largely by sustained commitment on the part of governments, organizations, local communities, health care professionals and families.

2. **The annual death toll among children, adolescents and youth remains unacceptably high.**
   Of the 4.9 million under-five deaths in 2022, 2.3 million occurred during the first month of life and 2.6 million children died between the ages of 1 and 59 months. The lives of an additional 2.1 million children, adolescents and youth ages 5–24 were also cut tragically short that year. Between 2000 and 2022, the world lost 221 million children, adolescents and youth. That's nearly the entire population of Nigeria, the sixth-largest country by population. Children younger than 5 comprised 162 million of these lives lost, almost equal to the population of Bangladesh, the world's eighth-most-populous country. Neonatal deaths accounted for 72 million of those under-five deaths, while 91 million deaths occurred among children aged 1–59 months.[2] And nearly 53 million stillbirths took place between 2000 and 2021[3] – deaths that are often missed by policymakers and in programme actions and data collection.

3. **Children endure unequal chances of survival based on where they live, their socio-economic group and if they live in a fragile and conflict-affected setting.**
   Global rates of child mortality are declining – but these averages mask persistent and entrenched inequities among vulnerable populations of children. A child born in sub-Saharan Africa[4] is on average 18 times more likely to die before turning 5 than one born in the region of Australia and New Zealand, while the risk of death among those younger than 5 in the highest-mortality country is 80 times that of the lowest-mortality country. When children are born into the poorest households or a fragile and conflict-affected setting, their chances of survival plummet.

4. **Unless urgent action is taken to end preventable newborn and child deaths, many low- and lower-middle-income countries will not meet the Sustainable Development Goal (SDG) targets for newborn and under-five mortality and 35 million children under age 5 will die before 2030.**
   This horrific death toll will be largely borne by families in sub-Saharan Africa and Southern Asia or in low- and lower-middle-income countries. If, however, every country realized the SDGs'[5] vision of an end to preventable under-five deaths and met the relevant mortality targets on time, 9 million more children would survive to age 5. Yet today's scenario is cause for alarm: Under current trends, 59 countries will miss the SDG under-five mortality target and even more – 64 countries – will miss the neonatal mortality target. With 2030 approaching quickly, progress must be prioritized and accelerated to ensure every newborn's and child's right to survive is upheld.

5. **Progress is possible, even in low- and lower-middle-income countries.**
   Several low- and lower-middle-income countries[6] have outperformed the global decline in under-five mortality, in some cases slashing their rates by more than two thirds since 2000. These inspiring outcomes demonstrate the high returns when investments are made in maternal, newborn and child health and survival. They also provide important proof that if sustained and strategic action is taken – even in resource-constrained settings – levels and trends in under-five mortality will shift and lives will be saved. Given the disproportionately large burden of under-five deaths carried by low- and lower-middle-income countries, it is critical to learn from these success stories and take action in the countries facing similar resource constraints and high levels of child mortality.

6. **Investments at local, subnational and national levels must be made to ensure proven interventions are available and accessible in every community, particularly where newborns and children are most at risk.**
We know how to save children's lives: By scaling up high-impact interventions, such as skilled health personnel at birth, care for small and sick newborns, antenatal and postnatal care, preventive services such as vaccination, improved access to diagnosis and treatment of key causes of childhood illness and death, and efforts to reduce risk factors for mortality, such as malnutrition. These effective measures must become available to every child in every country and every community, rooted in a synergistic approach delivered through primary health care provided across the life-course. And in the places where investments in maternal, newborn and child health are already in place, they must be sustained and stepped up. To ensure the survival of children, adolescents and youth, we must not only prioritize coverage, but also equity and quality, while also considering critical patterns in mortality by age and sex and targeting the main causes of death. If proven interventions are fueled by ambition, matched with political commitment, backed by sustained financing and routinely monitored, the annual number of under-five deaths could reach nearly zero.

7. **Data are least available in the places where children face the highest risks.**
In about two in five countries, the most recent available data on child mortality are over five years old. Data availability declines by income classification, in countries classified as fragile and conflict-affected, and among countries at risk of missing the SDG targets on child mortality. In sub-Saharan Africa, for instance, the average most recent data point age is 6.9 years, 2.3 years more than the global average. Data and statistical systems – particularly those that record the demographic components needed for mortality estimation (i.e., births, deaths and population) – must be improved to track and monitor survival by age, and direct resources towards the most marginalized children. In addition, integrating data collected across the life-course is critical, along with efforts to bolster the completeness, timeliness and quality of data collected by various local and national data producers.

8. **Global action is needed now to ensure progress – not complacency – defines the remaining years of the SDG era.**
We must:
   - *Emphasize local action*
   Subnational planning, implementation and monitoring is critical, backed by political commitment and adequate resources.
   - *Elevate the level of ambition and investments for mothers and newborns*
   Reducing neonatal mortality requires investing in care around the time of birth provided by skilled health personnel, essential newborn care and care of small and sick newborns.
   - *Scale up high-impact interventions to target 1–59-months mortality*
   Many deaths among children aged 1–59 months can be prevented when high-impact interventions that target key causes and risk factors of mortality are available and accessible.
   - *Build synergies along the continuum of care*
   Actions must encompass the full maternal, newborn and child continuum of care, focusing on the most effective interventions by age group while strengthening systems and delivery platforms.
   - *Invest in community health workers*
   National maternal, newborn, child health, malaria, nutrition and immunization programmes need to jointly develop a strong cadre of community health workers, a critical bridge for care across the life-course.
   - *Strengthen data and statistical systems*
   To monitor and ensure the survival of every child, including those in the most vulnerable situations, gaps in data and monitoring must be addressed.
   - *Allocate appropriate resources to reduce under-five deaths*
   District-, provincial- and national-level plans that aim to improve newborn and child mortality must be adequately financed.

CHILD, ADOLESCENT AND YOUTH MORTALITY: CURRENT STATUS

How many newborns, children, adolescents and youth died globally in 2022?

	Neonatal deaths	Under-five deaths	Adolescent deaths
Entire year	2.3 million	4.9 million	0.9 million
Every month	192,000	408,000	76,000
Every day	6,300	13,400	2,500

One neonatal death occurred every **14 seconds**, one under-five death every **6 seconds** and one adolescent death every **35 seconds**.

1 in 27 children died before their fifth birthday

1 in 58 newborns died

1 in 50 children between the ages of 1 month and 59 months died

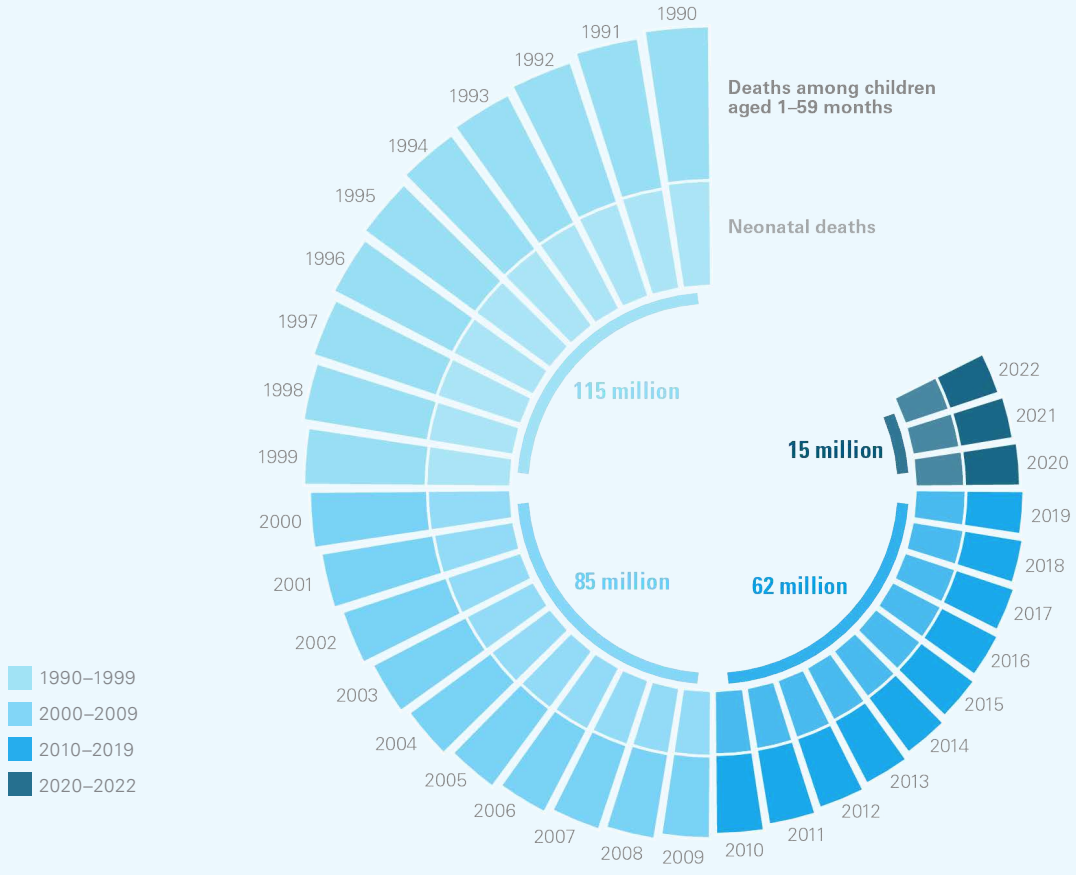
1 in 61 children, adolescents and youth aged 5 to 24 years died

1 in 142 adolescents died

1 in 19 children, adolescents and youth between ages 0 and 24 years died

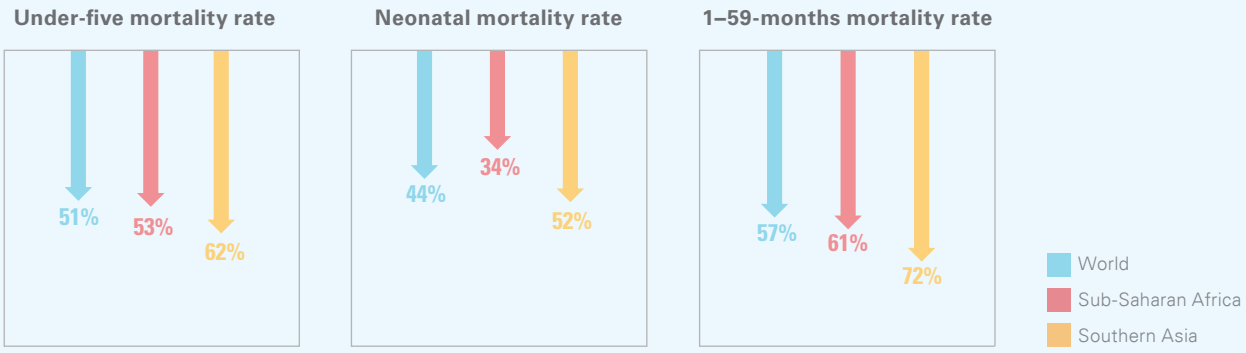
Have many children younger than 5 has the world lost since 1990?

278 million children died before age 5 from 1990–2022



Since 2000, how much progress has been made to save under-five lives?

Percentage decline in under-five mortality rate, neonatal mortality rate and 1–59-months mortality rate, 2000–2022

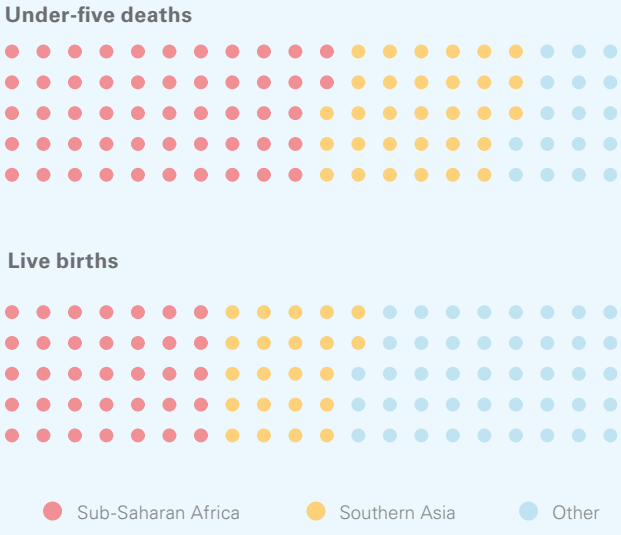


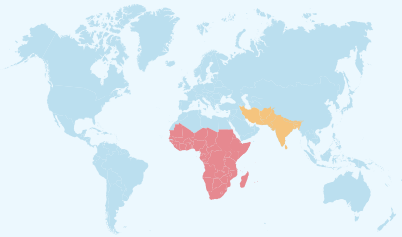
Where in the world are children most likely to die before age 5?

Mortality risk for children under age 5 in sub-Saharan Africa is **18 times** as high as the risk in Australia and New Zealand.

The risk of death among children under age 5 in the highest-mortality country is **80 times** that of the lowest-mortality country.

Distributions of under-five deaths and live births, 2022





4 in 5 under-five deaths occured in sub-Saharan Africa and Southern Asia, yet only 3 in 5 live births occurred in those two regions.

Sub-Saharan Africa accounted for **57%** of global under-five deaths, while only accounting for 30 per cent of global live births.

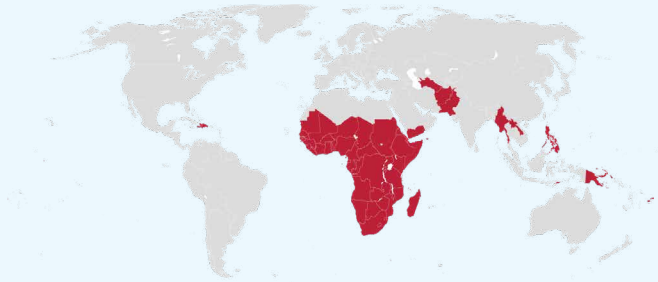
Southern Asia accounted for another **26%** of global under-five deaths and 27 per cent of global live births.

What will happen if urgent action is not taken?

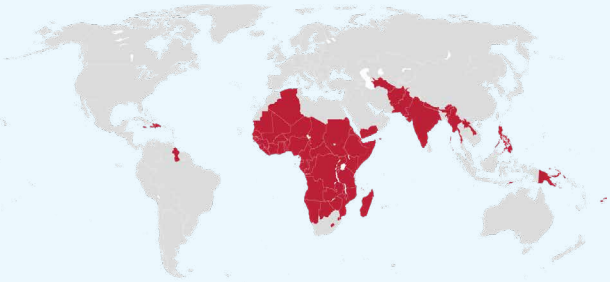
SDG under-five mortality target 3.2.1: 25 or fewer under-five deaths per 1,000 live births by 2030

SDG neonatal mortality target 3.2.2: 12 or fewer neonatal deaths per 1,000 live births by 2030

59 countries are at risk of missing the SDG under-five mortality target

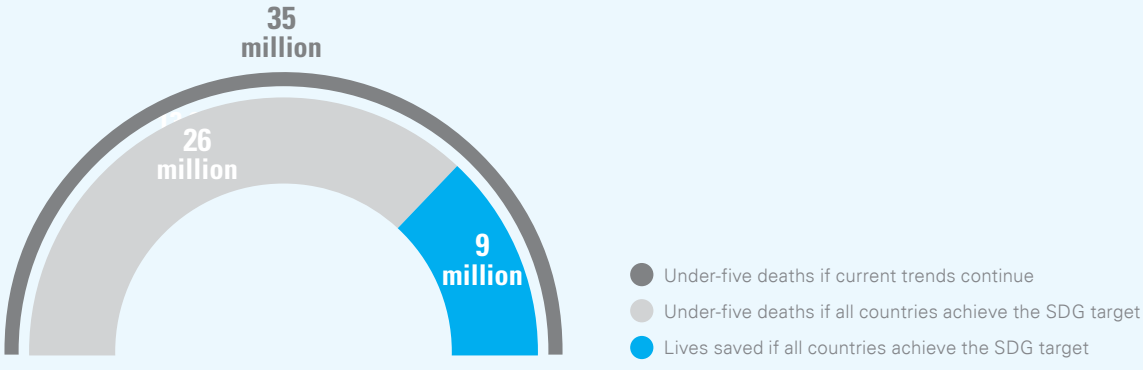


64 countries are at risk of missing the SDG neonatal mortality target



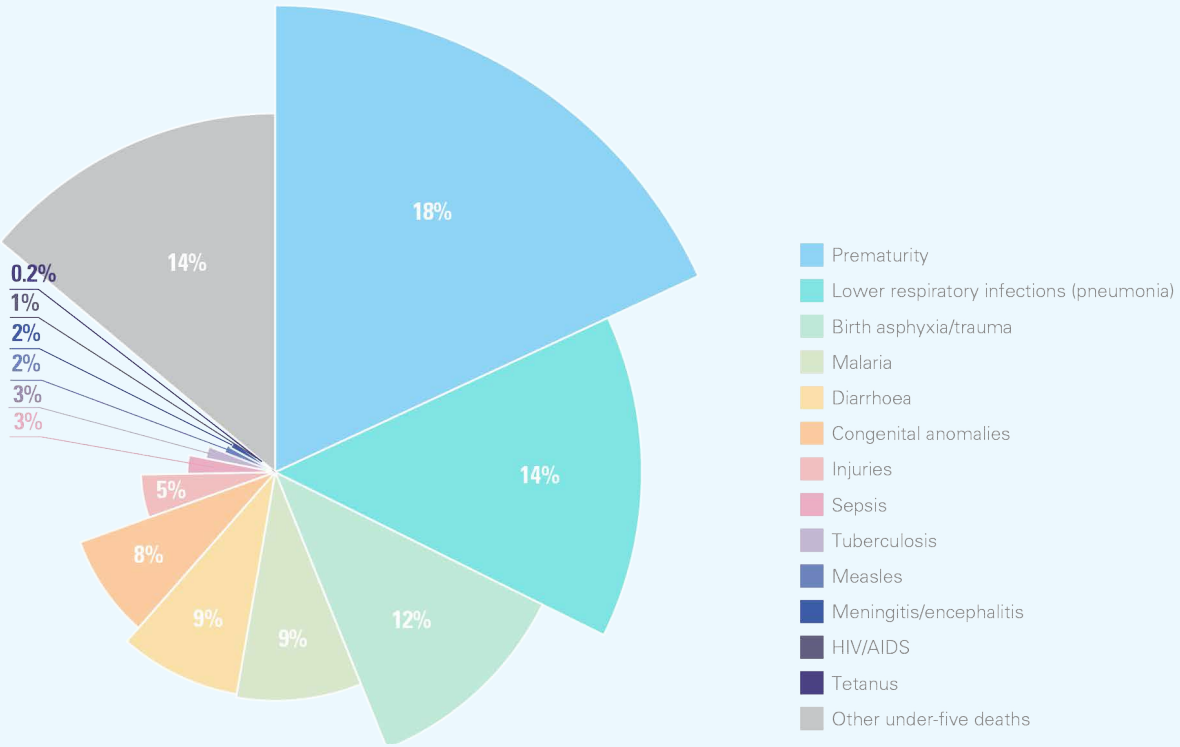
On current trends, **35 million children under 5 are projected to die** by 2030. In addition, 16 million children, adolescents and youth between the ages of 5 and 24 are projected to lose their lives by 2030

If the SDG target is met by 2030: **9 million under-five deaths could be prevented** by accelerating progress to meet the SDG target in the countries at risk of missing the target



What are the leading causes of death among newborns and children younger than 5?

Conditions related to neonatal mortality and infectious diseases are the cause of most under-five deaths around the world



What policies are in place to ensure every birth and death is registered and recorded?

As reported by 106 countries in the ENAP-EPMM tracking tool:

98% have a mechanism for birth registration

83% have a mechanism for neonatal death registration

61% have a mechanism for stillbirth registration

Of these 106 countries, less than **25%** have produced quality vital registration data to inform the child mortality estimates since 2015, and **40%** have not conducted a survey and published the results since 2015

Introduction

This year's United Nations Inter-agency Group for Child Mortality Estimation (UN IGME)'s findings represent a noteworthy moment in the ongoing campaign to end all preventable child deaths: The annual number of under-five deaths has fallen to 4.9 (4.6–5.4)[7] million in 2022, or about half the number that occurred in 2000. This is a testament to the commitment of governments, organizations, local communities, health-care professionals and families to the survival of the most vulnerable members of our global community.

Yet millions of children still died before seeing their fifth birthday – a loss that serves as a crucial reminder that threats to newborn and child health and survival persist around the world, particularly among the most marginalized children. Furthermore, though the 2022 number of under-five deaths is indeed encouraging, it must be viewed in light of the wide associated uncertainty range of 4.6–5.4 million, which stems from the limited availability of recent data.

As we examine the latest levels and trends in child mortality and highlight what has been achieved, we must also ask critical questions. How has progress in reducing under-five mortality fared in the first half of the Sustainable Development Goal (SDG) era? How many deaths took place in situations where children's lives were being affected by inequity, crisis, fragility and conflict? Which children continued to endure dramatically different odds of survival based on where they were born? With the clock ticking down to 2030, which countries need to accelerate progress to reach mortality targets in time?

Our ability to answer these questions – and ensure the accuracy and completeness of these levels and trends in child mortality – would be improved with timelier and more high-quality data. Availability of these data is vital to achieving the SDGs' vision of no child being left behind, as data provide the cornerstone of evidence-based policies and programming.

Better data are urgently needed in settings where child survival is most at risk. Recent pandemics and conflicts serve as stark reminders that uninterrupted mortality decline is precarious, requiring unyielding commitment and investment, including in data and statistical systems.

Concerningly, uncertainty about levels of mortality today signals continued uncertainty in the future, and the continuing needless loss of young lives. With the possibility that crisis, fragility and conflict become more frequent in the years to come, it is imperative that we prioritize solutions to these data concerns now and ensure progress in child survival does not stagnate or, even worse, reverse.

A global health landmark, yet a long road ahead to ending preventable deaths

The latest UN IGME estimates show that progress has been made in the campaign to end preventable child mortality around the globe. This figure, however, must be understood in the larger context: The world has suffered some 162 million under-five deaths since 2000, nearly equal to the current population of Bangladesh. And according to the latest estimates, over 50 million stillbirths – which, along with neonatal mortality, are critical indicators of perinatal health – have occurred since 2000, with about 1.9 million stillbirths in 2021, the most recent year of estimation.[3] Each of these deaths takes us farther from realizing the vision of the 2030 Agenda for Sustainable Development and marks a failure to uphold our obligations under the Convention on the Rights of the Child and its central tenet of the right to survival.

Progress in reducing under-five deaths at the global level and in some regions, including sub-Saharan Africa, has slowed: During the Millennium Development Goal (MDG) era (2000–2015), global under-five mortality declined at a rate almost two times that of the decline recorded between 2015 and 2022.

Broken down by age, in 2022 alone there were 2.3 (2.2–2.6) million deaths in the neonatal period (i.e., age 0–27 days) and 2.6 (2.4–2.9) million deaths among children aged 1–59 months. In addition to this under-five deaths burden, there were 2.1 (2.0–2.3) million deaths among those aged 5–24 years, including 0.9 (0.9–1.0) million deaths among adolescents aged 10–19 years.

These deaths are even more tragic considering that most of them could have been prevented by common, effective and often low-cost essential interventions including:

- access to essential health-care services;
- births attended by skilled health personnel;
- efforts to increase the number of and support to community health workers;
- access to and use of antenatal and postnatal care services;
- care for small and sick newborns;
- preventive services, such as vaccination;
- improved diagnosis and timely treatment of key causes of childhood illness and death; and
- efforts to reduce malnutrition as a risk factor for mortality, through supplementation with ready-to-use therapeutic foods, improved water and sanitation, and reduction of environmental risks.

We cannot change the past, but we can learn from it. In the context of this massive loss of life, the road to ending preventable deaths of children may seem long, but with the right political commitments and increased investment, we can achieve this goal.

Cautious optimism, concerted efforts

Despite the progress in reducing under-five mortality, millions of young lives still hang in the balance. The SDGs call for ending preventable deaths of children under age 5 by 2030, with all countries aiming to achieve a U5MR[8] of 25 or fewer deaths per 1,000 live births and a neonatal mortality rate[9] (NMR) of 12 or fewer deaths per 1,000 live births.

Without decisive and urgent investments in child health and survival, however, 59 countries will not meet the SDG under-five mortality target on time and 64 countries will fall short of the neonatal mortality target. Furthermore, while there is no explicit SDG target for mortality among 1–59-month-olds – which, together with neonatal mortality, comprises the total U5MR – 52 countries are off track to meet a proposed 1–59-months mortality rate target of about 13 deaths per 1,000 children aged 28 days by 2030 (based on the U5MR and NMR targets).[10]

These are not just numbers on a page; they represent real lives cut short. If current trends continue, 35 million children will die before reaching their fifth birthday by 2030. Meeting the SDG targets would save 9 million of those lives. That's millions of families and communities spared the heartbreaking loss of a child and devastating loss of potential.

Progress to date proves that real change is possible. This accomplishment has the power to inspire action in every country and renew commitment at local, national and regional levels towards achieving the SDG targets and eliminating preventable child deaths once and for all. To realize these goals, we must take a closer look at the details and complexities behind global estimates. This includes identifying those children more likely to die based on the circumstances of their birth and of their lives – especially those grappling with heightened inequities, crisis, fragility and conflict.

Inequality in survival outcomes: A closer look at mortality disparities

The principle of leaving no child behind calls for highlighting the glaring and persistent disparities in the risk of death among different segments of the population, thereby compelling decision makers to address these inequitable conditions and unequal outcomes. Even as global rates of child, adolescent and youth mortality decline, children in sub-Saharan Africa and Southern Asia, low- and lower-middle-income countries, fragile and conflict-affected situations, and poor households all remain particularly vulnerable to premature, preventable death.

This year's UN IGME report takes a magnifying glass to the critical issue of inequality in survival outcomes by examining mortality disparities by geography (specifically, countries and regions), age, sex, fragile and conflict-affected situations, and World Bank income classification. It also closely examines three socio-economic factors that cast a long shadow over under-five mortality: household wealth, maternal education and urban/rural residency.

In addition to the most vulnerable children mentioned above, we also call attention to the mortality situation of adolescents. Although mortality is relatively low in this age group, the causes of death among this demographic demand increased scrutiny and targeted interventions. Social, cultural and health-care challenges

uniquely shape the lives of adolescents, whose well-being is intrinsically linked to the future of our global community.

By understanding the levels, trends and root causes of mortality among populations at risk in different circumstances, we pave the way for all children and adolescents to survive and thrive.

A dearth of recent data

Estimates in this report are based on empirical data up to 2022 where available, or extrapolation to 2022 by continuing recent trends from the most recent empirical data point. High-quality data included in the model for 2022 were available in just 51 countries (86 per cent of which are high- or upper-middle-income countries); globally, the average extrapolation period was 4.6 years in this round of estimation.

These data gaps mean wider uncertainty in estimates of rates and deaths; as suggested above, under-five deaths may have exceeded 5 million, as shown by the 4.6–5.4 million uncertainty range. Thus, efforts to collect the data and information critical to tracking this important metric must be strengthened. More high-quality data mean we can be more certain about these outcomes, gain greater understanding as to what drives them and better prioritize actions to prevent premature mortality.

The dearth of recent data on mortality also hinders the ability to track recent and sometimes rapidly changing threats to human survival, as seen during the COVID-19 pandemic. When crisis hits – or in fragile and conflict-affected situations – the availability of reliable, up-to-date and disaggregated data on child mortality that capture both the situation before and during the crisis is essential to understanding how child survival has been affected. When these data are unavailable, it not only limits humanitarian and relief responses in emergencies, it also has direct consequences on the identification of and effective response to the root causes of child deaths.

The bridge between health-care systems, birth and death registration policies, and data infrastructure is one we must build along the route to ending all preventable child deaths. In the absence of robust data, our understanding of the unique challenges faced by marginalized or disadvantaged communities or communities in crisis remains incomplete, hindering the development of tailored strategies and solutions.

As we present this year's UN IGME report, we call for renewed commitment to strengthening data collection mechanisms, particularly in the places where children are facing the greatest inequities and in regions marred by fragility and conflict.

BOX 1. Accounting for the impacts of COVID-19 on child, adolescent and youth mortality

Data covering the pandemic period remain sparse and unrepresentative. Using national and subnational data that the UN IGME has collected for 76 countries in 2022, 131 countries in 2021 and 144 countries in 2020, we conducted an excess mortality analysis to determine if any adjustment is needed to account for mortality related to the pandemic. Consistent with our findings over the last two editions of this report, data available as of December 2023 do not show significant, widespread excess mortality among children, adolescents or youth (see Annex II: Excess mortality analysis for further details). Based on these data and the recommendation of its Technical Advisory Group, the UN IGME has not made adjustments for COVID-19-related mortality. Further monitoring is needed, however, and will continue when more data become available, particularly for 2022.

Under-five mortality and SDG assessment

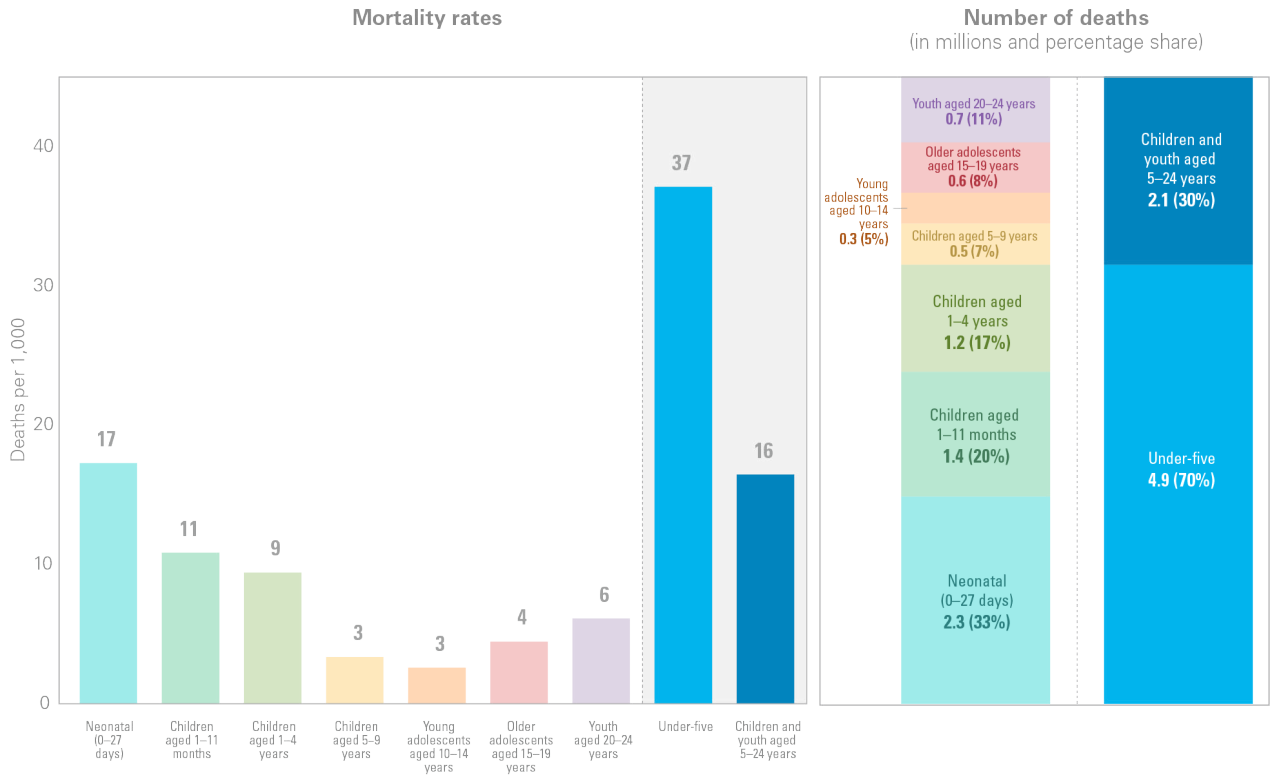
In a noteworthy achievement on the journey to eliminate all preventable child deaths, the annual number of global under-five deaths declined by more than half between 2000 and 2022. In 2022, there were 4.9 (4.6–5.4) million under-five deaths (see Table 1 and Figure 1). This is roughly half the under-five deaths that occurred in 2000 (9.9 (9.8–10.1) million) and a 62 per cent[11] decline from the 1990 estimate of 12.8 (12.7–13.0) million under-five deaths. While this is progress to be lauded, the tragic loss of nearly 5 million children younger than 5 in 2022 must not be forgotten or overlooked. The knowledge and interventions to drive that number much lower are available – and greater investments must be made at local, national and global levels to deliver these solutions to every child in every corner of the globe.

TABLE 1 **Levels and trends in the number of deaths of children under age 5, by Sustainable Development Goal region, 1990–2022**

	Number of under-five deaths (thousands)					Decline (per cent)				Share of global under-five deaths (per cent)				
Region	**1990**	**2000**	**2010**	**2015**	**2022**	**1990–2022**	**2000–2022**	**2000–2015**	**2015–2022**	**1990**	**2000**	**2010**	**2015**	**2022**
Sub-Saharan Africa	3,807	3,921	3,269	3,039	2,775	27	29	22	9	29.7	39.6	46.2	50.2	56.7
Northern Africa and Western Asia	707	467	353	342	265	62	43	27	22	5.5	4.7	5	5.6	5.4
Northern Africa	398	257	207	196	158	60	38	24	19	3.1	2.6	2.9	3.2	3.2
Western Asia	309	211	146	145	107	65	49	31	26	2.4	2.1	2.1	2.4	2.2
Central and Southern Asia	5,091	3,785	2,440	1,861	1,288	75	66	51	31	39.7	38.2	34.5	30.8	26.3
Central Asia	111	75	46	39	31	72	59	48	21	0.9	0.8	0.7	0.6	0.6
Southern Asia	4,981	3,710	2,394	1,822	1,258	75	66	51	31	38.8	37.4	33.8	30.1	25.7
Eastern and South-Eastern Asia	2,363	1,227	671	522	342	86	72	57	35	18.4	12.4	9.5	8.6	7
Eastern Asia	1,511	683	297	207	87	94	87	70	58	11.8	6.9	4.2	3.4	1.8
South-Eastern Asia	852	544	374	316	255	70	53	42	19	6.6	5.5	5.3	5.2	5.2
Latin America and the Caribbean	648	380	245	195	152	76	60	49	22	5.1	3.8	3.5	3.2	3.1
Oceania	17	17	17	15	13	21	20	7	14	0.1	0.2	0.2	0.3	0.3
Australia and New Zealand	3	2	2	1	1	52	27	24	5	0	0	0	0	0
Oceania (exc. Australia and New Zealand)	14	15	15	14	12	14	19	5	14	0.1	0.1	0.2	0.2	0.2
Europe and Northern America	199	113	87	75	55	72	51	33	27	1.5	1.1	1.2	1.2	1.1
Europe	150	77	55	46	30	80	61	40	35	1.2	0.8	0.8	0.8	0.6
Northern America	49	36	32	29	25	48	30	19	14	0.4	0.4	0.5	0.5	0.5
World	**12,832**	**9,910**	**7,082**	**6,050**	**4,891**	**62**	**51**	**39**	**19**	**100**	**100**	**100**	**100**	**100**

All calculations are based on unrounded numbers. Values 0 in the table are less than 0.05 before rounding.

FIGURE 1 **Global mortality rates[12] and number of deaths, by age, 2022**



Note: All figures are based on unrounded numbers.

Under-five deaths are increasingly concentrated in the neonatal period. Notably, while the total number of under-five deaths has declined globally since 1990, the percentage of those that occur in just the first 28 days of life has increased over time, from 41 per cent in 2000 to 47 per cent in 2022 (see Table 2). Neonatal deaths have decreased by 44 per cent since 2000, from 4.1 (4.0–4.2) million to 2.3 (2.2–2.6) million (see Table 2), compared to a 56 per cent reduction in the number of 1–59-months deaths, from 5.8 (5.7–6.0) million in 2000 to 2.6 (2.4–2.9) million in 2022 (see Table 3). The slower decline in neonatal deaths is due to factors like population change and differences in the cause-of-death structure by age, with mortality among 1–59-month-olds being generally more responsive to basic public health interventions, while neonatal mortality relates more to complications around the time of birth.

TABLE 2 Levels and trends in the number of neonatal deaths, by Sustainable Development Goal region, 1990–2022

Region	Number of neonatal deaths (thousands)					Decline (per cent)				Neonatal deaths as a share of under-five deaths (per cent)				
	1990	2000	2010	2015	2022	1990–2022	2000–2022	2000–2015	2015–2022	1990	2000	2010	2015	2022
Sub-Saharan Africa	1,010	1,086	1,078	1,076	1,066	-6	2	1	1	27	28	33	35	38
Northern Africa and Western Asia	292	219	188	174	144	51	34	20	17	41	47	53	51	54
Northern Africa	158	117	109	104	86	45	27	11	17	40	46	53	53	54
Western Asia	134	102	78	70	58	57	43	31	17	43	48	53	48	54
Central and Southern Asia	2,333	1,907	1,370	1,112	807	65	58	42	27	46	50	56	60	63
Central Asia	45	33	25	21	16	64	51	37	22	40	44	55	53	53
Southern Asia	2,288	1,874	1,344	1,091	791	65	58	42	28	46	51	56	60	63
Eastern and South-Eastern Asia	1,192	629	341	256	168	86	73	59	34	50	51	51	49	49
Eastern Asia	858	391	157	99	37	96	91	75	63	57	57	53	48	42
South-Eastern Asia	334	238	184	157	131	61	45	34	17	39	44	49	50	51
Latin America and the Caribbean	276	187	120	107	87	69	54	43	19	43	49	49	55	57
Oceania	7	8	8	7	7	3	10	2	9	42	46	47	48	51
Australia and New Zealand	1	1	1	1	1	41	19	16	4	49	55	57	60	61
Oceania (exc. Australia and New Zealand)	6	7	7	7	6	-7	9	-1	10	40	44	46	47	50
Europe and Northern America	101	60	47	42	29	71	51	30	30	51	53	54	56	53
Europe	75	40	29	25	16	79	60	37	35	50	52	53	55	54
Northern America	26	20	18	17	13	49	35	16	23	53	56	56	58	52
World	**5,211**	**4,095**	**3,151**	**2,775**	**2,307**	**56**	**44**	**32**	**17**	**41**	**41**	**44**	**46**	**47**

Note: All calculations are based on unrounded numbers.

TABLE 3 Levels and trends in the number of 1–59-months deaths, by Sustainable Development Goal region, 1990–2022

Region	Number of 1–59-months deaths (thousands)					Decline (per cent)				1–59-months deaths as a share of under-five deaths (per cent)				
	1990	2000	2010	2015	2022	1990–2022	2000–2022	2000–2015	2015–2022	1990	2000	2010	2015	2022
Sub-Saharan Africa	2,797	2,835	2,191	1,963	1,709	39	40	31	13	73	72	67	65	62
Northern Africa and Western Asia	415	248	165	167	121	71	51	33	28	59	53	47	49	46
Northern Africa	240	139	97	92	72	70	48	34	22	60	54	47	47	46
Western Asia	175	109	68	75	49	72	55	31	35	57	52	47	52	46
Central and Southern Asia	2,758	1,878	1,071	749	482	83	74	60	36	54	50	44	40	37
Central Asia	66	42	21	18	14	78	66	57	20	60	56	45	47	47
Southern Asia	2,692	1,836	1,050	731	467	83	75	60	36	54	49	44	40	37
Eastern and South-Eastern Asia	1,170	598	331	267	174	85	71	55	35	50	49	49	51	51
Eastern Asia	653	292	140	108	50	92	83	63	54	43	43	47	52	58
South-Eastern Asia	517	306	190	158	124	76	59	48	22	61	56	51	50	49
Latin America and the Caribbean	372	194	125	88	66	82	66	55	25	57	51	51	45	43
Oceania	10	9	9	8	7	33	27	11	18	58	54	53	52	49
Australia and New Zealand	2	1	1	1	1	63	37	33	6	51	45	43	40	39
Oceania (exc. Australia and New Zealand)	8	8	8	7	6	28	26	9	19	60	56	54	53	50
Europe and Northern America	98	53	40	33	26	74	52	37	23	49	47	46	44	47
Europe	75	37	26	21	14	82	63	43	35	50	48	47	45	46
Northern America	23	16	14	12	12	48	24	23	1	47	44	44	42	48
World	**7,621**	**5,815**	**3,932**	**3,275**	**2,584**	**66**	**56**	**44**	**21**	**59**	**59**	**56**	**54**	**53**

Note: All calculations are based on unrounded numbers.

Sub-Saharan Africa, where annual neonatal deaths have stagnated at about 1 million, bears the greatest burden of under-five deaths in the world. Global under-five deaths were primarily concentrated in two regions: sub-Saharan Africa and Southern Asia (see Table 1). In 2022, sub-Saharan Africa accounted for 57 per cent (2.8 (2.5–3.3) million) of total under-five deaths and only 30 per cent of global live births, and Southern Asia (a subregion of Central and Southern Asia that tends to bear the brunt of child, adolescent and youth mortality within the larger region) accounted for another 26 per cent (1.3 (1.1–1.4) million) of total under-five deaths and 27 per cent of global live births. Breaking down the under-five period by age group paints a similar picture: sub-Saharan Africa accounted for 46 per cent (1.1 (1.0–1.3) million) of the world's neonatal deaths and Southern Asia accounted for 34 per cent (0.8 (0.7–0.9) million). Despite a decrease in sub-Saharan Africa's NMR since 1990 – albeit a relatively slow decline when compared to Southern Asia, where the NMR in 1990 was also among the world's highest – the number of sub-Saharan Africa's neonatal deaths has remained steady at roughly 1 million (see Table 2), as the decline in NMR is counteracted by steadily increasing births in the region. Meanwhile, an even larger proportion of global 1–59-months deaths – 66 per cent (1.7 (1.5–2.1) million) of total deaths among children aged 1–59 months in 2022 – occurred in sub-Saharan Africa, while the second-largest share was borne by Southern Asia, with another 18 per cent (0.5 (0.4–0.5) million).

Since 2000, the global U5MR has declined by 51 per cent, with a proportionally smaller reduction in the NMR than the 1–59-months mortality rate. Globally, the U5MR fell to 37 (35–41)[13] deaths per 1,000 live births in 2022, a 51 per cent decline since 2000 when the global U5MR was 76 (75–78) deaths per 1,000 live births (see Table 4 and Figure 2). But the global NMR has declined by just 44 per cent in the same period, from 31 (30–32) deaths per 1,000 live births in 2000 to 17 (16–19) deaths per 1,000 live births in 2022 (see Table 5 and Figure 3). In contrast, the 1–59-months mortality rate decreased by 57 per cent, from 47 (46–48) deaths per 1,000 children aged 28 days in 2000 to 20 (19–23) deaths per 1,000 children aged 28 days in 2022 (see Table 6).

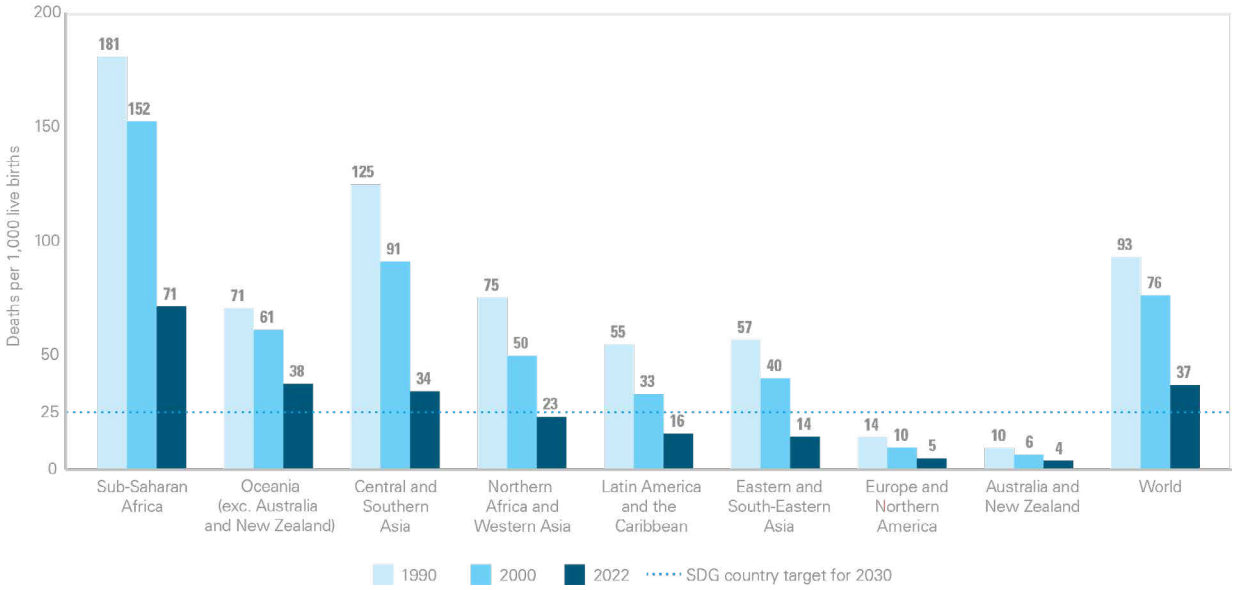
TABLE 4 Levels and trends in the under-five mortality rate, by Sustainable Development Goal region, 1990–2022

	Under-five mortality rate (deaths per 1,000 live births)					Decline (per cent)				Annual rate of reduction (per cent)		
Region	**1990**	**2000**	**2010**	**2015**	**2022**	**1990–2022**	**2000–2022**	**2000–2015**	**2015–2022**	**2000–2022**	**2000–2015**	**2015–2022**
Sub-Saharan Africa	181	152	102	87	71	60	53	43	18	3.4	3.7	2.9
Northern Africa and Western Asia	75	50	32	29	23	69	54	43	19	3.5	3.7	3
Northern Africa	85	59	39	32	27	68	54	45	17	3.5	3.9	2.6
Western Asia	65	42	26	24	19	71	55	42	22	3.6	3.7	3.5
Central and Southern Asia	125	91	60	47	34	73	62	48	27	4.4	4.4	4.5
Central Asia	70	61	31	23	17	75	71	62	24	5.7	6.5	3.9
Southern Asia	127	92	61	48	35	72	62	48	27	4.4	4.3	4.5
Eastern and South-Eastern Asia	57	40	21	17	14	75	64	58	14	4.6	5.8	2.1
Eastern Asia	51	35	15	10	7	87	81	71	37	7.7	8.2	6.5
South-Eastern Asia	72	48	32	27	23	68	52	43	15	3.3	3.8	2.4
Latin America and the Caribbean	55	33	23	18	16	71	52	44	14	3.4	3.9	2.2
Oceania	33	31	26	23	20	41	36	25	15	2	1.9	2.4
Australia and New Zealand	10	6	5	4	4	59	39	35	6	2.2	2.9	0.8
Oceania (exc. Australia and New Zealand)	71	61	51	46	38	47	38	25	17	2.2	2	2.7
Europe and Northern America	14	10	7	6	5	65	48	37	18	3	3.1	2.8
Europe	16	11	7	6	4	73	59	45	25	4.1	4	4.1
Northern America	11	8	7	7	6	44	26	20	8	1.4	1.5	1.2
World	**93**	**76**	**51**	**43**	**37**	**60**	**51**	**44**	**14**	**3.3**	**3.8**	**2.1**

Note: All calculations are based on unrounded numbers.

FIGURE 2

Under-five mortality rate, by Sustainable Development Goal region, 1990, 2000 and 2022



Note: All calculations are based on unrounded numbers. Central Asia's under-five mortality rate was 70 in 1990, 61 in 2000 and 17 in 2022; Southern Asia's under-five mortality rate was 127 in 1990, 92 in 2000, and 35 in 2022.

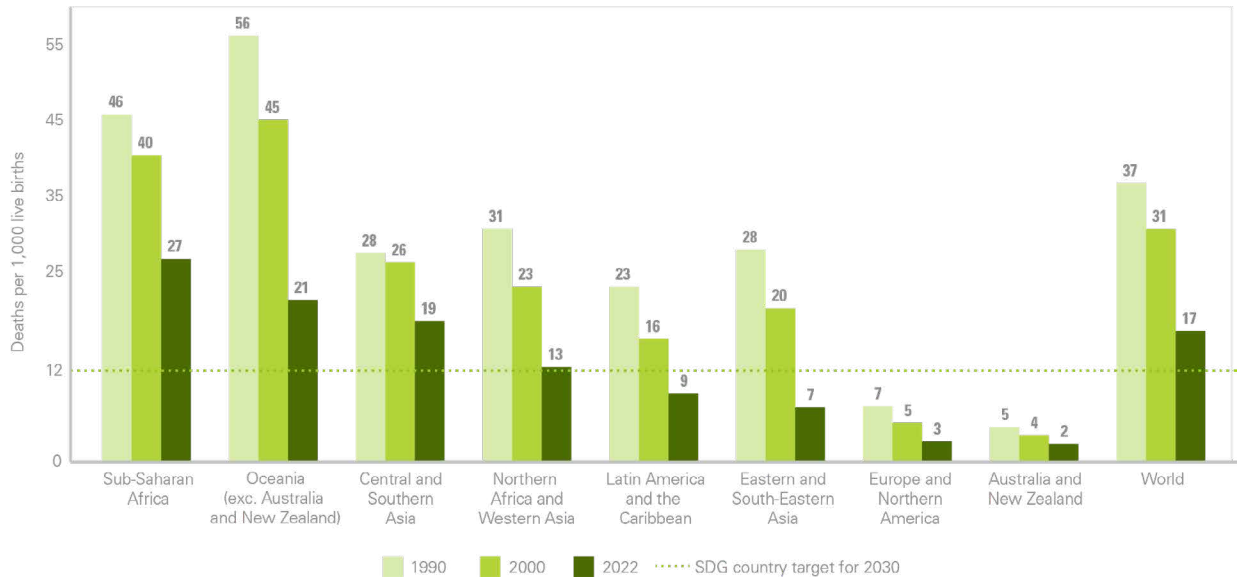
TABLE 5

Levels and trends in the neonatal mortality rate, by Sustainable Development Goal region, 1990–2022

	Neonatal mortality rate (deaths per 1,000 live births)					Decline (per cent)				Annual rate of reduction (per cent)		
Region	**1990**	**2000**	**2010**	**2015**	**2022**	**1990–2022**	**2000–2022**	**2000–2015**	**2015–2022**	**2000–2022**	**2000–2015**	**2015–2022**
Sub-Saharan Africa	46	40	32	30	27	42	34	26	11	1.9	2	1.7
Northern Africa and Western Asia	31	23	17	14	13	59	46	38	13	2.8	3.1	2
Northern Africa	34	26	20	17	15	57	44	36	13	2.7	3	2
Western Asia	28	20	14	12	10	63	49	41	14	3.1	3.5	2.1
Central and Southern Asia	56	45	33	28	21	62	53	38	24	3.4	3.2	3.9
Central Asia	28	27	17	12	9	67	66	55	23	4.8	5.4	3.7
Southern Asia	57	46	34	29	22	62	52	37	24	3.3	3.1	3.8
Eastern and South-Eastern Asia	28	20	11	8	7	74	65	59	13	4.7	6	2
Eastern Asia	28	20	8	5	3	89	85	74	41	8.6	9.1	7.6
South-Eastern Asia	28	21	16	14	12	58	43	35	13	2.6	2.9	2
Latin America and the Caribbean	23	16	11	10	9	61	44	38	11	2.7	3.2	1.6
Oceania	13	14	12	11	10	26	28	20	10	1.5	1.5	1.5
Australia and New Zealand	5	4	3	2	2	48	33	30	4	1.8	2.3	0.6
Oceania (exc. Australia and New Zealand)	28	26	23	21	19	33	29	20	12	1.6	1.5	1.9
Europe and Northern America	7	5	4	3	3	63	48	34	21	2.9	2.8	3.4
Europe	8	5	4	3	2	71	57	43	24	3.8	3.7	3.9
Northern America	6	5	4	4	3	43	30	15	18	1.6	1.1	2.8
World	**37**	**31**	**22**	**20**	**17**	**53**	**44**	**36**	**12**	**2.6**	**3**	**1.8**

Note: All calculations are based on unrounded numbers.

FIGURE 3 **Neonatal mortality rate, by Sustainable Development Goal region, 1990, 2000 and 2022**



Note: All calculations are based on unrounded numbers. Central Asia's neonatal mortality rate was 28 in 1990, 27 in 2000 and 9 in 2022; Southern Asia's neonatal mortality rate was 57 in 1990, 46 in 2000 and 22 in 2022.

Children in the highest-mortality country face a risk of dying before age 5 that is 80 times greater than the lowest-mortality country. The global level of U5MR masks substantial variation between countries and regions. In 2022, country-level U5MRs ranged from 1.5 deaths per 1,000 live births to 117.3 deaths per 1,000 live births, 80 times the risk in the lowest-mortality country (see Map 1). Variation by SDG region marks another level of inequality for children: Those born in sub-Saharan Africa are subject to the highest risk of childhood death in the world, with a 2022 U5MR of 71 (65–85) deaths per 1,000 live births, which is 14 times as high as the risk for children in Europe and Northern America and 18 times that of Australia and New Zealand (see Table 4 and Figure 2). Notably, only five countries had a U5MR greater than 100 deaths per 1,000 live births in 2022, which is down from 42 countries in 2000 — but all of them are in sub-Saharan Africa (see Map 1 and the country statistical tables).

The youngest children face divergent odds of survival based on where they are born. While the global NMR has declined by 44 per cent since 2000, the NMR in sub-Saharan Africa declined by just 34 per cent over the same period. At 27 (24–32) deaths per 1,000 live births in 2022 (see Table 5 and Figure 3), sub-Saharan Africa endures the highest regional NMR, and the risk of death in the first month of life is 11 times that in the lowest-mortality region, Australia and New Zealand. Southern Asia follows with the second-highest regional NMR at 22 (20–25) deaths per 1,000 live births. At country level, NMRs in 2022 ranged from 0.7 deaths per 1,000 live births to 39.4 deaths per 1,000 live births, and the risk of dying before the 28th day of life for a child born in the highest-mortality country was about 60 times greater than in the lowest-mortality country (see Map 2).

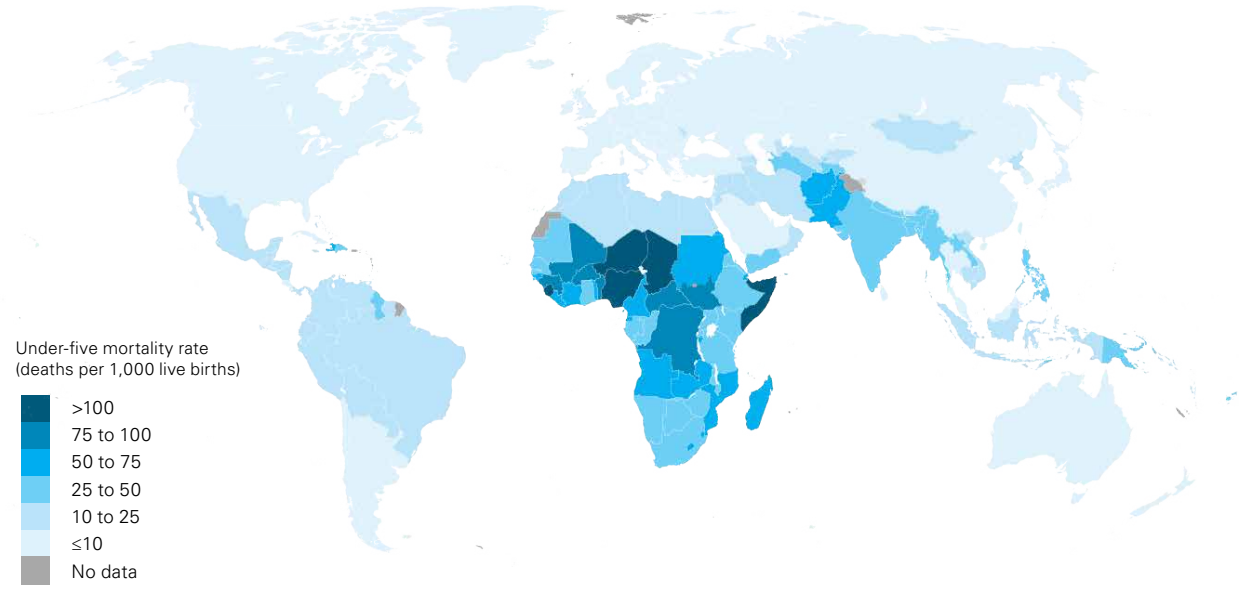
Children aged 1–59 months faced the steepest odds of survival in sub-Saharan Africa. The 1–59-months mortality rate in sub-Saharan Africa in 2022 was 46 (41–56) deaths per 1,000 children aged 28 days, almost 30 times the lowest regional rate of 1.5 (1.4–1.7) deaths per 1,000 children aged 28 days seen in Australia and New Zealand, and more than two times as high as the global average for this age group of 20 (19–23) deaths per 1,000 children aged 28 days (see Table 6). At the country level, rates for children aged 1–59 months ranged from less than 1 death per 1,000 children aged 28 days to 86 deaths per 1,000 children aged 28 days, a 107-fold difference (see Map 3).

TABLE 6 Levels and trends in the 1–59-months mortality rate, by Sustainable Development Goal region, 1990–2022

Region	1–59-months mortality rate (deaths per 1,000 children aged 28 days)					Decline (per cent)				Annual rate of reduction (per cent)		
	1990	2000	2010	2015	2022	1990–2022	2000–2022	2000–2015	2015–2022	2000–2022	2000–2015	2015–2022
Sub-Saharan Africa	142	117	72	59	46	68	61	50	22	4.2	4.6	3.6
Northern Africa and Western Asia	46	27	16	14	11	77	61	48	25	4.3	4.3	4.1
Northern Africa	53	33	19	16	13	77	62	52	21	4.4	4.9	3.4
Western Asia	39	23	13	13	9	77	60	44	29	4.2	3.8	5
Central and Southern Asia	73	48	27	19	13	82	73	60	32	5.9	6	5.6
Central Asia	44	35	15	11	8	81	76	68	26	6.5	7.6	4.2
Southern Asia	74	49	28	20	13	82	72	59	32	5.8	6	5.6
Eastern and South-Eastern Asia	30	20	11	8	7	76	64	58	14	4.6	5.8	2.2
Eastern Asia	24	16	7	5	4	85	77	67	33	6.8	7.3	5.6
South-Eastern Asia	45	27	17	14	11	75	59	50	18	4	4.6	2.8
Latin America and the Caribbean	32	17	12	8	7	79	60	51	19	4.2	4.7	2.9
Oceania	20	17	14	12	10	51	43	29	20	2.6	2.3	3.2
Australia and New Zealand	5	3	2	2	2	69	47	42	8	2.9	3.7	1.2
Oceania (exc. Australia and New Zealand)	44	36	29	25	19	56	46	30	22	2.8	2.4	3.6
Europe and Northern America	7	5	3	3	2	67	49	41	13	3.1	3.6	2
Europe	8	5	3	3	2	75	62	49	26	4.4	4.4	4.2
Northern America	5	4	3	3	3	45	21	25	-5	1.1	1.9	-0.7
World	**58**	**47**	**30**	**24**	**20**	**65**	**57**	**49**	**16**	**3.9**	**4.5**	**2.5**

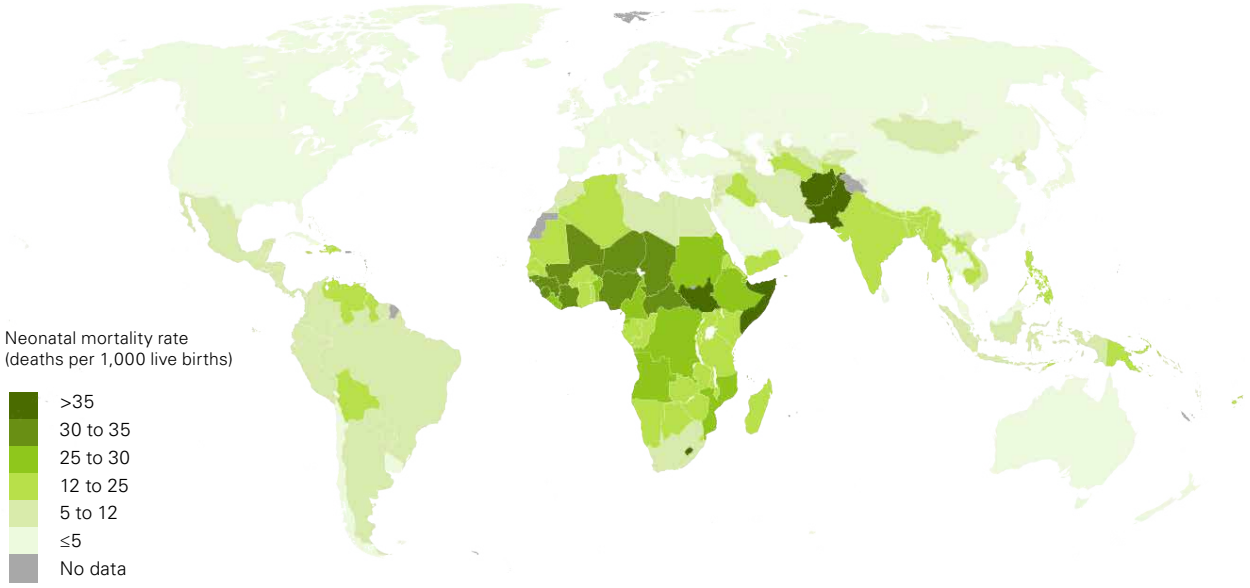
Note: All calculations are based on unrounded numbers.

MAP 1 Under-five mortality rate, by country, 2022



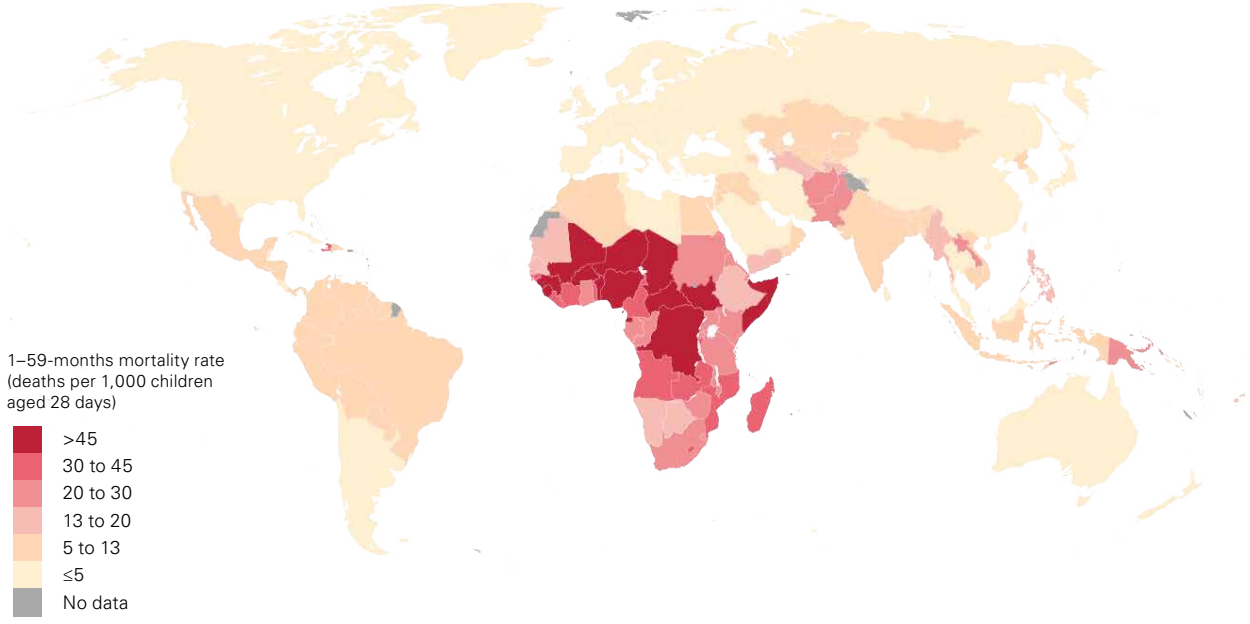
Note: Categories are based on unrounded numbers; value ranges are greater than the lower bound number and less than or equal to the upper bound number. This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

MAP 2 Neonatal mortality rate, by country, 2022



Note: Categories are based on unrounded numbers; value ranges are greater than the lower bound number and less than or equal to the upper bound number. 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.

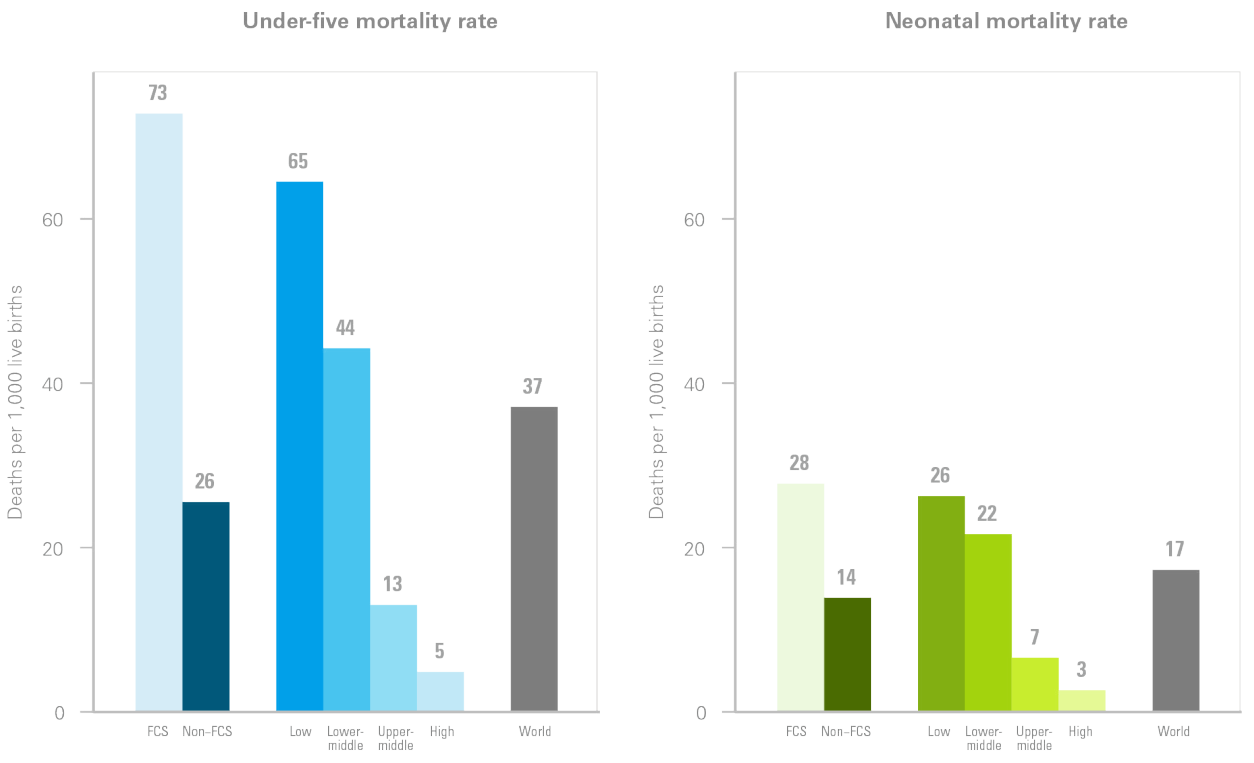
MAP 3 1—59-months mortality rate, by country, 2022



Note: Categories are based on unrounded numbers; value ranges are greater than the lower bound number and less than or equal to the upper bound number. 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.

Children living in fragile and conflict-affected situations are especially vulnerable. The World Bank Group classification of fragile and conflict-affected situations (FCS) provides a list of countries with either high levels of institutional and social fragility (based on indicators that measure the quality of policy and institutions and manifestations of fragility) or violent conflict (identified based on a threshold number of conflict-related deaths relative to population).[14] It is no surprise that both fragility and conflict adversely impact under-five survival: The U5MR in the 39 countries classified as FCS was 73 (65–89) deaths per 1,000 live births in 2022 (see Figure 4), nearly triple the risk of all countries not classified as FCS and almost twice the rate for all low- and middle-income countries (all FCS countries with a World Bank income group classification are classified as low or middle income). At 28 (24–34) deaths per 1,000 live births, the NMR among FCS countries was two times that of non-FCS countries and 1.5 times that of all low- and middle-income countries. About 48 per cent of global under-five deaths and 39 per cent of global neonatal deaths in 2022 occurred in FCS countries, which accounted for just 25 per cent of global live births. Among countries classified as fragile, the U5MR in 2022 was 55 (47–68) deaths per 1,000 live births, while it was even higher among those classified as conflict-affected, at 75 (66–92) deaths per 1,000 live births. NMR in 2022 for countries classified as fragile was 22 (19–28) deaths per 1,000 live births, whereas in those countries classified as conflict-affected it was 28 (25–35) deaths per 1,000 live births.

FIGURE 4 **Under-five mortality rate and neonatal mortality rate, by income group and fragile and conflict-affected situation (FCS) status, 2022**

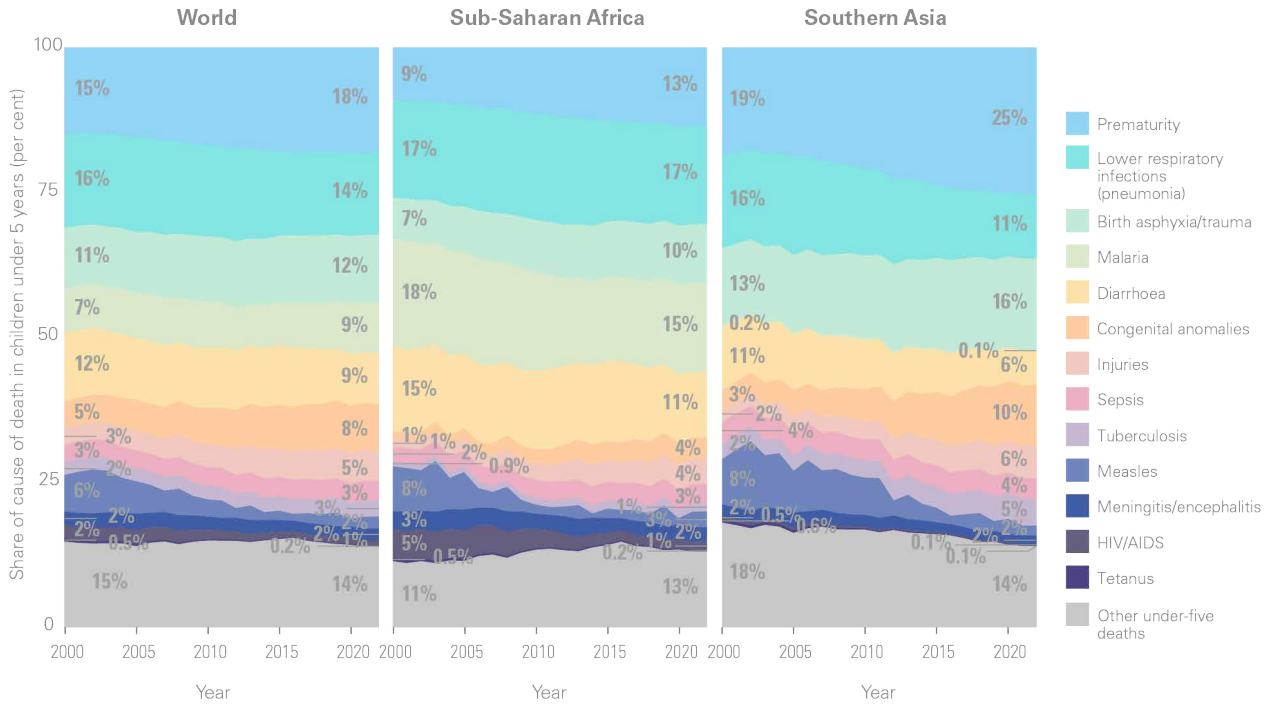


Note: 'FCS' refers to the 39 countries classified as 'fragile and conflict-affected situations'. 'Non-FCS' refers to all countries not classified as FCS.

Children in poorer countries are subject to increased threat of death both before age 5 and in the first month of life. The 2022 U5MR in low-income countries[6] was 65 (59–77) deaths per 1,000 live births, 13 times the rate in high-income countries of just 4.8 (4.7–5.0) deaths per 1,000 live births (see Figure 4). Meanwhile, children born in lower-middle-income countries were nine times more likely to die before reaching age 5 than those in high-income countries, with a 2022 U5MR of 44 (40–51) deaths per 1,000 live births. A large proportion of the world's children – some 65 per cent of all children under age 5 – lived in low- or lower-middle-income countries in 2022 where mortality rates are highest. Similarly, a child born in a high-income country has a risk of death in the first month of life that is just one tenth the risk of a child born in a low-income country: The 2022 NMR among the 61 countries classified as high income was 2.6 (2.4–2.8) deaths per 1,000 live births, while among the 26 countries classified as low income it was 26 (23–32) deaths per 1,000 live births (see Figure 4).

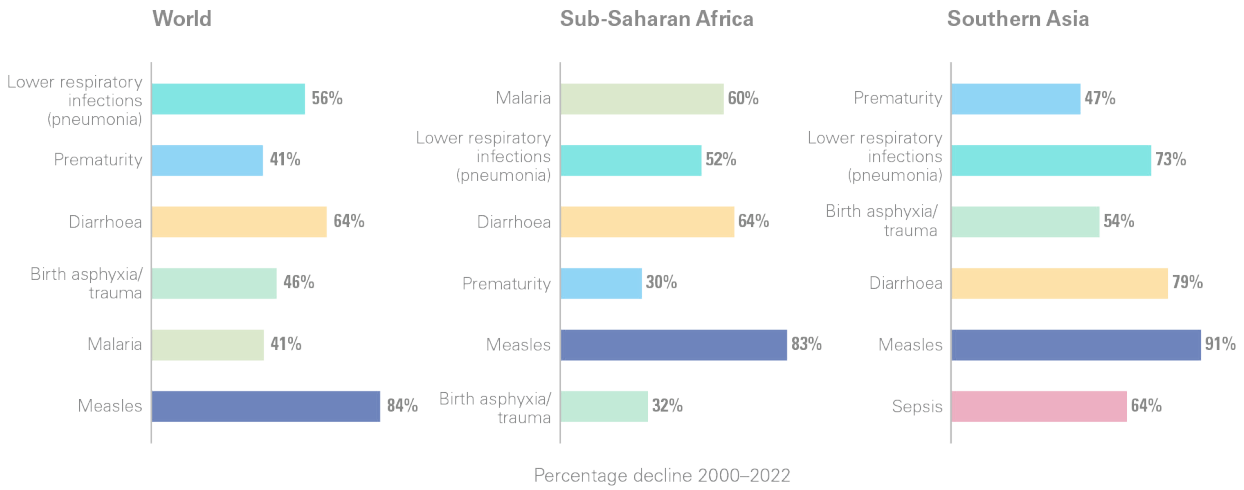
Conditions related to neonatal mortality and infectious diseases are the cause of most under-five deaths around the world.[15] On a global scale, more than 55 per cent of under-five deaths were caused by complications around the time of birth or infectious diseases (see Figure 5).[16] Among neonates, the leading causes of death included premature birth, birth complications (birth asphyxia/trauma) and congenital anomalies, which collectively accounted for almost 4 in every 10 under-five deaths. The leading causes of death among children aged 1–59 months – the remainder of the under-five age group – included lower respiratory infections (pneumonia), malaria and diarrhoea. Together, these three causes accounted for nearly a third of all under-five deaths. Overall, while the absolute number of deaths caused by conditions related to neonatal mortality and infectious diseases has declined since 2000, the cause-specific distribution has not changed markedly. Though the rates for the leading causes of neonatal deaths (premature birth, birth complications (birth asphyxia/trauma) and congenital anomalies) have declined globally since 2000, they accounted for the same proportion of under-five deaths – 4 in 10 – in 2000 and 2022. Likewise, the leading causes of 1–59-months deaths (lower respiratory infections (pneumonia), malaria and diarrhoea) have also all declined globally since 2000 but maintained a roughly 30 per cent share of under-five deaths between 2000 and 2022. In the regions where most under-five deaths occur (sub-Saharan Africa and Southern Asia), the cause-of-deaths structure by region differs over time. For instance, malaria is still a leading cause of under-five deaths in sub-Saharan Africa, accounting for about 15 per cent of all deaths in the region whereas it accounts for just 0.1 per cent of under-five deaths in Southern Asia. And in Southern Asia, where neonatal mortality remains high given the level of under-five mortality, the cause-of-death distribution is dominated by causes related to complications around the time of birth – for instance, one in four under-five deaths in this region is due to prematurity. Importantly, as under-five survival improves overall, congenital anomalies have become responsible for a larger proportion of under-five deaths in sub-Saharan Africa and Southern Asia (see Figure 5). Notably, among the leading causes of death in 2000, measles, diarrhoea and lower respiratory infections (pneumonia) have seen the largest percentage declines in the cause-specific rates globally and in sub-Saharan Africa and Southern Asia (see Figure 6).

FIGURE 5 **Cause-of-death distribution for under-five deaths for the world, sub-Saharan Africa and Southern Asia, 2000–2022**



Source: Preliminary estimates produced in February 2024 by applying cause fractions from the Child and Adolescent Causes of Death Estimation project (2023) for the years 2000–2021[15] to UN IGME estimates for the years 2000–2022.

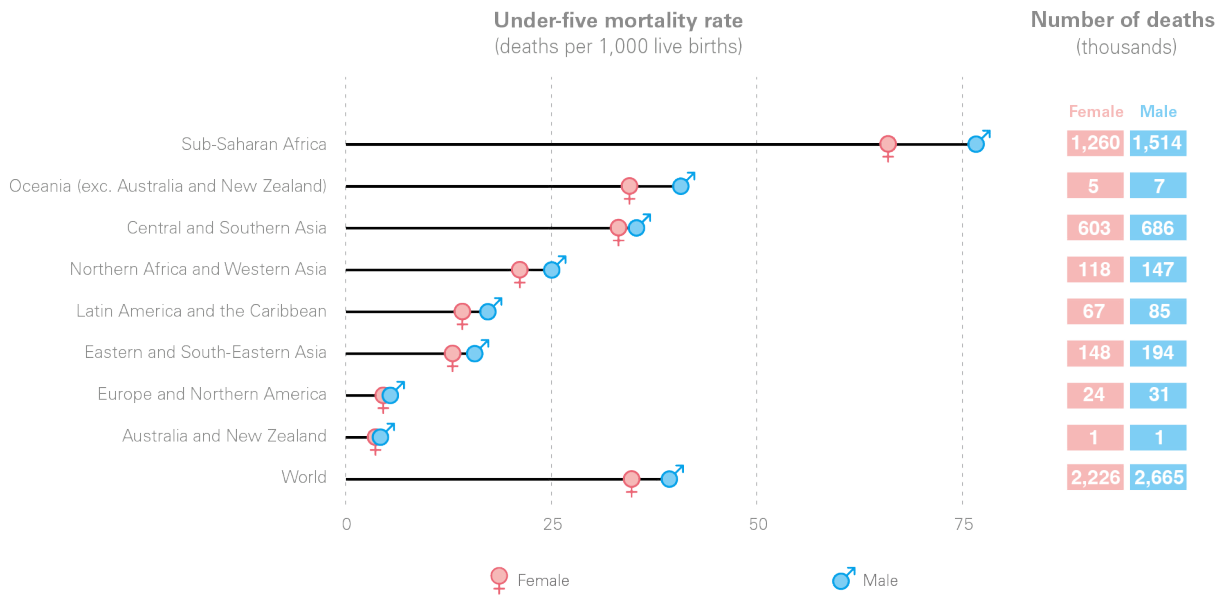
FIGURE 6 **Percentage decline in the cause-specific under-five mortality rate for six leading causes of under-five deaths for the world, sub-Saharan Africa and Southern Asia, 2000–2022**



Source: Preliminary estimates produced in February 2024 by applying cause fractions from the Child and Adolescent Causes of Death Estimation project (2023) for the years 2000–2021[15] to UN IGME estimates for the years 2000–2022.

Fewer countries show higher-than-expected under-five mortality among girls. On average, boys are expected to have a higher U5MR than girls; but in some countries, the U5MR 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 since 2000 from 21 to 6. The estimated U5MR for girls in 2022 was 35 (33–39) deaths per 1,000 live births, and for boys was 39 (37–44) deaths per 1,000 live births. In 2022, an estimated 2.2 (2.1–2.5) million girls and 2.7 (2.5–3.0) million boys died before reaching age 5 (see Figure 7).

FIGURE 7 **Under-five mortality rate and number of under-five deaths, by sex and Sustainable Development Goal region, 2022**



Note: All calculations are based on unrounded numbers. Central Asia's under-five mortality rate in 2022 was 15 for females and 20 for males; Southern Asia's under-five mortality rate in 2022 was 34 for females and 36 for males. Central Asia's number of under-five deaths (in thousands) was 13 for females and 18 for males; Southern Asia's number of under-five deaths (in thousands) was 590 for females and 668 for males.

Progress in reducing under-five and neonatal mortality has slowed in the first half of the SDG era (2015–2022) compared to what was achieved in the MDG era (2000–2015). Globally, the annual rate of reduction (ARR)[17] in under-five mortality decreased from 3.8 (3.6–4.0) per cent in 2000–2015 to 2.1 (0.9–2.7) per cent in 2015–2022 (see Figure 8). The trend in global neonatal mortality followed a similar pattern, with the ARR decreasing from 3.0 (2.7–3.3) per cent in 2000–2015 to 1.8 (0.5–2.5) per cent in 2015–2022.

Amid notable global progress in reducing under-five mortality, the pace of decline varies greatly by region. All eight major SDG regions have made progress in reducing under-five mortality since 2000 and 2015. But in most regions – sub-Saharan Africa, Northern Africa and Western Asia, Eastern and South-Eastern Asia, Latin America and the Caribbean, Europe and Northern America, and Australia and New Zealand – the median ARR in the first half of the SDG era is lower than the median ARR in the MDG era (see Figure 8), suggesting a slowdown in progress. Exceptionally, Central and Southern Asia maintained a high ARR over both periods, driven by Southern Asia achieving a rate of 4.5 per cent in 2015–2022.

Notably, worldwide and across all regions, there was greater uncertainty around the ARR to varying degrees for 2015–2022 compared to 2000–2015, a reflection of the lesser availability of data in the recent period. In some regions, the overlap of uncertainty intervals in the ARR for the two periods raises questions about the degree of the slowdown. Because the model extrapolates country estimates to a common reference year (see Annex I: Estimating child mortality), it must be asked whether changes in the pace of decline are model driven rather than data driven.

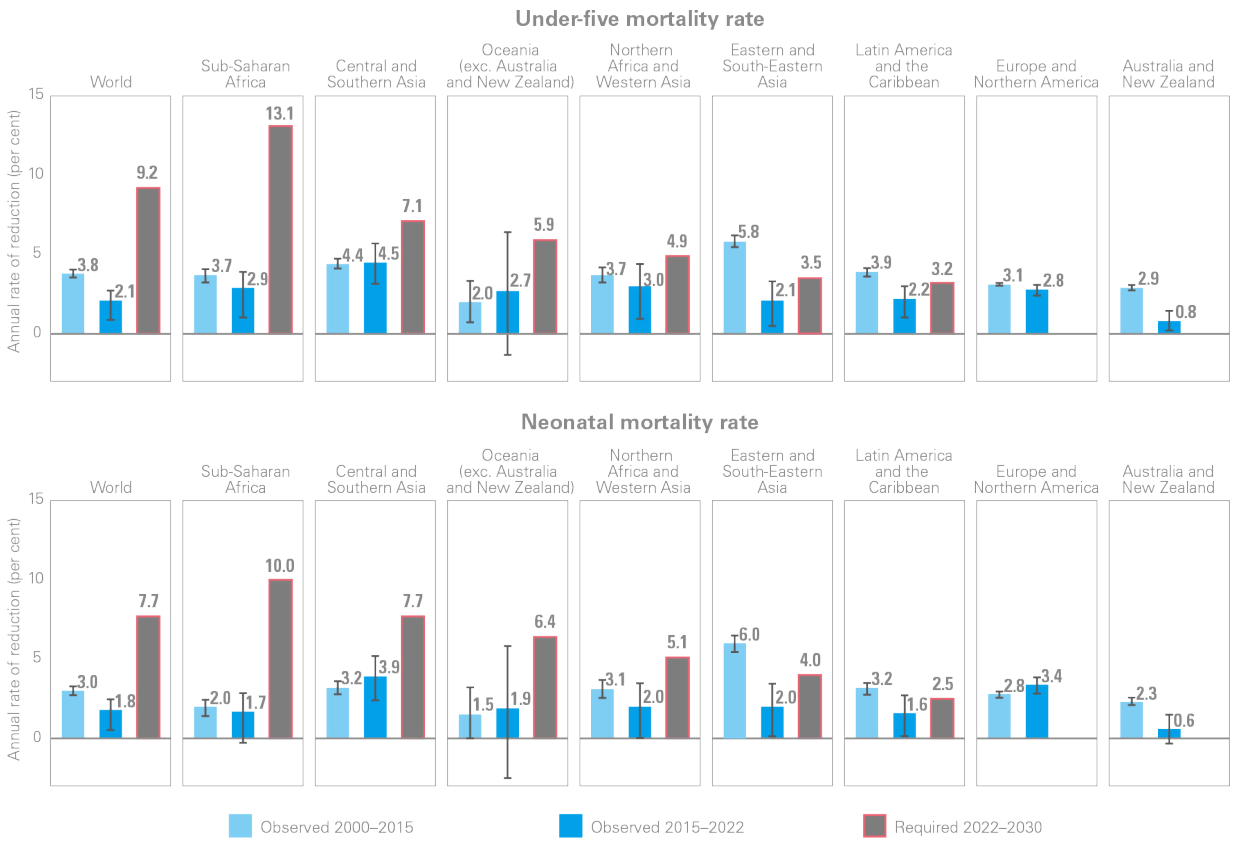
Results from 124 countries, covering 71 per cent of the world's under-five population, with at least two data points between 2015 and 2022 also show lower ARRs in the first half of the SDG era (2.4 (1.6–3.0) per cent) compared to the MDG era (4.4 (4.2–4.6) per cent) (see Annex III: Annual rates of reduction by SDG region for countries with data in the recent period). In 22 sub-Saharan African countries with at least two observed data points between 2015 and 2022, the average ARR dropped to 2.8 (1.7–3.5) per cent over this period, a marked slowdown from the 4.2 (4.0–4.4) per cent ARR observed in 2000–2015. Most regions showed similar declines in the ARR. Notably, countries with recent available data in Southern Asia did not see a slowdown in the ARR.

Regarding the NMR, which globally declined more slowly than the U5MR in both periods since 2000, all regions saw progress since 2000 and 2015. Only Central and Southern Asia, Oceania (excluding Australia and New Zealand) and Europe and Northern America, however, have seen the pace of neonatal mortality decline quicken in 2015–2022 compared to 2000–2015, as indicated by the median ARRs (no region saw a significant increase in its ARR between the two periods). Analysis for countries with at least two data points in 2015–2022 shows similar results.

Dozens of low- and lower-middle-income countries have reduced under-five mortality by relatively substantial amounts since 2000. Several countries have managed to outpace the global decline in under-five mortality since 2000 despite relatively limited economic resources. While global under-five mortality declined by 51 per cent since 2000, three low-income countries – Malawi, Rwanda, and the Democratic People's Republic of Korea[i] – and four lower-middle-income countries – Cambodia, Mongolia, Sao Tome and Principe, and Uzbekistan – have reduced under-five mortality by more than 75 per cent since 2000 (see Figure 9). In addition, three low-income countries – Burundi, Ethiopia and Uganda – and nine lower-middle-income countries – Angola, Bhutan, Bolivia (Plurinational State of), India, Iran (Islamic Republic of), Morocco, Nicaragua, Senegal and the United Republic of Tanzania – have reduced their U5MRs by more than two thirds since 2000. These examples of substantial reduction in child mortality in just over two decades show that progress is possible in a variety of country income settings.

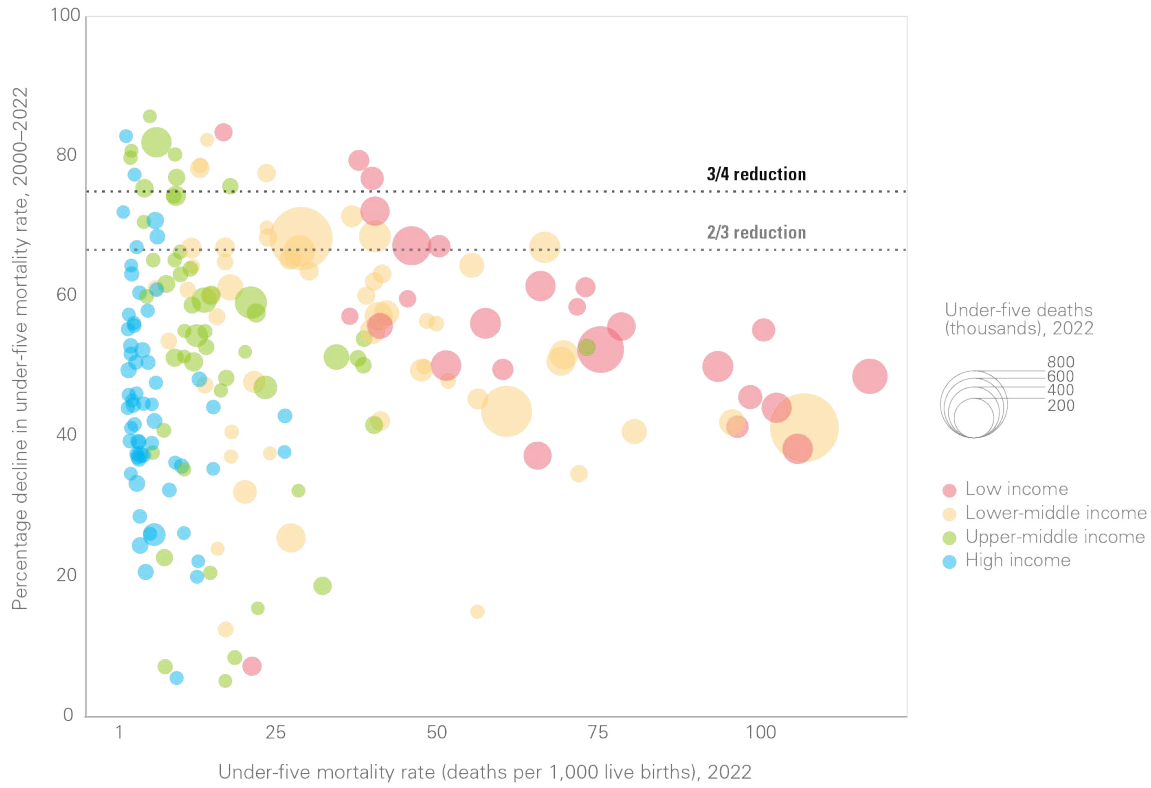
i. The greater than 75 per cent reduction in the U5MR in the Democratic People's Republic of Korea was primarily driven by elevated rates at the start of the period, 2000, when the country was still affected by famine and its aftermath. Likewise, Malawi and Rwanda suffered generalized HIV epidemics that led to high mortality rates in 2000.

FIGURE 8 **Observed annual rates of reduction (ARR) during the MDG era (2000–2015) and SDG era (2015–2022), and required regional ARR for all countries in the region to meet the SDG targets (2022–2030), by Sustainable Development Goal region**



Note: Observed annual rates of reduction are shown with vertical bars representing the 90 per cent uncertainty interval. The required ARR was derived based on the assumption that all countries in the region need to achieve the SDG target by 2030. If countries have already reached the target or are on track to do so before 2030, they should continue the observed 2015 to 2022 trend (as measured by ARR). Europe and Northern America and Australia and New Zealand do not have a required ARR because all countries in these regions already achieved the SDG target by 2022. The observed ARR of under-five mortality rate in Central Asia was 6.5 per cent in 2000–2015 and 3.9 per cent in 2015–2022; in Southern Asia, it was 4.3 per cent in 2000–2015 and 4.5 per cent in 2015–2022. The required ARR to meet the SDG target on under-five mortality is 4.2 per cent for Central Asia and 7.2 per cent for Southern Asia. The observed ARR in the neonatal mortality rate in Central Asia was 5.4 per cent in 2000–2015 and 3.7 per cent in 2015–2022; in Southern Asia, it was 3.1 per cent in 2000–2015 and 3.8 per cent in 2015–2022. The required ARR to meet the SDG target on neonatal mortality is 4.5 per cent for Central Asia and 7.8 per cent for Southern Asia.

FIGURE 9 **Percentage decline in under-five mortality rate in 2000–2022 against under-five mortality rate in 2022, by World Bank income classification**

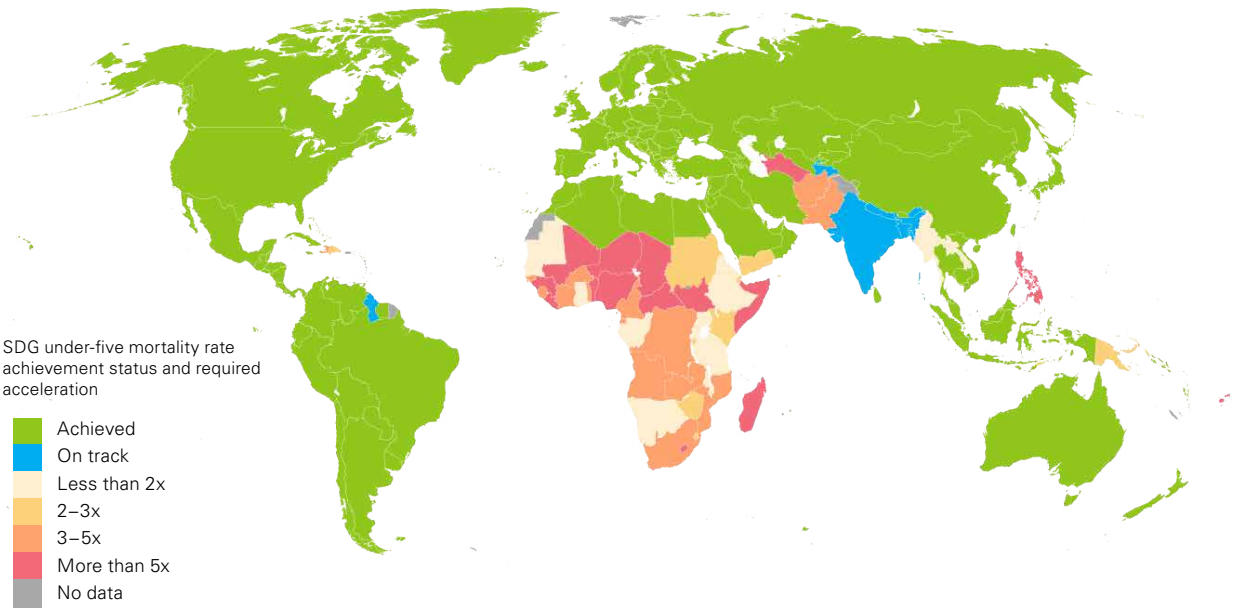


Note: National income classification follows the World Bank income classification, 2023. Five countries/territories with mortality estimates do not have income classification available. Details can be found at: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>, accessed 24 February 2024.

If current trends[18] continue, 59 countries will not meet the SDG target for under-five mortality. Of the 200 countries and territories analysed in this report, 134 have already met the SDG target on under-five mortality and seven countries are expected to do so by 2030 (see Map 4). But the pace of mortality decline must quicken if the remaining 59 countries are to meet the target on time.[19] Of these, 43 countries will need to more than double their current rate of progress or reverse an increasing trend and then accelerate progress to achieve the SDG target by 2030, and that is in the absence of additional challenges like pandemics, conflicts or other crises (see Map 4).

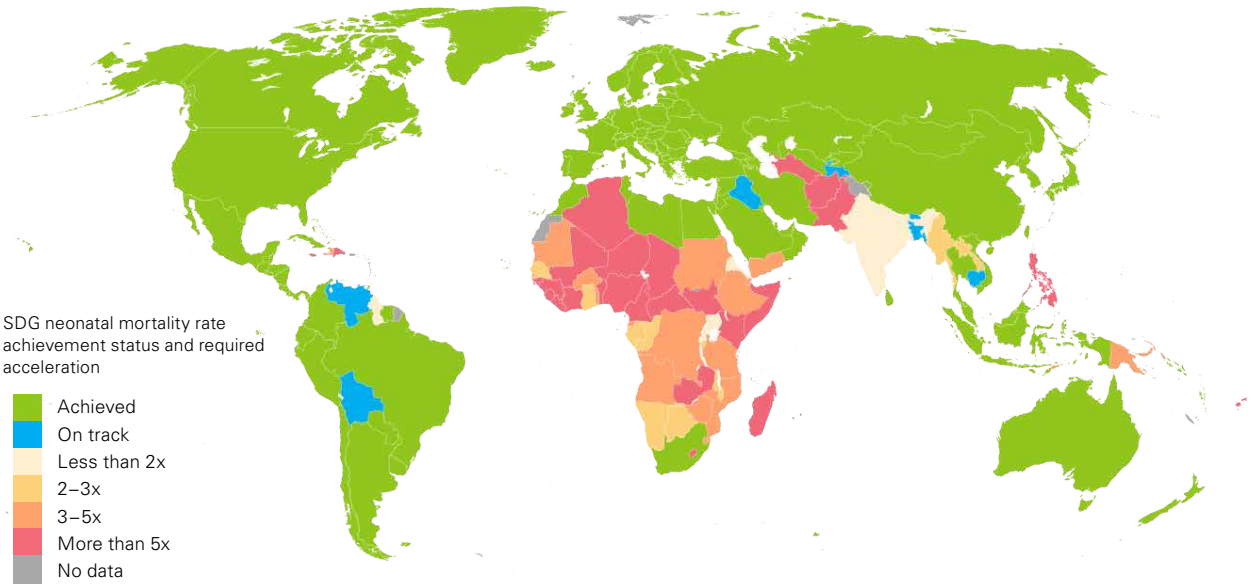
Even more countries are at risk of falling short of the SDG target for neonatal mortality. The situation worsens for the NMR target. While 126 countries have already met the target and another 10 are on pace to do so by 2030, 64 countries will need to increase the pace of mortality decline to meet the target on time,[19] with 57 of those countries needing to more than double their current rate of decline or reverse an increasing trend to meet the target by 2030 (see Map 5).

MAP 4 **SDG under-five mortality rate achievement status and required acceleration for countries at risk of missing the target**



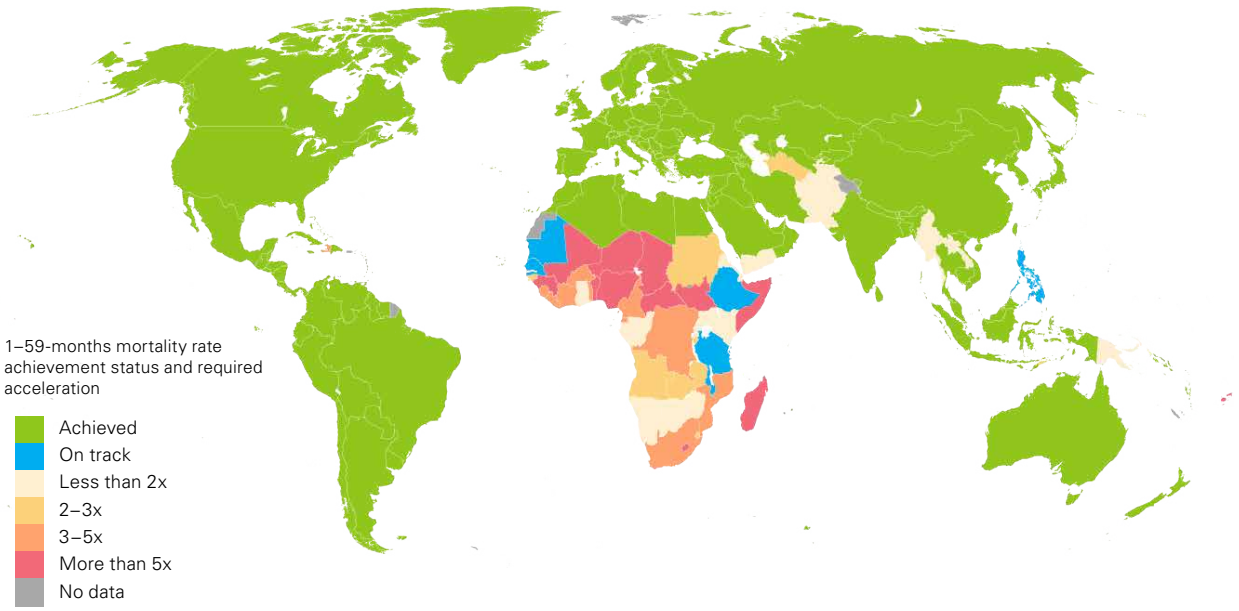
Note: Categories are based on unrounded numbers; value ranges are greater than or equal to the lower bound number and less than the upper bound number. This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

MAP 5 **SDG neonatal mortality rate achievement status and required acceleration for countries at risk of missing the target**



Note: Categories are based on unrounded numbers; value ranges are greater than or equal to the lower bound number and less than the upper bound number. 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.

MAP 6 **1–59-months mortality rate achievement status and required acceleration for countries at risk of missing the target**



Note: Categories are based on unrounded numbers; value ranges are greater than or equal to the lower bound number and less than the upper bound number. 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.

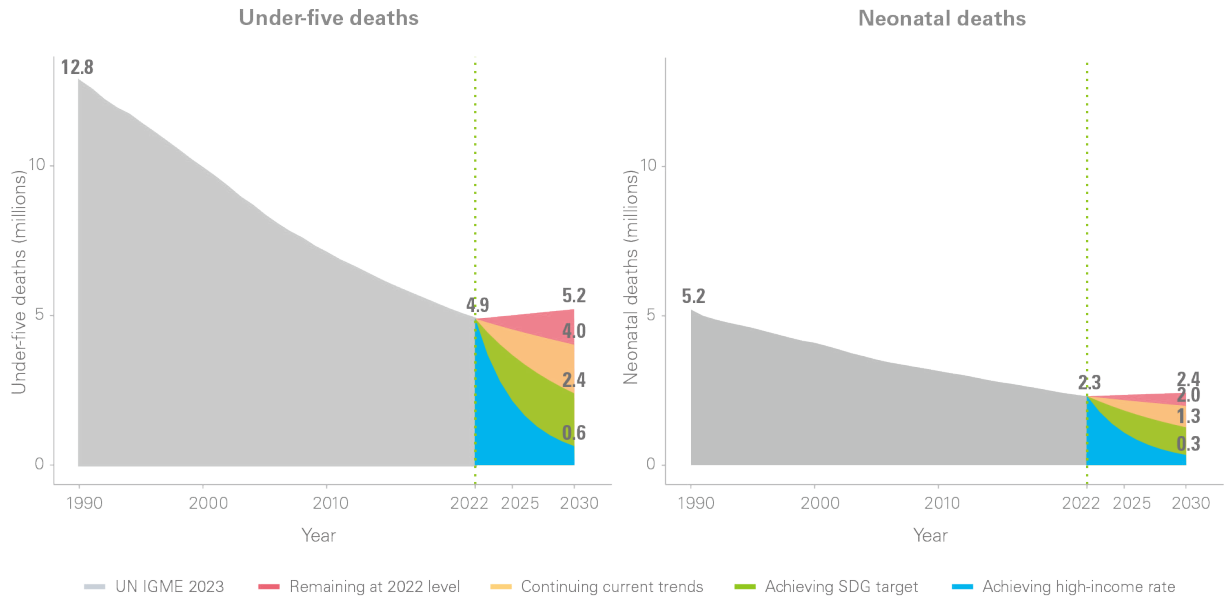
Based on current trends, 52 countries are off track to meet a proposed target for 1–59-months mortality by 2030. Using the U5MR target of 25 deaths per 1,000 live births and the NMR target of 12 deaths per 1,000 live births, the corresponding 1–59-months mortality target for 2030 would be about 13 deaths per 1,000 children aged 28 days.[10] If countries were to meet both this 1–59-months target and the SDG neonatal target, the SDG under-five target should also be met. Of the 200 countries analysed for this report, 141 have already achieved a 1–59-months rate below the target and seven more are set to do so by 2030. Among the 52 countries at risk of missing this target, 32 would need to more than double their current rate of progress to achieve this level of 1–59-months mortality by 2030, with most of these countries being in sub-Saharan Africa (see Map 6).

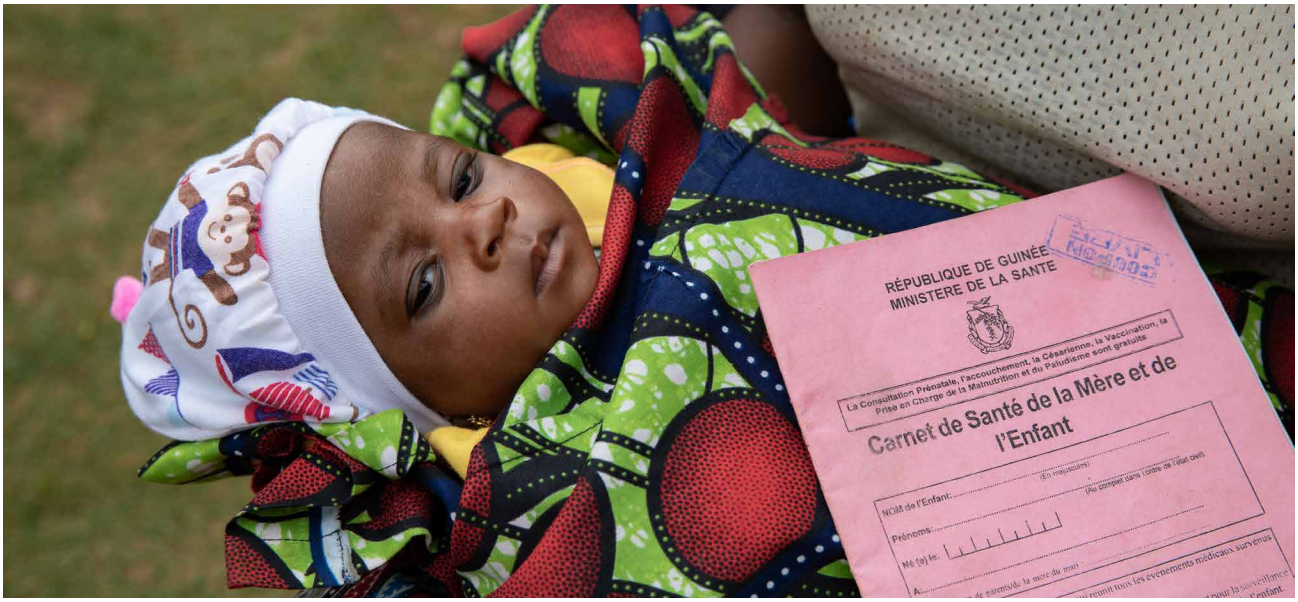
Fragility, conflict and economic disparities threaten the lives of children and hinder worldwide achievement of the SDG child mortality targets. Among the 59 countries that are off track to achieve the under-five mortality SDG target by 2030, 44 per cent are classified as FCS. For the 64 countries off track to meet the neonatal SDG target by 2030, that percentage is 41 per cent. Nearly 75 per cent of countries off track for the under-five target are in sub-Saharan Africa, with 85 per cent of these classified as low- or lower-middle-income countries. Among the countries that are at risk of missing the neonatal mortality target, 67 per cent are in sub-Saharan Africa, of which 83 per cent are classified as low or lower-middle income.

If countries at risk of missing the SDG target on under-five mortality accelerated progress and achieved it by 2030, nearly 9 million more children would survive. If current trends continue, roughly 35 million children will die before turning 5 by 2030, with about half of these deaths occurring among neonates. Well over half of these deaths – 60 per cent (21 million) – will take place in sub-Saharan Africa, with another 24 per cent (8 million) occurring in Southern Asia. Likewise, 50 per cent (18 million) will take place among countries currently classified as FCS and 91 per cent (32 million) will take place

in countries currently classified as low or lower-middle income. If the SDG targets were met in the countries that are off track, however, 9 million under-five deaths would be prevented between 2023 and 2030 and 42 per cent of the lives saved would be among neonates. Additionally, meeting the SDG targets would reduce the annual number of under-five deaths to 2.4 million in 2030 (see Figure 10). Even more lives could be saved – a total of 21 million – if all countries were able to reach a U5MR and NMR equivalent to the average of those in high-income countries in 2022 (4.9 deaths per 1,000 live births and 2.6 deaths per 1,000 live births, respectively). Under this ambitious scenario, there would be just 0.6 million under-five deaths in 2030, 0.3 million of which would be neonatal deaths.

FIGURE 10 **Scenario-based projections of under-five deaths and neonatal deaths to 2030**





BOX 2. Inequality in survival: Mortality by household wealth, mother's education and urban/rural residency

The likelihood that a child will survive to age 5 is often tied to inequity between countries, such as whether a child is born in a low-income or high-income country. But the odds of survival are also shaped by inequity within countries. For instance, children born into the wealthiest households face only a fraction of the risk faced by children born into the poorest households. Considering how different factors in a child's life influence their chance of survival within countries is important because it allows us to identify who the most vulnerable children are, which factors shape these vulnerabilities and how severe the role of these factors is. While there are numerous factors that play a role in child survival, this section focuses on three: household wealth, mother's education and urban/rural residence. These socio-economic dimensions are readily available in household survey data and have demonstrable impact on child mortality outcomes.

The analysis of mortality by household wealth is based on modelled estimates generated by the UN IGME, i.e., a smooth trend line was estimated from the United States Agency for International Development (USAID)-supported Demographic and Health Surveys (DHS), the UNICEF-supported Multiple Indicator Cluster Surveys (MICS) and other nationally representative surveys. The analysis of mother's education and urban/rural residence was based on figures calculated directly from these household survey data.

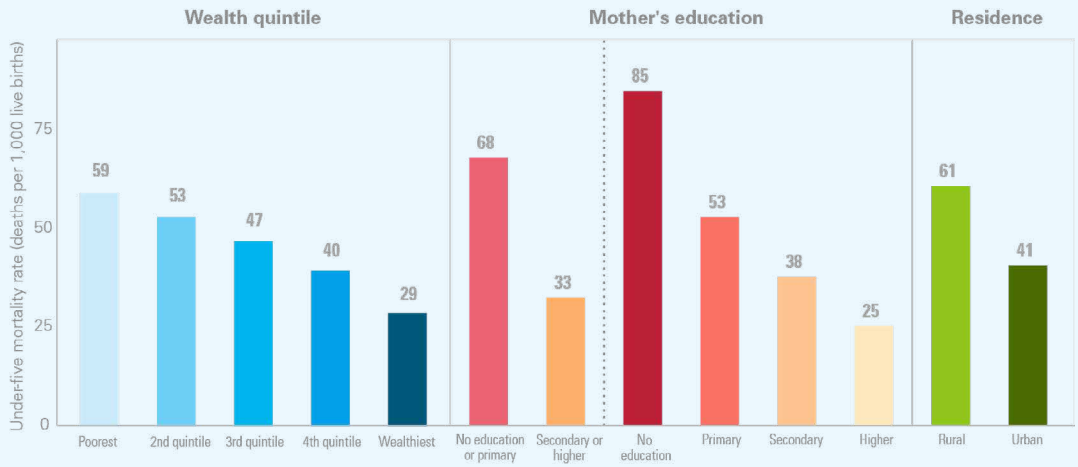
DHS, MICS and other household survey programmes play a critical role in tracking disaggregated mortality in the countries where many of the world's most vulnerable children reside. These settings often lack vital registration systems and rely on regular survey implementation to gather information about disaggregated mortality.

The analysis for household wealth was based on UN IGME estimates for 106 countries, which accounted for 96 per cent of global under-five deaths and 78 per cent of live births in 2022; the analysis for mother's education was based on 63 surveys/countries accounting for 64 per cent of global under-five deaths and 46 per cent of live births in 2022; and the analysis for urban/rural residency was based on 70 surveys/countries covering 74 per cent of global under-five deaths and 52 per cent of live births in 2022. For household wealth, this analysis refers to the most recent reference year (2022), while mother's education and urban/rural residency were based on surveys dating from 2013 to 2023, with this analysis including only the most recent DHS or MICS survey from each country. For all three factors, surveys were not included in the analysis if they were deemed of insufficient quality for inclusion in the UN IGME's annual national modelled estimates contained in this report.

Household wealth is tied to chances of survival, with children from the poorest households twice as likely to die before age 5 as those from the wealthiest households. Among 106 low- and middle-income countries with data on mortality by household wealth quintile, the U5MR for children living in the poorest wealth quintile households was on average 2.1 times that of those living in the richest quintile households, with an absolute difference of 30 deaths per 1,000 live births (see Figure 11). Children in the poorest quintile had an average estimated U5MR of 59 deaths per 1,000 live births, while the rate among children in the richest quintile was 29 deaths per 1,000 live births. The poorer children also bear a disproportionate burden of under-five deaths in these countries: While 40 per cent of live births occurred in the two poorest quintiles, they accounted for almost half of under-five deaths (49 per cent).

As a mother's educational attainment increases, under-five mortality decreases. The risk of dying before reaching age 5 among children of mothers with no or only primary education was 2.1 times that of children whose mothers had attained secondary or tertiary education (see Figure 11). Children under 5 years of age born to mothers with no or primary school education also accounted for a disproportionately high number of under-five and neonatal deaths. While 55 per

FIGURE 11 **Under-five mortality rates by household wealth quintile, mother's education and urban/rural residence**



Note: The under-five mortality rate by wealth quintile was modelled in 2023 by the UN IGME for 106 countries using survey data as input. Rates by mother's education and urban/rural residence are UNICEF analysis based on DHS, MICS and other nationally representative sources. The aggregated mortality rates to summarize the disparities across the equity dimensions were adjusted to the UN IGME national estimates in the year 2022. After calculating the number of deaths in each equity group using the respective number of live births, the distribution of the live births by equity group in the surveys was applied to the live births from *World Population Prospects 2022* for the year 2022 to calculate the aggregated mortality rate in each group.

cent of live births occurred in this group, the share of under-five deaths in 2022 was 71 per cent. Of 63 surveys analysed for this factor, 40 included detailed categories that allowed for an even closer look at inequality in survival by mother's education. These data indicated that children whose mothers had never attended school were particularly disadvantaged, with a U5MR of 85 deaths per 1,000 live births on average, followed by children of mothers with primary education, whose U5MR was 53 deaths per 1,000 live births. Meanwhile, the U5MR among children of mothers with secondary education was 38 deaths per 1,000 live births. Children of mothers with tertiary education had the lowest mortality risk, with 25 deaths per 1,000 live births (see Figure 11).

On average, children living in rural areas are at a higher risk of death before age 5 compared to their urban counterparts. In the 70 countries studied, the average U5MR in rural areas was 1.5 times as high as that in urban areas, with a U5MR of 61 deaths per 1,000 live births in rural areas versus 41 deaths per 1,000 live births in urban areas (see Figure 11). Children living in rural areas accounted for a higher burden of under-five deaths compared to their share of live births: While 64 per cent of live births occurred in rural areas, children in these areas accounted for 72 per cent of under-five deaths.

Inequity within countries leaves vulnerable children behind and threatens universal elimination of preventable child mortality. Analysing mortality by the three risk factors described in this section strengthens our understanding of important links between variables such as urban/rural residence and under-five mortality and should help design and implement tailored solutions that respond to inequities, such as positioning and supporting community health workers in rural areas to address relatively high mortality rates. In addition to these variables, further investigation is needed to understand how other characteristics – e.g., race, ethnicity, indigenous group, language or caste – can contribute to marginalization and shape child survival. Greater attention and expanded resources ought to address the risk factors that contribute to higher mortality rates and ensure all children share equally in the progress made in child survival.

BOX 3. 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.[20] UNICEF and WHO undertook joint country consultations in 2023. The country consultation process gave each country's ministry of health, national statistical 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 older children and young adolescents aged 5–14 years and older adolescents 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 2023, 85 of 200 countries sent comments or additional data. After the consultations, the UN IGME draft estimates for mortality among children under age 5 were revised for 87 countries using new or updated data, and the estimates for mortality among older children and young adolescents aged 5–14 years or older adolescents and youth aged 15–24 years were revised for 85 countries after receiving new or updated data. All countries were informed about changes in their estimates.

Mortality among children, adolescents and youth (5–24 years)

More than 2 million children, adolescents and youth died in 2022 alone. Even with a level of mortality for ages 5–24 that is less than half that of children under 5, an estimated 2.1 (2.0–2.3) million children, adolescents and youth aged 5–24 years died in 2022 (see Table 7), with about 62 per cent of these deaths occurring among those aged 15–24 years. Over 69 per cent of deaths among 5–24-year-olds in 2022 occurred in sub-Saharan Africa (1.0 (0.9–1.1) million) and Southern Asia (0.5 (0.5–0.6) million).

Globally, the probability of dying in any of the four five-year age groups that comprise the 5–24 age group is lower than U5MR. At 16 (16–18) deaths per 1,000 children aged 5 years, the global probability of dying for the 5–24-year age group was less than half the level of the global U5MR, i.e., the probability of dying for the 0–4-year age group, in 2022.[21] Looking at the global age pattern of five-year mortality rates, mortality falls from a peak in under-five mortality to a low among adolescents aged 10–14 years, then increases among 20–24-year-olds (see Table 8 and Figure 12). While regions experience varying levels of mortality in this age group, this global age pattern tends to hold at the regional level, although some regions see the lowest probability of dying in the 5–9-year age group (see Table 8 and Figure 12).

TABLE 7 **Levels and trends in the number of deaths among children, adolescents and youth aged 5–24 years and among adolescents aged 10–19 years, by Sustainable Development Goal region, 1990–2022**

	Number of deaths age 5–24 (thousands)					Decline (per cent)	Number of deaths age 10–19 (thousands)					Decline (per cent)
Region	**1990**	**2000**	**2010**	**2015**	**2022**	**1990–2022**	**1990**	**2000**	**2010**	**2015**	**2022**	**1990–2022**
Sub-Saharan Africa	925	995	945	934	959	-4	324	370	369	379	400	-23
Northern Africa and Western Asia	171	148	130	152	129	25	72	66	58	65	58	20
Northern Africa	94	82	72	68	68	27	38	36	30	29	30	23
Western Asia	77	66	58	84	60	21	34	30	27	36	28	16
Central and Southern Asia	1,187	1,023	835	684	517	56	460	425	369	318	239	48
Central Asia	19	21	16	14	12	37	8	9	7	6	6	27
Southern Asia	1,168	1,002	819	670	505	57	452	416	363	313	233	48
Eastern and South-Eastern Asia	674	488	349	290	247	63	297	226	149	122	107	64
Eastern Asia	399	255	166	127	103	74	189	126	65	48	41	78
South-Eastern Asia	275	233	183	163	145	47	108	100	83	74	66	39
Latin America and the Caribbean	190	182	207	167	152	20	83	81	93	74	63	24
Oceania	8	7	7	7	7	5	3	3	3	3	3	3
Australia and New Zealand	3	3	2	2	2	47	2	1	1	1	1	50
Oceania (exc. Australia and New Zealand)	4	5	5	5	5	-28	2	2	2	2	2	-36
Europe and Northern America	175	166	111	89	104	40	75	70	41	33	40	46
Europe	125	124	73	50	53	58	53	51	26	19	21	61
Northern America	49	42	38	38	51	-4	22	19	15	14	20	10
World	**3,330**	**3,009**	**2,584**	**2,323**	**2,115**	**36**	**1,315**	**1,242**	**1,082**	**996**	**910**	**31**

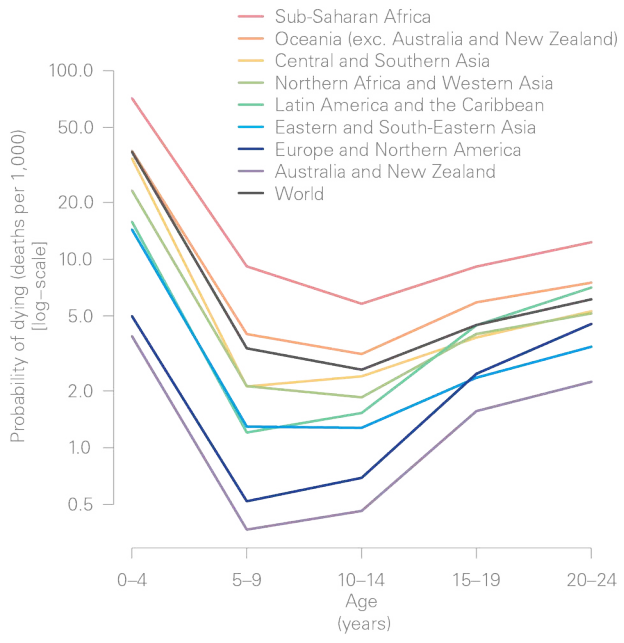
Note: All calculations are based on unrounded numbers.

TABLE 8 **Levels and trends in mortality rate among children, adolescents and youth aged 5–24 years and for five-year age groups, by Sustainable Development Goal region, 1990–2022**

	Mortality rates (deaths per 1,000)										Annual rate of reduction 1990–2022 (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
Region	**1990**	**2022**	**1990**	**2022**	**1990**	**2022**	**1990**	**2022**	**1990**	**2022**					
Sub-Saharan Africa	26	9	12	6	17	9	24	12	77	36	3.3	2.1	2	2	2.4
Northern Africa and Western Asia	7	2	4	2	7	4	8	5	26	13	3.6	2.4	1.8	1.4	2.1
Northern Africa	8	2	5	2	7	5	9	6	29	15	3.9	3	1.5	1.2	2.1
Western Asia	6	2	3	2	7	4	7	4	23	12	3.3	1.8	2.1	1.5	2.1
Central and Southern Asia	13	2	7	2	11	4	14	5	43	14	5.6	3.2	3.1	3	3.6
Central Asia	4	1	3	1	5	3	7	4	19	10	3.2	2.2	1.4	2.1	2.1
Southern Asia	13	2	7	2	11	4	14	5	44	14	5.6	3.3	3.2	3	3.6
Eastern and South-Eastern Asia	6	1	3	1	5	2	5	3	19	8	4.6	2.6	2.6	1	2.5
Eastern Asia	4	1	2	1	5	1	4	2	15	5	5	3.2	4	1.3	3.2
South-Eastern Asia	9	2	4	2	7	4	8	5	28	13	4.6	2.3	1.8	1.4	2.4
Latin America and the Caribbean	3	1	3	2	6	4	9	7	21	14	3	1.8	1	0.8	1.2
Oceania	3	2	2	2	5	3	6	4	17	11	1.7	1.2	1.2	1.3	1.3
Australia and New Zealand	1	0	1	0	4	2	5	2	10	5	3	2.6	2.6	2.4	2.5
Oceania (exc. Australia and New Zealand)	8	4	5	3	8	6	11	8	31	20	2	1.5	1.1	1.1	1.4
Europe and Northern America	2	1	1	1	4	2	5	5	12	8	3.4	2.4	1.4	0.5	1.2
Europe	2	0	2	1	4	2	5	4	12	7	3.9	2.8	1.9	1.1	1.8
Northern America	1	1	1	1	4	3	5	6	12	11	2.1	1.5	0.9	-0.3	0.4
World	**10**	**3**	**5**	**3**	**8**	**4**	**9**	**6**	**31**	**16**	**3.3**	**1.9**	**1.7**	**1.2**	**2**

Note: All calculations are based on unrounded numbers.

FIGURE 12 **Probabilty of dying for five-year age groups among children, adolescents and youth, by Sustainable Development Goal region, 2022**



The survival of children, adolescents and youth aged 5–24 years is dependent on the regions and countries where they reside. In 2022, the highest probability of dying for the 5–24-year age group was in sub-Saharan Africa at 36 (34–42) deaths per 1,000 children aged 5 years, followed by Oceania (excluding Australia and New Zealand) at 20 (17–25) deaths per 1,000 children aged 5 years and Latin America and the Caribbean with 14 (14–15) deaths per 1,000 children aged 5 years (see Table 8 and Figure 12). When the mortality rate for 5–24-year-olds is disaggregated to the five-year mortality rates, sub-Saharan Africa and Oceania (excluding Australia and New Zealand) had the highest and second-highest regional mortality rates across all four five-year age groups in 2022. Latin America and the Caribbean saw the third-highest regional rate among older adolescents aged 15–19 years and youth aged 20–24 years, while Northern Africa and Western Asia showed the third-highest rate among older children aged 5–9 years and young adolescents aged 10–14 years (see Table 8 and Figure 12). The average probability of a 5-year-old dying before reaching age 25 was 7.8 times as high in sub-Saharan Africa as in the lowest-mortality region, Australia and New Zealand. At the country level, mortality rates for 5–9-year-olds in 2022 ranged from 0.1 deaths per 1,000 children aged 5 years to 19.7 deaths per 1,000 children aged 5 years. Meanwhile, among 10–14-year-olds, they ranged from 0.2 deaths per 1,000 adolescents aged 10 years to 11.9 deaths per 1,000 adolescents aged 10 years; for 15–19-year-olds, from 0.8 deaths per 1,000 adolescents aged 15 years to 17.7 deaths per 1,000 adolescents aged 15 years; and for 20–24-year-olds, from 1.0 deaths per 1,000 youth aged 20 years to 27.3 deaths per 1,000 youth aged 20 years.

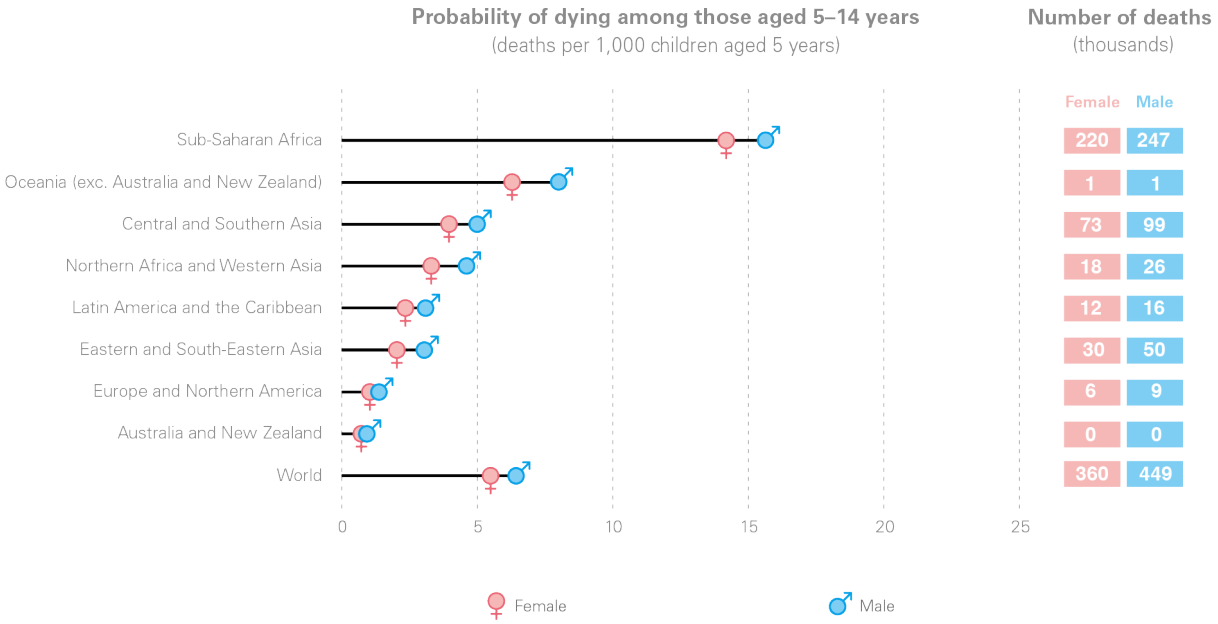
The male mortality disadvantage increases with age in the 5–24-year age group. Among older children and young adolescents aged 5–14 years, the global mortality rate for females was 5.5 (5.1–6.1) deaths per 1,000 children aged 5 years and for males was 6.4 (6.0–7.1) deaths per 1,000 children aged 5 years. Among older adolescents and youth aged 15–24 years, the mortality rate among females was 7.9 (7.5–9.2) deaths per 1,000 adolescents aged 15 years, while for males it was

13 (12–15) deaths per 1,000 adolescents aged 15 years (see Figure 13). Globally, male mortality for the 5–24-year age group was 1.5 times that of female mortality in 2022, at 20 (19–22) deaths per 1,000 children aged 5 years for males versus 13 (13–15) deaths per 1,000 children aged 5 years for females. That ratio increases with age: In 2022, male mortality was 1.1 times as high as female mortality among 5–9-year-olds (3.6 (3.2–3.7) deaths per 1,000 children aged 5 years versus 3.2 (2.8–3.3) deaths per 1,000 children aged 5 years), 1.2 times as high among 10–14-year-olds (2.9 (2.6–3.5) deaths per 1,000 adolescents aged 10 years versus 2.3 (2.1–2.9) deaths per 1,000 adolescents aged 10 years), 1.6 times as high among 15–19-year-olds (5.4 (5.1–5.8) deaths per 1,000 adolescents aged 15 years versus 3.5 (3.2–3.8) deaths per 1,000 adolescents aged 15 years) and 1.8 times as high among 20–24-year-olds (7.8 (7.2–9.6) deaths per 1,000 youth aged 20 years versus 4.4 (4.1–5.6) deaths per 1,000 youth aged 20 years).

Without decisive action, millions of children, adolescents and youth are projected to die before this decade is over. If current trends continue, more than 16 million children, adolescents and youth between the ages of 5 and 24 are projected to lose their lives between 2023 and 2030. Approximately 42 per cent of these deaths (6.8 million) are expected to occur during the adolescent period. Half (49 per cent) of global deaths within the 5–24-year age group from 2023 to 2030 are predicted to occur in sub-Saharan Africa (8.2 million), with another 21 per cent in Southern Asia (3.4 million).

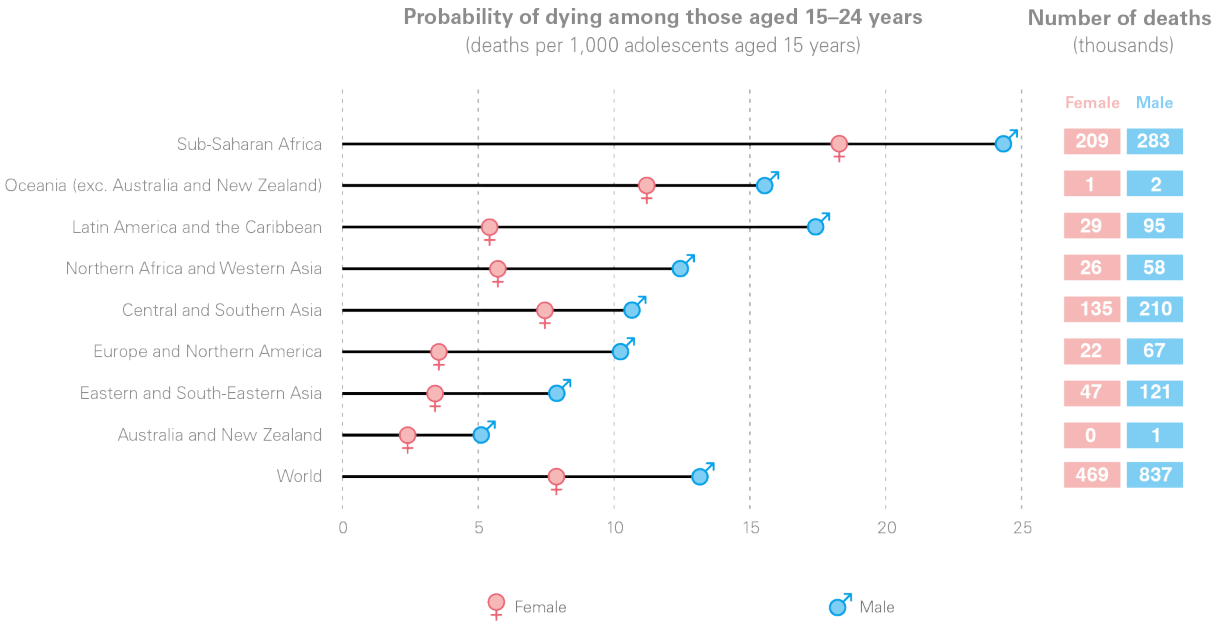
FIGURE 13 **Probability of dying and number of deaths among children and adolescents aged 5–14 years and among adolescents and youth aged 15–24 years, by sex and Sustainable Development Goal region, 2022**

A. 5–14 years



Note: All calculations are based on unrounded numbers. In 2022, Central Asia's 5–14-year mortality rate was 2.3 for females and 3.2 for males; Southern Asia's 5–14-year mortality rate was 4.0 for females and 5.1 for males. Central Asia's deaths in the 5–14-year age group (in thousands) was 1.7 for females and 2.6 for males; Southern Asia's deaths in the 5–14-year age group (in thousands) was 71 for females and 97 for males.

B. 15–24 years



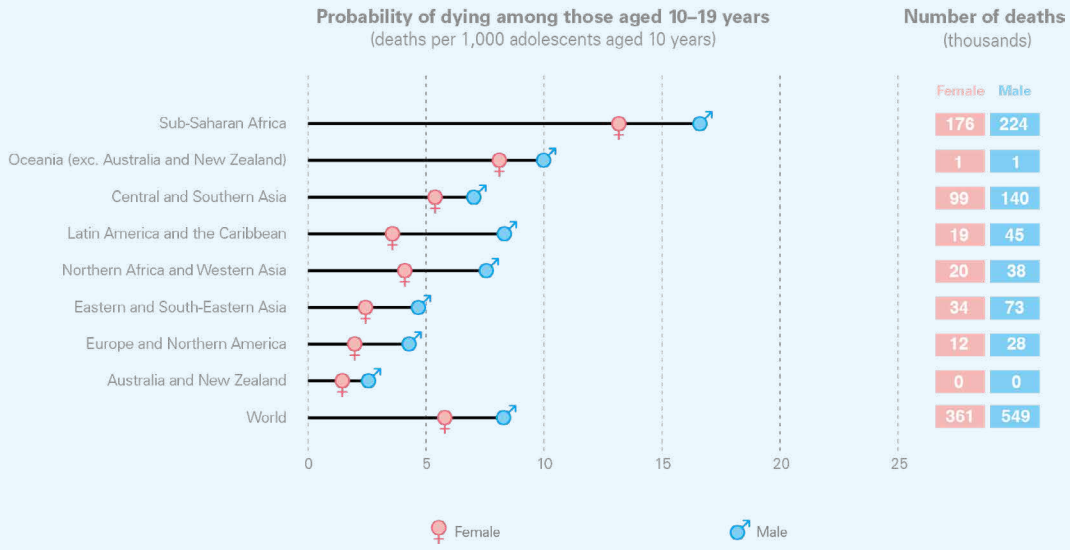
Note: All calculations are based on unrounded numbers. In 2022, Central Asia's 15–24-year mortality rate was 5.5 for females and 8.1 for males; Southern Asia's 15–24-year mortality rate was 7.5 for females and 10.7 for males. Central Asia's deaths in the 15–24-year age group (in thousands) was 3.1 for females and 4.8 for males; Southern Asia's deaths in the 15–24-year age group (in thousands) was 132 for females and 205 for males.

BOX 4. Adolescent mortality and causes of death

This report demonstrates the importance of targeting age- and sex-specific causes of death as a critical strategy in the campaign to end preventable deaths among those younger than age 25. Adolescents – those aged 10 to 19 years – are appropriate candidates for this approach as this life stage sees the leading causes of death shift from primarily infectious disease-related causes to other preventable causes, like noncommunicable diseases such as cancers and unintentional and intentional injuries.

Relative to other age groups under age 25, the level of mortality in 2022 among adolescents was low at 7.1 (6.8–7.8) deaths per 1,000 adolescents aged 10 years, with female mortality slightly lower than male mortality: Adolescent females had a mortality rate of 5.8 (5.5–6.5) deaths per 1,000 adolescents aged 10 years versus 8.3 (7.9–9.1) deaths per 1,000 adolescents aged 10 years among adolescent males (see Figure 14). Mortality within the 10–19-year age interval tends to be higher in the older adolescent age group (15–19) for both females and males, with a larger increase in the male rates.

FIGURE 14 **Probability of dying and number of deaths among adolescents aged 10–19 years, by sex and Sustainable Development Goal region, 2022**

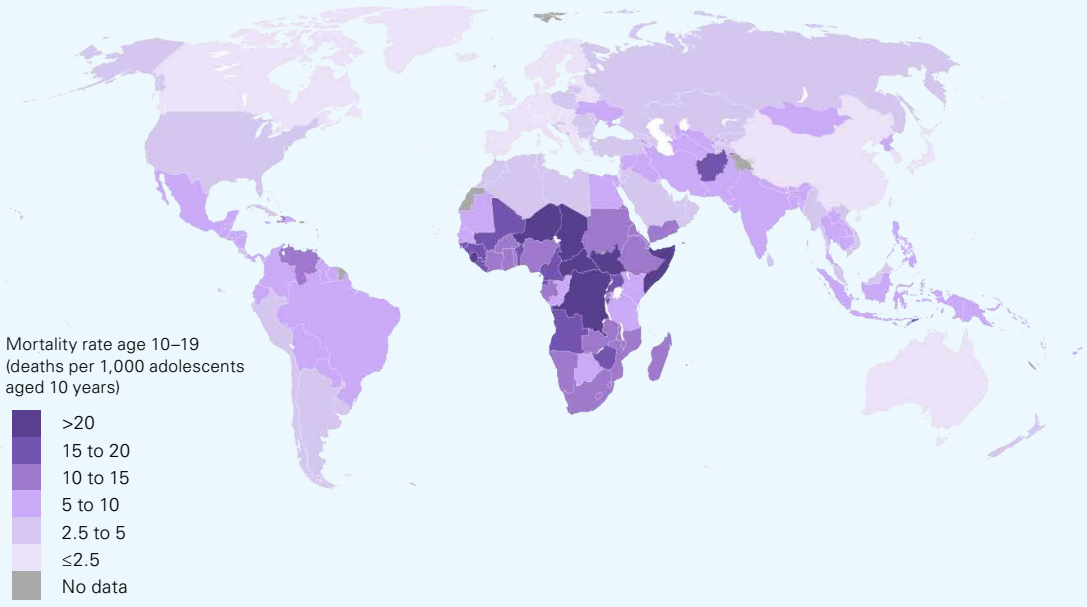


Note: All calculations are based on unrounded numbers. In 2022, Central Asia's 10–19-year mortality rate was 3.8 for females and 5.2 for males; Southern Asia's 10–19-year mortality rate was 5.4 for females and 7.1 for males. Central Asia's deaths in the 10–19-year age group (in thousands) was 2.4 for females and 3.4 for males; Southern Asia's deaths in the 10–19-year age group (in thousands) was 97 for females and 136 for males.

Even with comparatively lower rates, adolescent deaths neared 1 million in 2022. Globally, there were about 0.9 (0.9–1.0) million deaths among those aged 10–19 years in 2022, with about 0.4 (0.3–0.4) million of those deaths occurring among adolescent females and 0.5 (0.5–0.6) million among adolescent males. While this is a relatively small fraction of global under-five deaths, deaths among adolescents have not declined as quickly as under-five deaths, falling by just 31 per cent globally since 1990 (female deaths declined by 39 per cent over this period compared to a 24 per cent decline in male deaths), with some regions like sub-Saharan Africa seeing a higher number of adolescent deaths in 2022 than in 1990 for both sexes. Indeed, almost 70 per cent of the deaths burden among 10–19-year-olds was borne by sub-Saharan Africa and Southern Asia in 2022.

Adolescent mortality rates vary substantially by country and region. In 2022, adolescents in the highest-mortality country faced a risk of death that was almost 25 times the risk in the lowest-mortality country, with country-level adolescent mortality rates ranging from a low of 1.1 deaths per 1,000 adolescents aged 10 years to a high of 26.4 deaths per 1,000 adolescents aged 10 years (see Map 7). Sub-Saharan Africa had the highest regional adolescent mortality rate in 2022 at 14.9 (13.7–17.5) deaths per 1,000 adolescents aged 10 years, followed by Oceania (excluding Australia and New Zealand) with 9.0 (7.4–11.1) deaths per 1,000 adolescents aged 10 years and Central and Southern Asia with 6.2 (5.6–7.2) deaths per 1,000 adolescents aged 10 years.

MAP 7 **Adolescent (age 10–19 years) mortality rate, by country, 2022**

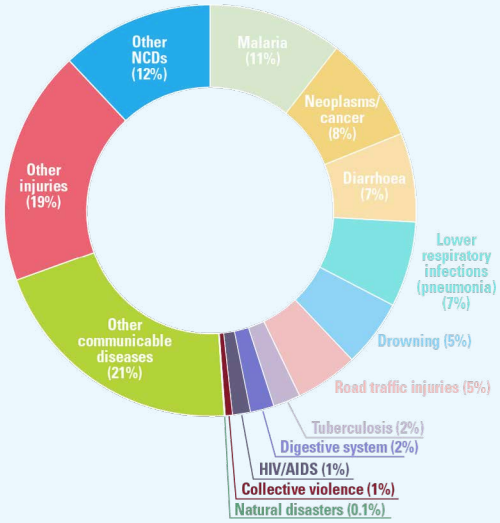


Note: Categories are based on unrounded numbers; value ranges are greater than the lower bound number and less than or equal to the upper bound number. This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

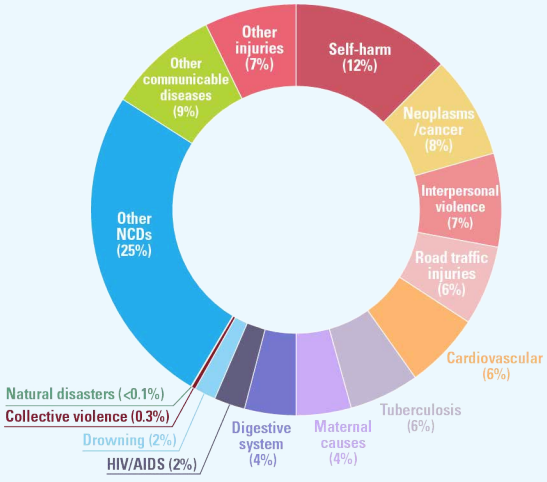
Injury and violence are among the leading causes of death for adolescents aged 10–19 years. Differences in mortality rates by sex can be linked to the primary causes of death among young adolescents and older adolescent females and males (see Figure 15). Causes of death in the young adolescence group are not separated by sex since sex-specific causes do not become prominent causes until older adolescence. Whereas global deaths under age 5 are primarily driven by complications around the time of birth and infectious diseases, among adolescents aged 10–19 years the leading causes of death shift with age to noncommunicable diseases (NCDs), injuries and violence. The share of deaths due to NCDs and injuries increasing with age is apparent, with almost half of all young adolescent deaths being caused by NCDs such as neoplasms/cancer, and injuries like drowning and road traffic injuries. The transition to NCDs and injuries is even more prominent among older adolescents, with over 80 per cent of female deaths and more than 70 per cent of male deaths driven by these causes. The leading causes of older adolescent female deaths are self-harm, neoplasms/cancer and cardiovascular disease. This is the youngest age group for which complications of pregnancy and childbirth is listed as a cause of death, accounting for roughly 1 in every 23 deaths among adolescent females globally. Among older adolescent males, the leading causes of death include unintentional injuries like road traffic injuries, intentional injuries like interpersonal violence and self-harm, and NCDs. Even though mortality is relatively low in this age group, close to a million adolescents died of preventable causes in 2022, calling for a closer look at the causes of death by age and sex. Adolescents are at a critical juncture in life, poised to enter adulthood and contribute to their communities, while at the same time facing some unique societal and health-care challenges. Abolishing all preventable deaths and reaching every child, adolescent and youth will thus require a multisectoral approach involving not only the health sector, but also education, law enforcement and transportation, among others.

FIGURE 15 **Distribution of causes of death among adolescents aged 10–14 years and among adolescents aged 15–19 years by sex**

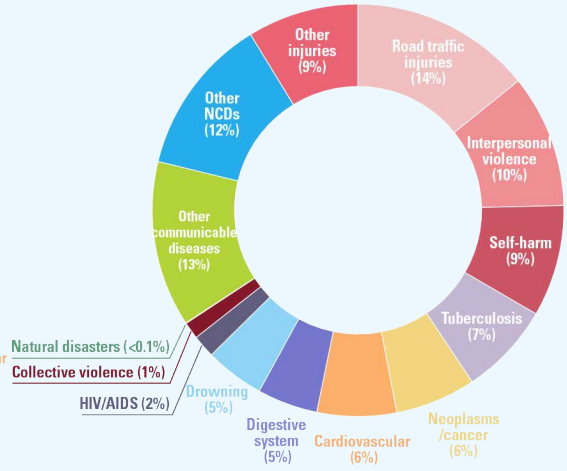
A. **10–14 years**



B. **15–19 years female**



C. **15–19 years male**

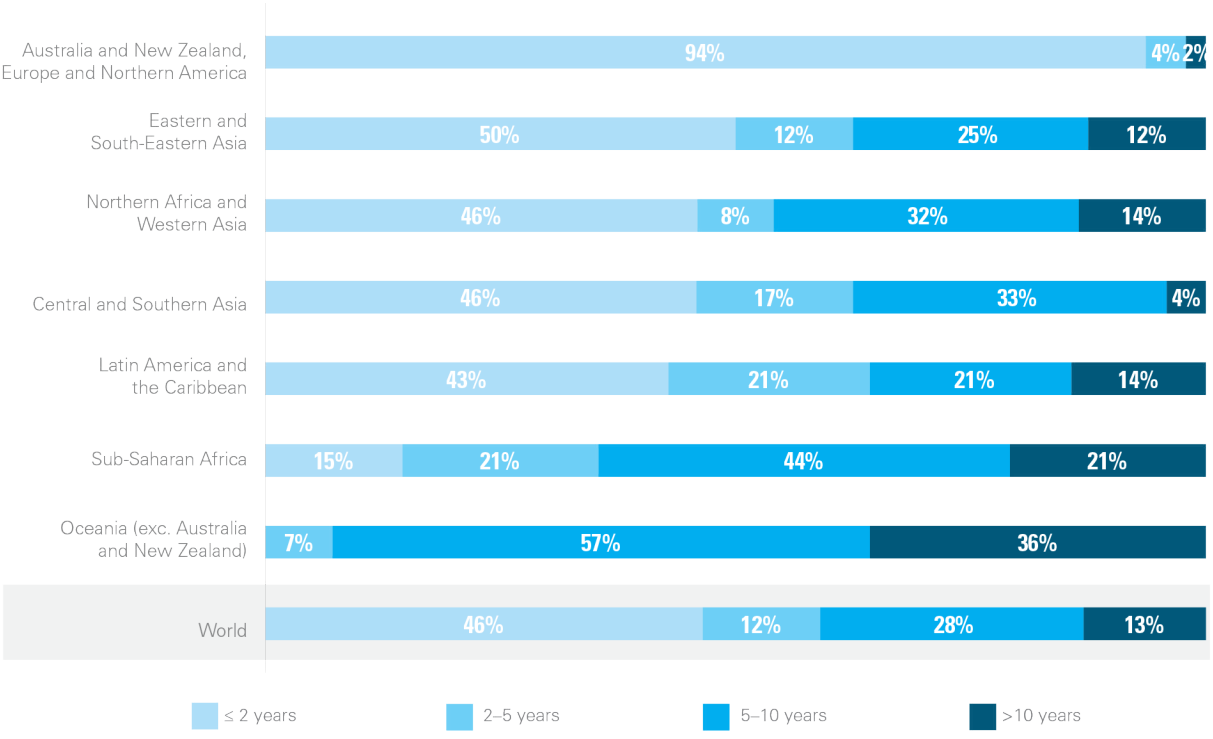


Source: Preliminary estimates produced in February 2024 by applying cause fractions from the Child and Adolescent Causes of Death Estimation project (2023) for the years 2000–2021[15] to UN IGME estimates for the years 2000–2022.

Data gaps in child mortality

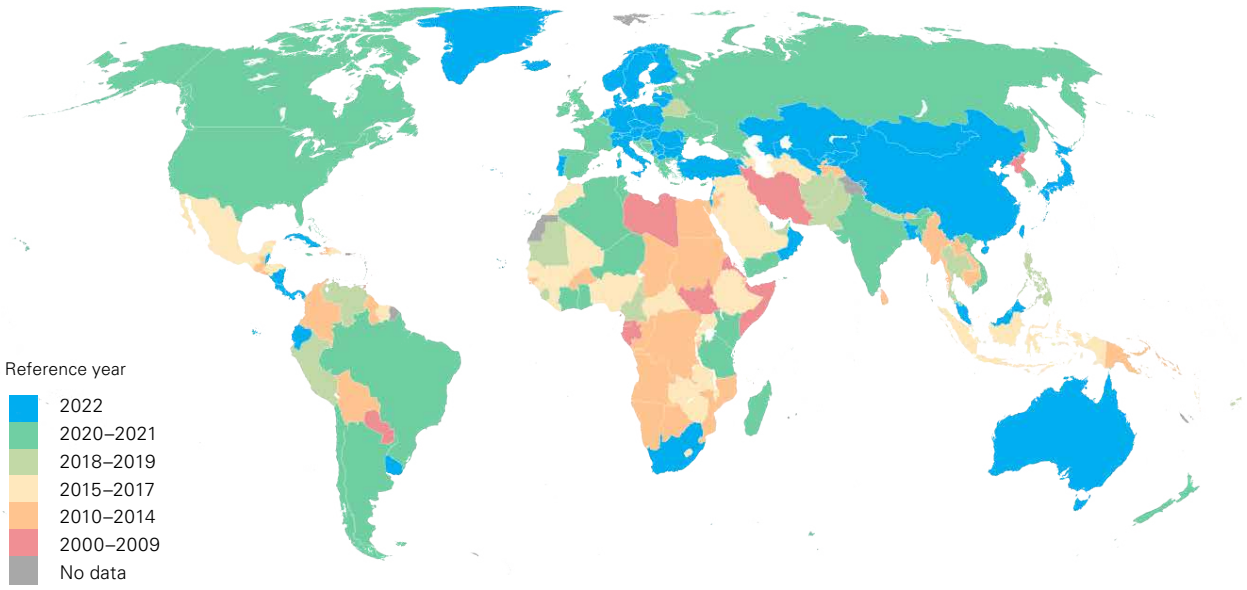
Persistent data gaps lead to wider uncertainty. Accurate and up-to-date information regarding child mortality is not universally available. On average, the latest high-quality data point (i.e., a data point that is included in the UN IGME estimation model) on child mortality across all countries is 4.6 years old, with only half of the world's countries having a data point within the past three years. In approximately 41 per cent of all countries, the most recent available data point on child mortality is more than five years old (see Figure 16 and Map 8). Without sufficient and timely empirical data, our certainty as to the true level of mortality or number of deaths globally declines.

FIGURE 16 **Distribution of the country extrapolation periods in the UN IGME 2023 estimation round, by Sustainable Development Goal region**



Note: Categories are based on unrounded numbers; value ranges are greater than the lower bound number and less than or equal to the upper bound number.

MAP 8 **Reference year for the most recent included data point in UN IGME 2023 estimation round**



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.

The global averages obscure even more limited data accessibility in certain regions and income brackets. The timeliness and availability of data decline across income classifications, with the most recent data point being 7.9 years old for low-income countries, 4.9 years old for middle-income countries and 2.1 years old for high-income countries. Over half of all low- and middle-income countries lack reliable data on under-five mortality in the past five years, whereas only 15 per cent of high-income countries had such a gap. Likewise, data availability is not geographically even: In sub-Saharan Africa, approximately 65 per cent of countries have a most recent high-quality data point that is more than five years old, while 41 per cent of all countries have a gap of over five years between their most recent available data point and the common reference year of 2022 (see Figure 16 and Map 8). In contrast to the global average age of 4.6 years for the latest high-quality data point, in sub-Saharan Africa that average age is 6.9 years.

Fragility and conflict put data availability at higher risk. Recent data are scarce in FCS, where the average age of the most recent data point is 7.8 years, and only half of FCS countries have a high-quality data point from the last seven years. Meanwhile, in all non-FCS countries, the average age of the most recent high-quality data point is 3.6 years and half the countries have a high-quality data point within the last two years.

Data availability worsens for countries at risk of missing the SDGs. Considering just the countries at risk of falling short of the SDG target for under-five mortality, the average age of the most recent data point is 7.0 years. In contrast, countries that have already achieved the target show an average age of 3.4 years for their most recent data point. The use of less recent data introduces heightened uncertainty in the recent period and increases reliance on extrapolation, particularly in areas where children face a higher risk of mortality.

Just 51 countries had high-quality national data for 2022 included in the estimation model. The 51 countries shown in blue in Map 8 have an included data point for 2022 in the estimation model, though national or subnational data were available for more than 76 countries or areas to help analyse excess mortality due to COVID-19

(see Annex II: Excess mortality analysis for details). Among those 51, 57 per cent were high-income countries and another 29 per cent were upper-middle-income countries. Overall, there are fewer countries with data for 2022 included in the estimation model than those that have information on age-specific deaths in 2022 for the excess mortality analysis; this is because some countries' civil registration and vital statistics (CRVS) data may not meet data completeness thresholds for inclusion in the model, and some death data for use in the excess mortality analysis did not have appropriate denominators for calculating rates. Furthermore, due to the retrospective nature of child mortality estimation from birth histories, countries that rely on survey data to describe child mortality are unlikely to have 2022 data even if they have conducted a recent survey.

Conclusion

Sustained commitment to and investments in child health and survival yield results. The proof is in the numbers: The global under-five mortality rate has declined by 51 per cent since 2000 – a marked achievement in the campaign to end preventable child deaths and a significant step towards upholding every child's right to survival.

But this is a precarious achievement. Progress is at risk of stagnation or reversal unless efforts are taken to neutralize the numerous threats to newborn and child health and survival. An unacceptable number of children continue to face diminished chances of reaching adulthood based on where they are born and live and if they are growing up in a setting affected by crisis, fragility or conflict. The world must take action to save the lives of children who remain vulnerable, marginalized and, in many cases, overlooked by decision makers.

Unequal outcomes

The burden of both newborn and under-five deaths is disproportionally distributed around the globe, with just two regions – sub-Saharan Africa and Southern Asia – accounting for more than 82 per cent of global under-five deaths and 80 per cent of global neonatal deaths in 2022, versus only 57 per cent of live births. The two regions also accounted for 84 per cent of the global 1–59-months deaths burden.

In sub-Saharan Africa, the high mortality rates among children younger than 5 are particularly concerning given the 339 million births and 12 per cent rise in the under-five population (reaching more than 200 million) expected to occur in the region by 2030.[22] These demographic changes combined with elevated mortality rates could mean continued stagnation or even increases in the number of neonatal and under-five deaths in the region. Southern Asia also deserves increased attention as neonatal mortality continues to be unusually high given the region's level of under-five mortality, and because the leading causes of under-five deaths in the region are primarily related to complications around the time of birth. And while concerted efforts have substantially reduced the 1–59-months mortality rate in Southern Asia, these efforts must be expanded and increased to further reduce the rate in this age group.

Children in FCS countries are almost three times more likely on average to die before reaching age 5 than those in all other countries, and the average rate of mortality among children under age 5 in high-income countries is less than a tenth of that for children in low-income countries. Meanwhile, in low- and middle-income countries, children from the poorest households, whose mothers had the lowest educational attainment, and who live in rural settings face heightened risks of dying during the first five years of life.

Driving progress, ending preventable deaths

At this midway point in the SDG era, the world must not become complacent. We must not settle for the dire outcomes that persist for so many children in so many countries. We can and must do more to drive 4.9 million to nearly zero. If current trends continue, 35 million children under age 5 will die before 2030 – with 48 per cent of those deaths occurring among newborns – along with 16 million children, adolescents and youth aged 5–24 years. The burden of these expected deaths will be as unevenly carried as it is today: 21 million under-five deaths will occur in sub-Saharan Africa (60 per cent of the global total) and another 8 million will take place in Southern Asia (24 per cent of the global total).

Meeting the U5MR SDG target would mean 9 million lives of children under age 5 could be saved between 2023 and 2030, with 86 per cent of them in sub-Saharan Africa. And if all countries achieved a U5MR equal to the high-income country average in 2022 of 4.9 deaths per 1,000 live births, some 21 million more children would

live to see their fifth birthday. Upholding every child's right to survival is not only a central tenet of the 2030 Agenda for Sustainable Development and the Convention on the Rights of the Child,[23] but also comes with important benefits for countries' future human capital and longer-term economic growth.

The mortality burden remains stubbornly high even though we have the knowledge and strategies to prevent deaths. Country and regional variation makes clear that near zero rates – i.e., the end of preventable child deaths – can be achieved through adequate investments in accessible and high-quality health care, including an increase in the number of community health workers in underserved areas; skilled care around the time of birth and in the early years; prevention, such as vaccination; screening and care for common causes of childhood illness and death; and approaches that identify and address risk factors for mortality. But until this knowledge is put to use and these proven solutions become tangible realities in the day-to-day lives of the most vulnerable, children will continue to needlessly and unjustly die.

Leveraging what works to save lives

Efforts must focus on the highest-risk age groups, countries and regions. There is a pressing need for improved investments in the first 28 days of life to overcome the slower decline in neonatal mortality, and in interventions that address preventable deaths among children aged 1–59 months, given that most under-five deaths globally still occur during this later period.

Regionally, greater attention and resources should be directed to sub-Saharan Africa and Southern Asia, given the persistently high mortality rates and the large share of under-five population in these two regions: 54 per cent of the global under-five population in 2022 lived in sub-Saharan Africa (181 million) and Southern Asia (176 million). The health and survival needs of children living in FCS countries must also be prioritized in light of the relatively high risk of death in these countries. Addressing variation in mortality at the subnational level will also be critical to driving down national mortality rates and reaching the SDG targets.[24] This will warrant having subnational plans for maternal, newborn and child health that are well targeted and financed.

Addressing the age- and sex-specific causes of death is also critical to the elimination of preventable mortality among those younger than 25. Important differences exist between age groups, with prematurity, birth asphyxia/trauma and congenital anomalies most common in terms of neonatal mortality; infectious diseases such as lower respiratory infections, malaria and diarrhoea playing a principal role among those aged 1–59 months; and, among those aged 5–24 years, non-intentional (road traffic accidents) and intentional injuries (self-harm and interpersonal violence) being the more predominate causes.

In order to tackle these challenges and enhance the coverage and equity of maternal, newborn, child, adolescent and youth survival interventions, investments in health systems must emphasize quality and impact (see Box 6: Actions to accelerate progress).

Balancing realism and optimism

As we take inspiration and motivation from the achievements noted in this report, we must bear in mind the recent slowing of under-five and neonatal mortality decline compared to the MDG era in regions including sub-Saharan Africa, and the possibility that under-five deaths could be much higher (or lower) than 4.9 million, the median estimate. The uncertainty interval around that median estimate, 4.6 million to 5.4 million (or about 800,000 deaths), is notably wide due to the low availability of recent data on child mortality. Assessing excess mortality in 2020–2022 due to crises including pandemics, disasters and conflicts is also hindered by data limited in age disaggregation and geographic representativeness; just one quarter of the 200 countries covered in this report had high-quality under-five mortality data for 2022 available at the time these estimates were generated.

Even more concerning, data tend to be least available in the places where deaths are most concentrated and estimated mortality rates the highest. For instance, in sub-Saharan Africa, the most recent data point on child mortality was

more than five years old in almost two thirds of the countries. These data gaps pose serious threats to timely, precise and accurate child mortality estimation and limit our ability to respond to these data with directed action.

Amid the unjust realities of inequity, fragility and conflict, this year's UN IGME findings show that, with proper resources and unwavering commitment, children's lives can be saved even when the threats are grave. Let us ensure the hard-won gains resulting from decades-long efforts by governments, organizations, communities, families and individuals are honoured, sustained and increased. The latest UN IGME findings are an encouraging sign of progress – but they also represent an urgent call to action for the global community to eliminate preventable child deaths in every corner of the globe.

BOX 5. Investing in community health workers

In many countries, community health workers are often the first point of contact and a critical entry point to the health system. An integral part of the health system, they provide key health promotion, preventive services and basic treatments to improve child health outcomes and facilitate universal health coverage for the most marginalized families. As trusted community members, they are trained to provide essential health and nutrition services targeting the main causes of childhood illnesses and provide referrals to health facilities when needed.

In low- and middle-income countries where children are dying from readily preventable or treatable conditions, community health workers play a pivotal role in promoting and/or delivering this essential care at critical touch points during a child's growth and development, including providing guidance on nutrition, immunization and basic treatment for sick children. Studies show that if these community-based child survival interventions were scaled up to reach 90 per cent of those in need, child deaths could drop by one third.[25]

As per WHO's evidence-based guideline[26] for optimizing community health programs following an extensive review of community health programmes[27, 28] in low-, middle- and high-income countries, community health workers should become an integral part of the health workforce, particularly where unmet health needs abound. To improve children's chances of survival, especially among the highest-risk groups, community health workers should be fairly paid, well trained, supervised and provided with the health commodities needed to give the highest quality of care. Given that the community health workforce is predominantly female, gender equity and social inclusion must also be considered, ensuring protection and career opportunities.

To optimize the full potential of community health worker programmes in reducing childhood morbidity and mortality, sustainable and coordinated investments must be increased to strengthen and integrate community health programmes.

BOX 6. Actions to accelerate progress

Addressing and reversing the slowed progress observed in several regions at this midway point of the SDG era and achieving results across all regions and countries towards realizing the vision of 2030 is feasible. This will require a greater sense of urgency and investments in high-impact interventions, prioritizing measures that address the ongoing challenges to newborn and child health including impacts of climate change, cost of living, COVID-19 (along with other potential pandemics and widespread infectious disease), and fragility and conflict. Achieving high levels of coverage is not enough – equity and quality gaps must be addressed, along with the underlying root causes of inequality, many of which are largely socially determined. Global action is needed to ensure complacency does not define the remaining critical years of the SDG era.
Key priority activities include:

- **Emphasize local action**
  A focus on subnational planning, implementation and monitoring is critical, backed by political commitment and costed and adequately financed provincial- and district-level plans.

- **Elevate the level of ambition and investments for mothers and newborns in line with ENAP-EPMM targets**
  Plans to improve the NMR should be built on a strong foundation of essential newborn care and align with the Every Newborn Action Plan (ENAP) and Ending Preventable Maternal Mortality (EPMM) targets on antenatal care, postnatal care, skilled health personnel and emergency obstetric and newborn care. Increasing financing and allocating resources towards two very high-impact but high-cost interventions – care for small and sick newborns and emergency obstetric care – is critical, as these measures provide quadruple returns on investment by reducing maternal deaths, stillbirths, newborn deaths and both maternal and newborn morbidity.[29]

- **Scale up high-impact interventions to target 1–59-months mortality**
  Many deaths among the 1–59-months age group are relatively easy to prevent. Efforts should centre around successfully increasing coverage and quality of high-impact preventive, promotive and curative interventions that target key causes and risk factors of mortality and identify and manage children at the highest risk of death. Primary health care is the core platform of delivery for these interventions, using the evidence-based integrated management of newborn and childhood illness (IMNCI) approach to address the major causes of death among this age group. Countries are also encouraged to define priority actions and set clear milestones and targets for accelerated reduction of mortality, as outlined by the global Child Survival Action initiative.[30]
  To increase equitable access, stronger collaboration is needed between child health, nutrition and disease programmes (e.g., those that target malaria) and efforts to reach zero dose communities, which would optimize resource utilization and increase efficiencies in implementation, alignment and integration.

- **Build synergies along the continuum of care**
  Though the set of interventions needed to reduce neonatal mortality differs to that needed to reduce mortality among children aged 1–59 months, the commonalities between them must be recognized: for instance, commodities and supply chain,

health workforce and data systems, to name a few. Across interventions by age and life stage, there is a shared need to improve quality. Investments and actions must target the full maternal, newborn and child continuum of care, focusing on the highest-impact interventions for each age group while synergistically strengthening systems and delivery platforms.

- **Invest in community health workers**
  A critical bridge between communities, families and the health system, community health workers act as a common link for care that spans pregnancy, childbirth, the postnatal period, early childhood. and adolescence. Yet they remain missing from too many communities.[31] National maternal, newborn, child health, malaria, nutrition and immunization programmes need to jointly invest in developing a strong cadre of community health workers who are well remunerated, professionally managed and adequately deployed and retained in the system.

- **Strengthen data and statistical systems**
  To accurately capture and monitor levels and trends in child mortality, systematic, short- and long-term investments must be made in data and statistical systems. These include efforts to bolster Health Management Information Systems (HMIS) and CRVS systems, and, in countries that rely on data from household surveys, further support and strengthen systems needed to accurately capture the demographic components for mortality estimation: births, deaths and population. It is also critical to build synergies between different data systems across the life-course – e.g., CRVS systems, maternal and perinatal deaths surveillance – to properly monitor child mortality. In some cases, while policies to reduce under-five mortality are in place, the mechanisms to report on progress are not; this gap in data and monitoring must be addressed. And to track inequities, subnational data and disaggregated data must be improved and become more widely available so that programme managers and health workers can better target interventions at local level. Finally, across data collection mechanisms, completeness, timeliness and quality of data must be improved and prioritized.

- **Allocate appropriate resources to reduce under-five deaths**
  ENAP-EPMM tracking data have shown that 40 per cent of countries reported a reduction in domestic maternal and newborn health allocations post-COVID-19, which was even higher among FCS countries. More resources are needed for maternal, newborn, child and adolescent health and nutrition, especially post-COVID-19.

Annex I: 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 for older adolescents and youth aged 15–24 years.

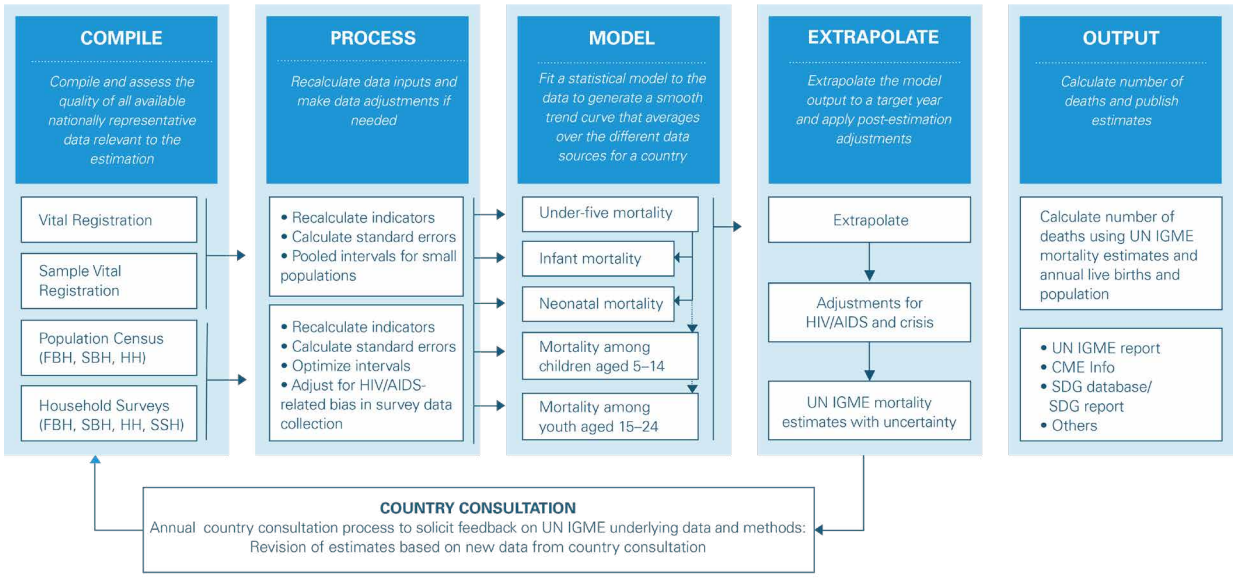
The UN IGME updates its estimates of under-five mortality – including neonatal and infant mortality – mortality among older children and young adolescents aged 5–14 years, and mortality among older adolescents and youth aged 15–24 years annually after reviewing newly available data and assessing their 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 the United Nations Department of Economic and Social Affairs, Population Division, was established in 2004 to advance the work of 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 17) to arrive at annual estimates of child mortality:

FIGURE 17 **UN IGME estimation strategy**



Note: FBH: full birth histories; SBH: summary birth histories; HH: household deaths; SSH: sibling survival history

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, 2022).

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 <https://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 over time and uses empirical data from each country to produce comparable estimates, i.e., country values for the same reference year are produced using a common method. Applying a consistent methodology allows for comparisons between countries and over time, 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. Many low- and middle-income countries, however, do not have well-functioning vital registration systems. Therefore, household surveys such as the UNICEF-supported Multiple Indicator Cluster Surveys (MICS), the USAID-supported Demographic and Health Surveys (DHS), 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 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, available at <https://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 24 new surveys or censuses were added for 23 countries and data from vital registration systems or sample vital registration systems were added or updated for 140 countries. In total, more than 8,000 country-year data points from about 310 series were added or updated. The database, as of January 2024, contains over 20,400 country-year data points from more than 2,300 series across 200 countries from 1990 (or earlier, back to 1911) to 2022. The database for mortality among older children and young adolescents aged 5–14 years contains more than 7,400 data points and the database for mortality among older adolescents and youth aged 15–24 years contains more than 7,200 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 older children and young adolescents aged 5–14 years (the probability a 5-year-old would die before reaching age 15, expressed per 1,000 children aged 5 years) and mortality rates among older adolescents and youth aged 15–24 years (the probability a 15-year-old would die before reaching age 25, expressed per 1,000 adolescents aged 15 years) are derived from a standard period abridged life table using the age-specific deaths and mid-year 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 older children and young adolescents aged 5–14 years, deaths and mid-year 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 the ${}_5q_0$ (${}_5q_0$ = U5MR/1,000) or ${}_1q_0$ (${}_1q_0$ = 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(${}_5q_0$ /lb) or similarly sqrt(${}_1q_0$/lb), where lb is the number of live births in the year of the observation.[32] 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, adolescents 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'[33] 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.[34] 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.[35] 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 come 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 DHS and increasingly, by MICS 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 five-year periods before the survey; that is, 0 to 4, 5 to 9, and 10 to 14.[36, 37, 38] The UN IGME recalculates 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.[39]

Mortality estimates of older children and young adolescents 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-years 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.[40] SBH data are not used to derive neonatal mortality or mortality among older children and young adolescents aged 5–14 years.

Mortality estimates of older adolescents and 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. SSH have been used extensively to model adult mortality in countries lacking vital registration and to monitor trends in maternal mortality.[41, 42, 43] 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 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.[44] The adjustment method also incorporates the impact of antiretroviral therapies and prevention of mother-to-child transmission.[45] This method was applied to all direct estimates from FBHs. 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 $_{10}q_5$. 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 may yield widely divergent estimates of U5MR for a given period, as illustrated in Figure 18. 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 common reference year – in this case, 2022. This method is described in the following section.

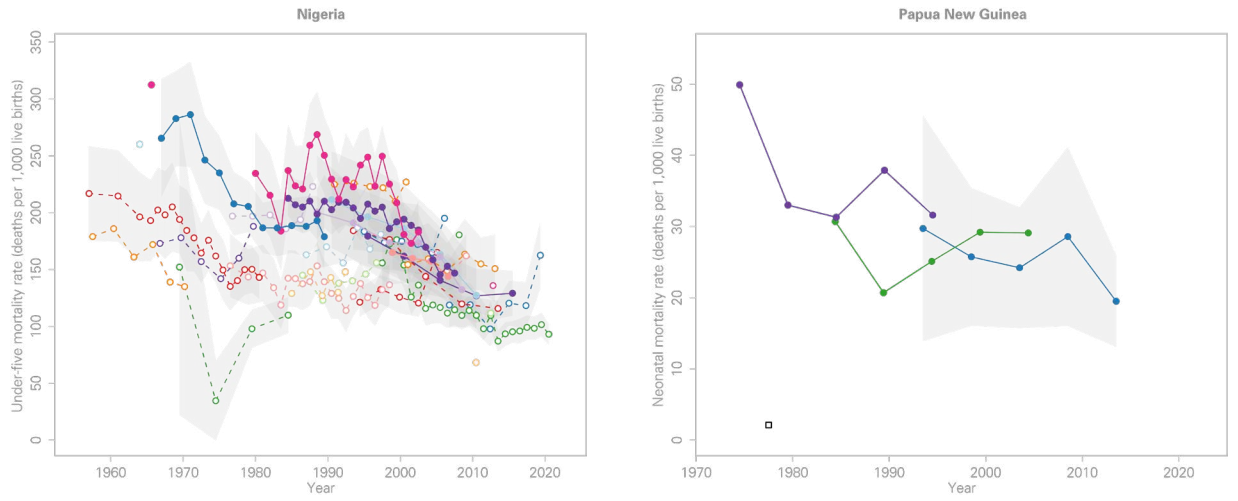
Estimation of U5MRs

Estimation and projection of U5MRs 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 round published in 2023.[46, 47]

In the B3 model, log(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., observed U5MR = true U5MR * error multiplier, or on the log scale, log(observed U5MR) = log(true U5MR) + log(error multiplier). The error multiplier refers to the relative difference between an observation and the truth, with error multiplier equal to 1 (and log(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., DHS 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

FIGURE 18 **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 points 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.

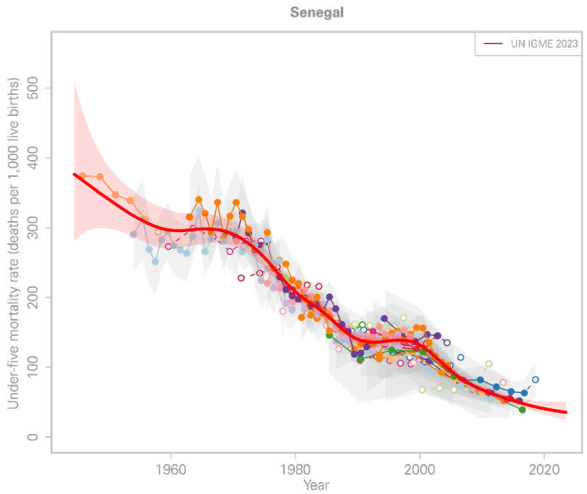
with overlapping observation periods). These properties are summarized in the data model. When estimating the U5MR, the data model adjusts for errors in observations – including the average systematic biases associated with different types of data sources – using information on data quality for different source types from all countries.

Figure 19 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,[48] 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.

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.[32, 47]

FIGURE 19 **Empirical under-five mortality data and estimates from the B3 model for Senegal**



Note: The B3 estimates are in red. Ninety per cent uncertainty intervals for the U5MR are given by the pink bands. All data available for the country are shown as coloured points, with observations from the same data series joined by lines. Solid points and lines represent data series/observations that were included for curve-fitting. 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.

Estimation of IMRs

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 used). 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., $\log(r/1\text{-}r)$ 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 using model life tables that contain known regularities in age patterns of child mortality.[49] 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, the Niger and Senegal) the relationship between infant and child mortality from model life tables does not apply, 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. The Joint United Nations Programme on 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 mortality[50] to adjust the data points from 1980 onwards to exclude HIV/AIDS deaths;
4. Fit the standard statistical model to the HIV-free data points;
5. Extrapolate the model to the target year; in this case, 2022;
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 U5MRs and IMRs by sex

In many countries, fewer sources have provided data by sex than for both sexes combined. For this reason, rather than estimating U5MR trends by sex directly from reported mortality levels by sex, the UN IGME uses the available data by sex to estimate a time trend in the sex ratio (male/female ratio) of infant mortality and mortality for children aged 1–4 years (child mortality, or CMR).[51] Estimates of the sex ratio of under-five mortality are obtained from estimates of the sex ratios of infant and child mortality. The sex ratios for infant and child mortality are the product of an expected sex ratio for a given year t and country c, $W(c,t)$, based on the level of U5MR and a country-year multiplier, $P(c,t)$, which is informed by data and represents the relative advantage or disadvantage of infant girls to boys compared to other countries at similar levels of infant mortality. 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.[52]

Estimation of NMRs

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.[53]

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 NMR. 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 older children and young adolescents aged 5–14 years and older adolescents and youth aged 15–24 years

Since 2017, the UN IGME has generated country-specific trend estimates of the mortality in older children and young adolescents aged 5–14 years – that is, the probability a 5-year-old would die before reaching age 15 ($_{10}q_5$). Since 2020, the UN IGME has also generated estimates of the mortality in older adolescents and 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 5-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 35 countries and $_{10}q_{15}$ in 40 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(U5MR) and the coefficients of this regression were used to predict the probability $_{10}q_5$ and $_{10}q_{15}$ between 1990 and 2022 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.[54]

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 FBH from surveys tend to slightly underestimate mortality in the age group 5–14 when compared to other data series. SSH 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 mortality rates among older children and young adolescents aged 5–14 years and older adolescents and youth aged 15–24 years by sex

For the first time in 2022, the UN IGME produced estimates of mortality in older children and young adolescents aged 5–14 and older adolescents and youth aged 15–24 by sex. The estimation model builds upon the main model structure of the sex ratio for IMR, CMR and U5MR but with reconsideration of model choices. In particular, the expected sex ratio (denoted as $W(c,t)$), is modelled with a second-order random walk (RW2) model instead of a B-splines model. The within-country fluctuation time series $P(c,t)$ is modelled with a first-order random walk (RW1) model rather than an AR(1) model. Furthermore, the statistical computing is carried out using integrated nested Laplace approximations

(INLA) instead of Markov chain Monte Carlo. A more complete technical description of the model is available elsewhere.[55]

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.[56] Conflict death data were taken from the Uppsala Conflict Data Program/Peace Research Institute Oslo datasets,[57, 58] Armed Conflict Location & Event Data Project,[59] Center for Systemic Peace/Integrated Network for Societal Conflict Research dataset,[60] as well as from reports prepared by the United Nations and other organizations.

For crises where deaths were adequately recorded in death registration data, age-specific deaths were obtained directly from the data. For many countries, age- and sex-specific data on crisis deaths are not available. The UN IGME undertook a comprehensive analysis of more than 1,000 articles and books on crisis mortality compiled over the years by WHO and the United Nations Department of Economic and Social Affairs, Population Division, to identify studies and datasets with age patterns for crisis deaths. Additionally, death registration data in the WHO Mortality Database, the Human Mortality Database, DHS, MICS and World Fertility Surveys for the period 1960 to 2017 were analysed for regions and years determined to have experienced crisis events. From these sources, information on age- and sex-specific distributions was obtained for 174 events: 51 conflicts, 32 earthquakes, 35 famines, 30 epidemics, 10 floods, 9 tsunamis, 4 genocides and 3 cyclones. These data were analysed to prepare age- and sex-specific distributions by five-year age groups and for more detailed age groups under 5 for each of the event types as described in a working paper released in 2023.[61]

Estimated child, adolescent 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 older children and young adolescents aged 5–14 years or crisis deaths among older adolescents and 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 old, or among those 5–14 or 15–24 years old was > 10 deaths.

These criteria resulted in 51 different crises for 40 countries explicitly incorporated into UN IGME estimates for under-five mortality, 71 different crises for 55 countries incorporated into the mortality estimates among older children and young adolescents aged 5–14 years, and 74 different crises for 50 countries incorporated into the mortality estimates among older adolescents and youth 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 did 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 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 two countries: South Sudan and Venezuela (Bolivarian Republic of). 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 2022. 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.

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 *World Population Prospects 2022*[62] is used to calculate the number of deaths.

Deaths among older children and young adolescents aged 5–14 years and older adolescents 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 *World Population Prospects 2022*[62] 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 2023 UN IGME estimates do not include any adjustment in the years 2020, 2021 or 2022 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, a UN IGME analysis of excess mortality using empirical data on deaths from CRVS and HMIS found no evidence of systematic excess mortality among children, adolescents or youth in 2020, 2021 or 2022 (see Annex II: Excess mortality analysis). 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 the pandemic continues to evolve in unpredictable ways. Thus, the UN IGME will continue to collect data for assessing excess deaths, revisiting this issue and generating adjustments where applicable and as needed based on evidence as it becomes available.

Annex II: Excess mortality analysis

Children, adolescents and youth, especially in low- and middle-income countries, may be at increased risk of indirect death or ill health due to discontinuity in service and interventions, overworked health-care systems or economic contractions – among other disruptions – stemming from pandemic restrictions. Using all-cause mortality data by age, the UN IGME conducted an excess mortality analysis to determine the necessity for any adjustment to estimates for the pandemic years 2020, 2021 and 2022.

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. By using all-cause mortality data, this analysis should capture any excess mortality, whether it results from direct or indirect mortality.

Data

To calculate the possible excess mortality in all age groups of interest – neonatal, infant (under 1 year), under-five and 5–24 – the UN IGME undertook an analysis of empirical national and subnational data (i.e., observed number of deaths) derived from CRVS systems and HMIS.

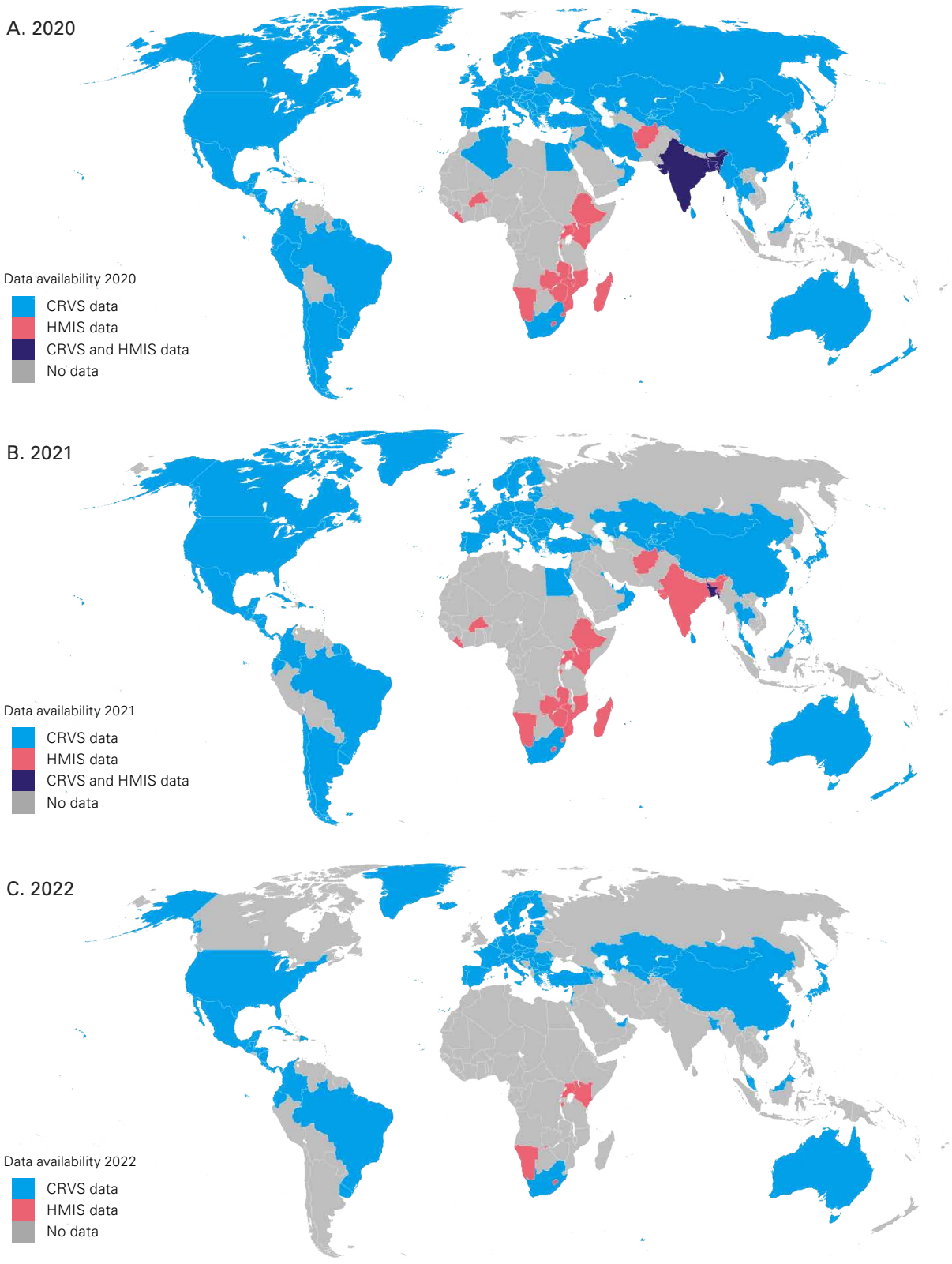
For the analysis of excess mortality from CRVS data in 2020, 2021 and 2022, death counts for countries or areas by age group and year between 2015 and 2022 were retrieved from various sources (WHO; the United Nations Department of Economic and Social Affairs, Population Division; the United Nations Economic Commission for Latin America and the Caribbean, Population Division; Eurostat;[63] the Short-Term Mortality Fluctuations data series;[64] Human Mortality Database;[65] country-specific statistical offices and ministries of health offices; and data reported directly to the UN IGME during the country-consultation process). Additionally, data were obtained from 17 countries' HMIS (Afghanistan, Bangladesh, Burkina Faso, Burundi, Eswatini, Ethiopia, India, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mozambique, Namibia, Uganda, Zambia and Zimbabwe) and from the Countrywide Mortality Surveillance for Action system in Mozambique.

The final dataset contained data on observed numbers of deaths for more than 144 countries or areas (including 130 countries for which the UN IGME produces annual estimates) for 2020, 131 countries or areas (including 115 countries for which the UN IGME produces annual estimates) for 2021, and 76 countries or areas (including 74 countries for which the UN IGME produces annual estimates) for 2022 (see Map 9).

These countries or areas accounted for 66 per cent of global live births in 2020, 60 per cent in 2021 and 29 per cent in 2022. Additionally, these countries or areas accounted for about 43 per cent of under-five deaths in 2020, about 39 per cent in 2021, and about 11 per cent in 2022. Of the 40 countries with the highest burden of under-five deaths in 2020, 20 had data available for this analysis – including Brazil, China, Ethiopia, India, Mexico and South Africa. For 2021, 17 of the 40 top-burden countries had data available for the excess mortality analysis, and for 2022, 10 of the 40 top-burden countries had data. Just over half of the countries in the UN IGME excess mortality analysis are classified as low or middle income.

Death counts were 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) were available in a subset of countries. In populations where data configuration did not allow for estimates of infant mortality, mortality was analysed for the full age interval 0–4.

MAP 9 **Countries with data included in the excess mortality analysis, by data source type, 2020–2022**



Note: These maps do not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

Excess mortality analysis for 2020, 2021 and 2022

Excess mortality is defined as the difference between the observed and expected all-cause mortality (also denoted as the baseline mortality) in a given period. 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:

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

where $deaths^{c}_{x,s,t}$ and $exposure^{c}_{x,s,t}$ 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 2022, were obtained from the *World Population Prospects 2022* 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 were retrieved from the Short-Term Fertility Fluctuations data series[66] and statistical offices.

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 ($deaths^{c}_{x,s,t} \Big/ baseline^{c}_{x,s,t}$), were computed for each age and sex.

For data from HMIS systems, trends and excess 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) for 2020, 2021 and 2022. 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:

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

where $deaths^{c}_{x,s,t}$ and $exposure^{c}_{x,s,t}$ indicate, respectively, tne 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 *cps(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 death rates, we used monthly live births as exposures. The monthly baselines 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. The model employed for infant and child mortality, however, 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 System site in Kenya were also analysed in a manner similar to that described above and found no evidence of increased under-five or neonatal mortality in 2020.

Results

When the uncertainty in the expected number of deaths is considered, only 4 per cent (4) of countries with CRVS data showed significant, positive excess for under-five mortality in 2020, 13 per cent (11) in 2021 and 18 per cent (11) in 2022 (see Figure 20). About 74 per cent (70) of countries showed no significant deviation from the expected number of under-five deaths in 2020 and 22 per cent (21) showed significantly fewer deaths than would be expected based on historical data. In 2021, about 69 per cent (61) of countries showed no significant deviation from the expected number of deaths and 18 per cent (16) showed significantly fewer deaths than expected. Similarly, in 2022, about 74 per cent (46) of countries showed no significant deviation from the expected number of deaths and 8 per cent (5) showed significantly fewer deaths than expected.

In 2020, the proportion of countries with significant excess mortality is relatively small across all age groups, while in 2021 and 2022 the proportion is larger and increases with age, peaking at 27 per cent (22) of all countries in the 20–24 age group in 2021 and 26 per cent (15) of all countries in the 20–24 age group in 2022. For the age group 0–4, the proportion is 13 per cent (11) of all countries in 2021 and 18 per cent (11) in 2022. While most countries show no significant deviation from the expected number of deaths, the higher proportion in the years 2021 and 2022 is an area of concern for future analysis when more data are available for the pandemic years.

While the analysis of CRVS data is a useful exercise in determining the extent of possible excess mortality, these data disproportionately represent high-income countries, which may differ in their mortality experience of the pandemic compared to low- or middle-income countries. The UN IGME analysed monthly data on births and neonatal, infant and under-five deaths from 17 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 largely confirmed the results of the CRVS analysis.

Conclusion

Based on the available data for 2020, 2021 and 2022, there is a lack of evidence showing widespread, significant excess mortality among children, adolescents and youth. While it is encouraging to find a similar result in this updated analysis, the limited, incomplete and non-representative nature of the data – especially for 2022 – along with the changing nature of the pandemic mean these results must be interpreted with caution.

FIGURE 20 **Proportion of countries with significant excess mortality in CRVS data for 2020, 2021 and 2022**

Note: The number of countries in each category is shown in parentheses. Not all countries had age-specific data available for all age groups, and countries that are not among the 200 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.

Data for 2022 for excess mortality analysis are largely incomplete and unavailable for most countries – even those with well-functioning CRVS systems – and data that are available are limited in their disaggregation by age and sex, hindering a complete understanding of age-specific excess deaths. Data tend to be most sparse in low-income countries, where intervention disruption may have the greatest impact on child survival. Likewise, most of the data for this analysis refer to the national level, possibly masking subnational trends by geographic area or household income, which may differ substantially from national aggregates. Furthermore, the baseline calculated from data in the years 2015–2019 may become a less accurate measure of baseline mortality the further one gets from that period, e.g., mortality for the year 2022.

In addition to data limitations, one should apply caution in interpretation of these results since future pandemic years may be dissimilar to those already observed due to changing conditions of the pandemic itself; indeed, data for 2021 and 2022 have differed in some ways from those for 2020. There were increases in several age groups of the proportion of countries showing significant positive excess in 2022. Furthermore, since 2021, several countries saw a rebound to expected mortality levels as COVID-19 measures loosened, dampening some protective effects seen in 2020 and possibly arising from limited exposure to infectious diseases, air pollution or road traffic injuries. While different in some notable ways that will require further analysis, 2021 and 2022 did not have widespread significant excess mortality in children, adolescents and youth based on the data compiled.

Considering the data limitations just described particularly for the year 2022, continued monitoring of excess mortality in children, adolescents and youth will be crucial in the short and long term to detect any impact and to take required action. With rapidly changing pandemic conditions, it is not only important to quickly adapt to these changes so as to maintain essential services for women and children, but also to urgently expand and strengthen data systems for monitoring and reacting to changes caused by outbreaks and pandemics.

Annex III: Annual rates of reduction by SDG region for countries with data in the recent period

FIGURE 21 **Observed annual rates of reduction during the MDG era (2000–2015) and SDG era (2015–2022), and required regional annual rates of reduction for all countries in the region to meet the SDG targets (2022–2030), by Sustainable Development Goal region, including only countries with at least two included data points in the 2015–2022 period**

Note: Observed annual rates of reduction are shown with vertical bars representing the 90 per cent uncertainty interval.
There were 124 countries included in the calculation, covering 71 per cent of the global under-five population. These countries accounted for more than 70 per cent of the under-five population in most regions, except for sub-Saharan Africa (22 countries included out of 48, covering 45 per cent of the under-five population) and Northern Africa and Western Asia (15 countries included out of 24, covering 37 per cent of the under-five population). In Oceania (exc. Australia and New Zealand), only one country out of 14 had data available, covering only 6 per cent of the under-five population, and is therefore not shown.
The required ARR was derived based on the assumption that all countries in the region need to achieve the SDG target by 2030. If countries have already reached the target or are on track to do so before 2030, they should continue the observed 2015 to 2022 trend (as measured by ARR). Europe and Northern America and Australia and New Zealand do not have a required ARR because all countries in these regions already achieved the SDG target by 2022. The observed ARR in the U5MR for included countries in Central Asia was 7.6 per cent in 2000–2015 and 4.7 per cent in 2015–2022; in Southern Asia, it was 4.2 per cent in 2000–2015 and 4.6 per cent in 2015–2022. The required ARR to meet the SDG target on under-five mortality is 4.6 per cent for Central Asia and 7.3 per cent for Southern Asia. The observed ARR in the NMR for included countries in Central Asia was 6.6 per cent in 2000–2015 and 4.4 per cent in 2015–2022; in Southern Asia, it was 3.0 per cent in 2000–2015 and 3.9 per cent in 2015–2022. The required ARR to meet the SDG target on neonatal mortality is 4.3 per cent for Central Asia and 7.9 per cent for Southern Asia.

Notes

1. The 90 per cent uncertainty range for the number of under-five deaths in 2022 spans from 4.6 million to 5.4 million. This means the true number of under-five deaths could be much higher or lower than 4.9 million.

2. Deaths are rounded to millions. Thus, rounded age-specific deaths for smaller age groups may not sum to the rounded deaths from a larger age group that contains the smaller groups, e.g., the rounded deaths for the neonatal and 1–59-months age groups may not sum exactly to the rounded deaths for the larger under-five age group.

3. United Nations Inter-agency Group for Child Mortality Estimation, *Never Forgotten: The situation of stillbirth around the globe – Report of the United Nations Inter-agency Group for Child Mortality Estimation, 2022*, United Nations Children's Fund, New York, 2023.

4. Geographic regions in this report are based on the United Nations Statistics Division (UNSD) Sustainable Development Goal regional classification, see <https://unstats.un.org/unsd/methodology/m49>. Any differences from UNSD's spelling and capitalization are meant to comply with the UNICEF style guide.

5. Sustainable Development Goals, United Nations, New York, 2015, <https://sdgs.un.org>.

6. World Bank Group, 'World Bank Country and Lending Groups', World Bank Group, Washington, D.C., <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>, accessed 26 February 2024.

7. Values in parentheses indicate 90 per cent uncertainty intervals for the estimates.

8. The under-five mortality rate is the probability a newborn would die before reaching age 5 years, expressed as deaths per 1,000 live births.

9. The neonatal mortality rate is the probability a newborn would die before reaching age 28 days, expressed as deaths per 1,000 live births.

10. The 1–59-months target of 13.15789 deaths per 1,000 children aged 28 days is determined using the SDG U5MR and NMR target values of 25 deaths and 12 deaths per 1,000 live births, respectively, in the following formula: 1–59-months rate (per 1,000) = 1,000*(1-(1,000-25)/(1,000-12)). The target is rounded to 13 in the text but calculations as to number of countries achieving or on track to meet this target rate are performed using the rate with digits shown above. See also World Health Organization, Acceleration towards the Sustainable Development Goal Targets for Maternal Health and Child Mortality: Report by the Director-General, EB154/12, WHO, Geneva, 20 December 2023.

11. All calculations are based on unrounded rates and deaths.

12. The neonatal mortality rate is the probability a newborn would die before reaching age 28 days, expressed as deaths per 1,000 live births. The mortality rate for children aged 1–11 months is the probability a 28-day-old would die before reaching age 1 year, expressed as deaths per 1,000 children aged 28 days. The mortality rate for children aged 1–4 years is the probability a 1-year-old would die before reaching age 5 years, expressed as deaths per 1,000 children aged 1 year. The under-five mortality rate is the probability a newborn would die before reaching age 5 years, expressed as deaths per 1,000 live births. The mortality rate for children aged 5–9 years is the probability a 5-year-old would die before reaching age 10 years, expressed as deaths per 1,000 children aged 5 years. The mortality rate for adolescents aged 10–14 years is the probability a 10-year-old would die before reaching age 15 years, expressed as deaths per 1,000 adolescents aged 10 years. The mortality rate for adolescents aged 15–19 years is the probability a 15-year-old would die before reaching age 20 years, expressed as deaths per 1,000 adolescents aged 15 years. The mortality rate for youth aged 20–24 years is the probability a 20-year-old would die before reaching age 25 years, expressed as deaths per 1,000 youth aged 20 years.

13. Rates greater than 10 are rounded to zero digits, and rates below 10 are rounded to one digit. Unrounded rates are available at <https://childmortality.org>.

14. World Bank Group, 'Classification of Fragile and Conflict-Affected Situations', World Bank Group, Washington, D.C., 10 July 2023, <www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>, accessed 26 February 2024.

15. Villavicencio, Francisco, et al., 'Global, Regional, and National Causes of Death in Children and Adolescents Younger than 20 Years: An open data portal with estimates for 2000–21', *Lancet Global Health*, vol. 12, no. 1, January 2024, e16–e17.

16. Cause of death analysis is based on preliminary estimates produced in February 2024 by applying cause fractions from the Child and Adolescent Causes of Death Estimation project (2023, see 17) for the years 2000–2021 to UN IGME estimates for the years 2000–2022.

17. The ARR in the mortality rates is defined as: ARR=log(mortality ratet2/mortality ratet1) / (t1 – t2), where t1 and t2 refer to different years with t1 < t2.

18. The ARR from 2015–2022 is used to project mortality rates at the country level from 2023–2030, with the neonatal mortality rate constrained so as not to exceed the under-five mortality rate. If a country had a negative ARR in 2015–2022 (i.e., an increase in mortality rates in 2015–2022), the rate was held constant at the estimated 2022 value. If a country reached the current lowest observed mortality level among countries with more than 10,000 live births during the projection period, the mortality rate was held constant at that lowest observed level for the remainder of the projection period. Regional aggregates were calculated based on the projected country-level estimates. Crisis mortality was removed from the estimates for the calculation of the ARR.

19. While it is not advisable to compare different rounds of UN IGME estimates, one may notice a small increase in the number of countries off track to meet the SDG target between this year's report and last year's report. Most of these changes are data driven, i.e., new data became available since the last revision, changing the country estimates. But it should also be noted the 'current trends' period was updated for this report to be the period 2015–2022, while the 2022 edition of this report used a starting year of 2010 for the 'current trends' ARR. This change in start year for the 'current trends' ARR may also impact off/on track status if the country trend 2015–2022 differs from the trend 2010–2022.

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STATISTICAL TABLE

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

Country	Under-five mortality rate (U5MR) with 90 per cent uncertainty interval (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
	1990	2000	2022	1990–2022	1990	2000	2022	Male	Female	Male	Female
Afghanistan	181 (166 - 198)	132 (122 - 142)	58 (46 - 74)	3.6 (2.8 - 4.4)	98 (90 - 107)	125 (116 - 135)	82 (65 - 105)	185 (169 - 203)	177 (161 - 194)	61 (48 - 79)	54 (42 - 69)
Albania	41 (36 - 46)	27 (25 - 30)	9 (9 - 10)	4.6 (4.1 - 5.1)	3 (3 - 4)	2 (1 - 2)	0 (0 - 0)	45 (40 - 51)	36 (32 - 41)	10 (9 - 11)	9 (8 - 10)
Algeria	51 (47 - 55)	42 (39 - 44)	22 (19 - 25)	2.7 (2.1 - 3.2)	41 (38 - 44)	25 (24 - 27)	20 (18 - 24)	55 (51 - 59)	47 (43 - 50)	23 (20 - 27)	20 (17 - 24)
Andorra	13 (3 - 50)	8 (4 - 15)	3 (1 - 11)	4.9 (-2.5 - 12.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	15 (4 - 58)	10 (3 - 41)	3 (1 - 12)	2 (1 - 9)
Angola	224 (199 - 252)	203 (178 - 232)	67 (28 - 134)	3.8 (1.6 - 6.5)	128 (114 - 144)	150 (132 - 171)	88 (38 - 176)	235 (208 - 265)	212 (188 - 239)	72 (31 - 146)	61 (26 - 123)
Anguilla	19 (13 - 28)	12 (8 - 17)	6 (3 - 12)	3.7 (1.1 - 6.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	20 (14 - 28)	18 (13 - 27)	6 (3 - 12)	6 (3 - 12)
Antigua and Barbuda	13 (12 - 15)	15 (13 - 17)	10 (7 - 13)	1.1 (0.1 - 2.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	15 (13 - 17)	12 (11 - 14)	10 (8 - 14)	9 (6 - 12)
Argentina	29 (28 - 29)	19 (19 - 20)	9 (8 - 11)	3.5 (3.1 - 3.9)	20 (20 - 21)	14 (14 - 14)	6 (5 - 7)	32 (31 - 32)	26 (25 - 26)	10 (9 - 12)	9 (8 - 10)
Armenia	49 (44 - 54)	31 (28 - 34)	10 (8 - 13)	4.9 (4.1 - 5.7)	4 (4 - 5)	1 (1 - 1)	0 (0 - 0)	54 (48 - 60)	44 (39 - 49)	11 (9 - 14)	9 (7 - 12)
Australia	9 (9 - 9)	6 (6 - 6)	4 (4 - 4)	2.8 (2.7 - 2.9)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	10 (10 - 11)	8 (8 - 8)	4 (4 - 4)	3 (3 - 4)
Austria	10 (9 - 10)	5 (5 - 6)	3 (3 - 3)	3.4 (3.2 - 3.7)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	11 (10 - 11)	8 (8 - 9)	3 (3 - 4)	3 (3 - 3)
Azerbaijan	95 (86 - 105)	75 (66 - 84)	18 (10 - 31)	5.2 (3.5 - 7)	20 (18 - 22)	11 (10 - 12)	2 (1 - 4)	101 (91 - 112)	89 (80 - 99)	20 (11 - 34)	16 (9 - 28)
Bahamas	24 (22 - 25)	16 (15 - 17)	13 (11 - 16)	1.9 (1.3 - 2.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	25 (24 - 27)	22 (20 - 23)	14 (11 - 17)	12 (10 - 14)
Bahrain	23 (22 - 24)	12 (12 - 13)	7 (5 - 8)	3.9 (3.4 - 4.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	24 (23 - 25)	22 (21 - 23)	7 (6 - 8)	6 (5 - 8)
Bangladesh	146 (141 - 151)	86 (83 - 89)	29 (28 - 30)	5.1 (4.9 - 5.2)	545 (528 - 563)	316 (306 - 326)	86 (83 - 90)	149 (144 - 155)	142 (137 - 148)	31 (29 - 32)	27 (25 - 28)
Barbados	18 (17 - 19)	15 (14 - 16)	11 (7 - 17)	1.6 (0.2 - 3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	20 (18 - 21)	16 (15 - 18)	12 (7 - 19)	10 (6 - 16)
Belarus	15 (15 - 16)	13 (12 - 13)	3 (2 - 3)	5.6 (5 - 6.1)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	17 (17 - 18)	13 (13 - 13)	3 (2 - 3)	2 (2 - 3)
Belgium	10 (10 - 10)	6 (6 - 6)	4 (3 - 4)	3.1 (2.9 - 3.4)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	11 (11 - 12)	9 (8 - 9)	4 (4 - 4)	3 (3 - 4)
Belize	39 (34 - 44)	24 (23 - 26)	11 (10 - 12)	4 (3.5 - 4.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	43 (38 - 49)	35 (31 - 40)	12 (11 - 13)	10 (9 - 11)
Benin	172 (162 - 183)	136 (128 - 145)	81 (63 - 102)	2.4 (1.6 - 3.1)	38 (36 - 41)	38 (36 - 41)	38 (30 - 48)	179 (168 - 191)	165 (155 - 176)	87 (68 - 110)	75 (59 - 95)
Bhutan	129 (111 - 151)	79 (70 - 88)	24 (13 - 43)	5.3 (3.4 - 7.2)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	133 (115 - 157)	124 (107 - 146)	26 (14 - 46)	21 (12 - 39)
Bolivia (Plurinational State of)	122 (115 - 129)	76 (71 - 81)	24 (16 - 35)	5.1 (3.9 - 6.3)	30 (29 - 32)	19 (18 - 20)	6 (4 - 9)	128 (120 - 135)	115 (109 - 122)	26 (18 - 38)	21 (15 - 32)
Bosnia and Herzegovina	18 (18 - 19)	10 (9 - 10)	6 (5 - 7)	3.4 (3.1 - 3.8)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	20 (20 - 21)	16 (16 - 17)	7 (6 - 7)	5 (5 - 6)
Botswana	49 (41 - 60)	78 (61 - 102)	39 (14 - 113)	0.7 (-2.6 - 4.1)	2 (2 - 3)	4 (3 - 5)	2 (1 - 7)	54 (44 - 65)	45 (37 - 55)	42 (15 - 123)	35 (12 - 103)
Brazil	63 (59 - 68)	35 (32 - 37)	14 (12 - 16)	4.7 (4.2 - 5.2)	237 (221 - 255)	122 (114 - 130)	39 (34 - 44)	69 (64 - 74)	57 (53 - 62)	16 (14 - 18)	12 (11 - 14)
British Virgin Islands	23 (19 - 27)	17 (14 - 20)	13 (7 - 24)	1.8 (-0.2 - 3.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	26 (21 - 30)	20 (17 - 24)	13 (7 - 24)	13 (7 - 23)
Brunei Darussalam	13 (12 - 14)	10 (10 - 11)	10 (9 - 11)	0.9 (0.5 - 1.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	14 (13 - 15)	12 (11 - 13)	10 (9 - 12)	9 (8 - 10)
Bulgaria	18 (18 - 19)	18 (17 - 18)	6 (6 - 7)	3.4 (3.2 - 3.7)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	21 (20 - 21)	16 (16 - 17)	7 (6 - 7)	6 (5 - 6)
Burkina Faso	198 (185 - 212)	178 (166 - 191)	79 (52 - 119)	2.9 (1.6 - 4.2)	81 (76 - 87)	91 (85 - 97)	61 (41 - 93)	205 (191 - 220)	190 (177 - 204)	83 (55 - 127)	74 (49 - 112)
Burundi	170 (153 - 189)	154 (139 - 170)	50 (30 - 84)	3.8 (2.2 - 5.5)	42 (38 - 47)	40 (36 - 44)	22 (13 - 36)	178 (160 - 198)	162 (145 - 180)	55 (32 - 91)	46 (27 - 77)
Cabo Verde	59 (57 - 61)	34 (33 - 35)	12 (11 - 14)	4.9 (4.6 - 5.2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	63 (60 - 65)	55 (52 - 57)	13 (12 - 15)	11 (10 - 12)
Cambodia	116 (107 - 125)	106 (97 - 116)	24 (11 - 50)	5 (2.6 - 7.3)	45 (42 - 49)	36 (33 - 39)	8 (4 - 16)	124 (114 - 134)	108 (99 - 117)	26 (12 - 55)	21 (10 - 44)
Cameroon	137 (127 - 147)	145 (134 - 156)	70 (54 - 92)	2.1 (1.2 - 2.9)	66 (61 - 71)	86 (80 - 93)	66 (50 - 86)	145 (134 - 156)	128 (119 - 139)	75 (58 - 99)	64 (49 - 84)
Canada	8 (8 - 8)	6 (6 - 6)	5 (5 - 5)	1.6 (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 (159 - 196)	165 (150 - 183)	97 (74 - 126)	1.9 (1 - 2.8)	22 (20 - 24)	26 (23 - 28)	22 (17 - 29)	185 (166 - 205)	168 (152 - 187)	103 (79 - 135)	90 (69 - 117)
Chad	212 (196 - 229)	184 (170 - 199)	103 (70 - 150)	2.3 (1.1 - 3.5)	60 (55 - 64)	74 (68 - 80)	75 (52 - 110)	222 (204 - 239)	202 (186 - 218)	109 (75 - 160)	96 (66 - 140)
Chile	19 (19 - 20)	11 (11 - 11)	6 (5 - 8)	3.5 (2.7 - 4.2)	6 (5 - 6)	3 (3 - 3)	1 (1 - 2)	21 (20 - 21)	17 (17 - 18)	7 (5 - 9)	6 (5 - 7)
China	54 (50 - 58)	37 (35 - 39)	7 (6 - 7)	6.6 (6.1 - 7)	1,467 (1,355 - 1,594)	626 (592 - 664)	77 (70 - 86)	56 (51 - 61)	52 (47 - 56)	7 (6 - 8)	6 (6 - 7)
Colombia	36 (33 - 38)	25 (23 - 27)	12 (8 - 19)	3.3 (1.9 - 4.7)	31 (29 - 34)	22 (20 - 24)	9 (6 - 14)	39 (37 - 43)	32 (29 - 34)	14 (9 - 21)	11 (7 - 17)
Comoros	126 (113 - 141)	96 (82 - 113)	48 (35 - 67)	3 (1.9 - 4)	2 (2 - 2)	2 (2 - 2)	1 (1 - 2)	132 (117 - 148)	120 (107 - 135)	51 (37 - 71)	45 (33 - 63)
Congo	91 (80 - 103)	113 (102 - 126)	42 (23 - 78)	2.4 (0.4 - 4.4)	8 (7 - 9)	13 (11 - 14)	7 (4 - 14)	97 (85 - 110)	85 (75 - 97)	45 (25 - 85)	38 (21 - 71)

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

Country	Infant mortality rate (deaths per 1,000 live births) 1990	Infant mortality rate (deaths per 1,000 live births) 2022	Number of infant deaths (thousands)[a] 1990	Number of infant deaths (thousands)[a] 2022	Neonatal mortality rate (deaths per 1,000 live births) 1990	Neonatal mortality rate (deaths per 1,000 live births) 2000	Neonatal mortality rate (deaths per 1,000 live births) 2022	Annual rate of reduction (ARR) (per cent) 1990–2022	Number of neonatal deaths (thousands)[a] 1990	Number of neonatal deaths (thousands)[a] 2000	Number of neonatal deaths (thousands)[a] 2022
Afghanistan	123 (113 - 133)	45 (36 - 55)	67 (62 - 73)	64 (52 - 79)	76 (68 - 88)	63 (57 - 71)	35 (28 - 46)	2.4 (1.5 - 3.3)	43 (39 - 50)	62 (57 - 70)	51 (40 - 66)
Albania	35 (32 - 39)	8 (8 - 9)	3 (3 - 3)	0 (0 - 0)	13 (10 - 16)	12 (10 - 15)	7 (6 - 8)	1.8 (1 - 2.7)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Algeria	43 (40 - 46)	19 (16 - 22)	34 (32 - 36)	17 (15 - 20)	24 (22 - 27)	22 (20 - 25)	15 (13 - 18)	1.5 (0.8 - 2)	19 (17 - 21)	13 (12 - 15)	14 (12 - 17)
Andorra	9 (2 - 36)	3 (1 - 10)	0 (0 - 0)	0 (0 - 0)	6 (2 - 25)	3 (2 - 7)	1 (0 - 5)	4.8 (-2.8 - 12.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Angola	132 (118 - 149)	46 (22 - 84)	77 (69 - 87)	61 (30 - 111)	54 (43 - 68)	50 (41 - 61)	26 (11 - 55)	2.3 (-0.2 - 5.2)	33 (26 - 41)	39 (32 - 48)	35 (14 - 74)
Anguilla	16 (11 - 23)	5 (3 - 11)	0 (0 - 0)	0 (0 - 0)	10 (7 - 16)	6 (4 - 10)	3 (1 - 7)	3.7 (0.9 - 6.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Antigua and Barbuda	11 (10 - 12)	8 (6 - 11)	0 (0 - 0)	0 (0 - 0)	8 (7 - 9)	10 (9 - 11)	5 (4 - 7)	1.3 (0.1 - 2.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Argentina	25 (25 - 26)	8 (7 - 10)	18 (18 - 18)	5 (5 - 6)	15 (14 - 15)	11 (10 - 11)	6 (5 - 7)	3 (2.6 - 3.4)	11 (10 - 11)	8 (7 - 8)	4 (3 - 4)
Armenia	42 (38 - 46)	9 (7 - 12)	3 (3 - 4)	0 (0 - 0)	23 (20 - 26)	16 (14 - 18)	5 (4 - 7)	4.5 (3.4 - 5.8)	2 (2 - 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)	2.1 (2 - 2.3)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)
Austria	8 (8 - 8)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	5 (4 - 5)	3 (3 - 3)	2 (2 - 2)	2.5 (2.2 - 2.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Azerbaijan	76 (69 - 83)	16 (9 - 27)	16 (15 - 18)	2 (1 - 3)	31 (26 - 38)	35 (29 - 42)	9 (5 - 16)	3.9 (1.8 - 6)	7 (5 - 8)	5 (4 - 6)	1 (1 - 2)
Bahamas	20 (19 - 21)	11 (9 - 13)	0 (0 - 0)	0 (0 - 0)	13 (12 - 14)	8 (7 - 8)	8 (6 - 10)	1.7 (0.9 - 2.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Bahrain	20 (19 - 20)	6 (5 - 7)	0 (0 - 0)	0 (0 - 0)	15 (14 - 16)	5 (4 - 5)	3 (2 - 4)	5.3 (4.4 - 6.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Bangladesh	101 (98 - 104)	24 (23 - 25)	375 (364 - 385)	72 (69 - 75)	66 (62 - 74)	44 (42 - 50)	17 (16 - 19)	4.2 (3.9 - 4.8)	248 (234 - 277)	166 (158 - 186)	52 (48 - 56)
Barbados	16 (15 - 17)	10 (6 - 16)	0 (0 - 0)	0 (0 - 0)	12 (11 - 13)	9 (8 - 10)	7 (4 - 12)	1.5 (0 - 3.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Belarus	12 (12 - 12)	2 (2 - 2)	2 (2 - 2)	0 (0 - 0)	10 (8 - 12)	5 (4 - 6)	1 (0 - 1)	7.8 (6.1 - 9.8)	1 (1 - 2)	1 (0 - 1)	0 (0 - 0)
Belgium	8 (8 - 9)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	5 (4 - 5)	3 (3 - 3)	2 (2 - 2)	2.3 (1.9 - 2.6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Belize	32 (28 - 36)	9 (8 - 11)	0 (0 - 0)	0 (0 - 0)	18 (15 - 22)	12 (11 - 13)	8 (7 - 10)	2.5 (1.7 - 3.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Benin	104 (99 - 110)	54 (44 - 66)	24 (22 - 25)	25 (21 - 31)	45 (40 - 50)	39 (35 - 43)	29 (22 - 38)	1.4 (0.6 - 2.3)	10 (9 - 12)	11 (10 - 13)	14 (10 - 18)
Bhutan	90 (79 - 104)	20 (11 - 34)	2 (2 - 2)	0 (0 - 0)	43 (31 - 56)	32 (26 - 39)	13 (7 - 25)	3.7 (1.4 - 6.1)	1 (1 - 1)	0 (0 - 1)	0 (0 - 0)
Bolivia (Plurinational State of)	84 (80 - 88)	20 (13 - 28)	21 (20 - 22)	5 (4 - 7)	41 (37 - 45)	30 (26 - 33)	13 (8 - 19)	3.7 (2.3 - 5)	10 (9 - 11)	8 (7 - 8)	3 (2 - 5)
Bosnia and Herzegovina	16 (16 - 17)	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	11 (10 - 12)	7 (6 - 7)	4 (4 - 5)	3 (2.5 - 3.3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Botswana	37 (31 - 44)	31 (12 - 79)	2 (1 - 2)	2 (1 - 5)	20 (16 - 25)	10 (8 - 13)	20 (7 - 59)	0 (-3.5 - 3.5)	1 (1 - 1)	1 (0 - 1)	1 (0 - 4)
Brazil	53 (49 - 56)	13 (11 - 14)	196 (185 - 209)	34 (30 - 39)	27 (24 - 30)	19 (17 - 21)	9 (7 - 10)	3.6 (3 - 4.2)	101 (90 - 114)	66 (59 - 73)	23 (20 - 27)
British Virgin Islands	19 (16 - 23)	12 (6 - 21)	0 (0 - 0)	0 (0 - 0)	12 (9 - 16)	9 (6 - 13)	7 (3 - 14)	1.8 (-0.4 - 4.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Brunei Darussalam	10 (10 - 11)	9 (8 - 10)	0 (0 - 0)	0 (0 - 0)	6 (5 - 6)	5 (4 - 5)	5 (4 - 6)	0.4 (-0.4 - 1.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Bulgaria	15 (14 - 15)	5 (5 - 5)	2 (2 - 2)	0 (0 - 0)	8 (7 - 8)	8 (7 - 8)	3 (2 - 3)	3.4 (3.1 - 3.7)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Burkina Faso	98 (93 - 104)	50 (37 - 67)	41 (39 - 43)	39 (29 - 53)	45 (40 - 52)	40 (35 - 46)	25 (14 - 41)	1.9 (0.3 - 3.6)	19 (17 - 22)	22 (19 - 25)	20 (11 - 32)
Burundi	103 (94 - 113)	36 (24 - 56)	26 (24 - 28)	16 (10 - 24)	40 (34 - 48)	37 (32 - 44)	20 (12 - 34)	2.2 (0.4 - 4)	10 (9 - 12)	10 (9 - 12)	9 (5 - 15)
Cabo Verde	45 (44 - 47)	11 (10 - 12)	1 (1 - 1)	0 (0 - 0)	19 (17 - 22)	17 (15 - 19)	9 (8 - 10)	2.5 (1.9 - 3.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Cambodia	85 (80 - 90)	20 (10 - 42)	33 (31 - 35)	6 (3 - 13)	41 (36 - 47)	35 (31 - 42)	12 (6 - 26)	3.8 (1.4 - 6.3)	16 (14 - 19)	12 (10 - 14)	4 (2 - 8)
Cameroon	85 (79 - 91)	47 (38 - 59)	42 (39 - 44)	44 (36 - 56)	41 (37 - 47)	36 (32 - 42)	26 (19 - 36)	1.4 (0.4 - 2.4)	21 (18 - 24)	22 (20 - 26)	25 (18 - 34)
Canada	7 (7 - 7)	4 (4 - 5)	3 (3 - 3)	2 (2 - 2)	4 (4 - 5)	4 (3 - 4)	3 (3 - 4)	0.8 (0.6 - 1)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)
Central African Republic	115 (107 - 124)	74 (59 - 90)	14 (13 - 16)	17 (14 - 21)	52 (44 - 61)	43 (37 - 52)	32 (22 - 44)	1.5 (0.4 - 2.8)	7 (6 - 8)	7 (6 - 8)	8 (5 - 10)
Chad	112 (105 - 119)	64 (49 - 85)	33 (31 - 35)	48 (36 - 63)	52 (45 - 59)	44 (38 - 50)	32 (20 - 49)	1.5 (0.1 - 3)	16 (14 - 18)	19 (16 - 21)	24 (15 - 38)
Chile	16 (16 - 16)	5 (4 - 7)	5 (5 - 5)	1 (1 - 2)	9 (8 - 9)	6 (5 - 6)	4 (3 - 5)	2.3 (1.4 - 3.2)	3 (2 - 3)	1 (1 - 1)	1 (1 - 1)
China	43 (39 - 46)	5 (4 - 5)	1,177 (1,086 - 1,278)	52 (47 - 57)	30 (26 - 33)	21 (19 - 23)	3 (3 - 3)	7.2 (6.5 - 7.8)	839 (745 - 942)	370 (335 - 402)	32 (28 - 37)
Colombia	29 (27 - 31)	11 (7 - 16)	26 (24 - 28)	8 (5 - 12)	18 (16 - 20)	13 (12 - 15)	7 (4 - 11)	3.1 (1.6 - 4.6)	16 (14 - 18)	12 (10 - 13)	5 (3 - 8)
Comoros	89 (80 - 98)	38 (29 - 51)	2 (1 - 2)	1 (1 - 1)	51 (42 - 60)	40 (26 - 55)	25 (12 - 41)	2.2 (0.5 - 4.6)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Congo	59 (53 - 66)	31 (18 - 52)	5 (5 - 6)	6 (3 - 9)	28 (24 - 34)	31 (27 - 37)	18 (10 - 34)	1.3 (-0.8 - 3.4)	3 (2 - 3)	4 (3 - 4)	3 (2 - 6)

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

Country	Under-five mortality rate (U5MR) with 90 per cent uncertainty interval (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
	1990	2000	2022	1990–2022	1990	2000	2022	Male	Female	Male	Female
Cook Islands	24 (21 - 26)	18 (16 - 20)	7 (4 - 13)	3.8 (1.9 - 5.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	25 (22 - 28)	23 (20 - 25)	7 (4 - 13)	7 (4 - 12)
Costa Rica	17 (17 - 17)	13 (13 - 13)	8 (7 - 8)	2.4 (2.3 - 2.6)	1 (1 - 1)	1 (1 - 1)	0 (0 - 1)	19 (18 - 19)	15 (15 - 15)	8 (8 - 9)	7 (7 - 8)
Croatia	13 (13 - 13)	8 (8 - 9)	5 (4 - 5)	3.2 (2.8 - 3.6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	15 (14 - 15)	11 (11 - 12)	5 (4 - 6)	4 (4 - 5)
Cuba	13 (12 - 15)	9 (8 - 10)	8 (7 - 10)	1.6 (1 - 2.3)	2 (2 - 3)	1 (1 - 1)	1 (1 - 1)	15 (14 - 17)	12 (10 - 13)	9 (7 - 10)	7 (6 - 9)
Cyprus[b]	11 (11 - 12)	7 (6 - 7)	4 (3 - 5)	3.6 (2.8 - 4.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	12 (11 - 13)	10 (9 - 11)	4 (3 - 5)	3 (3 - 4)
Czechia	12 (12 - 12)	5 (5 - 6)	3 (2 - 3)	4.8 (4.5 - 5)	2 (2 - 2)	0 (0 - 1)	0 (0 - 0)	14 (13 - 14)	11 (10 - 11)	3 (3 - 3)	2 (2 - 3)
Côte d'Ivoire	153 (143 - 164)	141 (131 - 152)	69 (58 - 83)	2.5 (1.9 - 3.1)	81 (75 - 87)	101 (94 - 109)	64 (53 - 77)	165 (154 - 178)	140 (130 - 151)	77 (64 - 92)	61 (51 - 74)
Democratic People's Republic of Korea	42 (33 - 54)	103 (81 - 132)	17 (13 - 22)	2.8 (2.8 - 2.8)	18 (14 - 22)	43 (34 - 55)	6 (5 - 7)	46 (36 - 59)	38 (30 - 49)	19 (15 - 24)	15 (12 - 20)
Democratic Republic of the Congo	186 (167 - 205)	159 (144 - 176)	76 (44 - 127)	2.8 (1.2 - 4.5)	291 (263 - 322)	334 (303 - 370)	302 (179 - 503)	193 (174 - 214)	178 (160 - 197)	82 (48 - 137)	69 (40 - 115)
Denmark	9 (9 - 9)	6 (5 - 6)	4 (3 - 4)	2.9 (2.6 - 3.2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	10 (10 - 10)	8 (7 - 8)	4 (3 - 4)	3 (3 - 3)
Djibouti	117 (100 - 136)	100 (85 - 118)	52 (28 - 94)	2.5 (0.6 - 4.4)	2 (2 - 3)	2 (2 - 3)	1 (1 - 2)	124 (106 - 145)	109 (93 - 127)	57 (31 - 103)	47 (26 - 85)
Dominica	17 (16 - 18)	18 (16 - 19)	32 (31 - 34)	-2 (-2.3 - -1.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	18 (17 - 19)	16 (15 - 17)	34 (32 - 36)	30 (28 - 32)
Dominican Republic	59 (56 - 63)	40 (37 - 43)	32 (24 - 44)	1.9 (0.9 - 2.9)	13 (12 - 14)	8 (8 - 9)	7 (5 - 9)	64 (60 - 68)	55 (51 - 59)	35 (26 - 48)	29 (22 - 41)
Ecuador	54 (48 - 60)	29 (26 - 33)	12 (11 - 14)	4.7 (4.2 - 5.1)	17 (15 - 18)	9 (8 - 11)	4 (3 - 4)	59 (53 - 66)	48 (43 - 54)	13 (12 - 15)	11 (10 - 12)
Egypt	86 (82 - 90)	47 (44 - 50)	18 (11 - 29)	4.9 (3.4 - 6.3)	163 (155 - 171)	89 (83 - 94)	44 (28 - 70)	85 (81 - 90)	86 (82 - 91)	19 (12 - 30)	17 (11 - 27)
El Salvador	60 (55 - 65)	33 (30 - 37)	12 (7 - 21)	5 (3.3 - 6.7)	11 (10 - 12)	6 (5 - 6)	1 (1 - 2)	64 (58 - 70)	55 (50 - 61)	13 (8 - 23)	11 (6 - 19)
Equatorial Guinea	178 (158 - 200)	155 (139 - 177)	73 (40 - 133)	2.8 (0.9 - 4.6)	4 (3 - 4)	4 (4 - 5)	4 (2 - 7)	187 (165 - 211)	169 (148 - 191)	79 (44 - 143)	67 (37 - 122)
Eritrea	153 (140 - 168)	86 (78 - 94)	37 (20 - 67)	4.5 (2.6 - 6.3)	14 (12 - 15)	8 (7 - 8)	4 (2 - 7)	167 (152 - 184)	139 (126 - 152)	41 (23 - 76)	32 (18 - 59)
Estonia	18 (17 - 18)	11 (10 - 12)	2 (1 - 2)	7 (6.2 - 7.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	20 (19 - 21)	15 (15 - 16)	2 (2 - 3)	2 (1 - 2)
Eswatini	69 (61 - 78)	114 (103 - 126)	50 (30 - 84)	1 (-0.6 - 2.6)	2 (2 - 3)	4 (3 - 4)	1 (1 - 2)	75 (66 - 85)	63 (55 - 71)	55 (33 - 91)	45 (27 - 76)
Ethiopia	203 (188 - 217)	141 (131 - 151)	46 (35 - 62)	4.6 (3.7 - 5.5)	454 (423 - 486)	407 (379 - 436)	178 (134 - 237)	215 (200 - 231)	189 (175 - 203)	52 (39 - 69)	40 (30 - 54)
Fiji	29 (25 - 34)	23 (22 - 24)	28 (25 - 32)	0.1 (-0.6 - 0.7)	1 (1 - 1)	0 (0 - 0)	1 (0 - 1)	31 (27 - 36)	27 (23 - 31)	31 (27 - 35)	26 (22 - 29)
Finland	7 (6 - 7)	4 (4 - 4)	2 (2 - 3)	3.3 (3 - 3.7)	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 - 4)	2.5 (2.3 - 2.7)	7 (7 - 7)	4 (4 - 4)	3 (3 - 3)	10 (10 - 11)	8 (7 - 8)	4 (4 - 5)	4 (3 - 4)
Gabon	92 (80 - 107)	84 (74 - 97)	39 (23 - 66)	2.7 (1 - 4.5)	3 (3 - 4)	3 (3 - 4)	2 (1 - 4)	99 (85 - 115)	85 (73 - 99)	43 (25 - 72)	35 (20 - 59)
Gambia	166 (151 - 183)	113 (104 - 124)	46 (35 - 60)	4 (3.1 - 5)	7 (7 - 8)	7 (6 - 7)	4 (3 - 5)	176 (159 - 194)	156 (142 - 173)	50 (38 - 66)	41 (31 - 54)
Georgia	48 (43 - 53)	36 (32 - 42)	9 (8 - 11)	5.1 (4.5 - 5.7)	5 (4 - 5)	2 (2 - 2)	0 (0 - 1)	53 (47 - 59)	42 (37 - 47)	10 (9 - 12)	8 (7 - 10)
Germany	9 (8 - 9)	5 (5 - 5)	4 (3 - 4)	2.7 (2.6 - 2.8)	8 (7 - 8)	4 (4 - 4)	3 (3 - 3)	10 (9 - 10)	7 (7 - 8)	4 (4 - 4)	3 (3 - 3)
Ghana	128 (121 - 135)	100 (94 - 106)	42 (31 - 58)	3.4 (2.4 - 4.4)	78 (74 - 83)	67 (63 - 71)	38 (28 - 52)	135 (128 - 144)	119 (113 - 127)	47 (34 - 64)	38 (27 - 52)
Greece	11 (10 - 11)	6 (6 - 7)	4 (4 - 4)	3.1 (2.8 - 3.4)	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 - 20)	1.1 (0.4 - 1.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	24 (22 - 26)	21 (19 - 23)	17 (14 - 21)	15 (12 - 18)
Guatemala	80 (75 - 86)	52 (48 - 56)	22 (15 - 32)	4 (2.9 - 5.2)	28 (26 - 30)	21 (19 - 22)	8 (6 - 12)	86 (80 - 92)	74 (69 - 80)	24 (17 - 35)	20 (14 - 28)
Guinea	233 (217 - 250)	166 (155 - 178)	96 (76 - 123)	2.8 (2 - 3.5)	64 (60 - 69)	56 (53 - 60)	44 (35 - 56)	241 (225 - 259)	225 (209 - 241)	103 (81 - 132)	88 (70 - 113)
Guinea-Bissau	222 (199 - 248)	173 (156 - 193)	72 (41 - 120)	3.5 (1.9 - 5.3)	10 (9 - 11)	9 (8 - 10)	5 (3 - 8)	233 (208 - 260)	211 (188 - 236)	78 (44 - 130)	66 (37 - 110)
Guyana	61 (55 - 68)	47 (42 - 52)	27 (15 - 46)	2.6 (0.9 - 4.4)	1 (1 - 2)	1 (1 - 1)	0 (0 - 1)	68 (61 - 75)	54 (48 - 60)	30 (17 - 52)	23 (13 - 40)
Haiti	145 (135 - 155)	103 (95 - 112)	56 (39 - 84)	2.9 (1.7 - 4.1)	37 (35 - 40)	27 (25 - 29)	15 (10 - 23)	153 (143 - 165)	136 (126 - 146)	62 (42 - 92)	51 (35 - 76)
Honduras	58 (54 - 63)	37 (34 - 40)	16 (12 - 22)	4 (3 - 5)	11 (10 - 12)	8 (8 - 9)	3 (3 - 5)	63 (58 - 69)	53 (48 - 57)	18 (13 - 25)	14 (11 - 20)
Hungary	17 (17 - 18)	10 (10 - 10)	4 (4 - 4)	4.6 (4.4 - 4.8)	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 - 4)	3 (2 - 3)	2.7 (1.9 - 3.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	7 (6 - 7)	6 (5 - 6)	3 (2 - 4)	2 (2 - 3)
India[c]	126 (122 - 131)	92 (88 - 95)	29 (26 - 33)	4.6 (4.2 - 5)	3,454 (3,335 - 3,577)	2,582 (2,483 - 2,685)	670 (592 - 753)	122 (118 - 127)	131 (126 - 136)	29 (25 - 33)	29 (26 - 33)
Indonesia	84 (80 - 88)	52 (49 - 55)	21 (16 - 28)	4.3 (3.4 - 5.1)	390 (372 - 409)	243 (230 - 256)	95 (73 - 126)	90 (86 - 95)	77 (74 - 82)	23 (18 - 31)	19 (15 - 25)

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

	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]		
Country	**1990**	**2022**	**1990**	**2022**	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**
Cook Islands	20 (18 - 22)	6 (3 - 11)	0 (0 - 0)	0 (0 - 0)	13 (9 - 16)	10 (7 - 13)	4 (2 - 8)	3.9 (1.7 - 6.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Costa Rica	14 (14 - 14)	7 (7 - 7)	1 (1 - 1)	0 (0 - 0)	9 (8 - 9)	8 (7 - 8)	7 (6 - 7)	0.8 (0.5 - 1)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Croatia	11 (11 - 12)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	8 (7 - 9)	6 (5 - 6)	3 (2 - 3)	3.5 (2.9 - 4.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Cuba	11 (10 - 12)	6 (5 - 7)	2 (2 - 2)	1 (1 - 1)	7 (6 - 8)	4 (4 - 5)	4 (3 - 5)	1.7 (1 - 2.3)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Cyprus[b]	10 (9 - 11)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	4 (3 - 4)	2 (1 - 3)	3.5 (2.3 - 4.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Czechia	10 (10 - 11)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	3 (2 - 3)	1 (1 - 1)	5.4 (5 - 5.7)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Côte d'Ivoire	104 (98 - 111)	52 (45 - 61)	56 (53 - 60)	49 (42 - 57)	49 (44- 56)	41 (37 - 48)	29 (23 - 36)	1.7 (0.9 - 2.4)	27 (24 - 31)	31 (28 - 36)	27 (22 - 34)
Democratic People's Republic of Korea	32 (25 - 41)	14 (11 - 17)	13 (11 - 17)	5 (4 - 6)	22 (15 - 31)	38 (22 - 60)	9 (5 - 14)	2.7 (1.8 - 4.1)	9 (6 - 13)	15 (9 - 25)	3 (2 - 5)
Democratic Republic of the Congo	119 (110 - 129)	60 (38 - 90)	191 (177 - 206)	243 (153 - 364)	42 (35 - 49)	38 (32 - 45)	26 (14 - 46)	1.5 (-0.3 - 3.5)	69 (58 - 81)	84 (71 - 99)	106 (59 - 188)
Denmark	7 (7 - 8)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	3 (3 - 4)	2 (2 - 2)	2.6 (2.1 - 3.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Djibouti	91 (79 - 104)	44 (25 - 75)	2 (2 - 2)	1 (1 - 2)	49 (40 - 59)	43 (35 - 53)	28 (15 - 54)	1.7 (-0.4 - 3.8)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Dominica	14 (13 - 15)	31 (29 - 32)	0 (0 - 0)	0 (0 - 0)	11 (9 - 12)	14 (13 - 15)	26 (23 - 28)	-2.8 (-3.2 - -2.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Dominican Republic	46 (43 - 49)	27 (20 - 36)	10 (9 - 11)	5 (4 - 7)	24 (22 - 27)	23 (21 - 25)	22 (16 - 31)	0.3 (-0.8 - 1.4)	5 (5 - 6)	5 (4 - 5)	5 (3 - 6)
Ecuador	42 (38 - 46)	10 (9 - 12)	13 (12 - 14)	3 (3 - 3)	22 (19 - 26)	14 (12 - 17)	7 (6 - 7)	3.8 (3.2 - 4.5)	7 (6 - 8)	5 (4 - 5)	2 (2 - 2)
Egypt	63 (60 - 66)	16 (10 - 24)	119 (114 - 124)	38 (24 - 59)	34 (31 - 39)	22 (21 - 24)	9 (6 - 15)	3.9 (2.5 - 5.5)	64 (59 - 73)	43 (40 - 47)	23 (14 - 37)
El Salvador	46 (43 - 50)	10 (6 - 18)	8 (8 - 9)	1 (1 - 2)	23 (20 - 26)	15 (13 - 17)	6 (3 - 10)	4.3 (2.4 - 6.2)	4 (4 - 5)	2 (2 - 3)	1 (0 - 1)
Equatorial Guinea	121 (108 - 134)	55 (33 - 93)	2 (2 - 3)	3 (2 - 5)	50 (38 - 65)	46 (37 - 58)	28 (13 - 56)	1.8 (-0.6 - 4.5)	1 (1 - 1)	1 (1 - 2)	1 (1 - 3)
Eritrea	94 (87 - 102)	28 (16 - 46)	8 (8 - 9)	3 (2 - 5)	35 (30 - 40)	27 (24 - 31)	17 (9 - 32)	2.3 (0.2 - 4.3)	3 (3 - 4)	2 (2 - 3)	2 (1 - 3)
Estonia	14 (13 - 14)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	5 (5 - 6)	1 (1 - 1)	7.7 (6.7 - 8.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Eswatini	52 (47 - 58)	40 (25 - 62)	2 (2 - 2)	1 (1 - 2)	23 (20 - 28)	30 (26 - 34)	22 (13 - 40)	0.1 (-1.8 - 2)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Ethiopia	120 (113 - 128)	34 (27 - 43)	277 (260 - 295)	132 (104 - 167)	60 (54 - 69)	48 (43 - 55)	27 (20 - 37)	2.5 (1.5 - 3.5)	143 (128 - 165)	144 (129 - 165)	107 (79 - 145)
Fiji	24 (21 - 28)	24 (21 - 27)	1 (0 - 1)	0 (0 - 0)	13 (10 - 16)	10 (9 - 11)	14 (11 - 17)	-0.2 (-1.2 - 0.9)	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)	3.3 (2.9 - 3.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
France	7 (7 - 8)	3 (3 - 3)	6 (6 - 6)	2 (2 - 2)	4 (3 - 4)	3 (2 - 3)	3 (2 - 3)	1.1 (0.8 - 1.3)	3 (2 - 3)	2 (2 - 2)	2 (2 - 2)
Gabon	60 (53 - 68)	29 (17 - 44)	2 (2 - 2)	2 (1 - 3)	31 (26 - 39)	28 (23 - 34)	18 (10 - 32)	1.7 (-0.2 - 3.6)	1 (1 - 1)	1 (1 - 1)	1 (1 - 2)
Gambia	81 (76 - 87)	33 (27 - 40)	4 (3 - 4)	3 (2 - 3)	49 (41 - 59)	40 (34 - 46)	24 (18 - 33)	2.2 (1 - 3.4)	2 (2 - 3)	2 (2 - 3)	2 (2 - 3)
Georgia	41 (37 - 45)	8 (7 - 10)	4 (4 - 4)	0 (0 - 0)	25 (22 - 28)	23 (19 - 27)	5 (4 - 6)	4.8 (4.1 - 5.5)	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)
Germany	7 (7 - 7)	3 (3 - 3)	6 (6 - 6)	2 (2 - 2)	3 (3 - 4)	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)	32 (24 - 41)	49 (47 - 52)	28 (22 - 37)	42 (38 - 46)	36 (33 - 39)	21 (15 - 29)	2.2 (1.1 - 3.2)	26 (24 - 29)	25 (23 - 28)	19 (14 - 27)
Greece	9 (9 - 9)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	7 (6 - 7)	4 (4 - 4)	2 (2 - 3)	3.2 (2.7 - 3.7)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Grenada	18 (17 - 19)	14 (12 - 18)	0 (0 - 0)	0 (0 - 0)	12 (11 - 14)	8 (7 - 9)	10 (8 - 13)	0.6 (-0.3 - 1.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Guatemala	59 (56 - 63)	19 (13 - 26)	21 (20 - 22)	7 (5 - 10)	29 (26 - 33)	21 (19 - 24)	10 (7 - 15)	3.2 (1.9 - 4.6)	10 (9 - 12)	9 (8 - 10)	4 (3 - 6)
Guinea	138 (129 - 148)	62 (51 - 77)	39 (36 - 42)	29 (23 - 36)	62 (55 - 72)	47 (41 - 54)	31 (22 - 43)	2.2 (1.1 - 3.3)	18 (16 - 21)	16 (14 - 19)	15 (10 - 20)
Guinea-Bissau	131 (118 - 146)	49 (31 - 76)	6 (5 - 6)	3 (2 - 5)	63 (53 - 75)	55 (47 - 64)	34 (18 - 59)	2 (0.2 - 4)	3 (2 - 3)	3 (2 - 3)	2 (1 - 4)
Guyana	47 (43 - 51)	22 (13 - 37)	1 (1 - 1)	0 (0 - 1)	31 (27 - 35)	27 (24 - 31)	16 (9 - 29)	2 (0.2 - 4)	1 (1 - 1)	1 (0 - 1)	0 (0 - 0)
Haiti	100 (94 - 107)	44 (31 - 62)	26 (25 - 28)	12 (8 - 16)	39 (34 - 46)	30 (26 - 36)	24 (15 - 38)	1.6 (0.1 - 3.1)	10 (9 - 12)	8 (7 - 9)	6 (4 - 10)
Honduras	45 (42 - 48)	14 (10 - 19)	9 (8 - 9)	3 (2 - 4)	22 (19 - 25)	18 (16 - 20)	9 (6 - 13)	2.7 (1.5 - 3.9)	4 (4 - 5)	4 (4 - 5)	2 (1 - 3)
Hungary	15 (15 - 16)	3 (3 - 4)	2 (2 - 2)	0 (0 - 0)	11 (10 - 12)	6 (5 - 6)	2 (2 - 2)	5.1 (4.8 - 5.4)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
Iceland	5 (5 - 6)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 2)	1 (1 - 2)	2.9 (1.9 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
India[c]	84 (81 - 87)	26 (23 - 29)	2,304 (2,225 - 2,386)	587 (519 - 659)	57 (54 - 61)	45 (42 - 48)	18 (16 - 21)	3.6 (3.1 - 4)	1,583 (1,487 - 1,683)	1,278 (1,199 - 1,361)	418 (365 - 476)
Indonesia	62 (59 - 64)	18 (14 - 24)	285 (274 - 298)	81 (63 - 106)	31 (29 - 36)	23 (21 - 25)	11 (8 - 15)	3.3 (2.3 - 4.4)	143 (133 - 166)	107 (99 - 115)	48 (36 - 65)

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

	Under-five mortality rate (U5MR) with 90 per cent uncertainty interval (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
Country	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**	**Male**	**Female**	**Male**	**Female**
Iran (Islamic Republic of)	58 (53 - 63)	36 (33 - 40)	12 (7 - 22)	4.9 (3.1 - 6.7)	105 (96 - 114)	39 (35 - 43)	15 (8 - 26)	58 (53 - 63)	57 (53 - 63)	13 (7 - 23)	11 (6 - 21)
Iraq	54 (49 - 59)	44 (41 - 48)	24 (17 - 32)	2.6 (1.5 - 3.7)	37 (33 - 40)	39 (35 - 42)	28 (20 - 39)	58 (52 - 63)	50 (45 - 55)	26 (18 - 36)	21 (15 - 29)
Ireland	9 (9 - 9)	7 (7 - 7)	3 (3 - 4)	3.4 (2.8 - 3.9)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	10 (10 - 11)	8 (8 - 8)	3 (3 - 4)	3 (2 - 3)
Israel	12 (11 - 12)	7 (7 - 7)	3 (3 - 4)	3.8 (3.7 - 4)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	12 (12 - 13)	11 (11 - 11)	4 (3 - 4)	3 (3 - 3)
Italy	10 (9 - 10)	6 (5 - 6)	3 (3 - 3)	4.1 (3.9 - 4.2)	5 (5 - 6)	3 (3 - 3)	1 (1 - 1)	11 (10 - 11)	9 (9 - 9)	3 (3 - 3)	2 (2 - 3)
Jamaica	28 (23 - 34)	21 (18 - 24)	19 (17 - 21)	1.2 (0.6 - 1.9)	2 (1 - 2)	1 (1 - 1)	1 (1 - 1)	32 (26 - 38)	24 (20 - 29)	21 (19 - 23)	17 (15 - 18)
Japan	6 (6 - 6)	5 (4 - 5)	2 (2 - 2)	3.2 (3.1 - 3.3)	8 (8 - 8)	5 (5 - 6)	2 (2 - 2)	7 (7 - 7)	6 (6 - 6)	2 (2 - 2)	2 (2 - 2)
Jordan	36 (34 - 38)	27 (25 - 29)	14 (10 - 21)	2.9 (1.7 - 4.1)	4 (4 - 5)	4 (4 - 4)	3 (2 - 5)	38 (35 - 41)	34 (31 - 36)	15 (11 - 23)	13 (9 - 19)
Kazakhstan	52 (47 - 57)	42 (39 - 46)	10 (9 - 10)	5.2 (4.9 - 5.5)	21 (19 - 23)	10 (10 - 11)	4 (4 - 4)	58 (53 - 64)	45 (40 - 50)	11 (10 - 12)	8 (8 - 9)
Kenya	101 (95 - 108)	96 (90 - 103)	41 (35 - 48)	2.8 (2.3 - 3.3)	99 (93 - 106)	113 (106 - 121)	60 (51 - 71)	107 (100 - 114)	95 (89 - 102)	45 (38 - 53)	37 (32 - 44)
Kiribati	91 (81 - 103)	66 (59 - 75)	56 (37 - 87)	1.5 (0.1 - 2.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	97 (86 - 110)	85 (75 - 97)	61 (40 - 95)	51 (33 - 79)
Kosovo (UNSCR 1244)[d]	104 (80 - 138)	48 (40 - 57)	10 (8 - 11)	7.5 (6.5 - 8.5)	5 (4 - 7)	2 (1 - 2)	0 (0 - 0)	110 (85 - 147)	96 (74 - 129)	10 (9 - 12)	9 (7 - 10)
Kuwait	20 (19 - 20)	13 (12 - 13)	9 (7 - 10)	2.6 (2.2 - 3)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	21 (21 - 22)	18 (18 - 19)	9 (8 - 11)	8 (7 - 9)
Kyrgyzstan	64 (56 - 72)	49 (44 - 54)	17 (16 - 18)	4.1 (3.6 - 4.5)	9 (8 - 10)	5 (5 - 6)	3 (3 - 3)	70 (61 - 79)	58 (51 - 66)	19 (18 - 20)	15 (14 - 16)
Lao People's Democratic Republic	153 (141 - 167)	107 (98 - 117)	40 (27 - 59)	4.2 (3 - 5.4)	27 (25 - 29)	19 (18 - 21)	7 (4 - 9)	162 (148 - 177)	144 (132 - 158)	45 (30 - 65)	36 (24 - 52)
Latvia	17 (16 - 18)	14 (13 - 15)	3 (3 - 4)	5.2 (4.7 - 5.7)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	19 (18 - 20)	15 (14 - 15)	3 (3 - 4)	3 (2 - 3)
Lebanon	32 (28 - 36)	20 (17 - 23)	17 (16 - 19)	1.9 (1.4 - 2.4)	3 (3 - 4)	2 (1 - 2)	1 (1 - 2)	33 (30 - 37)	30 (27 - 34)	19 (17 - 21)	16 (14 - 18)
Lesotho	85 (77 - 94)	111 (101 - 120)	72 (50 - 106)	0.5 (-0.7 - 1.7)	5 (5 - 6)	6 (6 - 7)	4 (3 - 6)	92 (83 - 102)	77 (70 - 86)	79 (54 - 116)	66 (45 - 96)
Liberia	264 (243 - 287)	189 (176 - 204)	73 (53 - 105)	4 (2.9 - 5)	29 (27 - 31)	22 (20 - 23)	12 (9 - 17)	278 (256 - 303)	249 (229 - 273)	79 (57 - 113)	67 (48 - 96)
Libya	42 (36 - 49)	28 (27 - 30)	10 (6 - 18)	4.4 (2.5 - 6.2)	5 (4 - 6)	3 (3 - 3)	1 (1 - 2)	45 (38 - 53)	38 (32 - 45)	11 (6 - 20)	9 (5 - 16)
Lithuania	15 (14 - 16)	11 (10 - 11)	4 (3 - 4)	4.5 (4 - 5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	17 (16 - 17)	13 (13 - 14)	4 (3 - 4)	3 (3 - 4)
Luxembourg	9 (8 - 10)	5 (4 - 5)	3 (2 - 3)	3.8 (3 - 4.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	8 (7 - 9)	3 (2 - 4)	2 (2 - 3)
Madagascar	155 (145 - 166)	105 (98 - 113)	66 (54 - 81)	2.7 (2 - 3.3)	77 (72 - 83)	67 (63 - 72)	58 (48 - 72)	163 (151 - 174)	148 (137 - 158)	71 (58 - 87)	60 (49 - 74)
Malawi	243 (229 - 258)	173 (163 - 184)	40 (24 - 67)	5.6 (4 - 7.2)	103 (97 - 109)	85 (80 - 90)	26 (16 - 43)	254 (239 - 270)	231 (218 - 246)	44 (27 - 74)	35 (21 - 59)
Malaysia	17 (16 - 17)	10 (10 - 10)	8 (7 - 9)	2.3 (2 - 2.7)	8 (8 - 8)	5 (5 - 6)	4 (4 - 4)	18 (17 - 19)	15 (14 - 16)	9 (8 - 10)	7 (6 - 8)
Maldives	86 (79 - 94)	39 (36 - 43)	6 (5 - 7)	8.6 (7.8 - 9.2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	92 (83 - 101)	80 (73 - 89)	6 (5 - 7)	5 (4 - 6)
Mali	231 (217 - 245)	188 (176 - 200)	94 (73 - 121)	2.8 (2 - 3.6)	94 (88 - 100)	93 (87 - 99)	84 (66 - 109)	239 (225 - 255)	222 (208 - 236)	99 (77 - 128)	88 (69 - 115)
Malta	11 (11 - 12)	8 (7 - 8)	6 (5 - 7)	2.2 (1.6 - 2.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	12 (11 - 13)	10 (10 - 11)	6 (5 - 7)	5 (4 - 6)
Marshall Islands	48 (41 - 56)	42 (36 - 50)	29 (16 - 50)	1.6 (-0.2 - 3.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	52 (44 - 61)	43 (36 - 51)	32 (18 - 55)	25 (14 - 44)
Mauritania	116 (106 - 128)	98 (90 - 108)	39 (29 - 53)	3.4 (2.4 - 4.4)	9 (8 - 10)	10 (9 - 11)	6 (4 - 8)	124 (112 - 136)	108 (98 - 119)	43 (32 - 58)	35 (26 - 48)
Mauritius	23 (22 - 24)	19 (18 - 20)	15 (12 - 18)	1.3 (0.8 - 1.9)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	26 (25 - 27)	20 (19 - 21)	16 (14 - 20)	13 (11 - 16)
Mexico	45 (42 - 49)	28 (26 - 30)	13 (11 - 16)	3.9 (3.3 - 4.6)	108 (100 - 116)	67 (62 - 72)	24 (20 - 29)	49 (45 - 53)	41 (38 - 45)	14 (12 - 17)	12 (10 - 14)
Micronesia (Federated States of)	49 (42 - 60)	39 (31 - 49)	24 (11 - 53)	2.2 (-0.2 - 4.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	55 (46 - 66)	44 (36 - 53)	27 (12 - 60)	21 (9 - 47)
Monaco	8 (7 - 9)	5 (5 - 5)	3 (2 - 5)	3.2 (1.6 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	9 (8 - 10)	7 (6 - 8)	3 (2 - 5)	3 (2 - 4)
Mongolia	107 (98 - 116)	63 (58 - 68)	13 (13 - 14)	6.5 (6.2 - 6.8)	8 (7 - 8)	3 (3 - 3)	1 (1 - 1)	120 (110 - 130)	94 (86 - 102)	15 (14 - 16)	12 (11 - 12)
Montenegro	17 (16 - 17)	14 (13 - 15)	3 (2 - 3)	5.6 (5 - 6.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	17 (16 - 18)	16 (15 - 16)	3 (2 - 3)	3 (2 - 3)
Montserrat	20 (15 - 28)	14 (9 - 22)	7 (2 - 18)	3.5 (0.5 - 6.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	19 (14 - 26)	22 (16 - 30)	6 (2 - 17)	7 (3 - 18)
Morocco	81 (75 - 87)	52 (48 - 58)	17 (12 - 25)	4.8 (3.6 - 6.1)	58 (54 - 63)	34 (31 - 38)	11 (8 - 16)	85 (79 - 92)	76 (70 - 82)	19 (13 - 27)	16 (11 - 23)
Mozambique	244 (224 - 265)	172 (159 - 186)	66 (42 - 105)	4.1 (2.6 - 5.5)	147 (135 - 160)	128 (118 - 138)	77 (49 - 122)	252 (232 - 275)	234 (215 - 255)	71 (45 - 112)	62 (39 - 98)
Myanmar	115 (105 - 126)	89 (82 - 97)	40 (25 - 62)	3.3 (1.9 - 4.9)	126 (115 - 138)	93 (85 - 101)	37 (23 - 57)	123 (112 - 135)	107 (97 - 118)	44 (27 - 68)	36 (22 - 56)
Namibia	73 (67 - 81)	78 (69 - 87)	38 (20 - 74)	2.1 (0 - 4.1)	4 (3 - 4)	4 (4 - 5)	3 (1 - 5)	78 (71 - 87)	68 (61 - 75)	41 (22 - 81)	34 (18 - 67)

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

Country	Infant mortality rate (deaths per 1,000 live births) 1990	Infant mortality rate (deaths per 1,000 live births) 2022	Number of infant deaths (thousands)[a] 1990	Number of infant deaths (thousands)[a] 2022	Neonatal mortality rate (deaths per 1,000 live births) 1990	Neonatal mortality rate (deaths per 1,000 live births) 2000	Neonatal mortality rate (deaths per 1,000 live births) 2022	Annual rate of reduction (ARR) (per cent) 1990–2022	Number of neonatal deaths (thousands)[a] 1990	Number of neonatal deaths (thousands)[a] 2000	Number of neonatal deaths (thousands)[a] 2022
Iran (Islamic Republic of)	45 (42 - 48)	10 (6 - 18)	80 (75 - 87)	12 (7 - 22)	25 (17 - 32)	19 (16 - 23)	8 (4 - 15)	3.7 (1.3 - 6.1)	45 (30 - 58)	21 (17 - 25)	9 (4 - 17)
Iraq	42 (39 - 45)	20 (14 - 27)	29 (27 - 31)	24 (17 - 32)	26 (23 - 29)	24 (21 - 27)	13 (9 - 19)	2.1 (0.9 - 3.3)	18 (16 - 21)	21 (19 - 24)	16 (11 - 23)
Ireland	8 (7 - 8)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 5)	4 (4 - 4)	2 (2 - 3)	2.6 (1.9 - 3.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Israel	10 (9 - 10)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	6 (6 - 6)	4 (3 - 4)	2 (2 - 2)	3.9 (3.7 - 4.2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Italy	8 (8 - 9)	2 (2 - 2)	5 (5 - 5)	1 (1 - 1)	6 (6 - 7)	3 (3 - 4)	2 (1 - 2)	4.4 (4.1 - 4.7)	4 (3 - 4)	2 (2 - 2)	1 (1 - 1)
Jamaica	23 (20 - 28)	16 (15 - 18)	1 (1 - 2)	1 (0 - 1)	18 (15 - 22)	16 (14 - 19)	14 (12 - 16)	0.8 (0.1 - 1.6)	1 (1 - 1)	1 (1 - 1)	0 (0 - 1)
Japan	5 (4 - 5)	2 (2 - 2)	6 (6 - 6)	1 (1 - 1)	3 (2 - 3)	2 (2 - 2)	1 (1 - 1)	3.6 (3.5 - 3.8)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)
Jordan	30 (28 - 31)	12 (8 - 18)	4 (3 - 4)	3 (2 - 4)	20 (18 - 22)	16 (14 - 18)	8 (5 - 13)	2.8 (1.4 - 4.1)	3 (2 - 3)	2 (2 - 3)	2 (1 - 3)
Kazakhstan	44 (40 - 48)	9 (8 - 9)	18 (16 - 19)	4 (3 - 4)	23 (20 - 26)	24 (20 - 27)	5 (4 - 5)	4.9 (4.4 - 5.5)	9 (8 - 10)	6 (5 - 7)	2 (2 - 2)
Kenya	64 (61 - 68)	31 (27 - 35)	64 (60 - 68)	45 (39 - 51)	27 (24 - 32)	25 (23 - 29)	20 (17 - 25)	0.9 (0.2 - 1.7)	28 (25 - 32)	31 (28 - 36)	30 (25 - 37)
Kiribati	66 (60 - 74)	44 (30 - 64)	0 (0 - 0)	0 (0 - 0)	35 (28 - 46)	28 (23 - 34)	23 (12 - 39)	1.3 (-0.6 - 3.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Kosovo (UNSCR 1244)[d]	88 (68 - 117)	9 (7 - 10)	5 (4 - 6)	0 (0 - 0)	44 (33 - 60)	27 (23 - 33)	7 (6 - 9)	5.7 (4.5 - 6.9)	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)
Kuwait	16 (16 - 16)	7 (6 - 8)	1 (1 - 1)	0 (0 - 0)	10 (9 - 11)	7 (6 - 7)	5 (4 - 6)	2.4 (1.9 - 3)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)
Kyrgyzstan	53 (47 - 59)	15 (15 - 16)	7 (6 - 8)	2 (2 - 3)	24 (20 - 29)	20 (17 - 24)	12 (9 - 14)	2.3 (1.3 - 3.3)	3 (3 - 4)	2 (2 - 3)	2 (1 - 2)
Lao People's Democratic Republic	106 (98 - 114)	33 (23 - 45)	19 (17 - 20)	5 (4 - 7)	47 (42 - 54)	38 (34 - 43)	20 (13 - 30)	2.6 (1.3 - 4.1)	9 (8 - 10)	7 (6 - 8)	3 (2 - 5)
Latvia	13 (13 - 14)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	8 (8 - 9)	7 (6 - 8)	2 (1 - 2)	5.1 (4.4 - 5.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Lebanon	26 (24 - 29)	15 (13 - 17)	3 (2 - 3)	1 (1 - 1)	20 (17 - 23)	12 (10 - 14)	10 (9 - 12)	2.1 (1.5 - 2.6)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)
Lesotho	68 (62 - 75)	56 (40 - 79)	4 (4 - 5)	3 (2 - 5)	40 (35 - 47)	38 (34 - 42)	35 (23 - 54)	0.4 (-1 - 1.8)	2 (2 - 3)	2 (2 - 2)	2 (1 - 3)
Liberia	176 (162 - 192)	55 (41 - 75)	19 (18 - 21)	9 (7 - 12)	61 (52 - 71)	49 (43 - 57)	30 (20 - 45)	2.2 (0.9 - 3.5)	7 (6 - 8)	6 (5 - 7)	5 (3 - 7)
Libya	36 (31 - 41)	9 (5 - 16)	4 (4 - 5)	1 (1 - 2)	21 (18 - 25)	15 (12 - 18)	5 (3 - 10)	4.2 (2.2 - 6.3)	3 (2 - 3)	2 (1 - 2)	1 (0 - 1)
Lithuania	12 (11 - 12)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	8 (7 - 8)	5 (4 - 5)	2 (2 - 2)	4.2 (3.6 - 4.9)	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)	2.9 (1.8 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Madagascar	95 (89 - 101)	45 (38 - 54)	49 (46 - 52)	40 (34 - 48)	38 (34 - 43)	31 (28 - 35)	24 (19 - 30)	1.5 (0.7 - 2.3)	20 (18 - 23)	20 (18 - 23)	22 (17 - 28)
Malawi	141 (134 - 150)	30 (19 - 46)	62 (58 - 65)	20 (12 - 30)	51 (45 - 59)	39 (35 - 45)	19 (11 - 31)	3.1 (1.5 - 4.9)	23 (21 - 27)	20 (18 - 23)	12 (7 - 21)
Malaysia	14 (14 - 15)	7 (6 - 7)	7 (7 - 7)	3 (3 - 4)	8 (6 - 9)	5 (4 - 6)	4 (4 - 5)	1.7 (0.9 - 2.5)	4 (3 - 4)	3 (2 - 3)	2 (2 - 3)
Maldives	63 (58 - 68)	5 (4 - 6)	1 (1 - 1)	0 (0 - 0)	40 (32 - 49)	22 (19 - 26)	4 (3 - 5)	7.4 (6.2 - 8.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mali	120 (114 - 126)	60 (50 - 73)	49 (47 - 52)	55 (46 - 66)	67 (60 - 75)	51 (45 - 57)	33 (23 - 45)	2.2 (1.2 - 3.3)	28 (25 - 31)	27 (24 - 30)	30 (22 - 42)
Malta	10 (9 - 11)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	8 (7 - 8)	5 (5 - 6)	4 (3 - 5)	2.2 (1.5 - 2.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Marshall Islands	38 (33 - 44)	24 (14 - 39)	0 (0 - 0)	0 (0 - 0)	19 (15 - 23)	19 (15 - 23)	13 (7 - 25)	1.1 (-1.2 - 3.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mauritania	71 (66 - 76)	31 (25 - 40)	6 (5 - 6)	5 (4 - 6)	44 (39 - 50)	39 (34 - 44)	22 (16 - 30)	2.2 (1.1 - 3.2)	4 (3 - 4)	4 (3 - 4)	3 (2 - 5)
Mauritius	20 (19 - 21)	13 (11 - 16)	0 (0 - 0)	0 (0 - 0)	15 (13 - 15)	12 (11 - 13)	10 (8 - 12)	1.3 (0.7 - 2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mexico	36 (34 - 38)	11 (9 - 13)	86 (81 - 92)	21 (17 - 25)	22 (20 - 25)	14 (12 - 16)	8 (6 - 10)	3.3 (2.5 - 4.1)	54 (48 - 60)	34 (29 - 38)	15 (11 - 18)
Micronesia (Federated States of)	39 (34 - 46)	21 (9 - 42)	0 (0 - 0)	0 (0 - 0)	24 (17 - 33)	21 (13 - 29)	13 (5 - 31)	2 (-0.7 - 4.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Monaco	6 (6 - 7)	2 (1 - 4)	0 (0 - 0)	0 (0 - 0)	4 (3 - 5)	3 (2 - 4)	1 (1 - 3)	3.2 (1.4 - 5.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Mongolia	76 (71 - 82)	12 (11 - 12)	6 (5 - 6)	1 (1 - 1)	30 (25 - 36)	24 (20 - 28)	8 (7 - 8)	4.3 (3.7 - 5.1)	2 (2 - 3)	1 (1 - 1)	1 (0 - 1)
Montenegro	15 (14 - 16)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	11 (10 - 12)	8 (7 - 9)	1 (1 - 1)	7.3 (6.2 - 8.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Montserrat	17 (13 - 24)	6 (2 - 15)	0 (0 - 0)	0 (0 - 0)	11 (7 - 16)	7 (4 - 13)	3 (1 - 10)	3.6 (0.3 - 6.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Morocco	64 (60 - 67)	15 (10 - 21)	45 (43 - 48)	10 (6 - 14)	37 (34 - 42)	29 (26 - 32)	11 (7 - 16)	3.9 (2.6 - 5.3)	27 (24 - 31)	19 (17 - 21)	7 (5 - 10)
Mozambique	162 (149 - 176)	49 (33 - 73)	97 (90 - 106)	57 (39 - 85)	63 (55 - 72)	47 (42 - 54)	26 (16 - 42)	2.8 (1.2 - 4.4)	39 (34 - 45)	36 (32 - 42)	31 (19 - 50)
Myanmar	81 (75 - 89)	32 (21 - 48)	89 (82 - 96)	30 (19 - 43)	48 (41 - 58)	38 (33 - 44)	21 (12 - 34)	2.6 (1 - 4.5)	53 (46 - 64)	40 (34 - 46)	19 (11 - 31)
Namibia	49 (45 - 53)	29 (16 - 49)	3 (2 - 3)	2 (1 - 3)	29 (25 - 33)	24 (21 - 27)	19 (9 - 38)	1.3 (-0.9 - 3.5)	2 (1 - 2)	1 (1 - 2)	1 (1 - 3)

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

	Under-five mortality rate (U5MR) with 90 per cent uncertainty interval (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
Country	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**	**Male**	**Female**	**Male**	**Female**
Nauru	67 (53 - 85)	43 (37 - 49)	26 (13 - 51)	2.9 (0.7 - 5.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	72 (57 - 92)	62 (49 - 79)	29 (15 - 57)	24 (12 - 45)
Nepal	138 (130 - 148)	79 (74 - 84)	27 (22 - 33)	5.1 (4.4 - 5.7)	100 (94 - 106)	59 (56 - 63)	17 (14 - 20)	139 (131 - 149)	138 (129 - 147)	29 (24 - 36)	25 (21 - 31)
Netherlands (Kingdom of the)	8 (8 - 8)	6 (6 - 6)	4 (4 - 4)	2.4 (2.2 - 2.5)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	9 (9 - 10)	7 (7 - 7)	4 (4 - 4)	4 (3 - 4)
New Zealand	11 (11 - 11)	7 (7 - 8)	5 (4 - 5)	2.8 (2.4 - 3.1)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	12 (12 - 13)	10 (9 - 10)	5 (4 - 6)	4 (4 - 5)
Nicaragua[e]	67 (61 - 72)	38 (35 - 42)	15 (13 - 18)	4.6 (4.1 - 5.1)	10 (9 - 11)	5 (5 - 6)	2 (2 - 2)	72 (66 - 78)	61 (56 - 66)	17 (15 - 20)	13 (12 - 16)
Niger	332 (311 - 354)	228 (212 - 246)	117 (93 - 148)	3.3 (2.5 - 4)	144 (135 - 153)	130 (121 - 140)	131 (104 - 164)	334 (312 - 357)	330 (309 - 353)	121 (96 - 152)	114 (90 - 144)
Nigeria	210 (196 - 224)	183 (171 - 194)	107 (76 - 153)	2.1 (1 - 3.2)	835 (780 - 891)	922 (866 - 980)	835 (596 - 1,198)	220 (205 - 236)	198 (185 - 212)	113 (81 - 162)	101 (72 - 145)
Niue	26 (22 - 30)	33 (25 - 43)	25 (11 - 58)	0.1 (-2.6 - 2.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	28 (24 - 34)	23 (19 - 27)	27 (12 - 64)	22 (10 - 51)
North Macedonia	36 (35 - 37)	16 (15 - 17)	5 (4 - 5)	6.4 (5.9 - 6.9)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	38 (37 - 40)	34 (32 - 35)	5 (4 - 6)	4 (4 - 5)
Norway	9 (8 - 9)	5 (5 - 5)	2 (2 - 2)	4.3 (4 - 4.7)	1 (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 (9 - 12)	4.1 (3.6 - 4.6)	3 (2 - 3)	1 (1 - 1)	1 (1 - 1)	42 (37 - 49)	36 (31 - 41)	11 (10 - 13)	10 (8 - 11)
Pakistan	140 (135 - 145)	108 (104 - 113)	61 (47 - 78)	2.6 (1.8 - 3.4)	668 (644 - 694)	582 (557 - 605)	386 (299 - 494)	143 (137 - 149)	136 (131 - 142)	65 (51 - 84)	56 (44 - 72)
Palau	36 (31 - 41)	26 (23 - 31)	22 (12 - 37)	1.4 (-0.2 - 3.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	39 (33 - 46)	32 (27 - 37)	25 (13 - 41)	20 (11 - 33)
Panama	30 (27 - 34)	26 (22 - 29)	13 (12 - 14)	2.6 (2.1 - 3)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	33 (29 - 37)	27 (24 - 31)	14 (13 - 15)	12 (11 - 13)
Papua New Guinea	85 (77 - 93)	72 (64 - 80)	41 (27 - 63)	2.2 (0.9 - 3.6)	12 (11 - 13)	13 (12 - 14)	10 (7 - 16)	89 (80 - 98)	81 (73 - 89)	45 (29 - 68)	38 (25 - 58)
Paraguay	46 (41 - 51)	34 (28 - 40)	17 (8 - 37)	3 (0.6 - 5.3)	6 (6 - 7)	5 (4 - 6)	2 (1 - 5)	49 (44 - 55)	42 (37 - 47)	19 (9 - 41)	16 (8 - 34)
Peru	80 (76 - 85)	38 (36 - 40)	15 (12 - 20)	5.2 (4.4 - 6)	54 (52 - 57)	24 (23 - 25)	9 (7 - 12)	84 (80 - 89)	76 (72 - 81)	16 (13 - 22)	14 (11 - 18)
Philippines	56 (52 - 60)	37 (34 - 40)	27 (21 - 36)	2.2 (1.4 - 3)	112 (105 - 120)	82 (76 - 88)	68 (53 - 89)	62 (57 - 66)	50 (47 - 54)	30 (24 - 40)	25 (19 - 32)
Poland	17 (17 - 18)	9 (9 - 10)	4 (4 - 5)	4.3 (4.1 - 4.4)	10 (9 - 10)	4 (3 - 4)	2 (2 - 2)	19 (19 - 20)	15 (15 - 16)	5 (5 - 5)	4 (4 - 4)
Portugal	15 (14 - 15)	7 (7 - 7)	3 (3 - 3)	4.8 (4.6 - 5)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	16 (16 - 17)	13 (13 - 13)	3 (3 - 4)	3 (3 - 3)
Qatar[f]	21 (20 - 22)	12 (12 - 13)	5 (5 - 6)	4.3 (3.9 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	22 (21 - 24)	19 (18 - 20)	6 (5 - 6)	5 (4 - 5)
Republic of Korea	16 (15 - 17)	8 (7 - 8)	3 (3 - 3)	5.4 (5.1 - 5.7)	11 (10 - 11)	5 (4 - 5)	1 (1 - 1)	17 (16 - 18)	14 (13 - 15)	3 (3 - 3)	3 (2 - 3)
Republic of Moldova	33 (29 - 39)	31 (26 - 38)	14 (11 - 19)	2.7 (1.6 - 3.7)	3 (2 - 3)	2 (1 - 2)	1 (0 - 1)	37 (32 - 43)	29 (25 - 35)	16 (12 - 21)	13 (9 - 17)
Romania	31 (30 - 32)	21 (21 - 22)	7 (6 - 7)	4.8 (4.6 - 4.9)	11 (10 - 11)	5 (5 - 5)	1 (1 - 1)	34 (33 - 35)	28 (27 - 28)	7 (7 - 8)	6 (6 - 6)
Russian Federation	22 (21 - 22)	19 (19 - 20)	5 (4 - 5)	4.7 (4.5 - 5)	46 (45 - 47)	25 (24 - 25)	7 (6 - 7)	25 (24 - 25)	18 (18 - 19)	5 (5 - 6)	4 (4 - 5)
Rwanda	152 (143 - 162)	185 (173 - 197)	38 (22 - 66)	4.3 (2.6 - 6)	49 (46 - 52)	57 (54 - 61)	15 (9 - 26)	161 (150 - 172)	143 (134 - 153)	41 (24 - 72)	35 (20 - 60)
Saint Kitts and Nevis	30 (28 - 33)	24 (21 - 27)	15 (10 - 24)	2.1 (0.7 - 3.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	34 (30 - 37)	27 (25 - 30)	17 (11 - 26)	14 (9 - 21)
Saint Lucia	21 (20 - 22)	18 (17 - 19)	17 (15 - 20)	0.5 (0 - 1.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	23 (21 - 24)	18 (17 - 20)	19 (16 - 22)	16 (13 - 18)
Saint Vincent and the Grenadines	24 (22 - 25)	22 (21 - 24)	11 (9 - 14)	2.4 (1.7 - 3.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	26 (24 - 28)	22 (20 - 24)	12 (9 - 15)	10 (8 - 13)
Samoa	30 (26 - 34)	21 (19 - 24)	16 (11 - 24)	1.9 (0.6 - 3.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	32 (28 - 37)	27 (23 - 31)	18 (12 - 26)	14 (10 - 21)
San Marino	13 (8 - 20)	5 (4 - 7)	1 (1 - 3)	6.8 (3.8 - 9.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	14 (9 - 22)	11 (7 - 18)	2 (1 - 3)	1 (1 - 3)
Sao Tome and Principe	109 (96 - 123)	82 (72 - 93)	14 (8 - 26)	6.3 (4.4 - 8.1)	1 (0 - 1)	0 (0 - 1)	0 (0 - 0)	114 (101 - 130)	102 (90 - 116)	16 (9 - 29)	13 (7 - 23)
Saudi Arabia	44 (37 - 53)	22 (20 - 25)	6 (5 - 9)	6 (4.8 - 7.2)	24 (20 - 28)	13 (12 - 14)	4 (3 - 6)	46 (39 - 55)	42 (35 - 51)	7 (5 - 9)	6 (4 - 9)
Senegal	138 (132 - 146)	130 (122 - 138)	37 (27 - 51)	4.1 (3.1 - 5.1)	42 (40 - 44)	47 (45 - 50)	20 (15 - 28)	145 (138 - 153)	131 (124 - 139)	41 (30 - 56)	33 (24 - 45)
Serbia	28 (27 - 29)	13 (12 - 13)	5 (5 - 5)	5.3 (5.1 - 5.6)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	30 (29 - 30)	26 (25 - 27)	6 (5 - 6)	5 (4 - 5)
Seychelles	16 (15 - 18)	14 (12 - 15)	15 (12 - 18)	0.4 (-0.4 - 1.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	18 (16 - 19)	15 (14 - 17)	16 (12 - 20)	13 (10 - 17)
Sierra Leone	260 (240 - 281)	225 (210 - 241)	101 (80 - 127)	3 (2.2 - 3.7)	48 (45 - 52)	45 (42 - 48)	26 (21 - 33)	272 (251 - 294)	248 (229 - 267)	108 (85 - 136)	94 (74 - 118)
Singapore	8 (7 - 8)	4 (4 - 4)	2 (2 - 2)	4 (3.5 - 4.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	8 (8 - 9)	7 (7 - 7)	2 (2 - 3)	2 (2 - 2)
Slovakia	15 (14 - 15)	10 (9 - 10)	6 (6 - 6)	2.9 (2.7 - 3.1)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	17 (16 - 17)	13 (13 - 13)	6 (6 - 7)	5 (5 - 6)
Slovenia	10 (10 - 11)	5 (5 - 6)	2 (2 - 3)	4.7 (4.1 - 5.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	11 (11 - 12)	9 (9 - 10)	3 (2 - 3)	2 (2 - 3)
Solomon Islands	38 (33 - 44)	31 (28 - 35)	18 (11 - 30)	2.3 (0.7 - 3.9)	0 (0 - 1)	0 (0 - 1)	0 (0 - 1)	41 (36 - 47)	35 (30 - 40)	20 (12 - 33)	17 (10 - 27)

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

	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]		
Country	**1990**	**2022**	**1990**	**2022**	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**
Nauru	51 (42 - 62)	22 (11 - 40)	0 (0 - 0)	0 (0 - 0)	32 (23 - 43)	26 (21 - 31)	17 (8 - 34)	2 (-0.6 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Nepal	96 (91 - 102)	23 (19 - 27)	70 (67 - 74)	14 (12 - 17)	58 (54 - 66)	40 (37 - 45)	17 (14 - 21)	3.9 (3.2 - 4.7)	44 (40 - 49)	30 (28 - 34)	10 (8 - 13)
Netherlands (Kingdom of the)	7 (7 - 7)	3 (3 - 4)	1 (1 - 1)	1 (1 - 1)	5 (4 - 5)	4 (4 - 4)	3 (2 - 3)	1.8 (1.6 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)
New Zealand	9 (9 - 9)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	4 (4 - 5)	4 (3 - 4)	2 (2 - 3)	1.7 (1 - 2.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Nicaragua[e]	51 (47 - 54)	13 (12 - 15)	8 (7 - 8)	2 (2 - 2)	23 (21 - 27)	17 (14 - 19)	10 (8 - 11)	2.7 (2.1 - 3.4)	4 (3 - 4)	2 (2 - 3)	1 (1 - 2)
Niger	134 (126 - 142)	60 (52 - 71)	60 (56 - 63)	69 (59 - 81)	55 (48 - 63)	44 (38 - 50)	34 (26 - 46)	1.5 (0.5 - 2.4)	25 (22 - 29)	27 (23 - 31)	41 (30 - 55)
Nigeria	124 (117 - 132)	69 (51 - 94)	502 (472 - 534)	539 (404 - 738)	50 (44 - 56)	46 (42 - 52)	34 (24 - 51)	1.2 (-0.1 - 2.3)	207 (184 - 232)	248 (222 - 276)	274 (190 - 406)
Niue	22 (18 - 25)	21 (9 - 45)	0 (0 - 0)	0 (0 - 0)	14 (10 - 18)	18 (11 - 26)	13 (5 - 33)	0.2 (-2.7 - 3.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
North Macedonia	33 (32 - 34)	4 (4 - 5)	1 (1 - 1)	0 (0 - 0)	17 (16 - 19)	9 (8 - 10)	2 (2 - 3)	6.4 (5.8 - 7.1)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Norway	7 (7 - 7)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (2 - 3)	1 (1 - 1)	3.5 (3 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Oman	32 (28 - 36)	9 (8 - 10)	2 (2 - 2)	1 (1 - 1)	17 (14 - 21)	7 (5 - 9)	5 (3 - 6)	4.1 (3 - 5.4)	1 (1 - 1)	0 (0 - 1)	0 (0 - 1)
Pakistan	107 (103 - 111)	51 (40 - 64)	517 (500 - 536)	324 (257 - 402)	64 (59 - 69)	57 (53 - 61)	39 (30 - 50)	1.6 (0.8 - 2.4)	320 (295 - 344)	313 (292 - 336)	249 (191 - 320)
Palau	30 (26 - 35)	22 (12 - 37)	0 (0 - 0)	0 (0 - 0)	19 (14 - 25)	14 (10 - 19)	12 (5 - 22)	1.5 (-0.5 - 4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Panama	25 (22 - 28)	11 (11 - 12)	2 (1 - 2)	1 (1 - 1)	17 (13 - 20)	14 (11 - 18)	7 (5 - 9)	2.6 (1.8 - 3.5)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)
Papua New Guinea	62 (57 - 68)	33 (23 - 48)	9 (8 - 9)	8 (6 - 12)	33 (28 - 38)	31 (27 - 36)	21 (13 - 32)	1.4 (-0.1 - 2.9)	5 (4 - 5)	6 (5 - 7)	5 (3 - 8)
Paraguay	36 (33 - 40)	15 (7 - 30)	5 (5 - 5)	2 (1 - 4)	22 (19 - 25)	18 (15 - 22)	9 (4 - 20)	2.7 (0.2 - 5.1)	3 (3 - 4)	3 (2 - 3)	1 (1 - 3)
Peru	57 (54 - 59)	12 (9 - 15)	38 (37 - 40)	7 (5 - 9)	28 (26 - 33)	16 (14 - 18)	8 (6 - 11)	4 (3 - 4.9)	19 (18 - 22)	10 (9 - 11)	5 (4 - 6)
Philippines	40 (37 - 42)	22 (17 - 28)	80 (76 - 84)	54 (43 - 68)	19 (17 - 21)	17 (15 - 18)	14 (11 - 19)	0.9 (-0.1 - 1.9)	39 (35 - 43)	37 (33 - 41)	36 (27 - 47)
Poland	15 (15 - 15)	4 (4 - 4)	8 (8 - 9)	1 (1 - 1)	11 (10 - 11)	6 (5 - 6)	3 (2 - 3)	4.4 (4.3 - 4.6)	6 (6 - 6)	2 (2 - 2)	1 (1 - 1)
Portugal	12 (11 - 12)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	3 (3 - 4)	2 (1 - 2)	4.7 (4.3 - 5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Qatar[f]	18 (17 - 19)	4 (4 - 5)	0 (0 - 0)	0 (0 - 0)	11 (10 - 13)	7 (6 - 7)	3 (3 - 3)	4.2 (3.6 - 4.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Republic of Korea	13 (13 - 14)	2 (2 - 3)	9 (9 - 10)	1 (1 - 1)	7 (6 - 8)	3 (3 - 4)	1 (1 - 1)	5.3 (4.7 - 6)	5 (4 - 6)	2 (2 - 2)	0 (0 - 0)
Republic of Moldova	28 (24 - 32)	12 (9 - 16)	2 (2 - 3)	0 (0 - 1)	18 (15 - 22)	21 (17 - 25)	10 (8 - 15)	1.8 (0.5 - 3)	1 (1 - 2)	1 (1 - 1)	0 (0 - 1)
Romania	24 (24 - 25)	6 (5 - 6)	8 (8 - 8)	1 (1 - 1)	15 (12 - 19)	10 (9 - 11)	3 (3 - 4)	4.8 (3.9 - 5.7)	5 (4 - 6)	2 (2 - 3)	1 (1 - 1)
Russian Federation	17 (17 - 18)	4 (4 - 4)	36 (35 - 37)	5 (5 - 6)	11 (8 - 14)	9 (8 - 10)	2 (1 - 2)	5.6 (4.4 - 6.8)	22 (17 - 28)	12 (10 - 13)	3 (2 - 3)
Rwanda	93 (88 - 98)	29 (18 - 45)	30 (28 - 32)	12 (7 - 18)	42 (38 - 48)	44 (40 - 51)	17 (10 - 30)	2.8 (1 - 4.6)	14 (12 - 16)	15 (13 - 17)	7 (4 - 12)
Saint Kitts and Nevis	25 (23 - 28)	13 (9 - 21)	0 (0 - 0)	0 (0 - 0)	19 (17 - 22)	17 (14 - 19)	10 (6 - 16)	1.9 (0.4 - 3.5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Saint Lucia	17 (16 - 18)	16 (14 - 19)	0 (0 - 0)	0 (0 - 0)	12 (11 - 13)	11 (10 - 12)	11 (9 - 13)	0.2 (-0.4 - 0.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Saint Vincent and the Grenadines	20 (18 - 21)	10 (8 - 13)	0 (0 - 0)	0 (0 - 0)	12 (11 - 14)	13 (11 - 14)	6 (4 - 8)	2.3 (1.3 - 3.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Samoa	25 (22 - 28)	14 (9 - 20)	0 (0 - 0)	0 (0 - 0)	13 (10 - 17)	9 (7 - 11)	6 (4 - 10)	2.3 (0.5 - 4.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
San Marino	12 (8 - 18)	1 (1 - 3)	0 (0 - 0)	0 (0 - 0)	7 (4 - 11)	3 (2 - 4)	1 (0 - 2)	7.2 (3.9 - 10.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Sao Tome and Principe	69 (62 - 77)	11 (6 - 21)	0 (0 - 0)	0 (0 - 0)	27 (20 - 34)	22 (17 - 28)	7 (4 - 13)	4.2 (1.9 - 6.4)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Saudi Arabia	35 (30 - 41)	5 (4 - 8)	19 (16 - 22)	3 (2 - 5)	22 (16 - 29)	12 (9 - 14)	3 (2 - 5)	6.1 (4.4 - 8.2)	12 (9 - 16)	7 (5 - 8)	2 (1 - 3)
Senegal	71 (68 - 74)	28 (22 - 35)	22 (21 - 23)	16 (12 - 19)	40 (37 - 44)	38 (34 - 42)	20 (15 - 29)	2.1 (1 - 3.2)	13 (12 - 14)	15 (13 - 16)	11 (8 - 16)
Serbia	24 (23 - 25)	4 (4 - 5)	2 (2 - 2)	0 (0 - 0)	17 (16 - 18)	8 (7 - 8)	3 (3 - 3)	5.3 (4.9 - 5.6)	2 (1 - 2)	1 (1 - 1)	0 (0 - 0)
Seychelles	14 (13 - 15)	12 (10 - 16)	0 (0 - 0)	0 (0 - 0)	11 (10 - 12)	9 (8 - 10)	9 (7 - 12)	0.6 (-0.3 - 1.6)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Sierra Leone	155 (145 - 164)	76 (63 - 90)	29 (27 - 31)	20 (16 - 24)	53 (46 - 63)	49 (43 - 58)	31 (23 - 41)	1.7 (0.7 - 2.8)	10 (9 - 12)	10 (9 - 12)	8 (6 - 11)
Singapore	6 (6 - 6)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	2 (1 - 2)	1 (1 - 1)	4.6 (4 - 5.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Slovakia	13 (12 - 13)	5 (5 - 5)	1 (1 - 1)	0 (0 - 0)	9 (8 - 9)	5 (5 - 5)	3 (3 - 3)	3.3 (3 - 3.6)	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 - 3)	1 (1 - 2)	4.6 (3.9 - 5.1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Solomon Islands	31 (28 - 35)	16 (10 - 25)	0 (0 - 0)	0 (0 - 1)	15 (12 - 18)	13 (11 - 15)	7 (4 - 13)	2.2 (0.3 - 4.2)	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) with 90 per cent uncertainty interval (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
	1990	2000	2022	1990–2022	1990	2000	2022	Male	Female	Male	Female
Somalia	179 (149 - 220)	172 (135 - 225)	106 (49 - 235)	1.6 (-0.7 - 3.9)	62 (51 - 76)	70 (55 - 91)	77 (36 - 170)	187 (154 - 230)	171 (141 - 211)	112 (52 - 248)	100 (47 - 221)
South Africa	62 (56 - 69)	71 (67 - 75)	35 (32 - 38)	1.8 (1.4 - 2.3)	78 (70 - 86)	72 (68 - 76)	40 (37 - 44)	67 (60 - 74)	57 (51 - 64)	37 (34 - 41)	32 (29 - 35)
South Sudan	252 (207 - 296)	182 (154 - 212)	99 (32 - 238)	2.9 (0 - 6.6)	65 (54 - 77)	54 (46 - 63)	31 (10 - 75)	258 (211 - 305)	245 (201 - 290)	104 (33 - 249)	94 (31 - 226)
Spain	9 (9 - 9)	5 (5 - 6)	3 (3 - 3)	3.5 (3.3 - 3.7)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	10 (10 - 10)	8 (8 - 8)	3 (3 - 3)	3 (3 - 3)
Sri Lanka	22 (22 - 23)	17 (16 - 17)	6 (5 - 9)	3.9 (2.9 - 4.9)	8 (8 - 8)	6 (6 - 6)	2 (1 - 3)	24 (24 - 25)	20 (20 - 21)	7 (5 - 10)	6 (4 - 8)
State of Palestine	45 (41 - 48)	30 (28 - 33)	14 (10 - 20)	3.6 (2.4 - 4.7)	4 (4 - 5)	4 (3 - 4)	2 (1 - 3)	47 (43 - 51)	42 (39 - 46)	16 (11 - 22)	13 (9 - 19)
Sudan	132 (122 - 142)	103 (95 - 113)	52 (34 - 78)	2.9 (1.6 - 4.2)	119 (110 - 128)	101 (93 - 109)	78 (52 - 118)	139 (129 - 151)	124 (114 - 134)	56 (37 - 84)	47 (31 - 71)
Suriname	45 (39 - 52)	31 (26 - 36)	17 (10 - 27)	3.1 (1.5 - 4.7)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	50 (42 - 58)	40 (34 - 47)	19 (12 - 30)	15 (9 - 24)
Sweden	7 (7 - 7)	4 (4 - 4)	2 (2 - 3)	3.2 (3 - 3.5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	8 (7 - 8)	6 (6 - 6)	3 (2 - 3)	2 (2 - 2)
Switzerland	8 (8 - 8)	6 (5 - 6)	4 (4 - 4)	2.2 (2 - 2.4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	9 (9 - 9)	7 (7 - 7)	4 (4 - 5)	4 (3 - 4)
Syrian Arab Republic	37 (33 - 41)	23 (21 - 26)	21 (11 - 31)	1.7 (0.5 - 3.9)	16 (15 - 18)	11 (10 - 13)	9 (5 - 13)	40 (36 - 44)	34 (31 - 38)	23 (12 - 34)	19 (10 - 28)
Tajikistan	102 (93 - 112)	83 (75 - 93)	30 (17 - 55)	3.8 (1.9 - 5.6)	23 (21 - 25)	17 (15 - 19)	8 (5 - 14)	110 (100 - 121)	94 (85 - 103)	34 (20 - 62)	26 (15 - 48)
Thailand	37 (35 - 39)	21 (19 - 24)	8 (4 - 15)	4.7 (2.7 - 6.8)	40 (38 - 43)	19 (17 - 21)	5 (3 - 10)	41 (38 - 44)	33 (31 - 36)	9 (5 - 17)	7 (4 - 14)
Timor-Leste	177 (159 - 196)	112 (101 - 123)	49 (31 - 75)	4 (2.6 - 5.5)	5 (5 - 6)	4 (3 - 4)	2 (1 - 2)	184 (164 - 204)	169 (151 - 188)	53 (34 - 82)	44 (28 - 69)
Togo	147 (136 - 159)	120 (112 - 129)	60 (44 - 82)	2.8 (1.8 - 3.8)	23 (21 - 25)	22 (21 - 24)	16 (12 - 22)	156 (144 - 169)	138 (127 - 149)	65 (47 - 89)	55 (40 - 75)
Tonga	22 (19 - 27)	17 (14 - 20)	11 (6 - 20)	2.2 (0.3 - 4.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	25 (21 - 30)	19 (16 - 23)	12 (6 - 22)	10 (5 - 17)
Trinidad and Tobago	30 (25 - 35)	28 (21 - 38)	15 (6 - 39)	2.1 (-0.9 - 4.9)	1 (1 - 1)	1 (0 - 1)	0 (0 - 1)	33 (27 - 38)	28 (23 - 33)	17 (7 - 42)	14 (6 - 35)
Tunisia	55 (48 - 63)	29 (26 - 34)	11 (11 - 12)	4.9 (4.4 - 5.4)	12 (11 - 14)	5 (4 - 6)	2 (2 - 2)	58 (51 - 67)	51 (45 - 59)	12 (11 - 13)	10 (10 - 11)
Turkmenistan	79 (69 - 90)	69 (60 - 80)	40 (26 - 64)	2.1 (0.6 - 3.6)	10 (9 - 12)	8 (7 - 9)	5 (3 - 9)	88 (77 - 102)	69 (60 - 80)	46 (29 - 73)	35 (22 - 55)
Turks and Caicos Islands	19 (13 - 28)	11 (9 - 13)	6 (2 - 17)	3.6 (-0.3 - 7.8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	22 (15 - 33)	15 (10 - 22)	6 (2 - 18)	5 (2 - 15)
Tuvalu	54 (45 - 64)	43 (39 - 47)	20 (11 - 36)	3 (1.1 - 5)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	59 (50 - 70)	48 (40 - 57)	23 (12 - 40)	18 (10 - 32)
Türkiye	74 (69 - 80)	38 (35 - 41)	10 (8 - 11)	6.4 (5.9 - 6.8)	104 (97 - 112)	52 (48 - 57)	12 (11 - 14)	77 (71 - 83)	71 (66 - 77)	10 (9 - 12)	9 (8 - 10)
Uganda	183 (172 - 194)	146 (137 - 155)	41 (27 - 59)	4.7 (3.5 - 5.9)	155 (146 - 164)	163 (153 - 173)	68 (46 - 99)	194 (182 - 207)	170 (160 - 181)	45 (30 - 66)	36 (24 - 53)
Ukraine[g]	19 (17 - 22)	18 (17 - 20)	9 (8 - 9)	2.6 (2.2 - 3)	13 (12 - 15)	7 (7 - 8)	3 (3 - 3)	21 (19 - 24)	17 (15 - 20)	9 (9 - 10)	8 (7 - 8)
United Arab Emirates[h]	15 (14 - 16)	11 (10 - 11)	5 (5 - 6)	3.3 (2.9 - 3.7)	1 (1 - 1)	1 (1 - 1)	1 (0 - 1)	17 (16 - 18)	13 (12 - 15)	6 (5 - 6)	5 (4 - 5)
United Kingdom	9 (9 - 9)	7 (6 - 7)	4 (4 - 4)	2.6 (2.3 - 2.8)	7 (7 - 7)	5 (4 - 5)	3 (3 - 3)	10 (10 - 11)	8 (8 - 8)	4 (4 - 5)	4 (3 - 4)
United Republic of Tanzania	167 (157 - 178)	129 (121 - 137)	41 (33 - 50)	4.4 (3.7 - 5.1)	185 (174 - 196)	179 (168 - 190)	93 (75 - 114)	174 (163 - 185)	160 (151 - 171)	44 (36 - 55)	37 (29 - 45)
United States	11 (11 - 11)	8 (8 - 9)	6 (6 - 7)	1.8 (1.7 - 2)	45 (44 - 46)	34 (33 - 34)	23 (22 - 24)	12 (12 - 13)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
Uruguay	24 (23 - 24)	17 (17 - 17)	7 (6 - 7)	4 (3.7 - 4.2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	26 (25 - 27)	21 (20 - 22)	7 (7 - 8)	6 (5 - 6)
Uzbekistan[i]	71 (63 - 79)	62 (54 - 70)	13 (12 - 15)	5.2 (4.6 - 5.7)	48 (43 - 54)	35 (31 - 39)	11 (9 - 12)	79 (70 - 88)	62 (55 - 70)	15 (13 - 17)	12 (10 - 13)
Vanuatu	37 (31 - 44)	29 (25 - 34)	18 (12 - 28)	2.2 (0.7 - 3.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	39 (32 - 47)	34 (28 - 42)	19 (13 - 30)	17 (11 - 26)
Venezuela (Bolivarian Republic of)	30 (29 - 30)	22 (21 - 22)	24 (17 - 35)	0.6 (-0.5 - 1.8)	17 (16 - 17)	12 (12 - 13)	11 (8 - 16)	33 (32 - 33)	27 (26 - 27)	26 (18 - 38)	22 (15 - 32)
Viet Nam	52 (48 - 56)	30 (25 - 34)	20 (18 - 24)	2.9 (2.4 - 3.4)	98 (90 - 107)	43 (36 - 49)	30 (26 - 34)	59 (55 - 65)	43 (40 - 48)	24 (20 - 28)	17 (14 - 20)
Yemen	125 (117 - 134)	93 (86 - 101)	41 (33 - 51)	3.5 (2.8 - 4.1)	81 (76 - 87)	69 (64 - 74)	41 (34 - 51)	131 (122 - 140)	120 (112 - 128)	45 (36 - 55)	38 (30 - 47)
Zambia	183 (172 - 195)	156 (146 - 168)	56 (38 - 82)	3.7 (2.5 - 4.9)	64 (60 - 68)	68 (63 - 73)	37 (26 - 54)	191 (179 - 204)	174 (163 - 186)	60 (42 - 88)	51 (35 - 75)
Zimbabwe	80 (73 - 88)	94 (86 - 103)	48 (31 - 72)	1.6 (0.3 - 3)	28 (26 - 31)	38 (35 - 42)	23 (15 - 35)	87 (79 - 95)	74 (67 - 80)	52 (34 - 79)	43 (28 - 65)

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

	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]		
Country	**1990**	**2022**	**1990**	**2022**	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**
Somalia	108 (91 - 130)	68 (36 - 139)	37 (32 - 45)	50 (27 - 102)	45 (34 - 60)	45 (32 - 62)	35 (14 - 88)	0.8 (-2 - 3.6)	16 (12 - 21)	19 (14 - 27)	27 (11 - 67)
South Africa	48 (44 - 52)	28 (26 - 30)	60 (55 - 65)	32 (30 - 35)	22 (19 - 26)	17 (15 - 21)	11 (9 - 13)	2.2 (1.4 - 3)	27 (23 - 32)	17 (14 - 21)	13 (11 - 15)
South Sudan	149 (123 - 176)	64 (25 - 141)	38 (32 - 45)	20 (8 - 43)	64 (45 - 87)	56 (42 - 74)	39 (11 - 109)	1.5 (-2.1 - 5.8)	17 (12 - 23)	17 (13 - 23)	12 (3 - 34)
Spain	7 (7 - 8)	3 (2 - 3)	3 (3 - 3)	1 (1 - 1)	5 (4 - 5)	3 (3 - 3)	2 (2 - 2)	3.3 (3 - 3.5)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)
Sri Lanka	19 (19 - 19)	6 (4 - 8)	7 (7 - 7)	2 (1 - 2)	14 (13 - 14)	10 (9 - 10)	4 (3 - 5)	4.1 (3 - 5.2)	5 (4 - 5)	3 (3 - 4)	1 (1 - 2)
State of Palestine	36 (33 - 38)	12 (9 - 17)	3 (3 - 4)	2 (1 - 3)	22 (20 - 25)	17 (15 - 19)	9 (6 - 13)	2.9 (1.6 - 4.1)	2 (2 - 2)	2 (2 - 2)	1 (1 - 2)
Sudan	82 (77 - 88)	37 (27 - 52)	74 (69 - 79)	57 (41 - 79)	43 (38 - 50)	37 (33 - 44)	26 (17 - 39)	1.6 (0.3 - 3.1)	40 (35 - 46)	37 (33 - 44)	40 (26 - 61)
Suriname	39 (34 - 45)	15 (9 - 24)	0 (0 - 1)	0 (0 - 0)	20 (13 - 27)	17 (13 - 21)	10 (6 - 18)	2.1 (-0.4 - 4.3)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Sweden	6 (6 - 6)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	3 (3 - 4)	2 (2 - 2)	1 (1 - 2)	2.9 (2.6 - 3.2)	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)	0.9 (0.6 - 1.2)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Syrian Arab Republic	30 (28 - 33)	18 (9 - 25)	13 (12 - 15)	8 (4 - 11)	16 (14 - 19)	12 (10 - 14)	10 (5 - 16)	1.4 (0 - 3.6)	7 (6 - 8)	6 (5 - 7)	5 (2 - 7)
Tajikistan	81 (74 - 87)	27 (16 - 47)	18 (17 - 20)	7 (4 - 12)	31 (26 - 37)	28 (24 - 33)	13 (7 - 25)	2.7 (0.5 - 5)	7 (6 - 9)	6 (5 - 7)	3 (2 - 7)
Thailand	30 (29 - 32)	7 (4 - 13)	33 (31 - 35)	4 (2 - 8)	21 (17 - 24)	12 (9 - 15)	4 (2 - 9)	4.8 (2.6 - 6.9)	22 (18 - 26)	10 (7 - 13)	3 (1 - 6)
Timor-Leste	133 (120 - 146)	42 (27 - 62)	4 (4 - 5)	1 (1 - 2)	57 (48 - 68)	39 (34 - 46)	22 (12 - 37)	3 (1.3 - 5.1)	2 (2 - 2)	1 (1 - 2)	1 (0 - 1)
Togo	91 (85 - 97)	42 (33 - 54)	14 (13 - 15)	12 (9 - 15)	44 (39 - 50)	37 (33 - 42)	23 (16 - 33)	1.9 (0.8 - 3.1)	7 (6 - 8)	7 (6 - 8)	7 (5 - 9)
Tonga	19 (16 - 22)	9 (5 - 17)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	7 (6 - 9)	5 (2 - 9)	2.3 (0 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Trinidad and Tobago	27 (22 - 31)	14 (6 - 34)	1 (1 - 1)	0 (0 - 1)	19 (15 - 23)	18 (12 - 25)	10 (4 - 25)	2.1 (-0.9 - 5)	1 (0 - 1)	0 (0 - 1)	0 (0 - 0)
Tunisia	43 (38 - 48)	10 (9 - 11)	10 (8 - 11)	2 (2 - 2)	28 (24 - 32)	18 (15 - 21)	8 (7 - 9)	3.8 (3.2 - 4.5)	6 (5 - 7)	3 (3 - 4)	2 (1 - 2)
Turkmenistan	64 (57 - 72)	35 (23 - 53)	8 (7 - 9)	5 (3 - 7)	27 (22 - 33)	30 (25 - 36)	23 (14 - 37)	0.5 (-1.2 - 2.2)	3 (3 - 4)	3 (3 - 4)	3 (2 - 5)
Turks and Caicos Islands	14 (9 - 21)	4 (1 - 11)	0 (0 - 0)	0 (0 - 0)	10 (6 - 16)	6 (4 - 8)	3 (1 - 10)	3.7 (-0.4 - 8)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Tuvalu	42 (36 - 49)	17 (9 - 30)	0 (0 - 0)	0 (0 - 0)	29 (23 - 36)	25 (21 - 28)	9 (5 - 17)	3.6 (1.4 - 5.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Türkiye	55 (52 - 59)	8 (7 - 10)	78 (73 - 83)	10 (9 - 12)	32 (29 - 37)	18 (16 - 21)	5 (4 - 6)	5.8 (5.3 - 6.6)	45 (41 - 52)	25 (22 - 28)	6 (5 - 7)
Uganda	107 (101 - 113)	30 (21 - 41)	93 (88 - 98)	51 (36 - 69)	40 (36 - 47)	33 (29 - 39)	18 (12 - 28)	2.4 (1.1 - 3.9)	36 (32 - 42)	39 (34 - 45)	32 (21 - 48)
Ukraine[g]	17 (15 - 19)	7 (7 - 8)	11 (10 - 13)	2 (2 - 3)	12 (10 - 14)	11 (9 - 13)	5 (3 - 6)	2.8 (1.9 - 4.3)	8 (6 - 9)	4 (3 - 5)	2 (1 - 2)
United Arab Emirates[h]	12 (11 - 13)	4 (4 - 5)	1 (1 - 1)	0 (0 - 0)	8 (7 - 9)	6 (5 - 6)	3 (2 - 3)	3.4 (3 - 3.9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
United Kingdom	8 (8 - 8)	4 (3 - 4)	6 (6 - 6)	2 (2 - 3)	4 (4 - 5)	4 (3 - 4)	3 (2 - 3)	1.5 (1.2 - 1.8)	4 (3 - 4)	3 (2 - 3)	2 (2 - 2)
United Republic of Tanzania	101 (95 - 106)	30 (25 - 36)	113 (107 - 119)	70 (58 - 83)	40 (36 - 47)	33 (30 - 39)	20 (15 - 25)	2.2 (1.4 - 3.2)	46 (42 - 54)	48 (43 - 56)	46 (36 - 59)
United States	9 (9 - 10)	5 (5 - 6)	38 (38 - 39)	20 (19 - 21)	6 (5 - 6)	5 (4 - 5)	3 (3 - 3)	1.9 (1.7 - 2)	24 (22 - 24)	19 (17 - 19)	12 (11 - 12)
Uruguay	21 (20 - 21)	6 (5 - 6)	1 (1 - 1)	0 (0 - 0)	12 (10 - 13)	8 (8 - 9)	4 (4 - 5)	3.1 (2.5 - 3.6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Uzbekistan[i]	58 (52 - 64)	12 (11 - 14)	40 (36 - 44)	9 (8 - 11)	31 (26 - 37)	29 (25 - 33)	8 (6 - 9)	4.4 (3.6 - 5.2)	22 (18 - 26)	16 (14 - 18)	6 (5 - 7)
Vanuatu	30 (25 - 36)	16 (10 - 23)	0 (0 - 0)	0 (0 - 0)	17 (13 - 23)	12 (9 - 15)	8 (4 - 13)	2.4 (0.5 - 4.7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Venezuela (Bolivarian Republic of)	25 (24 - 25)	21 (15 - 30)	14 (14 - 14)	9 (7 - 13)	13 (11 - 14)	11 (10 - 11)	15 (10 - 21)	-0.5 (-1.6 - 0.6)	7 (7 - 8)	6 (6 - 7)	7 (5 - 9)
Viet Nam	37 (35 - 40)	16 (14 - 19)	70 (66 - 75)	23 (20 - 27)	24 (21 - 27)	15 (12 - 18)	10 (8 - 13)	2.6 (1.7 - 3.7)	45 (40 - 52)	21 (18 - 25)	15 (11 - 19)
Yemen	88 (83 - 93)	33 (27 - 40)	58 (55 - 61)	33 (27 - 40)	44 (40 - 50)	37 (34 - 43)	22 (18 - 27)	2.2 (1.4 - 3)	30 (27 - 34)	28 (25 - 32)	22 (18 - 28)
Zambia	109 (103 - 115)	39 (29 - 53)	38 (36 - 40)	26 (19 - 36)	37 (33 - 43)	36 (32 - 42)	24 (16 - 36)	1.4 (0.1 - 2.7)	14 (12 - 16)	16 (15 - 19)	16 (11 - 25)
Zimbabwe	52 (48 - 55)	35 (24 - 49)	18 (17 - 19)	17 (12 - 24)	24 (21 - 27)	27 (24 - 30)	24 (15 - 38)	-0.1 (-1.5 - 1.4)	8 (7 - 9)	11 (10 - 13)	12 (8 - 19)

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

Estimates of mortality among children under age 5 by Sustainable Development Goal region[j]

	Under-five mortality rate (U5MR) with 90 per cent uncertainty interval (deaths per 1,000 live births)[i]			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
Region	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**	**Male**	**Female**	**Male**	**Female**
Sub-Saharan Africa	181 (177 - 185)	152 (149 - 156)	71 (65 - 85)	2.9 (2.4 - 3.2)	3,807 (3,729 - 3,892)	3,921 (3,844 - 4,011)	2,775 (2,519 - 3,277)	190 (186 - 194)	171 (168 - 175)	77 (70 - 91)	66 (60 - 78)
Northern Africa and Western Asia	75 (74 - 77)	50 (48 - 51)	23 (20 - 28)	3.7 (3.1 - 4.1)	707 (690 - 725)	467 (454 - 482)	265 (233 - 318)	78 (77 - 81)	72 (70 - 74)	25 (22 - 30)	21 (19 - 25)
Northern Africa	85 (83 - 89)	59 (56 - 61)	27 (22 - 36)	3.6 (2.8 - 4.3)	398 (384 - 412)	257 (246 - 268)	158 (127 - 208)	88 (85 - 92)	82 (79 - 85)	29 (23 - 38)	25 (20 - 33)
Western Asia	65 (63 - 68)	42 (41 - 44)	19 (17 - 22)	3.8 (3.4 - 4.2)	309 (299 - 321)	211 (203 - 219)	107 (95 - 123)	69 (66 - 71)	62 (60 - 65)	21 (18 - 24)	17 (15 - 20)
Central and Southern Asia	125 (122 - 128)	91 (89 - 94)	34 (31 - 38)	4 (3.7 - 4.3)	5,091 (4,969 - 5,221)	3,785 (3,681 - 3,890)	1,288 (1,173 - 1,430)	123 (120 - 126)	127 (123 - 130)	35 (32 - 39)	33 (30 - 37)
Central Asia	70 (66 - 75)	61 (57 - 65)	17 (15 - 22)	4.4 (3.7 - 4.8)	111 (104 - 117)	75 (70 - 80)	31 (26 - 38)	78 (74 - 83)	62 (59 - 66)	20 (17 - 24)	15 (13 - 19)
Southern Asia	127 (124 - 130)	92 (89 - 95)	35 (32 - 39)	4 (3.7 - 4.3)	4,981 (4,859 - 5,111)	3,710 (3,606 - 3,815)	1,258 (1,142 - 1,398)	125 (121 - 128)	129 (126 - 133)	36 (33 - 40)	34 (31 - 38)
Eastern and South-Eastern Asia	57 (54 - 60)	40 (39 - 41)	14 (13 - 16)	4.3 (3.9 - 4.6)	2,363 (2,247 - 2,493)	1,227 (1,188 - 1,270)	342 (311 - 388)	60 (57 - 63)	54 (51 - 57)	16 (14 - 18)	13 (12 - 15)
Eastern Asia	51 (47 - 55)	35 (34 - 37)	7 (6 - 7)	6.4 (6 - 6.8)	1,511 (1,399 - 1,639)	683 (647 - 723)	87 (79 - 96)	53 (49 - 58)	49 (45 - 53)	7 (6 - 8)	6 (6 - 7)
South-Eastern Asia	72 (70 - 74)	48 (46 - 49)	23 (20 - 27)	3.5 (3 - 3.9)	852 (828 - 878)	544 (527 - 562)	255 (225 - 301)	78 (76 - 81)	65 (63 - 68)	26 (23 - 30)	20 (18 - 24)
Latin America and the Caribbean	55 (53 - 57)	33 (32 - 34)	16 (15 - 17)	3.9 (3.6 - 4.1)	648 (631 - 669)	380 (370 - 391)	152 (143 - 168)	59 (58 - 61)	50 (49 - 52)	17 (16 - 19)	14 (13 - 16)
Oceania	33 (31 - 36)	31 (28 - 34)	20 (14 - 28)	1.6 (0.5 - 2.6)	17 (16 - 18)	17 (15 - 18)	13 (10 - 19)	35 (33 - 38)	31 (29 - 33)	21 (16 - 30)	18 (13 - 25)
Australia and New Zealand	10 (9 - 10)	6 (6 - 7)	4 (4 - 4)	2.8 (2.7 - 2.9)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	11 (10 - 11)	8 (8 - 9)	4 (4 - 4)	4 (3 - 4)
Oceania (exc. Australia and New Zealand)	71 (65 - 77)	61 (56 - 68)	38 (26 - 55)	2 (0.7 - 3.1)	14 (13 - 15)	15 (13 - 16)	12 (8 - 17)	74 (68 - 81)	67 (61 - 73)	41 (29 - 60)	34 (24 - 51)
Europe and Northern America	14 (14 - 14)	10 (10 - 10)	5 (5 - 5)	3.3 (3.2 - 3.3)	199 (196 - 202)	113 (112 - 114)	55 (54 - 56)	16 (16 - 16)	12 (12 - 13)	5 (5 - 6)	5 (4 - 5)
Europe	16 (16 - 16)	11 (10 - 11)	4 (4 - 4)	4.1 (4 - 4.1)	150 (148 - 153)	77 (76 - 78)	30 (29 - 30)	18 (17 - 18)	14 (14 - 14)	5 (5 - 5)	4 (4 - 4)
Northern America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.8 (1.7 - 1.9)	49 (48 - 50)	36 (35 - 36)	25 (24 - 26)	12 (12 - 12)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
World	**93 (92 - 95)**	**76 (75 - 78)**	**37 (35 - 41)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,040)**	**9,910 (9,781 - 10,059)**	**4,891 (4,631 - 5,446)**	**95 (94 - 97)**	**91 (89 - 92)**	**39 (37 - 44)**	**35 (33 - 39)**

Estimates of mortality among children under age 5 by Sustainable Development Goal region[j] (continued)

	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]		
Region	**1990**	**2022**	**1990**	**2022**	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**
Sub-Saharan Africa	108 (106 - 110)	49 (45 - 56)	2,312 (2,271 - 2,360)	1,926 (1,767 - 2,201)	46 (44 - 49)	40 (39 - 43)	27 (24 - 32)	1.7 (1.1 - 2.1)	1,010 (967 - 1,083)	1,086 (1,040 - 1,159)	1,066 (953 - 1,289)
Northern Africa and Western Asia	56 (54 - 57)	19 (17 - 22)	522 (512 - 534)	214 (191 - 248)	31 (30 - 34)	23 (22 - 24)	13 (11 - 15)	2.8 (2.2 - 3.3)	292 (281 - 322)	219 (211 - 229)	144 (125 - 173)
Northern Africa	62 (60 - 64)	21 (18 - 27)	286 (278 - 295)	125 (103 - 156)	34 (32 - 38)	26 (25 - 28)	15 (12 - 19)	2.6 (1.8 - 3.4)	158 (150 - 177)	117 (111 - 125)	86 (69 - 112)
Western Asia	50 (48 - 51)	16 (14 - 18)	236 (229 - 244)	89 (80 - 101)	28 (26 - 30)	20 (19 - 21)	10 (9 - 12)	3.1 (2.6 - 3.6)	134 (127 - 145)	102 (97 - 107)	58 (51 - 68)
Central and Southern Asia	86 (84 - 88)	29 (27 - 32)	3,514 (3,432 - 3,599)	1,102 (1,008 - 1,213)	56 (54 - 59)	45 (43 - 47)	21 (19 - 24)	3 (2.6 - 3.4)	2,333 (2,231 - 2,450)	1,907 (1,821 - 2,001)	807 (728 - 903)
Central Asia	58 (55 - 61)	15 (13 - 19)	91 (86 - 96)	27 (24 - 33)	28 (26 - 31)	27 (25 - 30)	9 (8 - 12)	3.4 (2.7 - 4.1)	45 (41 - 49)	33 (30 - 36)	16 (14 - 20)
Southern Asia	87 (85 - 89)	30 (27 - 33)	3,422 (3,342 - 3,508)	1,075 (981 - 1,185)	57 (55 - 60)	46 (44 - 48)	22 (20 - 25)	3 (2.6 - 3.4)	2,288 (2,187 - 2,404)	1,874 (1,790 - 1,969)	791 (712 - 887)
Eastern and South-Eastern Asia	44 (42 - 46)	12 (10 - 13)	1,831 (1,739 - 1,933)	268 (244 - 303)	28 (26 - 31)	20 (19 - 21)	7 (6 - 8)	4.2 (3.7 - 4.8)	1,192 (1,098 - 1,305)	629 (593 - 665)	168 (148 - 195)
Eastern Asia	41 (37 - 44)	5 (4 - 5)	1,210 (1,120 - 1,312)	59 (54 - 65)	28 (25 - 31)	20 (18 - 22)	3 (3 - 3)	7 (6.4 - 7.6)	858 (765 - 962)	391 (355 - 424)	37 (32 - 42)
South-Eastern Asia	52 (51 - 54)	19 (17 - 22)	620 (606 - 637)	209 (186 - 243)	28 (27 - 31)	21 (20 - 22)	12 (10 - 14)	2.7 (2.1 - 3.3)	334 (318 - 367)	238 (227 - 250)	131 (113 - 158)
Latin America and the Caribbean	43 (42 - 45)	14 (13 - 15)	514 (501 - 529)	130 (122 - 141)	23 (22 - 25)	16 (15 - 17)	9 (8 - 10)	2.9 (2.5 - 3.3)	276 (262 - 292)	187 (175 - 197)	87 (79 - 98)
Oceania	25 (24 - 27)	16 (12 - 22)	13 (12 - 14)	11 (8 - 15)	13 (12 - 15)	14 (12 - 16)	10 (7 - 14)	0.9 (-0.2 - 2)	7 (6 - 8)	8 (7 - 9)	7 (5 - 10)
Australia and New Zealand	8 (8 - 8)	3 (3 - 3)	2 (2 - 3)	1 (1 - 1)	5 (4 - 5)	4 (3 - 4)	2 (2 - 3)	2.1 (1.8 - 2.3)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)
Oceania (exc. Australia and New Zealand)	53 (49 - 57)	31 (22 - 43)	10 (10 - 11)	10 (7 - 13)	28 (24 - 31)	26 (23 - 30)	19 (13 - 28)	1.2 (-0.1 - 2.5)	6 (5 - 6)	7 (6 - 8)	6 (4 - 9)
Europe and Northern America	12 (12 - 12)	4 (4 - 4)	163 (162 - 166)	46 (45 - 47)	7 (7 - 8)	5 (5 - 5)	3 (2 - 3)	3.1 (2.9 - 3.4)	101 (93 - 108)	60 (55 - 62)	29 (27 - 31)
Europe	13 (13 - 13)	4 (4 - 4)	122 (121 - 125)	25 (24 - 25)	8 (7 - 9)	5 (5 - 6)	2 (2 - 3)	3.9 (3.5 - 4.2)	75 (69 - 82)	40 (37 - 42)	16 (15 - 17)
Northern America	9 (9 - 9)	5 (5 - 5)	41 (41 - 42)	22 (21 - 22)	6 (5 - 6)	5 (4 - 5)	3 (3 - 3)	1.8 (1.6 - 1.9)	26 (23 - 26)	20 (18 - 21)	13 (12 - 14)
World	**64 (63 - 65)**	**28 (27 - 30)**	**8,869 (8,744 - 9,015)**	**3,697 (3,525 - 4,013)**	**37 (36 - 38)**	**31 (30 - 32)**	**17 (16 - 19)**	**2.4 (2 - 2.6)**	**5,211 (5,048 - 5,445)**	**4,095 (3,980 - 4,233)**	**2,307 (2,167 - 2,580)**

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

Estimates of mortality among children under age 5 by UNICEF region[j]

	Under-five mortality rate (U5MR) with 90 per cent uncertainty interval (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
Region	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**	**Male**	**Female**	**Male**	**Female**
Sub-Saharan Africa	179 (175 - 183)	151 (148 - 154)	71 (64 - 84)	2.9 (2.4 - 3.2)	3,925 (3,849 - 4,012)	4,022 (3,945 - 4,113)	2,853 (2,598 - 3,362)	188 (184 - 192)	169 (166 - 173)	76 (69 - 90)	65 (59 - 77)
West and Central Africa	196 (190 - 203)	168 (163 - 173)	89 (76 - 110)	2.5 (1.8 - 3)	2,039 (1,976 - 2,107)	2,200 (2,135 - 2,274)	1,863 (1,598 - 2,307)	206 (199 - 213)	187 (181 - 193)	94 (81 - 117)	82 (71 - 103)
Eastern and Southern Africa	163 (159 - 167)	134 (131 - 138)	51 (47 - 62)	3.6 (3 - 3.9)	1,887 (1,842 - 1,936)	1,821 (1,779 - 1,872)	990 (906 - 1,188)	172 (168 - 177)	154 (150 - 158)	56 (51 - 67)	46 (42 - 56)
Middle East and North Africa	66 (64 - 68)	43 (42 - 45)	19 (17 - 23)	3.9 (3.3 - 4.2)	559 (545 - 576)	339 (329 - 350)	186 (165 - 220)	68 (66 - 70)	64 (62 - 66)	21 (18 - 24)	18 (16 - 21)
South Asia	130 (127 - 134)	94 (91 - 96)	36 (32 - 40)	4 (3.7 - 4.3)	4,876 (4,754 - 5,005)	3,671 (3,567 - 3,776)	1,243 (1,127 - 1,383)	128 (124 - 131)	133 (129 - 137)	37 (33 - 41)	35 (31 - 39)
East Asia and Pacific	57 (54 - 60)	40 (39 - 41)	15 (13 - 16)	4.2 (3.8 - 4.6)	2,380 (2,264 - 2,509)	1,243 (1,205 - 1,287)	355 (324 - 403)	60 (57 - 63)	53 (50 - 56)	16 (14 - 18)	13 (12 - 15)
Latin America and Caribbean	55 (53 - 57)	33 (32 - 34)	16 (15 - 17)	3.9 (3.6 - 4.1)	647 (629 - 668)	380 (370 - 390)	152 (143 - 167)	59 (58 - 61)	50 (49 - 52)	17 (16 - 19)	14 (13 - 16)
North America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.8 (1.7 - 1.9)	49 (48 - 50)	36 (35 - 36)	25 (24 - 26)	12 (12 - 12)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
Europe and Central Asia	31 (30 - 32)	21 (21 - 22)	7 (7 - 8)	4.4 (4.1 - 4.7)	394 (385 - 405)	218 (212 - 225)	75 (71 - 83)	34 (33 - 35)	28 (27 - 29)	8 (8 - 9)	7 (6 - 7)
Eastern Europe and Central Asia	47 (45 - 48)	35 (34 - 37)	11 (10 - 12)	4.6 (4.2 - 4.9)	336 (327 - 347)	188 (181 - 195)	59 (54 - 67)	51 (49 - 53)	43 (41 - 44)	12 (11 - 13)	9 (9 - 11)
Western Europe	10 (10 - 11)	6 (6 - 6)	4 (4 - 4)	3.3 (3.3 - 3.4)	58 (58 - 58)	30 (30 - 31)	17 (16 - 17)	12 (12 - 12)	9 (9 - 9)	4 (4 - 4)	3 (3 - 3)
World	**93 (92 - 95)**	**76 (75 - 78)**	**37 (35 - 41)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,040)**	**9,910 (9,781 - 10,059)**	**4,891 (4,631 - 5,446)**	**95 (94 - 97)**	**91 (89 - 92)**	**39 (37 - 44)**	**35 (33 - 39)**

Estimates of mortality among children under age 5 by World Health Organization region[j]

	Under-five mortality rate (U5MR) with 90 per cent uncertainty interval (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
Region	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**	**Male**	**Female**	**Male**	**Female**
Africa	176 (173 - 180)	150 (147 - 153)	70 (63 - 82)	2.9 (2.4 - 3.2)	3,783 (3,708 - 3,867)	3,874 (3,797 - 3,959)	2,717 (2,460 - 3,202)	185 (181 - 190)	167 (164 - 171)	75 (68 - 88)	64 (58 - 76)
Americas	43 (42 - 44)	26 (26 - 27)	13 (12 - 14)	3.7 (3.5 - 4)	697 (679 - 718)	416 (406 - 427)	178 (168 - 193)	46 (45 - 48)	39 (38 - 40)	14 (13 - 15)	12 (11 - 13)
Eastern Mediterranean	104 (102 - 107)	81 (79 - 84)	43 (37 - 52)	2.8 (2.2 - 3.2)	1,462 (1,430 - 1,499)	1,189 (1,157 - 1,226)	789 (687 - 951)	107 (105 - 110)	101 (99 - 104)	46 (40 - 56)	40 (34 - 48)
Europe	31 (30 - 32)	21 (21 - 22)	7 (7 - 8)	4.5 (4.1 - 4.7)	396 (386 - 407)	219 (213 - 226)	76 (72 - 84)	34 (33 - 35)	28 (27 - 29)	8 (8 - 9)	7 (6 - 7)
South-East Asia	119 (116 - 122)	84 (82 - 87)	28 (25 - 30)	4.6 (4.3 - 4.9)	4,689 (4,567 - 4,816)	3,366 (3,267 - 3,471)	920 (839 - 1,013)	117 (114 - 121)	121 (117 - 124)	28 (26 - 31)	27 (24 - 30)
Western Pacific	52 (49 - 56)	35 (33 - 36)	12 (11 - 13)	4.7 (4.2 - 5)	1,801 (1,689 - 1,928)	842 (806 - 881)	211 (193 - 237)	54 (51 - 59)	49 (46 - 53)	13 (12 - 14)	11 (10 - 12)
World	**93 (92 - 95)**	**76 (75 - 78)**	**37 (35 - 41)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,040)**	**9,910 (9,781 - 10,059)**	**4,891 (4,631 - 5,446)**	**95 (94 - 97)**	**91 (89 - 92)**	**39 (37 - 44)**	**35 (33 - 39)**

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

Estimates of mortality among children under age 5 by UNICEF region[j] (continued)

	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]		
Region	**1990**	**2022**	**1990**	**2022**	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**
Sub-Saharan Africa	107 (105 - 109)	49 (45 - 56)	2,386 (2,345 - 2,434)	1,983 (1,823 - 2,261)	46 (44 - 49)	40 (39 - 43)	27 (24 - 32)	1.7 (1.1 - 2.1)	1,049 (1,006 - 1,129)	1,123 (1,078 - 1,202)	1,106 (994 - 1,330)
West and Central Africa	114 (111 - 118)	59 (52 - 71)	1,210 (1,177 - 1,247)	1,264 (1,101 - 1,508)	48 (45 - 52)	43 (40 - 46)	30 (25 - 38)	1.5 (0.7 - 2.1)	525 (493 - 561)	593 (557 - 634)	647 (541 - 827)
Eastern and Southern Africa	100 (98 - 103)	37 (34 - 43)	1,176 (1,151 - 1,204)	719 (665 - 829)	43 (41 - 49)	38 (36 - 42)	23 (21 - 28)	2 (1.3 - 2.4)	524 (499 - 589)	530 (506 - 594)	458 (412 - 559)
Middle East and North Africa	50 (49 - 52)	16 (14 - 19)	427 (417 - 438)	157 (139 - 183)	28 (26 - 31)	21 (21 - 22)	11 (10 - 13)	3 (2.4 - 3.5)	241 (225 - 262)	170 (163 - 178)	106 (93 - 126)
South Asia	89 (87 - 91)	31 (28 - 34)	3,342 (3,261 - 3,428)	1,062 (968 - 1,171)	59 (56 - 62)	46 (44 - 49)	22 (20 - 25)	3 (2.6 - 3.4)	2,243 (2,144 - 2,358)	1,853 (1,768 - 1,948)	782 (703 - 877)
East Asia and Pacific	44 (41 - 46)	12 (11 - 13)	1,843 (1,752 - 1,946)	279 (255 - 314)	28 (26 - 30)	20 (19 - 21)	7 (6 - 8)	4.2 (3.6 - 4.7)	1,199 (1,105 - 1,312)	636 (600 - 673)	174 (155 - 203)
Latin America and Caribbean	43 (42 - 45)	13 (13 - 15)	513 (500 - 528)	129 (121 - 141)	23 (22 - 24)	16 (15 - 17)	9 (8 - 10)	2.9 (2.5 - 3.3)	275 (261 - 292)	186 (174 - 196)	86 (78 - 98)
North America	9 (9 - 9)	5 (5 - 5)	41 (41 - 42)	22 (21 - 22)	6 (5 - 6)	5 (4 - 5)	3 (3 - 3)	1.8 (1.6 - 1.9)	26 (23 - 26)	20 (18 - 21)	13 (12 - 14)
Europe and Central Asia	25 (24 - 25)	6 (6 - 7)	315 (308 - 323)	64 (61 - 71)	14 (13 - 15)	10 (10 - 11)	4 (4 - 4)	3.9 (3.5 - 4.3)	177 (168 - 187)	105 (100 - 110)	40 (37 - 45)
Eastern Europe and Central Asia	37 (36 - 38)	9 (9 - 10)	266 (260 - 274)	51 (47 - 57)	21 (19 - 22)	17 (16 - 18)	5 (5 - 6)	4.1 (3.6 - 4.6)	146 (138 - 157)	88 (83 - 93)	30 (27 - 35)
Western Europe	9 (9 - 9)	3 (3 - 3)	49 (48 - 49)	14 (14 - 14)	6 (5 - 6)	3 (3 - 4)	2 (2 - 2)	2.8 (2.7 - 2.9)	31 (28 - 31)	17 (16 - 17)	10 (9 - 10)
World	**64 (63 - 65)**	**28 (27 - 30)**	**8,869 (8,744 - 9,015)**	**3,697 (3,525 - 4,013)**	**37 (36 - 38)**	**31 (30 - 32)**	**17 (16 - 19)**	**2.4 (2 - 2.6)**	**5,211 (5,048 - 5,445)**	**4,095 (3,980 - 4,233)**	**2,307 (2,167 - 2,580)**

Estimates of mortality among children under age 5 by World Health Organization region[j] (continued)

	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]		
Region	**1990**	**2022**	**1990**	**2022**	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**
Africa	106 (104 - 108)	48 (44 - 55)	2,307 (2,266 - 2,354)	1,892 (1,734 - 2,157)	45 (43 - 48)	40 (38 - 43)	26 (24 - 32)	1.7 (1.1 - 2.1)	1,012 (969 - 1,085)	1,079 (1,034 - 1,151)	1,053 (941 - 1,267)
Americas	34 (33 - 35)	11 (10 - 12)	556 (543 - 570)	151 (143 - 163)	18 (17 - 19)	13 (12 - 14)	7 (7 - 8)	2.9 (2.5 - 3.3)	302 (287 - 317)	207 (193 - 217)	100 (91 - 111)
Eastern Mediterranean	77 (76 - 79)	34 (30 - 40)	1,085 (1,065 - 1,110)	633 (560 - 743)	44 (42 - 47)	39 (38 - 41)	25 (21 - 30)	1.9 (1.3 - 2.3)	638 (607 - 678)	588 (564 - 618)	457 (396 - 553)
Europe	25 (24 - 25)	6 (6 - 7)	316 (309 - 324)	65 (61 - 71)	14 (13 - 15)	10 (10 - 11)	4 (4 - 4)	3.9 (3.5 - 4.3)	177 (169 - 188)	105 (100 - 110)	40 (37 - 45)
South-East Asia	81 (79 - 83)	24 (22 - 26)	3,182 (3,102 - 3,267)	796 (726 - 876)	53 (51 - 56)	41 (39 - 43)	17 (15 - 19)	3.6 (3.3 - 4)	2,111 (2,015 - 2,224)	1,651 (1,571 - 1,741)	555 (501 - 619)
Western Pacific	41 (38 - 43)	9 (8 - 10)	1,419 (1,329 - 1,521)	158 (145 - 177)	27 (24 - 30)	19 (17 - 20)	6 (5 - 7)	4.9 (4.3 - 5.4)	969 (876 - 1,073)	463 (427 - 497)	101 (89 - 116)
World	**64 (63 - 65)**	**28 (27 - 30)**	**8,869 (8,744 - 9,015)**	**3,697 (3,525 - 4,013)**	**37 (36 - 38)**	**31 (30 - 32)**	**17 (16 - 19)**	**2.4 (2 - 2.6)**	**5,211 (5,048 - 5,445)**	**4,095 (3,980 - 4,233)**	**2,307 (2,167 - 2,580)**

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

Estimates of mortality among children under age 5 by World Bank region[j]

	Under-five mortality rate (U5MR) with 90 per cent uncertainty interval (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands[la]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
Region	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**	**Male**	**Female**	**Male**	**Female**
East Asia and Pacific	57 (54 - 60)	40 (39 - 41)	15 (13 - 16)	4.2 (3.8 - 4.6)	2,380 (2,264 - 2,509)	1,243 (1,205 - 1,287)	355 (324 - 403)	60 (57 - 63)	53 (50 - 56)	16 (14 - 18)	13 (12 - 15)
Europe and Central Asia	31 (30 - 32)	21 (21 - 22)	7 (7 - 8)	4.4 (4.1 - 4.7)	394 (385 - 405)	218 (212 - 225)	75 (71 - 83)	34 (33 - 35)	28 (27 - 29)	8 (8 - 9)	7 (6 - 7)
Latin America and the Caribbean	55 (53 - 57)	33 (32 - 34)	16 (15 - 17)	3.9 (3.6 - 4.2)	648 (631 - 669)	380 (370 - 391)	152 (143 - 168)	59 (58 - 61)	50 (49 - 52)	17 (16 - 19)	14 (13 - 16)
Middle East and North Africa	66 (64 - 68)	43 (42 - 45)	19 (17 - 23)	3.8 (3.4 - 4.2)	562 (547 - 578)	342 (332 - 353)	188 (167 - 221)	68 (66 - 70)	64 (62 - 66)	21 (18 - 24)	18 (16 - 21)
North America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.8 (1.7 - 1.9)	49 (48 - 50)	36 (35 - 36)	25 (24 - 26)	12 (12 - 12)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
South Asia	130 (127 - 134)	94 (91 - 96)	36 (32 - 40)	4 (3.7 - 4.3)	4,876 (4,754 - 5,005)	3,671 (3,567 - 3,776)	1,243 (1,127 - 1,383)	128 (124 - 131)	133 (129 - 137)	37 (33 - 41)	35 (31 - 39)
Sub-Saharan Africa	179 (175 - 183)	151 (148 - 154)	71 (64 - 84)	2.9 (2.4 - 3.2)	3,923 (3,846 - 4,010)	4,019 (3,942 - 4,110)	2,852 (2,597 - 3,360)	188 (184 - 192)	170 (166 - 173)	76 (69 - 90)	65 (59 - 77)
Low income	184 (180 - 189)	146 (143 - 150)	65 (59 - 77)	3.3 (2.7 - 3.6)	2,308 (2,257 - 2,365)	2,280 (2,229 - 2,342)	1,512 (1,375 - 1,801)	193 (188 - 198)	176 (172 - 180)	69 (63 - 83)	59 (54 - 71)
Lower-middle income	124 (121 - 126)	97 (95 - 99)	44 (40 - 51)	3.2 (2.8 - 3.5)	7,517 (7,386 - 7,663)	6,064 (5,946 - 6,191)	2,901 (2,648 - 3,324)	125 (122 - 127)	123 (120 - 125)	47 (42 - 53)	42 (38 - 48)
Upper-middle income	55 (53 - 58)	37 (36 - 38)	13 (12 - 14)	4.5 (4.2 - 4.7)	2,808 (2,691 - 2,940)	1,447 (1,409 - 1,489)	410 (386 - 451)	58 (56 - 61)	52 (49 - 54)	14 (13 - 16)	12 (11 - 13)
High income	13 (13 - 13)	8 (8 - 8)	5 (5 - 5)	3.1 (2.9 - 3.2)	181 (177 - 186)	107 (106 - 109)	58 (56 - 60)	14 (14 - 15)	12 (11 - 12)	5 (5 - 5)	4 (4 - 5)
World	**93 (92 - 95)**	**76 (75 - 78)**	**37 (35 - 41)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,040)**	**9,910 (9,781 - 10,059)**	**4,891 (4,631 - 5,446)**	**95 (94 - 97)**	**91 (89 - 92)**	**39 (37 - 44)**	**35 (33 - 39)**

Estimates of mortality among children under age 5 by United Nations Population Division region[j]

	Under-five mortality rate (U5MR) with 90 per cent uncertainty interval (deaths per 1,000 live births)			Annual rate of reduction (ARR) (per cent)	Number of under-five deaths with 90 per cent uncertainty interval (thousands)[a]			Sex-specific under-five mortality rate (deaths per 1,000 live births)			
								1990		2022	
Region	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**	**Male**	**Female**	**Male**	**Female**
Sub-Saharan Africa	181 (177 - 185)	152 (149 - 156)	71 (65 - 85)	2.9 (2.4 - 3.2)	3,807 (3,729 - 3,892)	3,921 (3,844 - 4,011)	2,775 (2,519 - 3,277)	190 (186 - 194)	171 (168 - 175)	77 (70 - 91)	66 (60 - 78)
Africa	164 (161 - 168)	139 (137 - 142)	66 (60 - 78)	2.9 (2.3 - 3.1)	4,204 (4,126 - 4,292)	4,178 (4,100 - 4,269)	2,933 (2,680 - 3,446)	172 (169 - 176)	156 (153 - 159)	70 (64 - 83)	61 (55 - 72)
Asia	89 (87 - 91)	68 (66 - 69)	26 (24 - 28)	3.8 (3.6 - 4.1)	7,764 (7,599 - 7,947)	5,222 (5,112 - 5,337)	1,737 (1,624 - 1,891)	90 (88 - 92)	89 (87 - 91)	27 (25 - 30)	25 (23 - 27)
Europe	16 (16 - 16)	11 (10 - 11)	4 (4 - 4)	4.1 (4 - 4.2)	150 (148 - 153)	77 (76 - 78)	30 (29 - 30)	18 (17 - 18)	14 (14 - 14)	5 (5 - 5)	4 (4 - 4)
Latin America and the Caribbean	55 (53 - 57)	33 (32 - 34)	16 (15 - 17)	3.9 (3.6 - 4.2)	648 (631 - 669)	380 (370 - 391)	152 (143 - 168)	59 (58 - 61)	50 (49 - 52)	17 (16 - 19)	14 (13 - 16)
Northern America	11 (11 - 11)	8 (8 - 8)	6 (6 - 6)	1.8 (1.7 - 1.9)	49 (48 - 50)	36 (35 - 36)	25 (24 - 26)	12 (12 - 12)	10 (10 - 10)	7 (6 - 7)	6 (5 - 6)
Oceania	33 (31 - 36)	31 (28 - 34)	20 (14 - 28)	1.6 (0.5 - 2.6)	17 (16 - 18)	17 (15 - 18)	13 (10 - 19)	35 (33 - 38)	31 (29 - 33)	21 (16 - 30)	18 (13 - 25)
World	**93 (92 - 95)**	**76 (75 - 78)**	**37 (35 - 41)**	**2.9 (2.5 - 3.1)**	**12,832 (12,652 - 13,040)**	**9,910 (9,781 - 10,060)**	**4,891 (4,631 - 5,446)**	**95 (94 - 97)**	**91 (89 - 92)**	**39 (37 - 44)**	**35 (33 - 39)**

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

Estimates of mortality among children under age 5 by World Bank region[j] (continued)

	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]		
Region	**1990**	**2022**	**1990**	**2022**	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**
East Asia and Pacific	44 (41 - 46)	12 (11 - 13)	1,843 (1,752 - 1,946)	279 (255 - 314)	28 (26 - 30)	20 (19 - 21)	7 (6 - 8)	4.2 (3.6 - 4.7)	1,199 (1,105 - 1,312)	636 (600 - 673)	174 (155 - 203)
Europe and Central Asia	25 (24 - 25)	6 (6 - 7)	315 (308 - 322)	64 (61 - 71)	14 (13 - 15)	10 (10 - 11)	4 (4 - 4)	3.9 (3.5 - 4.3)	177 (168 - 187)	105 (100 - 110)	40 (37 - 45)
Latin America and the Caribbean	43 (42 - 45)	14 (13 - 15)	514 (501 - 529)	130 (122 - 141)	23 (22 - 25)	16 (15 - 17)	9 (8 - 10)	2.9 (2.6 - 3.4)	276 (262 - 292)	187 (175 - 197)	87 (79 - 98)
Middle East and North Africa	50 (49 - 52)	16 (14 - 19)	429 (419 - 440)	158 (140 - 184)	28 (26 - 31)	22 (21 - 23)	11 (10 - 13)	3 (2.4 - 3.5)	242 (226 - 263)	171 (164 - 179)	106 (93 - 127)
North America	9 (9 - 9)	5 (5 - 5)	41 (41 - 42)	22 (21 - 22)	6 (5 - 6)	5 (4 - 5)	3 (3 - 3)	1.8 (1.6 - 1.9)	26 (23 - 26)	20 (18 - 21)	13 (12 - 14)
South Asia	89 (87 - 91)	31 (28 - 34)	3,342 (3,261 - 3,428)	1,062 (968 - 1,171)	59 (56 - 62)	46 (44 - 49)	22 (20 - 25)	3 (2.6 - 3.4)	2,243 (2,144 - 2,358)	1,853 (1,768 - 1,948)	782 (703 - 877)
Sub-Saharan Africa	107 (105 - 109)	49 (45 - 56)	2,385 (2,343 - 2,432)	1,982 (1,822 - 2,260)	46 (44 - 49)	40 (39 - 43)	27 (24 - 32)	1.7 (1.1 - 2.1)	1,048 (1,005 - 1,127)	1,122 (1,077 - 1,201)	1,105 (993 - 1,330)
Low income	110 (108 - 112)	46 (42 - 53)	1,403 (1,376 - 1,435)	1,085 (989 - 1,247)	49 (47 - 53)	42 (40 - 46)	26 (23 - 32)	1.9 (1.3 - 2.4)	644 (616 - 703)	686 (657 - 750)	633 (563 - 775)
Lower-middle income	83 (82 - 85)	34 (31 - 38)	5,084 (4,999 - 5,178)	2,221 (2,063 - 2,469)	49 (48 - 52)	40 (39 - 42)	22 (20 - 24)	2.6 (2.2 - 2.9)	3,067 (2,954 - 3,209)	2,597 (2,500 - 2,708)	1,434 (1,316 - 1,620)
Upper-middle income	43 (42 - 46)	11 (10 - 12)	2,218 (2,125 - 2,323)	332 (312 - 364)	27 (25 - 29)	19 (18 - 20)	7 (6 - 7)	4.4 (4 - 4.8)	1,400 (1,302 - 1,515)	749 (703 - 787)	203 (185 - 229)
High income	11 (10 - 11)	4 (4 - 4)	150 (147 - 153)	49 (47 - 51)	7 (6 - 7)	4 (4 - 5)	3 (2 - 3)	2.8 (2.6 - 3)	92 (85 - 97)	57 (53 - 59)	31 (29 - 33)
World	**64 (63 - 65)**	**28 (27 - 30)**	**8,869 (8,744 - 9,015)**	**3,697 (3,525 - 4,013)**	**37 (36 - 38)**	**31 (30 - 32)**	**17 (16 - 19)**	**2.4 (2 - 2.6)**	**5,211 (5,048 - 5,445)**	**4,095 (3,980 - 4,233)**	**2,307 (2,167 - 2,580)**

Estimates of mortality among children under age 5 by United Nations Population Division region[j] (continued)

	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]		
Region	**1990**	**2022**	**1990**	**2022**	**1990**	**2000**	**2022**	**1990–2022**	**1990**	**2000**	**2022**
Sub-Saharan Africa	108 (106 - 110)	49 (45 - 56)	2,312 (2,271 - 2,360)	1,926 (1,767 - 2,201)	46 (44 - 49)	40 (39 - 43)	27 (24 - 32)	1.7 (1.1 - 2.1)	1,010 (967 - 1,083)	1,086 (1,040 - 1,159)	1,066 (953 - 1,289)
Africa	100 (98 - 102)	45 (42 - 52)	2,599 (2,556 - 2,647)	2,051 (1,892 - 2,331)	44 (42 - 47)	38 (37 - 41)	25 (23 - 30)	1.7 (1.2 - 2.1)	1,168 (1,122 - 1,260)	1,203 (1,158 - 1,281)	1,152 (1,040 - 1,381)
Asia	64 (62 - 65)	22 (21 - 24)	5,580 (5,461 - 5,715)	1,459 (1,367 - 1,579)	41 (40 - 43)	34 (33 - 35)	15 (14 - 17)	3.1 (2.7 - 3.4)	3,659 (3,517 - 3,840)	2,637 (2,546 - 2,737)	1,032 (953 - 1,138)
Europe	13 (13 - 13)	4 (4 - 4)	122 (121 - 125)	25 (24 - 25)	8 (7 - 9)	5 (5 - 6)	2 (2 - 3)	3.9 (3.5 - 4.2)	75 (69 - 82)	40 (37 - 42)	16 (15 - 17)
Latin America and the Caribbean	43 (42 - 45)	14 (13 - 15)	514 (501 - 529)	130 (122 - 141)	23 (22 - 25)	16 (15 - 17)	9 (8 - 10)	2.9 (2.5 - 3.3)	276 (262 - 292)	187 (175 - 197)	87 (79 - 98)
Northern America	9 (9 - 9)	5 (5 - 5)	41 (41 - 42)	22 (21 - 22)	6 (5 - 6)	5 (4 - 5)	3 (3 - 3)	1.8 (1.6 - 1.9)	26 (23 - 26)	20 (18 - 21)	13 (12 - 14)
Oceania	25 (24 - 27)	16 (12 - 22)	13 (12 - 14)	11 (8 - 15)	13 (12 - 15)	14 (12 - 16)	10 (7 - 14)	0.9 (-0.2 - 2)	7 (6 - 8)	8 (7 - 9)	7 (5 - 10)
World	**64 (63 - 65)**	**28 (27 - 30)**	**8,869 (8,744 - 9,015)**	**3,697 (3,525 - 4,013)**	**37 (36 - 38)**	**31 (30 - 32)**	**17 (16 - 19)**	**2.4 (2 - 2.6)**	**5,211 (5,048 - 5,445)**	**4,095 (3,980 - 4,233)**	**2,307 (2,167 - 2,580)**

Country, regional and global estimates of mortality among children, adolescents and youth ages 5–24

Country	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
Afghanistan	19 (8 - 40)	10 (6 - 15)	6 (4 - 12)	11 (7 - 16)	19 (12 - 42)	18 (11 - 41)	10 (6 - 15)	9 (6 - 14)	53 (28 - 124)	30 (15 - 64)	11 (6 - 26)	27 (14 - 57)	48 (26 - 113)	58 (31 - 138)	24 (12 - 52)	36 (18 - 78)
Albania	6 (6 - 7)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	7 (7 - 8)	5 (5 - 5)	2 (2 - 2)	2 (1 - 2)	8 (8 - 8)	3 (3 - 4)	1 (0 - 1)	0 (0 - 0)	11 (11 - 12)	4 (4 - 5)	4 (4 - 5)	3 (2 - 3)
Algeria	9 (9 - 10)	3 (2 - 3)	7 (6 - 7)	2 (2 - 3)	10 (10 - 11)	8 (7 - 9)	3 (3 - 3)	2 (2 - 3)	11 (10 - 13)	5 (5 - 6)	6 (5 - 7)	3 (3 - 4)	14 (12 - 16)	8 (7 - 10)	7 (6 - 8)	4 (3 - 4)
Andorra	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 3)	1 (1 - 1)	1 (0 - 1)	9 (7 - 11)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	12 (10 - 16)	5 (4 - 7)	4 (3 - 6)	2 (1 - 2)
Angola	56 (43 - 71)	15 (12 - 19)	19 (15 - 24)	15 (12 - 20)	56 (44 - 72)	55 (42 - 70)	16 (12 - 20)	15 (11 - 19)	63 (49 - 80)	29 (23 - 37)	14 (11 - 18)	20 (15 - 25)	52 (38 - 69)	73 (56 - 95)	37 (28 - 48)	21 (14 - 29)
Anguilla	3 (3 - 4)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (3 - 5)	3 (2 - 3)	2 (1 - 2)	1 (1 - 2)	11 (8 - 14)	6 (5 - 8)	0 (0 - 0)	0 (0 - 0)	15 (12 - 19)	6 (5 - 9)	8 (6 - 11)	3 (2 - 5)
Antigua and Barbuda	3 (2 - 3)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 3)	3 (2 - 3)	2 (1 - 2)	14 (6 - 31)	5 (3 - 7)	0 (0 - 0)	0 (0 - 0)	19 (10 - 45)	8 (5 - 19)	7 (5 - 10)	3 (2 - 4)
Argentina	3 (3 - 3)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	4 (4 - 4)	3 (3 - 3)	2 (2 - 2)	2 (1 - 2)	9 (8 - 9)	7 (7 - 8)	5 (4 - 5)	5 (5 - 5)	12 (11 - 12)	6 (5 - 6)	10 (9 - 11)	4 (4 - 5)
Armenia	3 (3 - 4)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (2 - 3)	2 (2 - 3)	2 (1 - 2)	6 (6 - 7)	9 (8 - 10)	0 (0 - 0)	0 (0 - 0)	9 (9 - 10)	4 (4 - 4)	14 (12 - 16)	4 (4 - 5)
Australia	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 8)	4 (3 - 4)	2 (2 - 2)	1 (1 - 1)	11 (11 - 11)	4 (4 - 4)	5 (5 - 5)	2 (2 - 2)
Austria	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 8)	3 (3 - 4)	1 (1 - 1)	0 (0 - 0)	12 (12 - 12)	4 (3 - 4)	5 (4 - 5)	2 (2 - 2)
Azerbaijan	6 (5 - 6)	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	6 (6 - 7)	5 (5 - 5)	4 (3 - 4)	3 (2 - 3)	8 (8 - 8)	7 (7 - 8)	1 (1 - 1)	1 (1 - 1)	11 (10 - 11)	5 (5 - 5)	10 (9 - 11)	5 (4 - 5)
Bahamas	4 (4 - 5)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 6)	3 (3 - 4)	3 (2 - 4)	2 (1 - 3)	12 (11 - 14)	9 (7 - 12)	0 (0 - 0)	0 (0 - 0)	17 (15 - 19)	8 (7 - 10)	15 (11 - 19)	4 (3 - 6)
Bahrain	4 (3 - 4)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	3 (3 - 3)	2 (2 - 3)	1 (1 - 2)	6 (5 - 7)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	8 (7 - 9)	4 (3 - 5)	5 (4 - 6)	3 (2 - 4)
Bangladesh	24 (22 - 27)	5 (4 - 6)	74 (67 - 83)	14 (11 - 17)	24 (21 - 27)	25 (22 - 28)	5 (4 - 7)	4 (3 - 5)	23 (21 - 26)	9 (8 - 10)	49 (45 - 53)	29 (25 - 34)	21 (19 - 24)	25 (23 - 29)	10 (9 - 12)	7 (6 - 9)
Barbados	3 (2 - 4)	2 (1 - 3)	0 (0 - 0)	0 (0 - 0)	3 (2 - 4)	2 (2 - 3)	2 (1 - 3)	1 (1 - 2)	10 (9 - 11)	6 (3 - 11)	0 (0 - 0)	0 (0 - 0)	13 (12 - 15)	7 (5 - 8)	7 (4 - 15)	4 (2 - 8)
Belarus	4 (4 - 4)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	5 (5 - 5)	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	11 (11 - 12)	4 (3 - 5)	2 (2 - 2)	0 (0 - 0)	17 (17 - 18)	5 (5 - 6)	5 (4 - 7)	2 (2 - 3)
Belgium	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (7 - 8)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	11 (11 - 11)	4 (4 - 4)	4 (3 - 4)	2 (1 - 2)
Belize	5 (4 - 6)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	4 (3 - 4)	3 (2 - 3)	2 (1 - 2)	9 (7 - 11)	12 (11 - 14)	0 (0 - 0)	0 (0 - 0)	12 (10 - 16)	5 (4 - 7)	18 (16 - 20)	6 (5 - 7)
Benin	41 (36 - 47)	18 (13 - 25)	6 (5 - 7)	6 (5 - 9)	42 (36 - 48)	41 (35 - 47)	19 (13 - 26)	17 (13 - 24)	28 (23 - 35)	22 (13 - 38)	3 (2 - 3)	6 (3 - 10)	29 (23 - 37)	27 (22 - 34)	24 (14 - 44)	19 (11 - 33)
Bhutan	16 (11 - 26)	7 (4 - 13)	0 (0 - 0)	0 (0 - 0)	17 (14 - 31)	16 (12 - 24)	8 (4 - 14)	6 (3 - 12)	31 (18 - 52)	12 (5 - 26)	0 (0 - 1)	0 (0 - 0)	33 (20 - 59)	28 (19 - 46)	15 (7 - 34)	8 (4 - 19)
Bolivia (Plurinational State of)	12 (10 - 14)	4 (2 - 7)	2 (2 - 3)	1 (1 - 2)	13 (11 - 15)	11 (9 - 13)	5 (3 - 9)	3 (2 - 6)	23 (19 - 28)	9 (4 - 24)	3 (3 - 4)	2 (1 - 6)	26 (21 - 32)	20 (16 - 25)	13 (5 - 34)	6 (3 - 16)
Bosnia and Herzegovina	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	7 (6 - 7)	3 (3 - 4)	1 (0 - 1)	0 (0 - 0)	9 (9 - 10)	4 (3 - 4)	5 (4 - 6)	2 (2 - 2)
Botswana	19 (16 - 24)	7 (4 - 10)	1 (1 - 1)	0 (0 - 1)	20 (16 - 25)	19 (15 - 24)	8 (5 - 12)	5 (4 - 9)	39 (30 - 50)	10 (6 - 19)	1 (1 - 1)	0 (0 - 1)	39 (29 - 52)	38 (28 - 52)	14 (8 - 25)	7 (4 - 13)
Brazil	4 (4 - 4)	2 (2 - 2)	15 (15 - 16)	7 (7 - 7)	5 (5 - 5)	4 (3 - 4)	3 (3 - 3)	2 (2 - 2)	14 (14 - 15)	12 (12 - 13)	42 (41 - 43)	40 (39 - 42)	21 (20 - 22)	8 (7 - 8)	19 (18 - 20)	5 (4 - 6)
British Virgin Islands	4 (3 - 5)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 6)	3 (2 - 4)	3 (2 - 4)	2 (2 - 3)	12 (9 - 15)	9 (7 - 11)	0 (0 - 0)	0 (0 - 0)	17 (13 - 22)	7 (5 - 10)	13 (9 - 17)	5 (3 - 8)
Brunei Darussalam	4 (3 - 5)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	5 (4 - 6)	3 (2 - 4)	2 (2 - 3)	2 (1 - 2)	12 (10 - 15)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	17 (14 - 21)	7 (5 - 8)	6 (5 - 8)	4 (3 - 5)
Bulgaria	4 (4 - 4)	2 (1 - 2)	0 (0 - 1)	0 (0 - 0)	5 (5 - 5)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	8 (8 - 8)	6 (5 - 6)	1 (1 - 1)	0 (0 - 0)	11 (11 - 12)	5 (5 - 5)	8 (7 - 8)	3 (3 - 4)
Burkina Faso	38 (32 - 44)	16 (9 - 29)	10 (9 - 12)	10 (6 - 19)	39 (33 - 45)	37 (31 - 43)	17 (10 - 31)	15 (9 - 28)	37 (32 - 43)	16 (12 - 23)	6 (6 - 7)	7 (5 - 10)	34 (28 - 40)	41 (35 - 48)	21 (14 - 30)	12 (8 - 17)
Burundi	58 (47 - 71)	19 (10 - 37)	10 (8 - 12)	7 (5 - 14)	59 (49 - 73)	57 (46 - 71)	19 (12 - 39)	18 (11 - 37)	73 (43 - 124)	17 (9 - 33)	8 (5 - 13)	4 (2 - 8)	61 (35 - 107)	85 (52 - 144)	21 (11 - 45)	12 (7 - 24)
Cabo Verde	5 (4 - 6)	2 (1 - 3)	0 (0 - 0)	0 (0 - 0)	6 (5 - 8)	4 (4 - 5)	2 (1 - 3)	1 (1 - 2)	9 (8 - 10)	6 (3 - 11)	0 (0 - 0)	0 (0 - 0)	12 (10 - 14)	6 (5 - 7)	9 (5 - 15)	4 (2 - 7)
Cambodia	32 (25 - 40)	4 (2 - 7)	8 (7 - 10)	1 (1 - 2)	32 (26 - 40)	32 (26 - 40)	5 (3 - 9)	3 (2 - 6)	37 (29 - 47)	10 (6 - 17)	6 (5 - 8)	3 (2 - 5)	42 (32 - 55)	32 (25 - 41)	13 (9 - 23)	7 (4 - 12)
Cameroon	32 (28 - 36)	20 (14 - 28)	11 (10 - 12)	15 (11 - 21)	32 (28 - 36)	31 (27 - 36)	22 (15 - 30)	19 (13 - 27)	30 (26 - 36)	29 (18 - 46)	7 (6 - 8)	16 (10 - 25)	32 (26 - 39)	28 (23 - 34)	32 (19 - 52)	25 (15 - 42)
Canada	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	2 (2 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (7 - 8)	5 (5 - 6)	3 (3 - 3)	2 (2 - 3)	11 (11 - 11)	4 (4 - 4)	7 (6 - 8)	4 (3 - 4)
Central African Republic	29 (23 - 36)	23 (15 - 37)	2 (2 - 3)	4 (3 - 6)	29 (23 - 37)	29 (23 - 36)	22 (15 - 35)	24 (16 - 39)	45 (37 - 55)	34 (12 - 97)	2 (2 - 3)	4 (1 - 12)	41 (33 - 52)	48 (39 - 60)	33 (12 - 94)	35 (11 - 107)
Chad	49 (41 - 59)	22 (16 - 29)	8 (7 - 10)	11 (9 - 15)	50 (42 - 60)	48 (40 - 58)	22 (16 - 29)	22 (16 - 29)	57 (48 - 69)	33 (17 - 64)	7 (6 - 8)	12 (6 - 22)	70 (56 - 87)	45 (37 - 54)	37 (19 - 73)	29 (15 - 57)
Chile	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	4 (4 - 4)	2 (2 - 3)	1 (1 - 2)	1 (1 - 1)	8 (8 - 8)	6 (5 - 7)	2 (2 - 2)	2 (1 - 2)	12 (12 - 13)	4 (4 - 4)	8 (7 - 9)	3 (3 - 4)
China	7 (6 - 8)	2 (1 - 3)	147 (126 - 173)	31 (19 - 51)	8 (7 - 10)	6 (5 - 7)	2 (1 - 3)	1 (1 - 2)	9 (7 - 11)	4 (2 - 8)	218 (178 - 277)	60 (28 - 125)	11 (9 - 14)	6 (5 - 8)	5 (2 - 11)	2 (1 - 4)
Colombia	5 (4 - 5)	3 (2 - 3)	4 (3 - 4)	2 (2 - 2)	6 (5 - 6)	4 (3 - 4)	3 (3 - 3)	2 (2 - 2)	26 (22 - 31)	12 (12 - 12)	18 (15 - 21)	10 (10 - 11)	38 (31 - 45)	14 (11 - 18)	19 (18 - 20)	5 (4 - 6)
Comoros	16 (13 - 22)	5 (3 - 8)	0 (0 - 0)	0 (0 - 0)	17 (13 - 23)	16 (13 - 21)	6 (4 - 9)	4 (3 - 7)	24 (17 - 36)	8 (5 - 13)	0 (0 - 0)	0 (0 - 0)	29 (20 - 45)	19 (14 - 28)	9 (5 - 16)	6 (4 - 10)

Country, regional and global estimates of mortality among children, adolescents and youth ages 5–24

Country	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
Congo	30 (16 - 52)	6 (3 - 11)	2 (1 - 4)	1 (1 - 2)	31 (22 - 54)	30 (22 - 53)	7 (4 - 14)	5 (3 - 9)	57 (31 - 95)	15 (7 - 32)	3 (2 - 5)	2 (1 - 3)	51 (31 - 86)	63 (37 - 107)	19 (8 - 40)	11 (5 - 25)
Cook Islands	5 (4 - 6)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	6 (5 - 8)	4 (3 - 5)	2 (2 - 3)	1 (1 - 2)	17 (14 - 21)	8 (3 - 22)	0 (0 - 0)	0 (0 - 0)	25 (20 - 31)	9 (7 - 12)	12 (6 - 35)	5 (2 - 14)
Costa Rica	3 (3 - 3)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 3)	2 (2 - 2)	1 (1 - 2)	6 (6 - 7)	8 (7 - 8)	0 (0 - 0)	1 (1 - 1)	9 (8 - 9)	4 (4 - 4)	11 (11 - 12)	4 (3 - 4)
Croatia	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 4)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	10 (10 - 10)	4 (4 - 5)	1 (1 - 1)	0 (0 - 0)	15 (15 - 16)	5 (4 - 5)	6 (5 - 7)	2 (2 - 2)
Cuba	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	5 (4 - 5)	3 (3 - 3)	2 (2 - 3)	2 (2 - 2)	11 (10 - 11)	5 (5 - 6)	2 (2 - 2)	1 (1 - 1)	13 (13 - 13)	8 (8 - 8)	7 (6 - 7)	4 (4 - 4)
Cyprus[b]	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	1 (1 - 2)	1 (1 - 1)	6 (6 - 7)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	9 (8 - 10)	3 (3 - 4)	4 (3 - 5)	1 (1 - 2)
Czechia	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	7 (7 - 7)	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	10 (10 - 10)	4 (4 - 4)	5 (5 - 6)	2 (2 - 2)
Côte d'Ivoire	29 (24 - 34)	16 (12 - 22)	10 (9 - 12)	12 (9 - 16)	29 (25 - 34)	29 (24 - 34)	17 (12 - 23)	16 (11 - 21)	32 (26 - 38)	16 (11 - 23)	7 (6 - 8)	9 (6 - 13)	33 (26 - 39)	31 (25 - 37)	19 (13 - 28)	13 (8 - 19)
Democratic People's Republic of Korea	8 (6 - 10)	4 (3 - 5)	3 (2 - 4)	1 (1 - 2)	9 (7 - 12)	7 (5 - 9)	5 (3 - 6)	3 (2 - 4)	14 (11 - 18)	9 (7 - 12)	7 (5 - 8)	3 (3 - 4)	20 (15 - 26)	9 (7 - 12)	12 (9 - 16)	6 (4 - 8)
Democratic Republic of the Congo	37 (28 - 50)	19 (13 - 28)	37 (30 - 49)	54 (38 - 79)	37 (30 - 51)	36 (29 - 51)	20 (13 - 29)	19 (13 - 28)	46 (28 - 80)	35 (17 - 74)	31 (21 - 54)	67 (35 - 139)	45 (28 - 79)	47 (30 - 83)	36 (18 - 76)	35 (17 - 75)
Denmark	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	1 (0 - 1)	5 (5 - 6)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	8 (7 - 8)	3 (3 - 3)	3 (3 - 4)	2 (1 - 2)
Djibouti	26 (20 - 33)	12 (9 - 15)	0 (0 - 1)	0 (0 - 0)	26 (20 - 33)	26 (20 - 33)	13 (10 - 16)	11 (8 - 14)	42 (32 - 53)	25 (19 - 31)	0 (0 - 1)	0 (0 - 1)	40 (30 - 53)	43 (32 - 57)	30 (21 - 41)	19 (13 - 28)
Dominica	4 (3 - 6)	2 (1 - 4)	0 (0 - 0)	0 (0 - 0)	5 (4 - 7)	3 (3 - 4)	3 (1 - 5)	2 (1 - 3)	7 (5 - 9)	9 (6 - 13)	0 (0 - 0)	0 (0 - 0)	10 (7 - 13)	4 (3 - 5)	13 (9 - 20)	4 (2 - 7)
Dominican Republic	7 (6 - 8)	3 (2 - 5)	1 (1 - 1)	1 (0 - 1)	8 (7 - 9)	6 (5 - 7)	4 (2 - 6)	2 (2 - 4)	13 (9 - 18)	12 (5 - 25)	2 (1 - 3)	2 (1 - 5)	18 (12 - 25)	8 (6 - 12)	17 (8 - 35)	7 (3 - 15)
Ecuador	7 (7 - 7)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	8 (8 - 8)	6 (6 - 7)	3 (3 - 3)	3 (2 - 3)	14 (14 - 15)	12 (11 - 12)	3 (3 - 3)	4 (4 - 4)	19 (18 - 20)	10 (9 - 10)	18 (17 - 19)	6 (5 - 6)
Egypt	11 (11 - 11)	4 (3 - 4)	16 (16 - 16)	9 (8 - 9)	11 (11 - 12)	10 (10 - 10)	4 (4 - 5)	3 (2 - 3)	12 (12 - 13)	8 (7 - 9)	13 (13 - 14)	15 (14 - 16)	14 (13 - 15)	10 (10 - 11)	11 (10 - 12)	5 (4 - 6)
El Salvador	6 (6 - 6)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	7 (7 - 7)	5 (5 - 5)	4 (4 - 5)	3 (3 - 4)	28 (27 - 29)	10 (8 - 12)	3 (3 - 3)	1 (1 - 1)	46 (44 - 48)	10 (9 - 11)	15 (12 - 19)	4 (3 - 5)
Equatorial Guinea	35 (27 - 45)	15 (12 - 19)	0 (0 - 1)	1 (0 - 1)	35 (27 - 45)	35 (27 - 45)	15 (12 - 20)	14 (11 - 19)	41 (32 - 52)	24 (19 - 30)	0 (0 - 0)	1 (1 - 1)	39 (29 - 52)	42 (32 - 56)	29 (21 - 39)	18 (12 - 26)
Eritrea	41 (33 - 50)	7 (3 - 15)	3 (2 - 3)	1 (0 - 1)	42 (35 - 52)	40 (33 - 50)	8 (4 - 17)	6 (3 - 13)	50 (39 - 63)	20 (15 - 25)	2 (2 - 3)	2 (1 - 2)	44 (33 - 59)	55 (42 - 71)	26 (19 - 34)	13 (9 - 20)
Estonia	5 (5 - 5)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	6 (5 - 6)	4 (3 - 4)	1 (1 - 1)	1 (1 - 1)	13 (13 - 14)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	20 (19 - 21)	6 (6 - 7)	4 (3 - 5)	2 (2 - 3)
Eswatini	11 (5 - 21)	11 (5 - 23)	0 (0 - 1)	0 (0 - 1)	12 (7 - 23)	10 (6 - 20)	12 (8 - 29)	10 (6 - 21)	29 (23 - 37)	23 (18 - 29)	0 (0 - 1)	1 (0 - 1)	31 (24 - 41)	27 (20 - 36)	22 (16 - 31)	23 (16 - 32)
Ethiopia	73 (59 - 91)	7 (4 - 11)	100 (84 - 123)	21 (13 - 34)	77 (63 - 95)	69 (56 - 87)	8 (5 - 13)	6 (4 - 9)	73 (60 - 89)	16 (8 - 30)	67 (56 - 82)	41 (23 - 78)	82 (65 - 102)	65 (53 - 80)	20 (11 - 41)	11 (6 - 22)
Fiji	12 (9 - 16)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	13 (10 - 16)	11 (8 - 15)	6 (5 - 7)	4 (3 - 5)	16 (8 - 33)	10 (8 - 13)	0 (0 - 1)	0 (0 - 0)	21 (12 - 44)	11 (6 - 23)	12 (9 - 15)	8 (6 - 11)
Finland	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 8)	5 (4 - 5)	1 (1 - 1)	0 (0 - 0)	12 (12 - 13)	4 (4 - 4)	6 (6 - 7)	3 (2 - 3)
France	2 (2 - 2)	1 (1 - 1)	2 (1 - 2)	1 (1 - 1)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (7 - 8)	3 (3 - 3)	6 (6 - 7)	2 (2 - 2)	11 (11 - 12)	4 (4 - 4)	4 (4 - 4)	2 (1 - 2)
Gabon	18 (12 - 27)	11 (5 - 25)	0 (0 - 1)	1 (0 - 1)	18 (13 - 28)	18 (12 - 27)	12 (6 - 26)	11 (5 - 24)	23 (16 - 32)	11 (5 - 23)	0 (0 - 1)	0 (0 - 1)	26 (19 - 37)	20 (14 - 28)	13 (6 - 27)	9 (4 - 20)
Gambia	33 (25 - 42)	9 (7 - 12)	1 (1 - 1)	1 (1 - 1)	33 (25 - 42)	32 (25 - 42)	10 (8 - 13)	8 (6 - 11)	39 (31 - 50)	18 (14 - 23)	1 (1 - 1)	1 (1 - 1)	38 (29 - 50)	40 (30 - 52)	23 (17 - 30)	12 (9 - 17)
Georgia	4 (3 - 4)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	9 (9 - 9)	7 (6 - 7)	1 (1 - 1)	0 (0 - 0)	13 (12 - 14)	5 (4 - 5)	10 (9 - 11)	3 (3 - 4)
Germany	2 (2 - 2)	1 (1 - 1)	2 (2 - 2)	1 (1 - 1)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	6 (6 - 7)	3 (3 - 3)	7 (7 - 7)	2 (2 - 2)	9 (9 - 9)	4 (3 - 4)	4 (3 - 4)	2 (2 - 2)
Ghana	25 (22 - 29)	10 (7 - 14)	12 (10 - 13)	8 (6 - 11)	26 (22 - 30)	24 (21 - 28)	10 (8 - 15)	9 (6 - 13)	29 (18 - 50)	14 (7 - 30)	8 (6 - 14)	9 (5 - 19)	32 (20 - 55)	27 (16 - 47)	17 (9 - 37)	11 (5 - 25)
Greece	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	1 (1 - 1)	7 (7 - 7)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	10 (10 - 10)	3 (3 - 3)	4 (3 - 5)	1 (1 - 2)
Grenada	5 (4 - 6)	3 (3 - 5)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	4 (3 - 5)	4 (3 - 6)	3 (2 - 4)	11 (9 - 13)	5 (3 - 7)	0 (0 - 0)	0 (0 - 0)	15 (12 - 18)	7 (5 - 9)	7 (5 - 10)	3 (2 - 5)
Guatemala	13 (13 - 13)	3 (3 - 4)	3 (3 - 4)	1 (1 - 1)	13 (13 - 14)	13 (13 - 13)	4 (4 - 4)	3 (3 - 3)	21 (20 - 21)	13 (12 - 13)	4 (4 - 4)	5 (5 - 5)	26 (25 - 27)	16 (15 - 16)	18 (17 - 18)	7 (7 - 8)
Guinea	43 (37 - 51)	17 (13 - 25)	7 (6 - 9)	7 (5 - 9)	43 (37 - 52)	42 (36 - 51)	18 (13 - 26)	17 (13 - 25)	33 (27 - 41)	31 (15 - 60)	4 (3 - 5)	9 (5 - 17)	33 (26 - 42)	33 (27 - 42)	32 (16 - 63)	29 (14 - 58)
Guinea-Bissau	44 (15 - 111)	13 (7 - 21)	1 (1 - 4)	1 (0 - 1)	46 (35 - 140)	43 (33 - 132)	14 (9 - 22)	12 (7 - 20)	47 (36 - 60)	23 (18 - 30)	1 (1 - 1)	1 (1 - 1)	42 (32 - 56)	51 (38 - 67)	26 (19 - 35)	21 (14 - 29)
Guyana	5 (5 - 6)	4 (3 - 4)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	4 (4 - 5)	4 (3 - 5)	3 (3 - 4)	15 (14 - 15)	11 (9 - 15)	0 (0 - 0)	0 (0 - 0)	19 (18 - 20)	10 (9 - 11)	16 (12 - 20)	7 (5 - 9)
Haiti	27 (23 - 33)	10 (6 - 15)	5 (4 - 6)	2 (2 - 4)	28 (23 - 33)	27 (23 - 33)	10 (7 - 17)	9 (6 - 14)	41 (32 - 53)	17 (10 - 31)	5 (4 - 7)	4 (2 - 7)	36 (27 - 47)	46 (35 - 60)	21 (11 - 37)	14 (7 - 26)
Honduras	9 (7 - 10)	5 (3 - 8)	1 (1 - 2)	1 (1 - 2)	10 (8 - 12)	8 (6 - 9)	5 (3 - 9)	4 (3 - 7)	19 (15 - 24)	10 (8 - 13)	2 (1 - 2)	2 (2 - 3)	26 (20 - 33)	13 (9 - 17)	14 (10 - 18)	6 (4 - 9)
Hungary	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 9)	4 (3 - 4)	1 (1 - 1)	0 (0 - 0)	12 (11 - 12)	5 (4 - 5)	5 (5 - 6)	2 (2 - 2)
Iceland	2 (2 - 2)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 3)	2 (1 - 2)	1 (0 - 1)	0 (0 - 1)	7 (6 - 8)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	4 (3 - 4)	3 (3 - 5)	1 (1 - 2)

Country, regional and global estimates of mortality among children, adolescents and youth ages 5–24

Country	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
India[c]	21 (20 - 22)	4 (3 - 4)	442 (421 - 463)	93 (80 - 107)	20 (19 - 21)	22 (20 - 23)	4 (4 - 5)	3 (3 - 4)	25 (23 - 27)	8 (7 - 10)	424 (390 - 458)	209 (176 - 247)	22 (20 - 24)	29 (26 - 31)	9 (8 - 11)	7 (6 - 9)
Indonesia	13 (12 - 15)	5 (3 - 7)	59 (53 - 65)	22 (16 - 33)	14 (12 - 15)	13 (12 - 15)	6 (4 - 8)	4 (3 - 6)	13 (10 - 15)	10 (4 - 21)	47 (40 - 56)	43 (20 - 94)	15 (12 - 18)	10 (8 - 13)	14 (6 - 30)	5 (3 - 12)
Iran (Islamic Republic of)	14 (11 - 17)	3 (2 - 4)	21 (18 - 26)	4 (4 - 5)	14 (11 - 18)	14 (11 - 17)	3 (3 - 4)	3 (2 - 3)	22 (15 - 32)	10 (7 - 14)	22 (15 - 31)	11 (8 - 16)	27 (18 - 39)	17 (12 - 25)	14 (10 - 21)	6 (4 - 9)
Iraq	10 (7 - 15)	5 (3 - 11)	5 (4 - 7)	6 (3 - 12)	11 (8 - 16)	9 (7 - 14)	6 (3 - 12)	4 (2 - 9)	11 (9 - 14)	9 (7 - 12)	4 (3 - 5)	8 (6 - 10)	16 (12 - 20)	7 (5 - 9)	13 (10 - 17)	5 (3 - 7)
Ireland	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 3)	2 (1 - 2)	1 (1 - 1)	1 (0 - 1)	6 (6 - 6)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	9 (9 - 9)	3 (3 - 3)	3 (2 - 4)	1 (1 - 2)
Israel	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	5 (5 - 5)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)	7 (7 - 8)	3 (3 - 3)	4 (4 - 4)	2 (1 - 2)
Italy	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)	6 (6 - 6)	2 (2 - 2)	6 (6 - 6)	1 (1 - 1)	10 (9 - 10)	3 (3 - 3)	3 (3 - 3)	1 (1 - 1)
Jamaica	4 (3 - 6)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	5 (4 - 7)	3 (3 - 4)	4 (3 - 5)	3 (2 - 4)	13 (10 - 17)	12 (9 - 15)	1 (1 - 1)	1 (0 - 1)	19 (14 - 24)	8 (6 - 11)	18 (13 - 23)	6 (4 - 9)
Japan	2 (2 - 2)	1 (1 - 1)	3 (3 - 3)	1 (1 - 1)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	5 (5 - 5)	3 (3 - 3)	9 (9 - 9)	4 (3 - 4)	7 (7 - 7)	3 (3 - 3)	4 (4 - 4)	2 (2 - 2)
Jordan	5 (4 - 6)	2 (1 - 4)	0 (0 - 1)	1 (0 - 1)	6 (5 - 7)	4 (3 - 5)	3 (2 - 5)	2 (1 - 3)	10 (7 - 12)	7 (5 - 9)	1 (1 - 1)	1 (1 - 2)	13 (10 - 17)	6 (4 - 7)	9 (7 - 12)	4 (3 - 6)
Kazakhstan	6 (6 - 6)	3 (2 - 3)	2 (2 - 2)	1 (1 - 1)	7 (7 - 7)	4 (4 - 4)	3 (3 - 3)	2 (2 - 2)	14 (14 - 14)	7 (7 - 7)	4 (4 - 4)	2 (2 - 2)	19 (18 - 19)	9 (8 - 9)	9 (9 - 10)	4 (4 - 4)
Kenya	16 (14 - 19)	5 (3 - 7)	12 (10 - 14)	7 (4 - 10)	17 (14 - 20)	16 (13 - 18)	6 (4 - 9)	4 (3 - 6)	23 (19 - 28)	15 (7 - 31)	11 (9 - 14)	17 (9 - 34)	25 (19 - 31)	22 (17 - 27)	19 (9 - 39)	12 (5 - 25)
Kiribati	15 (12 - 20)	10 (8 - 13)	0 (0 - 0)	0 (0 - 0)	16 (12 - 20)	15 (11 - 19)	11 (9 - 14)	9 (7 - 12)	22 (17 - 28)	17 (13 - 22)	0 (0 - 0)	0 (0 - 0)	28 (21 - 36)	15 (12 - 21)	23 (17 - 30)	11 (7 - 16)
Kosovo (UNSCR 1244)[d]	7 (6 - 9)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	8 (7 - 11)	6 (5 - 8)	2 (2 - 3)	2 (1 - 2)	13 (10 - 17)	6 (5 - 8)	1 (0 - 1)	0 (0 - 0)	18 (14 - 23)	8 (5 - 10)	8 (6 - 10)	4 (3 - 5)
Kuwait	5 (5 - 6)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	6 (6 - 7)	4 (4 - 5)	2 (2 - 3)	2 (1 - 2)	15 (14 - 16)	5 (4 - 6)	1 (0 - 1)	0 (0 - 0)	25 (23 - 27)	4 (3 - 5)	7 (5 - 9)	3 (2 - 3)
Kyrgyzstan	6 (5 - 6)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	7 (7 - 7)	4 (4 - 5)	3 (3 - 4)	2 (2 - 2)	11 (11 - 12)	6 (6 - 7)	1 (1 - 1)	1 (1 - 1)	15 (14 - 16)	8 (7 - 8)	8 (8 - 9)	5 (4 - 5)
Lao People's Democratic Republic	41 (27 - 60)	6 (4 - 10)	5 (4 - 7)	1 (1 - 2)	41 (32 - 62)	40 (30 - 61)	7 (5 - 12)	5 (3 - 9)	27 (15 - 46)	11 (5 - 24)	2 (2 - 4)	2 (1 - 4)	31 (18 - 55)	24 (15 - 40)	13 (7 - 29)	9 (4 - 21)
Latvia	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	7 (7 - 7)	4 (4 - 4)	1 (1 - 1)	1 (1 - 1)	14 (13 - 14)	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	21 (20 - 22)	6 (6 - 7)	7 (6 - 8)	3 (3 - 4)
Lebanon	6 (5 - 8)	4 (3 - 5)	1 (0 - 1)	0 (0 - 1)	7 (6 - 9)	5 (4 - 7)	4 (3 - 6)	3 (2 - 4)	39 (30 - 50)	7 (6 - 9)	3 (2 - 4)	1 (1 - 1)	70 (54 - 90)	7 (5 - 9)	10 (7 - 13)	4 (3 - 6)
Lesotho	16 (13 - 20)	8 (5 - 12)	1 (1 - 1)	0 (0 - 1)	17 (13 - 21)	16 (13 - 20)	9 (6 - 13)	7 (5 - 10)	30 (16 - 49)	26 (14 - 48)	1 (1 - 2)	1 (1 - 2)	33 (20 - 55)	27 (16 - 45)	31 (16 - 60)	21 (11 - 39)
Liberia	31 (24 - 42)	16 (11 - 27)	2 (2 - 3)	2 (2 - 4)	31 (24 - 42)	31 (24 - 42)	18 (12 - 29)	15 (10 - 26)	111 (78 - 160)	28 (17 - 44)	6 (4 - 8)	3 (2 - 5)	178 (123 - 262)	40 (28 - 59)	30 (18 - 48)	25 (15 - 43)
Libya	8 (6 - 11)	2 (1 - 6)	1 (1 - 1)	0 (0 - 1)	9 (7 - 13)	6 (5 - 9)	3 (1 - 8)	2 (1 - 5)	10 (8 - 13)	6 (5 - 8)	1 (1 - 1)	1 (1 - 1)	14 (11 - 18)	6 (4 - 8)	8 (6 - 11)	3 (2 - 5)
Lithuania	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	5 (5 - 6)	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	12 (12 - 13)	5 (5 - 6)	1 (1 - 1)	0 (0 - 0)	19 (18 - 19)	6 (5 - 6)	7 (7 - 8)	3 (2 - 3)
Luxembourg	2 (1 - 2)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	0 (0 - 1)	0 (0 - 0)	10 (9 - 11)	2 (1 - 3)	0 (0 - 0)	0 (0 - 0)	14 (12 - 15)	5 (5 - 6)	3 (2 - 4)	1 (1 - 2)
Madagascar	36 (31 - 43)	18 (13 - 29)	12 (11 - 14)	14 (10 - 22)	36 (31 - 43)	36 (30 - 43)	19 (14 - 31)	18 (13 - 28)	32 (27 - 37)	17 (10 - 29)	8 (7 - 9)	10 (7 - 17)	32 (26 - 38)	31 (26 - 38)	21 (13 - 37)	14 (8 - 24)
Malawi	38 (34 - 42)	12 (9 - 15)	11 (10 - 11)	7 (5 - 8)	38 (34 - 42)	38 (33 - 42)	13 (10 - 17)	10 (8 - 14)	41 (34 - 48)	18 (10 - 29)	7 (6 - 9)	8 (5 - 12)	38 (32 - 46)	42 (36 - 50)	22 (13 - 37)	13 (8 - 23)
Malaysia	5 (5 - 5)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	6 (6 - 6)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	11 (10 - 13)	6 (5 - 6)	4 (3 - 4)	3 (3 - 3)	16 (15 - 18)	6 (6 - 7)	8 (7 - 9)	3 (3 - 4)
Maldives	9 (8 - 10)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	8 (7 - 9)	1 (1 - 2)	1 (1 - 1)	12 (11 - 14)	3 (2 - 5)	0 (0 - 0)	0 (0 - 0)	14 (12 - 16)	11 (9 - 12)	4 (3 - 6)	2 (1 - 3)
Mali	39 (35 - 45)	20 (15 - 28)	10 (9 - 12)	14 (10 - 19)	40 (35 - 45)	39 (34 - 44)	21 (15 - 28)	20 (14 - 28)	36 (30 - 43)	24 (15 - 38)	6 (5 - 7)	11 (7 - 17)	33 (26 - 41)	39 (33 - 48)	28 (17 - 47)	19 (11 - 32)
Malta	1 (1 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	1 (1 - 2)	1 (1 - 2)	1 (1 - 1)	1 (0 - 1)	4 (4 - 5)	3 (2 - 3)	0 (0 - 0)	0 (0 - 0)	6 (5 - 8)	2 (2 - 3)	4 (3 - 5)	1 (1 - 2)
Marshall Islands	9 (7 - 11)	6 (5 - 7)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	8 (6 - 10)	7 (5 - 9)	5 (4 - 6)	15 (12 - 20)	12 (9 - 15)	0 (0 - 0)	0 (0 - 0)	21 (16 - 27)	10 (7 - 13)	16 (12 - 21)	7 (4 - 11)
Mauritania	20 (17 - 23)	7 (5 - 11)	1 (1 - 1)	1 (1 - 1)	20 (17 - 24)	20 (17 - 23)	8 (6 - 12)	6 (4 - 9)	20 (14 - 29)	15 (9 - 25)	1 (1 - 1)	1 (1 - 2)	26 (17 - 38)	15 (10 - 22)	17 (10 - 29)	13 (7 - 23)
Mauritius	3 (3 - 4)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	9 (8 - 9)	8 (7 - 9)	0 (0 - 0)	0 (0 - 0)	10 (9 - 11)	7 (6 - 8)	11 (10 - 12)	4 (4 - 5)
Mexico	5 (5 - 5)	3 (2 - 3)	11 (11 - 11)	5 (5 - 6)	6 (6 - 6)	4 (4 - 4)	3 (3 - 3)	2 (2 - 2)	12 (11 - 12)	11 (11 - 11)	20 (20 - 20)	24 (23 - 24)	17 (16 - 17)	7 (6 - 7)	16 (16 - 17)	6 (5 - 6)
Micronesia (Federated States of)	9 (7 - 12)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	8 (6 - 11)	6 (5 - 8)	4 (3 - 5)	16 (12 - 20)	11 (8 - 14)	0 (0 - 0)	0 (0 - 0)	21 (16 - 28)	10 (7 - 13)	15 (11 - 20)	6 (4 - 10)
Monaco	2 (1 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 3)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)	6 (5 - 8)	3 (3 - 4)	0 (0 - 0)	0 (0 - 0)	9 (7 - 12)	4 (3 - 5)	4 (3 - 6)	2 (1 - 3)
Mongolia	11 (10 - 12)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	12 (11 - 13)	10 (9 - 11)	4 (3 - 4)	2 (2 - 2)	16 (15 - 17)	8 (8 - 9)	1 (1 - 1)	0 (0 - 0)	21 (19 - 23)	12 (10 - 13)	11 (10 - 12)	5 (5 - 6)
Montenegro	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (2 - 3)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	6 (6 - 7)	4 (4 - 5)	0 (0 - 0)	0 (0 - 0)	9 (8 - 10)	4 (3 - 5)	6 (5 - 8)	2 (2 - 3)
Montserrat	4 (3 - 5)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	5 (4 - 6)	3 (2 - 4)	2 (1 - 2)	1 (1 - 2)	12 (9 - 15)	6 (4 - 7)	0 (0 - 0)	0 (0 - 0)	17 (13 - 22)	7 (5 - 10)	8 (6 - 11)	3 (2 - 5)
Morocco	9 (8 - 11)	2 (1 - 4)	6 (6 - 7)	2 (1 - 3)	10 (9 - 12)	8 (7 - 10)	3 (2 - 5)	2 (1 - 3)	12 (10 - 15)	5 (2 - 12)	6 (5 - 7)	3 (1 - 7)	16 (12 - 19)	9 (7 - 11)	7 (3 - 17)	3 (1 - 7)

Country, regional and global estimates of mortality among children, adolescents and youth ages 5–24

Country	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
Mozambique	61 (44 - 82)	13 (7 - 23)	23 (18 - 31)	12 (7 - 21)	62 (49 - 84)	59 (45 - 82)	14 (8 - 25)	12 (7 - 23)	38 (30 - 47)	30 (13 - 67)	10 (8 - 12)	19 (9 - 44)	39 (31 - 49)	36 (28 - 46)	32 (14 - 72)	27 (11 - 66)
Myanmar	29 (20 - 43)	4 (2 - 8)	28 (23 - 43)	4 (2 - 7)	29 (23 - 45)	28 (22 - 43)	5 (3 - 9)	3 (2 - 6)	26 (18 - 42)	9 (4 - 17)	22 (16 - 34)	8 (4 - 15)	30 (20 - 51)	22 (16 - 34)	11 (5 - 21)	7 (3 - 14)
Namibia	14 (12 - 18)	13 (8 - 20)	1 (0 - 1)	1 (1 - 1)	15 (12 - 19)	14 (11 - 17)	13 (9 - 21)	12 (8 - 19)	27 (23 - 33)	21 (10 - 44)	1 (1 - 1)	1 (0 - 2)	32 (26 - 39)	23 (18 - 28)	25 (11 - 54)	16 (7 - 35)
Nauru	12 (9 - 15)	5 (4 - 7)	0 (0 - 0)	0 (0 - 0)	13 (10 - 16)	11 (9 - 14)	6 (5 - 8)	4 (3 - 6)	18 (14 - 24)	11 (9 - 15)	0 (0 - 0)	0 (0 - 0)	24 (19 - 32)	12 (9 - 16)	16 (12 - 21)	7 (4 - 10)
Nepal	26 (23 - 30)	4 (3 - 7)	14 (12 - 16)	3 (2 - 4)	26 (23 - 30)	26 (23 - 30)	5 (4 - 8)	4 (3 - 6)	20 (17 - 25)	10 (5 - 18)	8 (6 - 9)	6 (3 - 12)	21 (17 - 26)	20 (16 - 25)	11 (6 - 22)	8 (4 - 15)
Netherlands (Kingdom of the)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	1 (1 - 1)	5 (4 - 5)	3 (2 - 3)	1 (1 - 1)	1 (1 - 1)	6 (6 - 6)	3 (3 - 3)	3 (3 - 4)	2 (2 - 2)
New Zealand	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	11 (11 - 12)	5 (4 - 5)	1 (1 - 1)	0 (0 - 0)	17 (16 - 17)	6 (5 - 6)	6 (5 - 7)	3 (3 - 4)
Nicaragua[e]	7 (6 - 9)	3 (1 - 7)	1 (1 - 1)	0 (0 - 1)	8 (7 - 11)	6 (5 - 8)	4 (2 - 8)	3 (1 - 5)	20 (16 - 26)	10 (7 - 12)	2 (1 - 2)	1 (1 - 2)	27 (20 - 35)	14 (10 - 19)	14 (10 - 18)	6 (4 - 9)
Niger	64 (56 - 73)	31 (24 - 42)	16 (14 - 18)	25 (20 - 33)	67 (58 - 76)	60 (52 - 71)	31 (24 - 42)	32 (24 - 43)	39 (31 - 47)	26 (12 - 57)	6 (5 - 8)	13 (6 - 28)	38 (29 - 47)	41 (32 - 50)	27 (12 - 59)	25 (11 - 59)
Nigeria	38 (33 - 44)	19 (14 - 26)	103 (90 - 118)	115 (89 - 153)	38 (33 - 44)	38 (32 - 44)	20 (15 - 27)	18 (14 - 25)	38 (28 - 54)	18 (11 - 28)	67 (51 - 94)	76 (51 - 116)	38 (27 - 56)	37 (27 - 54)	19 (12 - 30)	16 (10 - 26)
Niue	5 (4 - 7)	5 (4 - 7)	0 (0 - 0)	0 (0 - 0)	7 (5 - 8)	4 (3 - 5)	6 (5 - 8)	4 (3 - 5)	11 (9 - 14)	11 (9 - 14)	0 (0 - 0)	0 (0 - 0)	15 (12 - 19)	6 (5 - 9)	18 (12 - 26)	8 (5 - 11)
North Macedonia	3 (3 - 4)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (2 - 3)	1 (1 - 2)	1 (1 - 1)	5 (5 - 6)	4 (3 - 4)	0 (0 - 0)	0 (0 - 0)	7 (7 - 8)	3 (3 - 4)	5 (4 - 6)	3 (2 - 3)
Norway	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)	6 (6 - 6)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)	9 (9 - 9)	3 (3 - 3)	4 (4 - 4)	2 (2 - 2)
Oman	8 (6 - 10)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	8 (7 - 11)	7 (5 - 8)	3 (2 - 3)	2 (1 - 2)	10 (8 - 13)	6 (5 - 7)	0 (0 - 0)	0 (0 - 0)	13 (10 - 17)	5 (4 - 7)	8 (6 - 10)	3 (2 - 5)
Pakistan	14 (13 - 15)	8 (4 - 13)	42 (40 - 44)	43 (27 - 74)	14 (13 - 15)	14 (13 - 15)	8 (5 - 14)	7 (4 - 12)	21 (18 - 25)	11 (5 - 26)	45 (39 - 52)	53 (24 - 124)	23 (20 - 27)	19 (16 - 23)	16 (7 - 39)	6 (3 - 13)
Palau	7 (5 - 9)	5 (4 - 6)	0 (0 - 0)	0 (0 - 0)	8 (6 - 10)	6 (4 - 7)	6 (4 - 7)	4 (3 - 5)	16 (13 - 20)	28 (16 - 48)	0 (0 - 0)	0 (0 - 0)	22 (18 - 28)	8 (6 - 11)	27 (16 - 48)	28 (15 - 50)
Panama	5 (5 - 5)	3 (3 - 3)	0 (0 - 0)	0 (0 - 0)	6 (5 - 6)	4 (4 - 4)	3 (3 - 4)	3 (2 - 3)	11 (11 - 12)	9 (9 - 10)	1 (1 - 1)	1 (1 - 1)	16 (15 - 17)	6 (6 - 7)	13 (12 - 14)	5 (4 - 6)
Papua New Guinea	14 (11 - 18)	8 (6 - 10)	2 (1 - 2)	2 (1 - 2)	15 (12 - 19)	14 (11 - 18)	9 (7 - 11)	7 (5 - 9)	21 (16 - 27)	14 (11 - 18)	2 (1 - 2)	3 (2 - 4)	26 (20 - 34)	14 (11 - 20)	16 (12 - 21)	12 (9 - 17)
Paraguay	7 (6 - 9)	3 (1 - 5)	1 (1 - 1)	0 (0 - 1)	8 (7 - 10)	6 (5 - 7)	3 (2 - 6)	2 (1 - 4)	17 (13 - 22)	10 (8 - 13)	1 (1 - 2)	1 (1 - 2)	22 (17 - 29)	11 (8 - 15)	14 (11 - 19)	6 (4 - 9)
Peru	10 (9 - 11)	2 (2 - 4)	5 (5 - 6)	1 (1 - 2)	11 (9 - 12)	9 (8 - 10)	3 (2 - 4)	2 (1 - 3)	18 (16 - 21)	6 (3 - 15)	8 (7 - 9)	4 (2 - 8)	23 (20 - 27)	13 (11 - 15)	9 (4 - 22)	3 (2 - 8)
Philippines	8 (8 - 9)	4 (4 - 4)	13 (13 - 14)	9 (9 - 10)	9 (9 - 10)	7 (7 - 8)	5 (4 - 5)	3 (3 - 4)	14 (13 - 16)	10 (9 - 11)	18 (16 - 19)	21 (20 - 22)	19 (17 - 21)	10 (9 - 12)	13 (12 - 14)	6 (5 - 7)
Poland	3 (3 - 3)	1 (1 - 1)	2 (2 - 2)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 9)	5 (5 - 5)	4 (4 - 5)	2 (2 - 2)	13 (13 - 13)	4 (3 - 4)	7 (7 - 7)	3 (3 - 3)
Portugal	4 (4 - 4)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	5 (5 - 5)	3 (3 - 3)	1 (1 - 1)	1 (1 - 1)	11 (11 - 11)	3 (3 - 3)	2 (2 - 2)	0 (0 - 0)	17 (17 - 18)	5 (5 - 5)	4 (4 - 5)	2 (2 - 2)
Qatar[f]	4 (3 - 5)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	5 (4 - 5)	3 (3 - 4)	1 (1 - 2)	1 (1 - 1)	7 (6 - 8)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	9 (8 - 11)	4 (3 - 5)	5 (4 - 6)	2 (2 - 3)
Republic of Korea	4 (4 - 5)	1 (1 - 1)	4 (4 - 4)	0 (0 - 0)	5 (5 - 5)	4 (3 - 4)	1 (1 - 1)	1 (1 - 1)	9 (9 - 9)	3 (3 - 3)	8 (8 - 8)	2 (2 - 2)	12 (12 - 13)	5 (5 - 6)	4 (3 - 4)	2 (2 - 3)
Republic of Moldova	5 (5 - 6)	2 (2 - 2)	0 (0 - 0)	0 (0 - 0)	7 (6 - 7)	4 (4 - 4)	3 (2 - 3)	2 (2 - 2)	13 (12 - 13)	7 (7 - 8)	1 (1 - 1)	0 (0 - 0)	19 (18 - 19)	7 (6 - 7)	10 (10 - 11)	4 (3 - 4)
Romania	5 (5 - 5)	2 (1 - 2)	2 (2 - 2)	0 (0 - 0)	6 (6 - 7)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	9 (8 - 9)	5 (4 - 5)	3 (3 - 3)	1 (1 - 1)	12 (12 - 12)	5 (5 - 6)	6 (6 - 7)	3 (3 - 3)
Russian Federation	5 (5 - 5)	2 (2 - 2)	12 (11 - 12)	3 (3 - 3)	7 (7 - 7)	4 (3 - 4)	2 (2 - 2)	1 (1 - 1)	14 (14 - 14)	10 (9 - 12)	28 (27 - 28)	15 (13 - 18)	21 (20 - 21)	7 (6 - 7)	16 (14 - 19)	4 (4 - 5)
Rwanda	61 (51 - 73)	15 (7 - 33)	14 (12 - 17)	5 (3 - 11)	63 (53 - 76)	58 (48 - 71)	16 (10 - 35)	14 (8 - 33)	66 (51 - 86)	9 (5 - 17)	9 (7 - 12)	2 (1 - 5)	72 (53 - 95)	61 (47 - 80)	11 (6 - 21)	7 (3 - 13)
Saint Kitts and Nevis	5 (4 - 6)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	6 (4 - 7)	4 (3 - 5)	4 (3 - 5)	2 (2 - 3)	7 (4 - 11)	16 (9 - 29)	0 (0 - 0)	0 (0 - 0)	10 (6 - 16)	4 (3 - 7)	23 (12 - 43)	9 (4 - 18)
Saint Lucia	4 (3 - 5)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	5 (4 - 7)	3 (3 - 4)	3 (2 - 4)	2 (1 - 3)	11 (10 - 13)	12 (10 - 15)	0 (0 - 0)	0 (0 - 0)	15 (13 - 18)	7 (6 - 8)	17 (13 - 22)	7 (5 - 10)
Saint Vincent and the Grenadines	4 (3 - 4)	4 (3 - 6)	0 (0 - 0)	0 (0 - 0)	4 (4 - 5)	3 (2 - 4)	5 (4 - 7)	3 (2 - 5)	9 (8 - 10)	11 (8 - 15)	0 (0 - 0)	0 (0 - 0)	12 (10 - 14)	5 (4 - 6)	16 (11 - 21)	7 (4 - 10)
Samoa	5 (3 - 9)	2 (1 - 4)	0 (0 - 0)	0 (0 - 0)	6 (4 - 11)	4 (3 - 8)	3 (2 - 4)	2 (1 - 3)	26 (8 - 81)	7 (4 - 13)	0 (0 - 0)	0 (0 - 0)	30 (12 - 94)	22 (9 - 73)	9 (5 - 17)	5 (3 - 11)
San Marino	3 (2 - 3)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	3 (2 - 4)	2 (2 - 3)	0 (0 - 1)	0 (0 - 1)	9 (7 - 11)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	12 (10 - 16)	5 (4 - 7)	3 (2 - 4)	1 (1 - 2)
Sao Tome and Principe	22 (17 - 28)	3 (2 - 4)	0 (0 - 0)	0 (0 - 0)	22 (17 - 28)	21 (16 - 27)	4 (3 - 5)	3 (2 - 3)	25 (7 - 87)	18 (8 - 40)	0 (0 - 0)	0 (0 - 0)	30 (12 - 110)	20 (8 - 75)	23 (10 - 53)	12 (5 - 30)
Saudi Arabia	8 (7 - 11)	2 (1 - 2)	3 (3 - 4)	1 (1 - 1)	9 (7 - 12)	7 (6 - 10)	2 (1 - 2)	1 (1 - 2)	14 (6 - 49)	9 (5 - 16)	4 (3 - 17)	5 (3 - 9)	18 (10 - 71)	9 (5 - 31)	14 (8 - 24)	5 (3 - 9)
Senegal	33 (28 - 38)	7 (5 - 11)	7 (6 - 8)	3 (2 - 5)	33 (28 - 38)	32 (28 - 37)	9 (6 - 13)	6 (4 - 9)	25 (21 - 31)	11 (7 - 20)	4 (3 - 4)	4 (2 - 7)	27 (22 - 34)	23 (19 - 29)	14 (8 - 25)	9 (5 - 16)
Serbia	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	4 (3 - 4)	3 (2 - 3)	1 (1 - 1)	1 (1 - 1)	7 (7 - 7)	4 (4 - 5)	1 (1 - 1)	0 (0 - 0)	10 (10 - 11)	4 (4 - 4)	6 (5 - 7)	2 (2 - 3)
Seychelles	4 (3 - 5)	2 (1 - 4)	0 (0 - 0)	0 (0 - 0)	4 (3 - 6)	3 (2 - 4)	3 (2 - 5)	2 (1 - 3)	8 (7 - 10)	8 (5 - 14)	0 (0 - 0)	0 (0 - 0)	12 (10 - 15)	5 (4 - 6)	12 (7 - 21)	4 (2 - 7)
Sierra Leone	41 (23 - 100)	24 (17 - 36)	5 (3 - 12)	5 (4 - 8)	42 (30 - 108)	41 (28 - 109)	24 (17 - 35)	25 (18 - 37)	50 (35 - 73)	35 (22 - 53)	4 (3 - 6)	6 (4 - 9)	46 (31 - 70)	54 (39 - 80)	37 (23 - 58)	32 (20 - 51)

Country, regional and global estimates of mortality among children, adolescents and youth ages 5–24

Country	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
Singapore	2 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	6 (6 - 6)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	8 (8 - 9)	4 (3 - 4)	3 (3 - 4)	2 (1 - 2)
Slovakia	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	7 (7 - 7)	4 (4 - 4)	1 (1 - 1)	0 (0 - 0)	10 (10 - 10)	4 (3 - 4)	5 (5 - 6)	2 (2 - 3)
Slovenia	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (0 - 1)	9 (8 - 9)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	13 (12 - 13)	4 (4 - 5)	3 (3 - 4)	1 (1 - 2)
Solomon Islands	7 (6 - 9)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	8 (7 - 11)	6 (5 - 8)	5 (4 - 6)	3 (2 - 4)	14 (11 - 18)	9 (7 - 12)	0 (0 - 0)	0 (0 - 0)	19 (15 - 24)	8 (6 - 11)	12 (9 - 16)	6 (4 - 9)
Somalia	39 (30 - 50)	24 (18 - 30)	8 (6 - 10)	12 (10 - 16)	39 (30 - 50)	39 (30 - 50)	24 (18 - 31)	23 (18 - 31)	55 (43 - 70)	45 (35 - 57)	7 (6 - 9)	16 (12 - 20)	47 (35 - 63)	62 (47 - 81)	49 (33 - 68)	40 (28 - 56)
South Africa	7 (5 - 11)	6 (5 - 6)	7 (6 - 10)	6 (6 - 7)	8 (6 - 12)	6 (5 - 9)	7 (6 - 7)	5 (4 - 6)	21 (16 - 27)	21 (18 - 23)	18 (13 - 23)	19 (17 - 22)	29 (22 - 37)	14 (11 - 18)	25 (22 - 29)	16 (14 - 19)
South Sudan	54 (42 - 69)	22 (17 - 28)	7 (6 - 9)	8 (6 - 10)	55 (43 - 71)	52 (40 - 67)	22 (17 - 29)	22 (17 - 28)	68 (53 - 87)	37 (29 - 48)	6 (5 - 8)	9 (7 - 11)	55 (40 - 74)	81 (61 - 105)	38 (26 - 52)	37 (25 - 52)
Spain	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 9)	2 (2 - 3)	5 (5 - 6)	1 (1 - 1)	13 (12 - 13)	4 (4 - 4)	3 (3 - 4)	1 (1 - 2)
Sri Lanka	6 (6 - 7)	2 (1 - 2)	2 (2 - 2)	1 (0 - 1)	7 (7 - 7)	6 (5 - 6)	2 (1 - 3)	1 (1 - 2)	21 (21 - 21)	4 (2 - 8)	7 (7 - 7)	1 (1 - 3)	29 (27 - 30)	13 (12 - 14)	6 (3 - 11)	3 (1 - 5)
State of Palestine	5 (4 - 7)	3 (2 - 6)	0 (0 - 0)	0 (0 - 1)	6 (5 - 8)	4 (3 - 5)	4 (2 - 7)	3 (2 - 4)	12 (9 - 15)	7 (5 - 9)	0 (0 - 1)	1 (1 - 1)	17 (13 - 22)	6 (5 - 8)	10 (7 - 12)	4 (3 - 6)
Sudan	26 (21 - 33)	7 (4 - 13)	17 (14 - 21)	9 (6 - 15)	26 (21 - 33)	26 (21 - 33)	8 (5 - 15)	6 (4 - 11)	45 (35 - 58)	25 (19 - 32)	18 (14 - 23)	22 (17 - 28)	43 (32 - 56)	47 (36 - 62)	30 (21 - 40)	19 (12 - 28)
Suriname	5 (4 - 5)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	6 (5 - 7)	4 (3 - 4)	4 (3 - 4)	4 (3 - 5)	14 (13 - 15)	11 (9 - 15)	0 (0 - 0)	0 (0 - 0)	18 (16 - 20)	10 (8 - 11)	13 (10 - 17)	10 (7 - 13)
Sweden	1 (1 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	5 (5 - 5)	3 (3 - 3)	1 (1 - 1)	0 (0 - 0)	7 (7 - 8)	3 (3 - 3)	4 (4 - 5)	2 (2 - 2)
Switzerland	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 9)	3 (2 - 3)	1 (1 - 1)	0 (0 - 0)	12 (12 - 13)	4 (4 - 5)	4 (3 - 4)	2 (1 - 2)
Syrian Arab Republic	9 (8 - 11)	5 (3 - 8)	4 (3 - 4)	2 (1 - 4)	10 (9 - 12)	9 (7 - 10)	5 (3 - 9)	4 (3 - 6)	14 (10 - 22)	8 (3 - 25)	4 (3 - 6)	4 (2 - 12)	17 (12 - 27)	11 (8 - 17)	13 (6 - 37)	4 (2 - 13)
Tajikistan	8 (8 - 8)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)	9 (9 - 10)	6 (6 - 6)	2 (2 - 2)	2 (2 - 2)	11 (11 - 12)	4 (4 - 5)	1 (1 - 1)	1 (1 - 1)	13 (13 - 14)	9 (9 - 10)	5 (5 - 6)	3 (3 - 4)
Thailand	6 (6 - 7)	4 (4 - 5)	7 (7 - 7)	3 (3 - 4)	7 (7 - 8)	5 (5 - 6)	5 (5 - 6)	3 (3 - 4)	16 (15 - 17)	12 (10 - 15)	19 (18 - 20)	10 (8 - 13)	24 (22 - 25)	8 (7 - 9)	18 (15 - 22)	6 (4 - 7)
Timor-Leste	27 (21 - 34)	9 (7 - 12)	1 (0 - 1)	0 (0 - 0)	27 (21 - 34)	27 (21 - 34)	10 (8 - 13)	8 (6 - 11)	21 (10 - 42)	31 (13 - 72)	0 (0 - 1)	1 (0 - 2)	27 (14 - 55)	15 (8 - 30)	25 (12 - 61)	36 (18 - 89)
Togo	33 (28 - 40)	11 (7 - 16)	4 (3 - 4)	2 (2 - 4)	34 (29 - 42)	32 (27 - 39)	11 (8 - 17)	10 (7 - 15)	24 (19 - 31)	17 (8 - 35)	2 (2 - 2)	3 (1 - 6)	27 (21 - 34)	22 (17 - 28)	19 (9 - 40)	14 (6 - 31)
Tonga	3 (2 - 5)	2 (1 - 3)	0 (0 - 0)	0 (0 - 0)	4 (3 - 6)	3 (2 - 4)	2 (2 - 4)	2 (1 - 2)	7 (5 - 10)	8 (5 - 13)	0 (0 - 0)	0 (0 - 0)	9 (6 - 14)	4 (2 - 6)	12 (8 - 19)	4 (3 - 8)
Trinidad and Tobago	4 (4 - 4)	2 (2 - 3)	0 (0 - 0)	0 (0 - 0)	5 (4 - 5)	3 (3 - 4)	2 (2 - 3)	2 (1 - 2)	11 (10 - 11)	14 (9 - 22)	0 (0 - 0)	0 (0 - 0)	14 (13 - 15)	7 (7 - 8)	21 (14 - 32)	7 (4 - 11)
Tunisia	7 (6 - 7)	3 (3 - 4)	1 (1 - 2)	1 (1 - 1)	8 (7 - 9)	6 (5 - 6)	4 (3 - 4)	3 (2 - 3)	9 (7 - 11)	8 (5 - 11)	2 (1 - 2)	1 (1 - 2)	12 (9 - 15)	6 (4 - 7)	11 (7 - 16)	4 (3 - 6)
Turkmenistan	7 (7 - 8)	4 (3 - 5)	1 (1 - 1)	0 (0 - 1)	8 (8 - 9)	6 (6 - 7)	4 (3 - 5)	3 (2 - 4)	13 (13 - 13)	9 (6 - 15)	1 (1 - 1)	1 (1 - 2)	16 (15 - 17)	10 (9 - 11)	11 (6 - 18)	8 (5 - 13)
Turks and Caicos Islands	3 (3 - 4)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (3 - 5)	3 (2 - 3)	2 (1 - 2)	1 (1 - 2)	11 (8 - 14)	6 (5 - 8)	0 (0 - 0)	0 (0 - 0)	15 (12 - 19)	6 (5 - 8)	9 (6 - 11)	4 (2 - 5)
Tuvalu	10 (8 - 13)	4 (3 - 6)	0 (0 - 0)	0 (0 - 0)	11 (8 - 14)	9 (7 - 11)	5 (4 - 7)	3 (3 - 5)	16 (13 - 21)	10 (8 - 13)	0 (0 - 0)	0 (0 - 0)	22 (17 - 29)	10 (7 - 13)	14 (10 - 18)	5 (4 - 8)
Türkiye	9 (7 - 11)	2 (2 - 2)	11 (9 - 14)	3 (3 - 3)	10 (8 - 12)	8 (7 - 9)	2 (2 - 2)	2 (2 - 2)	16 (11 - 23)	5 (4 - 5)	18 (13 - 26)	6 (6 - 6)	21 (15 - 32)	10 (7 - 15)	6 (6 - 7)	3 (3 - 3)
Uganda	29 (25 - 33)	13 (8 - 18)	15 (13 - 17)	17 (12 - 25)	29 (25 - 33)	29 (25 - 33)	13 (9 - 20)	12 (8 - 18)	47 (40 - 56)	27 (14 - 50)	17 (15 - 20)	28 (16 - 52)	44 (37 - 53)	50 (42 - 60)	31 (17 - 60)	22 (12 - 43)
Ukraine[g]	4 (4 - 5)	3 (3 - 3)	3 (3 - 3)	1 (1 - 1)	6 (5 - 6)	3 (2 - 3)	3 (3 - 3)	2 (2 - 3)	12 (11 - 12)	26 (24 - 28)	8 (8 - 8)	10 (10 - 11)	17 (17 - 18)	6 (6 - 6)	44 (40 - 48)	6 (5 - 7)
United Arab Emirates[h]	3 (3 - 4)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (3 - 5)	3 (2 - 3)	2 (1 - 2)	1 (1 - 1)	7 (5 - 9)	5 (4 - 6)	0 (0 - 0)	0 (0 - 1)	9 (7 - 11)	4 (3 - 5)	6 (4 - 8)	3 (2 - 4)
United Kingdom	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	2 (2 - 2)	1 (1 - 2)	1 (1 - 1)	1 (1 - 1)	6 (6 - 6)	3 (2 - 3)	5 (5 - 5)	2 (2 - 2)	8 (8 - 8)	3 (3 - 3)	4 (3 - 4)	2 (1 - 2)
United Republic of Tanzania	27 (23 - 32)	13 (8 - 24)	21 (18 - 24)	23 (16 - 43)	28 (24 - 32)	27 (23 - 32)	13 (9 - 27)	12 (8 - 22)	28 (23 - 34)	13 (9 - 20)	14 (12 - 17)	17 (12 - 25)	30 (24 - 36)	26 (21 - 32)	15 (10 - 23)	11 (7 - 18)
United States	2 (2 - 2)	1 (1 - 1)	8 (8 - 9)	6 (6 - 6)	3 (3 - 3)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	10 (10 - 10)	10 (9 - 10)	37 (36 - 38)	42 (40 - 46)	15 (14 - 15)	5 (5 - 5)	14 (13 - 15)	5 (5 - 6)
Uruguay	3 (3 - 3)	2 (1 - 2)	0 (0 - 0)	0 (0 - 0)	4 (4 - 4)	3 (2 - 3)	2 (2 - 2)	1 (1 - 2)	8 (8 - 9)	10 (9 - 10)	0 (0 - 0)	0 (0 - 1)	11 (11 - 12)	5 (5 - 6)	14 (13 - 15)	5 (4 - 5)
Uzbekistan[i]	7 (7 - 7)	3 (3 - 3)	4 (3 - 4)	2 (2 - 2)	8 (8 - 8)	6 (5 - 6)	3 (3 - 4)	3 (2 - 3)	11 (11 - 11)	7 (7 - 8)	4 (4 - 5)	4 (4 - 4)	13 (13 - 14)	9 (8 - 9)	8 (7 - 9)	7 (6 - 8)
Vanuatu	7 (6 - 9)	4 (3 - 5)	0 (0 - 0)	0 (0 - 0)	8 (6 - 11)	6 (5 - 8)	5 (4 - 6)	3 (2 - 4)	13 (11 - 17)	9 (7 - 12)	0 (0 - 0)	0 (0 - 0)	19 (15 - 24)	8 (6 - 11)	13 (10 - 17)	6 (4 - 9)
Venezuela (Bolivarian Republic of)	4 (4 - 5)	3 (3 - 4)	2 (2 - 2)	2 (1 - 2)	5 (5 - 6)	4 (3 - 4)	4 (3 - 5)	3 (2 - 4)	12 (12 - 13)	26 (18 - 40)	5 (5 - 5)	13 (9 - 18)	18 (17 - 19)	7 (6 - 7)	43 (28 - 64)	9 (6 - 14)
Viet Nam	10 (8 - 12)	3 (2 - 4)	17 (15 - 20)	4 (3 - 5)	11 (9 - 13)	9 (8 - 11)	3 (3 - 4)	2 (2 - 3)	13 (9 - 17)	6 (4 - 8)	16 (12 - 21)	8 (6 - 11)	17 (12 - 23)	8 (6 - 11)	9 (6 - 12)	3 (2 - 5)
Yemen	18 (15 - 21)	9 (6 - 13)	7 (7 - 9)	8 (5 - 11)	18 (16 - 21)	17 (15 - 21)	10 (7 - 15)	8 (5 - 12)	16 (12 - 20)	14 (11 - 18)	4 (3 - 5)	10 (8 - 12)	21 (16 - 27)	10 (7 - 13)	21 (15 - 27)	7 (5 - 11)
Zambia	27 (23 - 31)	10 (6 - 15)	6 (5 - 7)	5 (4 - 8)	27 (23 - 31)	27 (23 - 31)	11 (7 - 17)	9 (6 - 13)	49 (42 - 57)	20 (12 - 33)	8 (7 - 9)	8 (5 - 13)	43 (36 - 51)	55 (46 - 65)	24 (15 - 40)	16 (9 - 27)
Zimbabwe	13 (11 - 16)	11 (7 - 17)	4 (4 - 5)	5 (3 - 7)	14 (11 - 17)	13 (10 - 15)	12 (7 - 17)	11 (6 - 16)	22 (18 - 26)	23 (13 - 41)	4 (4 - 5)	8 (5 - 14)	24 (20 - 28)	20 (16 - 24)	26 (15 - 46)	20 (11 - 37)

Country, regional and global estimates of mortality among children, adolescents and youth ages 5–24

Estimates of mortality among children, adolescents and youth ages 5–24 by Sustainable Development Goal region[j]

Region	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
Sub-Saharan Africa	37 (36 - 40)	15 (14 - 17)	533 (482 - 567)	467 (417 - 529)	38 (35 - 41)	36 (33 - 39)	16 (14 - 18)	14 (13 - 16)	41 (38 - 46)	21 (19 - 27)	392 (368 - 439)	493 (444 - 611)	42 (39 - 48)	39 (37 - 45)	24 (22 - 30)	18 (16 - 23)
Northern Africa and Western Asia	11 (10 - 12)	4 (4 - 5)	83 (78 - 89)	45 (36 - 55)	12 (11 - 12)	10 (9 - 11)	5 (4 - 6)	3 (3 - 4)	15 (14 - 18)	9 (8 - 11)	87 (78 - 105)	84 (76 - 96)	19 (16 - 23)	11 (10 - 14)	12 (11 - 14)	6 (5 - 7)
Northern Africa	12 (12 - 14)	4 (3 - 5)	48 (45 - 52)	23 (14 - 29)	13 (12 - 14)	12 (11 - 13)	5 (3 - 6)	3 (2 - 4)	16 (15 - 18)	11 (9 - 12)	46 (41 - 51)	45 (40 - 53)	18 (16 - 20)	15 (13 - 17)	14 (12 - 16)	7 (6 - 9)
Western Asia	9 (8 - 10)	4 (3 - 5)	35 (32 - 39)	22 (18 - 30)	10 (9 - 11)	8 (7 - 9)	4 (4 - 6)	3 (3 - 4)	14 (12 - 20)	8 (7 - 10)	42 (33 - 58)	39 (33 - 47)	19 (15 - 27)	8 (7 - 12)	11 (9 - 14)	4 (4 - 5)
Central and Southern Asia	19 (19 - 20)	4 (4 - 5)	610 (587 - 634)	172 (148 - 208)	19 (18 - 20)	20 (19 - 21)	5 (4 - 6)	4 (3 - 5)	24 (23 - 26)	9 (8 - 11)	577 (542 - 619)	345 (297 - 433)	22 (21 - 24)	26 (24 - 28)	11 (9 - 14)	7 (6 - 9)
Central Asia	7 (6 - 7)	3 (3 - 3)	8 (8 - 8)	4 (4 - 4)	8 (8 - 8)	5 (5 - 5)	3 (3 - 3)	2 (2 - 2)	12 (12 - 12)	7 (6 - 7)	11 (11 - 12)	8 (7 - 9)	15 (15 - 16)	9 (8 - 9)	8 (8 - 9)	5 (5 - 6)
Southern Asia	20 (19 - 21)	5 (4 - 6)	602 (580 - 627)	168 (144 - 203)	19 (18 - 20)	20 (20 - 21)	5 (4 - 6)	4 (3 - 5)	25 (23 - 27)	9 (8 - 12)	566 (531 - 608)	337 (289 - 425)	23 (21 - 25)	27 (25 - 29)	11 (9 - 14)	8 (6 - 9)
Eastern and South-Eastern Asia	9 (8 - 10)	3 (2 - 3)	297 (259 - 327)	80 (65 - 103)	10 (8 - 11)	8 (7 - 9)	3 (2 - 4)	2 (2 - 3)	10 (9 - 12)	6 (4 - 9)	377 (335 - 440)	168 (127 - 256)	13 (11 - 15)	7 (6 - 8)	8 (6 - 12)	3 (3 - 5)
Eastern Asia	7 (6 - 8)	2 (1 - 3)	157 (135 - 183)	34 (22 - 54)	8 (6 - 9)	6 (5 - 7)	2 (1 - 3)	1 (1 - 2)	9 (7 - 11)	4 (2 - 7)	242 (203 - 302)	69 (37 - 134)	11 (9 - 14)	6 (5 - 7)	5 (3 - 10)	2 (1 - 4)
South-Eastern Asia	13 (12 - 15)	4 (3 - 5)	140 (109 - 156)	46 (38 - 57)	14 (11 - 15)	13 (10 - 14)	5 (4 - 6)	3 (3 - 4)	15 (14 - 17)	9 (7 - 14)	135 (121 - 152)	99 (74 - 152)	19 (17 - 21)	11 (10 - 13)	13 (9 - 20)	5 (4 - 8)
Latin America and the Caribbean	6 (6 - 6)	3 (3 - 3)	60 (59 - 61)	28 (27 - 31)	7 (6 - 7)	5 (5 - 5)	3 (3 - 3)	2 (2 - 3)	15 (15 - 16)	12 (11 - 12)	130 (127 - 134)	123 (118 - 133)	21 (20 - 22)	9 (9 - 10)	17 (17 - 19)	5 (5 - 6)
Oceania	6 (5 - 7)	4 (3 - 4)	3 (2 - 3)	2 (2 - 3)	6 (5 - 7)	5 (4 - 6)	4 (3 - 5)	3 (3 - 4)	11 (10 - 13)	8 (7 - 9)	5 (5 - 6)	5 (4 - 6)	15 (14 - 17)	7 (6 - 8)	9 (8 - 11)	6 (5 - 7)
Australia and New Zealand	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	0 (0 - 0)	2 (2 - 2)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 8)	4 (4 - 4)	3 (3 - 3)	1 (1 - 2)	12 (12 - 12)	4 (4 - 5)	5 (5 - 5)	2 (2 - 3)
Oceania (exc. Australia and New Zealand)	13 (11 - 15)	7 (6 - 9)	2 (2 - 2)	2 (2 - 3)	13 (11 - 16)	12 (10 - 15)	8 (6 - 10)	6 (5 - 8)	19 (16 - 24)	13 (11 - 16)	2 (2 - 3)	3 (3 - 4)	25 (20 - 32)	13 (11 - 18)	16 (12 - 20)	11 (8 - 15)
Europe and Northern America	3 (3 - 3)	1 (1 - 1)	42 (41 - 42)	15 (15 - 16)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	9 (9 - 9)	7 (7 - 7)	133 (132 - 134)	89 (85 - 93)	13 (13 - 14)	5 (4 - 5)	10 (10 - 11)	4 (3 - 4)
Europe	3 (3 - 3)	1 (1 - 1)	32 (32 - 33)	9 (9 - 9)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	9 (9 - 9)	6 (5 - 6)	93 (92 - 94)	44 (41 - 47)	13 (13 - 13)	4 (4 - 4)	9 (8 - 9)	3 (2 - 3)
Northern America	2 (2 - 2)	1 (1 - 1)	9 (9 - 9)	6 (6 - 7)	3 (3 - 3)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	10 (9 - 10)	9 (9 - 10)	40 (39 - 41)	45 (42 - 48)	14 (14 - 15)	5 (5 - 5)	13 (12 - 14)	5 (5 - 6)
World	**14 (14 - 15)**	**6 (6 - 7)**	**1,628 (1,555 - 1,680)**	**809 (755 - 891)**	**15 (14 - 15)**	**14 (13 - 14)**	**6 (6 - 7)**	**5 (5 - 6)**	**17 (16 - 18)**	**11 (10 - 12)**	**1,702 (1,648 - 1,812)**	**1,306 (1,246 - 1,500)**	**19 (18 - 20)**	**15 (14 - 16)**	**13 (12 - 15)**	**8 (7 - 9)**

Estimates of mortality among children, adolescents and youth ages 5–24 by UNICEF region[j]

Region	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
Sub-Saharan Africa	37 (35 - 40)	15 (14 - 17)	550 (499 - 585)	475 (425 - 538)	38 (34 - 41)	36 (32 - 39)	15 (14 - 18)	14 (12 - 16)	41 (38 - 46)	21 (20 - 27)	410 (385 - 458)	515 (467 - 634)	42 (39 - 48)	40 (37 - 45)	25 (22 - 30)	18 (16 - 23)
West and Central Africa	37 (35 - 40)	18 (16 - 22)	257 (227 - 280)	300 (260 - 351)	37 (33 - 41)	36 (32 - 40)	19 (16 - 22)	18 (15 - 21)	39 (34 - 48)	23 (19 - 31)	177 (155 - 218)	261 (216 - 352)	40 (34 - 50)	37 (32 - 47)	25 (20 - 33)	21 (17 - 29)
Eastern and Southern Africa	37 (34 - 41)	11 (10 - 13)	292 (258 - 318)	175 (146 - 207)	38 (33 - 42)	36 (31 - 39)	12 (10 - 14)	10 (8 - 12)	43 (40 - 47)	20 (18 - 26)	233 (220 - 253)	254 (224 - 317)	44 (41 - 49)	41 (39 - 45)	25 (21 - 31)	16 (14 - 21)
Middle East and North Africa	11 (10 - 12)	4 (3 - 5)	75 (70 - 80)	37 (32 - 45)	11 (11 - 12)	10 (9 - 11)	4 (4 - 5)	3 (3 - 4)	14 (13 - 18)	8 (8 - 10)	72 (64 - 88)	66 (59 - 77)	18 (16 - 23)	10 (9 - 13)	12 (10 - 14)	5 (4 - 6)
South Asia	20 (19 - 21)	5 (4 - 6)	581 (558 - 605)	164 (140 - 199)	20 (19 - 21)	21 (20 - 22)	5 (4 - 6)	4 (3 - 5)	25 (23 - 27)	9 (8 - 12)	544 (509 - 585)	326 (277 - 414)	22 (21 - 24)	27 (25 - 30)	11 (9 - 14)	8 (6 - 9)
East Asia and Pacific	9 (8 - 10)	3 (2 - 3)	300 (262 - 330)	82 (68 - 106)	9 (8 - 11)	8 (7 - 9)	3 (3 - 4)	2 (2 - 3)	10 (9 - 12)	6 (4 - 9)	382 (340 - 445)	172 (131 - 261)	13 (11 - 15)	7 (6 - 8)	8 (6 - 12)	3 (3 - 5)
Latin America and Caribbean	6 (6 - 6)	3 (3 - 3)	60 (59 - 61)	28 (27 - 31)	7 (6 - 7)	5 (5 - 5)	3 (3 - 3)	2 (2 - 3)	15 (15 - 16)	12 (11 - 12)	130 (127 - 134)	123 (118 - 133)	21 (20 - 22)	9 (9 - 10)	17 (17 - 19)	5 (5 - 6)
North America	2 (2 - 2)	1 (1 - 1)	9 (9 - 9)	6 (6 - 7)	3 (3 - 3)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	10 (9 - 10)	9 (9 - 10)	40 (39 - 41)	45 (42 - 48)	14 (14 - 15)	5 (5 - 5)	13 (12 - 14)	5 (5 - 6)
Europe and Central Asia	4 (4 - 4)	1 (1 - 2)	53 (51 - 56)	17 (16 - 17)	5 (5 - 5)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	10 (9 - 10)	6 (5 - 6)	125 (118 - 133)	59 (57 - 62)	14 (13 - 15)	5 (5 - 6)	8 (8 - 9)	3 (3 - 3)
Eastern Europe and Central Asia	6 (6 - 6)	2 (2 - 2)	41 (39 - 43)	13 (13 - 13)	7 (7 - 8)	5 (4 - 5)	2 (2 - 3)	2 (2 - 2)	13 (12 - 14)	8 (8 - 9)	77 (70 - 85)	44 (42 - 47)	18 (16 - 20)	7 (6 - 8)	13 (12 - 14)	4 (4 - 4)
Western Europe	2 (2 - 2)	1 (1 - 1)	13 (13 - 13)	4 (4 - 4)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	7 (7 - 7)	3 (3 - 3)	48 (48 - 48)	16 (15 - 16)	10 (10 - 11)	4 (4 - 4)	4 (4 - 4)	2 (2 - 2)
World	**14 (14 - 15)**	**6 (6 - 7)**	**1,628 (1,555 - 1,680)**	**809 (755 - 891)**	**15 (14 - 15)**	**14 (13 - 14)**	**6 (6 - 7)**	**5 (5 - 6)**	**17 (16 - 18)**	**11 (10 - 12)**	**1,702 (1,648 - 1,812)**	**1,306 (1,246 - 1,500)**	**19 (18 - 20)**	**15 (14 - 16)**	**13 (12 - 15)**	**8 (7 - 9)**

Country, regional and global estimates of mortality among children, adolescents and youth ages 5–24

Estimates of mortality among children, adolescents and youth ages 5–24 by World Health Organization region[j]

Region	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
Africa	36 (34 - 39)	14 (13 - 17)	531 (480 - 566)	456 (406 - 518)	37 (33 - 40)	35 (31 - 38)	15 (13 - 17)	14 (12 - 16)	39 (37 - 44)	21 (19 - 26)	390 (366 - 437)	480 (430 - 598)	41 (38 - 46)	37 (35 - 42)	23 (21 - 29)	18 (16 - 23)
Americas	5 (5 - 5)	2 (2 - 2)	69 (68 - 71)	35 (33 - 37)	6 (5 - 6)	4 (4 - 4)	3 (2 - 3)	2 (2 - 2)	13 (13 - 14)	11 (10 - 11)	170 (166 - 174)	168 (162 - 179)	19 (18 - 19)	8 (7 - 8)	16 (15 - 17)	5 (5 - 6)
Eastern Mediterranean	14 (13 - 15)	6 (5 - 8)	141 (133 - 151)	108 (89 - 144)	14 (13 - 15)	13 (12 - 14)	7 (6 - 9)	6 (5 - 8)	20 (19 - 25)	13 (10 - 19)	146 (135 - 176)	180 (144 - 260)	23 (21 - 28)	18 (16 - 22)	17 (13 - 25)	9 (7 - 13)
Europe	4 (4 - 4)	1 (1 - 2)	53 (51 - 56)	17 (17 - 17)	5 (5 - 5)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	10 (9 - 10)	6 (5 - 6)	125 (118 - 133)	60 (57 - 63)	14 (13 - 15)	5 (5 - 6)	8 (8 - 9)	3 (3 - 3)
South-East Asia	20 (19 - 20)	4 (4 - 5)	630 (594 - 658)	140 (125 - 159)	19 (18 - 20)	20 (19 - 21)	5 (4 - 5)	3 (3 - 4)	23 (21 - 24)	9 (7 - 10)	583 (547 - 621)	311 (269 - 377)	21 (20 - 23)	24 (22 - 26)	10 (9 - 13)	7 (6 - 8)
Western Pacific	7 (6 - 8)	2 (2 - 3)	202 (178 - 228)	52 (40 - 72)	8 (7 - 9)	6 (5 - 7)	2 (2 - 3)	2 (1 - 2)	9 (8 - 11)	5 (3 - 7)	287 (247 - 347)	107 (76 - 173)	12 (10 - 14)	6 (5 - 8)	6 (4 - 10)	3 (2 - 4)
World	**14 (14 - 15)**	**6 (6 - 7)**	**1,628 (1,555 - 1,680)**	**809 (755 - 891)**	**15 (14 - 15)**	**14 (13 - 14)**	**6 (6 - 7)**	**5 (5 - 6)**	**17 (16 - 18)**	**11 (10 - 12)**	**1,702 (1,648 - 1,812)**	**1,306 (1,246 - 1,500)**	**19 (18 - 20)**	**15 (14 - 16)**	**13 (12 - 15)**	**8 (7 - 9)**

Estimates of mortality among children, adolescents and youth ages 5–24 by World Bank region[j]

Region	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
East Asia and Pacific	9 (8 - 10)	3 (2 - 3)	300 (262 - 330)	82 (68 - 106)	9 (8 - 11)	8 (7 - 9)	3 (3 - 4)	2 (2 - 3)	10 (9 - 12)	6 (4 - 9)	382 (340 - 445)	172 (131 - 261)	13 (11 - 15)	7 (6 - 8)	8 (6 - 12)	3 (3 - 5)
Europe and Central Asia	4 (4 - 4)	1 (1 - 2)	53 (51 - 56)	17 (16 - 17)	5 (5 - 5)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	10 (9 - 10)	6 (5 - 6)	125 (118 - 133)	59 (57 - 62)	14 (13 - 15)	5 (5 - 6)	8 (8 - 9)	3 (3 - 3)
Latin America and the Caribbean	6 (6 - 6)	3 (3 - 3)	60 (59 - 61)	28 (27 - 31)	7 (6 - 7)	5 (5 - 5)	3 (3 - 3)	2 (2 - 3)	15 (15 - 16)	12 (11 - 12)	130 (127 - 134)	123 (118 - 133)	21 (20 - 22)	9 (9 - 10)	17 (17 - 19)	5 (5 - 6)
Middle East and North Africa	11 (10 - 12)	4 (3 - 5)	75 (70 - 81)	37 (33 - 45)	11 (11 - 12)	10 (9 - 11)	4 (4 - 5)	3 (3 - 4)	14 (13 - 18)	8 (8 - 10)	72 (64 - 88)	66 (60 - 78)	18 (16 - 23)	10 (9 - 13)	12 (11 - 14)	5 (4 - 6)
North America	2 (2 - 2)	1 (1 - 1)	9 (9 - 9)	6 (6 - 7)	3 (3 - 3)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	10 (9 - 10)	9 (9 - 10)	40 (39 - 41)	45 (42 - 48)	14 (14 - 15)	5 (5 - 5)	13 (12 - 14)	5 (5 - 6)
South Asia	20 (19 - 21)	5 (4 - 6)	581 (558 - 605)	164 (140 - 199)	20 (19 - 21)	21 (20 - 22)	5 (4 - 6)	4 (3 - 5)	25 (23 - 27)	9 (8 - 12)	544 (509 - 585)	326 (277 - 414)	22 (21 - 24)	27 (25 - 30)	11 (9 - 14)	8 (6 - 9)
Sub-Saharan Africa	37 (35 - 40)	15 (14 - 17)	549 (498 - 585)	475 (425 - 538)	38 (34 - 41)	36 (32 - 39)	15 (14 - 18)	14 (12 - 16)	41 (38 - 46)	21 (20 - 27)	409 (385 - 457)	514 (466 - 633)	42 (39 - 48)	40 (37 - 45)	25 (22 - 30)	18 (16 - 23)
Low income	41 (38 - 45)	14 (13 - 16)	336 (289 - 367)	264 (233 - 304)	42 (36 - 47)	40 (34 - 44)	15 (13 - 17)	13 (12 - 16)	46 (42 - 53)	23 (21 - 31)	257 (240 - 296)	332 (287 - 442)	47 (43 - 55)	44 (41 - 51)	26 (23 - 35)	20 (17 - 29)
Lower-middle income	20 (19 - 21)	7 (6 - 8)	944 (904 - 976)	427 (382 - 486)	20 (19 - 21)	20 (19 - 21)	7 (7 - 8)	6 (5 - 7)	24 (23 - 25)	11 (10 - 12)	836 (796 - 889)	610 (559 - 714)	23 (22 - 25)	24 (23 - 26)	13 (12 - 15)	8 (8 - 10)
Upper-middle income	7 (7 - 8)	3 (2 - 3)	309 (285 - 335)	102 (88 - 128)	8 (7 - 9)	6 (6 - 7)	3 (3 - 4)	2 (2 - 3)	11 (10 - 12)	7 (6 - 10)	482 (441 - 544)	273 (232 - 360)	15 (13 - 17)	7 (6 - 8)	11 (9 - 14)	4 (3 - 5)
High income	3 (3 - 3)	1 (1 - 1)	37 (36 - 38)	14 (14 - 15)	3 (3 - 3)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	8 (8 - 9)	6 (5 - 6)	122 (117 - 133)	78 (74 - 83)	12 (11 - 13)	4 (4 - 4)	8 (7 - 8)	3 (3 - 4)
World	**14 (14 - 15)**	**6 (6 - 7)**	**1,628 (1,555 - 1,680)**	**809 (755 - 891)**	**15 (14 - 15)**	**14 (13 - 14)**	**6 (6 - 7)**	**5 (5 - 6)**	**17 (16 - 18)**	**11 (10 - 12)**	**1,702 (1,648 - 1,812)**	**1,306 (1,246 - 1,500)**	**19 (18 - 20)**	**15 (14 - 16)**	**13 (12 - 15)**	**8 (7 - 9)**

Country, regional and global estimates of mortality among children, adolescents and youth ages 5–24

Estimates of mortality among children, adolescents and youth ages 5–24 by United Nations Population Division region[j]

Region	Probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)		Number of deaths among those aged 5–14 years (thousands)[a]		Sex-specific probability of dying among those aged 5–14 years (per 1,000 children aged 5 years)				Probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)		Number of deaths among those aged 15–24 years (thousands)[a]		Sex-specific probability of dying among those aged 15–24 years (per 1,000 adolescents aged 15 years)			
					1990		2022						1990		2022	
	1990	2022	1990	2022	Male	Female	Male	Female	1990	2022	1990	2022	Male	Female	Male	Female
Sub-Saharan Africa	37 (36 - 40)	15 (14 - 17)	533 (482 - 567)	467 (417 - 529)	38 (35 - 41)	36 (33 - 39)	16 (14 - 18)	14 (13 - 16)	41 (38 - 46)	21 (19 - 27)	392 (368 - 439)	493 (444 - 611)	42 (39 - 48)	39 (37 - 45)	24 (22 - 30)	18 (16 - 23)
Africa	32 (31 - 34)	13 (12 - 15)	581 (530 - 616)	489 (439 - 552)	33 (30 - 35)	31 (28 - 33)	14 (13 - 16)	13 (11 - 14)	35 (33 - 39)	20 (18 - 24)	438 (413 - 486)	538 (490 - 658)	37 (34 - 41)	34 (32 - 38)	23 (21 - 28)	17 (15 - 21)
Asia	13 (13 - 14)	4 (3 - 4)	942 (897 - 981)	274 (246 - 319)	14 (13 - 14)	13 (13 - 14)	4 (4 - 5)	3 (3 - 4)	15 (15 - 17)	8 (7 - 10)	996 (944 - 1,085)	551 (491 - 682)	17 (16 - 18)	14 (13 - 15)	10 (8 - 12)	6 (5 - 7)
Europe	3 (3 - 3)	1 (1 - 1)	32 (32 - 33)	9 (9 - 9)	4 (4 - 4)	2 (2 - 2)	1 (1 - 1)	1 (1 - 1)	9 (9 - 9)	6 (5 - 6)	93 (92 - 94)	44 (41 - 47)	13 (13 - 13)	4 (4 - 4)	9 (8 - 9)	3 (2 - 3)
Latin America and the Caribbean	6 (6 - 6)	3 (3 - 3)	60 (59 - 61)	28 (27 - 31)	7 (6 - 7)	5 (5 - 5)	3 (3 - 3)	2 (2 - 3)	15 (15 - 16)	12 (11 - 12)	130 (127 - 134)	123 (118 - 133)	21 (20 - 22)	9 (9 - 10)	17 (17 - 19)	5 (5 - 6)
Northern America	2 (2 - 2)	1 (1 - 1)	9 (9 - 9)	6 (6 - 7)	3 (3 - 3)	2 (2 - 2)	2 (1 - 2)	1 (1 - 1)	10 (9 - 10)	9 (9 - 10)	40 (39 - 41)	45 (42 - 48)	14 (14 - 15)	5 (5 - 5)	13 (12 - 14)	5 (5 - 6)
Oceania	6 (5 - 7)	4 (3 - 4)	3 (2 - 3)	2 (2 - 3)	6 (5 - 7)	5 (4 - 6)	4 (3 - 5)	3 (3 - 4)	11 (10 - 13)	8 (7 - 9)	5 (5 - 6)	5 (4 - 6)	15 (14 - 17)	7 (6 - 8)	9 (8 - 11)	6 (5 - 7)
World	**14 (14 - 15)**	**6 (6 - 7)**	**1,628 (1,555 - 1,680)**	**809 (755 - 891)**	**15 (14 - 15)**	**14 (13 - 14)**	**6 (6 - 7)**	**5 (5 - 6)**	**17 (16 - 18)**	**11 (10 - 12)**	**1,702 (1,648 - 1,812)**	**1,306 (1,246 - 1,500)**	**19 (18 - 20)**	**15 (14 - 16)**	**13 (12 - 15)**	**8 (7 - 9)**

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 and adolescents aged 5–14 years: Probability of dying among children and adolescents aged 5–14 years, expressed per 1,000 children aged 5.
Probability of dying among adolescents and youth aged 15–24 years: Probability of dying among adolescents and 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 adolescents 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 <childmortality.org> for download.
b) Some UN IGME indicators are calculated using population and live birth numbers from *World Population Prospects 2022* (WPP). WPP numbers for Cyprus refer to the whole country. However, the underlying data sent by the Health Monitoring Unit of the Cyprus Ministry of Health capture only the government-controlled area, whereas according to Eurostat, the number of live births in 2022 was 10,150 <https://ec.europa.eu/eurostat/databrowser/view/tps00204/>, the population on 1 January 2022 was 904,705 <https://ec.europa.eu/eurostat/databrowser/view/tps00001/>, the population under 5 was 48,311, adolescent population was 95,467 and the number of women of reproductive age was 231,287 <https://ec.europa.eu/eurostat/databrowser/view/demo_pjan$defaultview/default/table?lang=en>.
c) The UN IGME estimates are not the official statistics of India. The Sample Registration System (SRS) of ORGI is the official data source of India for all mortality estimates. The most recent national official estimates of the mortality rates were 4.7 for the age group 1–4, 2.6 for the age groups 5–9 and 10–14, 3.9 for the age group 15–19 and 5.6 for age group 20–24 based on SRS Abridged Life Table, 2016–2020.
d) All references to Kosovo in the UN IGME estimates should be understood in the context of United Nations Security Council resolution 1244 (1999).
e) The UN IGME estimates are not the official statistics of Nicaragua. The most recent national official estimates of neonatal, infant and under-five mortality rates available to the UN IGME come from the vital registration system for 2022, with a rate of 8.1, 11.7 and 13.3 deaths per 1,000 live births, respectively. Following a request from the Government of Nicaragua and per the objectives of the UN IGME, the UN IGME will continue to assess all data sources in the country relevant to child mortality estimation.
f) The most recent official national estimates of neonatal, infant and under-five mortality rates in Qatar are from the vital registration system, with a rate of 3.6, 5.0 and 6.4 deaths per 1,000 live births for both sexes, respectively, in 2021.
g) The State Statistics Service of Ukraine (SSSU) have suspended the compilation of impartial statistical information on births and deaths starting from 2022 and on the number of population starting from data as of January 1, 2023, onwards. Consequently, no data is available for 2022.
h) The UN IGME estimates are not the official statistics of the United Arab Emirates.
i) The most recent official national estimates of neonatal, infant and under-five mortality rates in Uzbekistan are from the vital registration system, with a rate of 4.5, 8.7 and 11.4 deaths per 1,000 live births for both sexes, respectively, in 2022. The most recent official sex-specific estimates from the vital registration system for infant and under-five mortality for males are 9.6 and 12.4 deaths per 1,000 live births and 7.7 and 10.2 deaths per 1,000 live births for females, respectively, in 2022.
j) The sum of the number of deaths by region may differ from the world total because of rounding.

Regional groupings

The regional groupings that are referred to in the report and for which aggregate data are provided in the statistical tables 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 groupings with the same name from different member organizations (e.g., 'Sub-Saharan Africa') may include different countries.

Sub-Saharan Africa

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

Northern Africa and Western Asia

Northern Africa

Algeria, Egypt, Libya, Morocco, Sudan, Tunisia

Western Asia

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

Central and Southern Asia

Central Asia

Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan

Southern Asia

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

Eastern and South-Eastern Asia

Eastern Asia

China, Democratic People's Republic of Korea, Japan, Mongolia, Republic of Korea

South-Eastern Asia

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

Latin America and the Caribbean

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

Oceania

Australia and New Zealand

Australia, New Zealand

Oceania (excluding Australia and New Zealand)

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

Europe and Northern America

Europe

Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo (UNSCR 1244), Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland

Northern America

Canada, United States of America

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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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