Levels & Trends in

Child Mortality

Report 2014

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

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World Health Organization

THE WORLD BANK

United Nations

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PROGRESS TOWARDS MILLENNIUM DEVELOPMENT GOAL 4: KEY FACTS AND FIGURES

- Substantial global progress has been made in reducing child deaths since 1990. The number of under-five deaths worldwide has declined from 12.7 (12.5, 12.9)[1] million in 1990 to 6.3 (6.1, 6.7) million in 2013. While that translates into around 17,000 fewer children dying every day in 2013 than in 1990, it still implies the deaths of about 17,000 children under age five every day in 2013.

- Since 1990 the global under-five mortality rate has dropped 49 percent—from 90 (89, 92) deaths per 1,000 live births in 1990 to 46 (44, 48) in 2013. All regions except Sub-Saharan Africa and Oceania have reduced the rate by 52 percent or more.

- The global under-five mortality rate is falling faster than at any other time during the past two decades. The global annual rate of reduction has steadily accelerated since 1990–1995—more than tripling from 1.2 percent to 4.0 percent in 2005–2013.

- Despite these gains, progress remains insufficient to reach MDG 4, particularly in Oceania, Sub-Saharan Africa, Caucasus and Central Asia, and Southern Asia.

- Accelerating progress in child survival urgently requires greater attention to ending preventable child deaths in Sub-Saharan Africa and Southern Asia. Under-five deaths are increasingly concentrated in Sub-Saharan Africa and Southern Asia, while the share in the rest of the world dropped from 32 percent in 1990 to 18 percent in 2013.

- Though Sub-Saharan Africa has seen the decline in the under-five mortality rate accelerate, with the average annual rate of reduction increasing from 0.8 percent in 1990–1995 to 4.2 percent in 2005–2013, the region still has the highest child mortality rate—92 deaths per 1,000 live births, more than 15 times the average for developed regions. By 2050 close to 40 percent of all births will take place in Sub-Saharan Africa, and 37 percent of children under age five will live there, so the number of under-five deaths could stagnate or even increase without more progress in the region.

- About half of under-five deaths occur in only five countries: India, Nigeria, Pakistan, Democratic Republic of the Congo and China. India (21 percent) and Nigeria (13 percent) together account for more than a third of all under-five deaths.

- The global neonatal mortality rate declined 40 percent from 33 deaths per 1,000 live births in 1990 to 20 in 2013. Despite falling rates and levels of neonatal mortality, the proportion of under-five deaths that occur within the first month of life (the neonatal period) has increased from 37 percent in 1990 to 44 percent in 2013, because declines in the neonatal mortality rate are slower than those in the mortality rate for older children.

- Around two-thirds of neonatal deaths occur in just 10 countries, with India accounting for more than a quarter and Nigeria for about a tenth.

- The leading causes of death among children under age five include preterm birth complications (17 percent of under-five deaths), pneumonia (15 percent), intrapartum-related complications (complications during labour and delivery; 11 percent), diarrhoea (9 percent) and malaria (7 percent). Globally, nearly half of under-five deaths are attributable to undernutrition.

Introduction

The under-five mortality rate is a key indicator of child well-being, including health and nutrition status. It is also a key indicator of the coverage of child survival interventions and, more broadly, of social and economic development. Millennium Development Goal 4 (MDG 4) calls for reducing the under-five mortality rate by two-thirds between 1990 and 2015. The world has made substantial progress, reducing the rate 49 percent, from 90 (89, 92) deaths per 1,000 live births in 1990 to 46 (44, 48) in 2013. Since 1990 almost 100 million children under age five—roughly the current population of the Philippines—have been saved. The world is also reducing under-five mortality faster than at any other time during the past two decades. The global annual rate of reduction has steadily accelerated since 1990–1995—more than tripling from 1.2 percent to 4.0 percent in 2005–2013.

Despite these gains, child survival remains an urgent concern. The toll of under-five deaths over the past two decades is staggering: between 1990 and 2013, 223 million children worldwide died before their fifth birthday—more than today's population of Brazil, the world's fifth most populous country. Progress has been insufficient, and the MDG 4 target risks being missed at the global level. To achieve MDG 4 on time, the global annual rate of reduction in under-five mortality would need to rise to 20.8 percent for 2013–2015, much higher than the 4.0 percent achieved over 2005–2013. At the country level, historical trends show that progress for most countries has been too slow and that only 12 of the 60 countries with high under-five mortality rates (at least 40 deaths per 1,000 live births) are on track to achieve MDG 4 if current trends continue.

It is unacceptable that every day 17,000 children still die before their fifth birthday, mostly from preventable causes and treatable diseases, even though the knowledge and technologies for life-saving interventions are available. In addition, inequities in child mortality between low- and high-income countries remain large. In 2013 the under-five mortality rate in low-income countries was 76 deaths per 1,000 live births—more than 12 times the average rate in high-income countries (6). Many countries still have very high rates—particularly in Sub-Saharan Africa, home to all 12 countries with an under-five mortality rate of 100 deaths or more per 1,000 live births. Reducing these inequities across countries and saving more children's lives by ending preventable child deaths are important priorities.

With the share of under-five deaths during the neonatal period rising in every region and almost all countries, accelerated change for child survival needs more focus on a healthy start to life. In 2013, 2.8 million newborns died within 28 days of birth, accounting for 44 percent of global under-five deaths. Neonatal health will need to be addressed more effectively to continue the rapid progress on overall child mortality.

In recent years, the Every Woman Every Child strategy launched by United Nations Secretary-General Ban Ki-moon has boosted global momentum in improving newborn and child survival. The United Nations Children's Fund (UNICEF), the World Health Organization (WHO) and other UN organizations are joining public, private and civil society partners in a global movement to accelerate reduction in preventable maternal, newborn and child deaths. Under the banner of A Promise Renewed, the partners have pledged to redouble efforts to end preventable maternal, newborn and child deaths. In this context, monitoring progress at the global and country levels has become even more critical. The United Nations Inter-agency Group for Child Mortality Estimation (UN IGME) updates child mortality estimates annually, and this report presents the group's latest estimates of under-five, infant and neonatal mortality and assesses progress towards MDG 4 at the country, regional and global levels.

Estimating Child Mortality

The UN Inter-agency Group for Child Mortality Estimation

The UN IGME was established in 2004 to harmonize child mortality estimates within the UN system for reporting on progress towards the MDGs, to improve methods for child mortality estimation and to enhance country capacity to produce timely and properly assessed estimates of child mortality. The UN IGME is led by UNICEF and includes the WHO, the World Bank and the Population Division of the United Nations Department of Economic and Social Affairs as full members.

The UN IGME's Technical Advisory Group, 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.

The UN IGME updates its child mortality estimates annually after reviewing newly available data and assessing data quality. These estimates are widely used in UNICEF's flagship publications, the UN Secretary-General's MDG report, and publications by other UN agencies, governments and donors.

Broad strategy of the UN IGME

To minimize the errors for each estimate, harmonize trends over time and produce up-to-date and properly assessed estimates of child mortality, the UN IGME follows a three-part broad strategy:

First, the UN IGME compiles all available nationally representative data relevant to estimating child mortality, including data from vital registration systems, population censuses, household surveys and sample registration systems.

Second, the UN IGME assesses data quality, recalculates data inputs and makes needed adjustments by applying standard methods.

Third, the UN IGME fits a statistical model to the data to generate a smooth trend curve that averages over possibly disparate estimates from the different data sources for a country, and extrapolates the model to a target year.

To increase the transparency of the estimation process, the UN IGME has developed a child mortality database, CME Info (www.childmortality.org). It provides estimates as well as all available data and data sources for every country. Once new estimates are finalized, CME Info is updated to reflect any changes.

The UN IGME Child Mortality Estimation Database: CME Info

The UN IGME publishes its estimates and the underlying data for all countries in its child mortality database, CME Info **(www.childmortality.org)**. CME Info is a comprehensive data portal on child mortality widely used by governments, UN agencies, donors and the general public. It was launched by UNICEF as an initiative of the UN IGME to source and share underlying data and to publish the latest estimates on child mortality. CME Info serves as a platform for UNICEF and the UN IGME to collaborate with national partners in harmonizing and disseminating child mortality estimates. It uses leading-edge information technology to visualize in a transparent way how national data can be used to generate child mortality trend estimates. UNICEF hosts, maintains and financially supports CME Info.

Data sources

If each country had a single source of high-quality data covering the last few decades, reporting on child mortality levels and trends would be straightforward. But few countries do, and the limited availability of high-quality data over time for many countries makes generating accurate estimates of child mortality a considerable challenge.

Nationally representative estimates of child mortality can be derived from several sources, including civil registration, censuses and sample surveys. Demographic surveillance sites and hospital data are excluded because they are rarely representative. The preferred source of data is a civil registration system that records births and deaths on a continuous basis, collects information as events occur and covers the entire population. If registration coverage is complete and the systems function efficiently, the resulting child mortality estimates will be accurate and timely. However, many countries remain without viable or fully functioning vital registration systems that accurately record all births and deaths—only around 60 countries have such systems. Therefore, household surveys, such as the UNICEF-supported Multiple Indicator Cluster Surveys and the US Agency for International Development–supported Demographic and Health Surveys, which ask women about the survival of their children, are the basis of child mortality estimates for most developing countries.

The majority of household survey data comes in one of two forms: the full birth history, which asks women for the date of birth of each of their children and for the age at death of children who have died, and the summary birth history, which asks women only about the number of children they have given birth to and the number that have died (or equivalently the number still alive).

Full birth history data, collected by all Demographic and Health Surveys and increasingly also Multiple Indicator Cluster Surveys, allow the calculation of child mortality indicators for specific time periods in the past. This allows for trend estimates of child mortality rates over a period of 15–25 years before the survey. Whenever survey microdata are available, the UN IGME recalculates estimates using single calendar years for periods shortly before the survey and gradually increasing the number of years for periods further in the past. Period ranges for a given survey are based on the estimates' coefficients of variation (a measure of sampling uncertainty).[2]

In general, summary birth history data, collected by censuses and many household surveys, use the age of the woman as an indicator of the average exposure time of the children to the risk of dying and use models to estimate mortality indicators for periods in the past for women ages 25–29 through ages 45–49. This method is well known but has several shortcomings. In 2014 the UN IGME changed the method of estimating summary birth histories to one based on classification of women by the time that has passed since their first birth. This method has three main benefits: it generally has lower sampling errors, it avoids the problematic assumption that the estimates for each age group adequately represent the mortality of the whole population and thus is less susceptible to the selection effect of young women who give birth early (since all women who give birth must have a first birth), and it tends to show less fluctuation across time, in particular in countries with low fertility and mortality. The UN IGME considers the improvements in the estimates based on time since first birth worthwhile compared with the estimates derived from the classification by age of mother, so in cases where the microdata are available, the UN IGME has reanalysed the data using the new method. Moreover, following advice from the UN IGME's Technical Advisory Group, child mortality estimates based on a summary birth history were not included when estimates based on a full birth history in the same survey were available.[3]

Further improved methodology

The UN IGME continually seeks to improve its methods. Since 2013, estimates and projections of under-five mortality have been produced using the Bayesian B-splines bias-reduction model, referred to as the B3 model.[4] Compared with the previously applied Loess estimation approach the B3 model better accounts for data errors, including biases and sampling and nonsampling errors in the data. It can better capture short-term fluctuations in the under-five mortality rate 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.

Challenges in estimating child mortality

Generating accurate estimates of child mortality poses a considerable challenge because of the limited availability of high-quality data for many low- and middle-income countries:

- Many developing countries lack a single source of high-quality data covering the last several decades.
- Estimates calculated from household surveys are often subject to sampling and nonsampling errors, and estimates derived from census or vital registration systems may include nonsampling errors. Age misreporting, selection bias and recall bias can all reduce the accuracy of estimates. Underreporting of births and particularly of early neonatal deaths is also very common. Uncertainty will always exist around data and estimates in the absence of error-free data. To increase comparability, the UN IGME generates estimates with uncertainty bounds.
- Data collected by countries may be inconsistent across sources. All data sources for a country must be analysed, reconciled and evaluated simultaneously. Each new survey or data point must be examined in the context of all others, including previous data.
- The latest data produced by countries often are not current estimates but refer to an earlier reference period. This is particularly the case for estimates from the most recent national survey (such as a Demographic and Health Survey or Multiple Indicator Cluster Survey), which typically refers to a period before the survey year that is several years before the target year of UN IGME estimates. Around 70 countries do not have high-quality data on child mortality for the last 5 years, and 13 countries do not have high-quality data for the past 10 years. Thus the UN IGME extrapolates estimates to a common reference year, in this case 2013.

Below are examples of the real underlying data used to derive the estimates of the under-five mortality rate from Somalia, a country with sparse and no recent data, and Nigeria, a country with abundant data but wide variations in rates and trends between data sources. The Nigeria example also shows the trend line of the under-five mortality rate that results from the UN IGME model (black line) with the corresponding 90 percent uncertainty range (orange band). Detailed graphs showing all underlying data and UN IGME trend estimates are available for all countries at www.child-mortality.org.

Specific data improvements needed include:

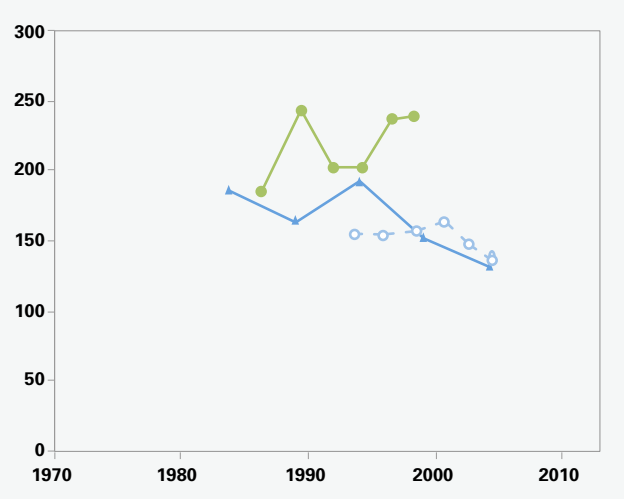
- For estimates derived from household surveys, well designed questionnaires, proper training and supervision of survey interviewers, as well as reasonable interview length, are important measures for improving data quality. Household surveys that include data collection on child mortality through a full birth history or pregnancy history should ideally be carried out at least once every three to five years. A large sample size is required for disaggregated child mortality data.
- Strengthening vital registration systems to ensure accurate reporting of births and deaths is essential for improving estimates of child mortality.

Examples of country data sources

Countries with sparse and no recent data

Somalia

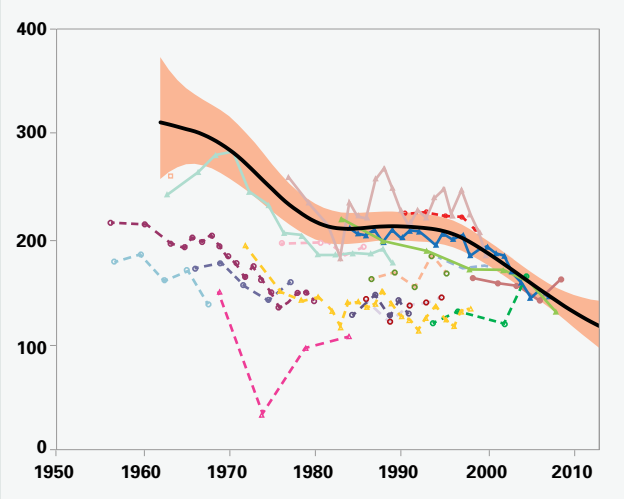
Under-five mortality rate (deaths per 1,000 live births)



Countries with abundant data but wide variations

Nigeria

Under-five mortality rate (deaths per 1,000 live births)



Validation exercises show that the B3 model also performs better in short-term projections.

Estimates of infant mortality rates are generated by applying the B3 model for countries with high-quality vital registration data. For other countries, infant mortality rates are derived from under-five mortality rates using model life tables that contain known regularities in age patterns of child mortality. This approach ensures that the internal relationships of the two indicators are consistent with established norms. Estimates of neonatal mortality rates are produced using a statistical model that uses under-five mortality rates as an input. These methods provide a transparent and objective way of fitting a smoothed trend to a set of observations and of extrapolating the trend to the present.

In 2012 the UN IGME produced sex-specific estimates of the under-five mortality rate for the first time. In many countries fewer sources provide data disaggregated by sex than for both sexes combined. So the UN IGME uses the available data by sex to estimate a time trend in the sex ratio (male–female) of child mortality rather than estimating child mortality trends by sex directly from reported mortality levels by sex. Since 2013 a Bayesian model developed by the UN IGME has been used to estimate sex ratios of child mortality, with a focus on identifying countries with outlying levels or trends.[5]

In addition to the further improved methods, a substantial amount of newly available data have been incorporated since the last round of estimation: data from 27 surveys and censuses for 26 countries and new data from vital registration systems for about 125 countries.

The increased data have substantially changed the 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.

Country consultation

In 2014 the WHO and UNICEF undertook joint country consultations to give each country's ministry of health and national statistics office the opportunity to review all data inputs and the draft estimates for its country. The objective was to identify relevant data not included in the UN IGME database, CME Info, and to allow countries to review and provide feedback on estimates. It was not a country clearance process. In 2014, 75 of 195 countries sent responses, and 43 of those provided comments or data. After the consultations the UN IGME draft estimates were revised for 28 countries using new data.

Capacity strengthening at the country level

Modelled estimates of child mortality can be only as good as the underlying data. UN IGME members, including UNICEF, the WHO, the World Bank and other UN agencies, are actively involved in strengthening national capacity in data collection, estimation techniques and interpretation of results.

Population-based survey data are critical for developing reliable estimates for countries that lack fully functioning vital registration systems. The UNICEF-supported Multiple Indicator Cluster Surveys programme has worked since 1995 to build country-level capacity for survey implementation, data analysis and dissemination. The surveys are government owned and implemented, and UNICEF provides support through workshops, technical consultations and peer-to-peer mentoring. Almost 300 surveys in more than 100 countries will be conducted by the end of 2014. In addition to population-based surveys, UNICEF, the WHO, the World Bank and the United Nations Statistics Division work with countries to strengthen vital registration systems. The United Nations Population Fund provides technical assistance for population censuses, another important source of under-five mortality data.

The UN IGME strengthens capacity by working with countries to improve understanding of under-five mortality data and estimation. CME Info, a comprehensive data portal on child mortality funded and maintained by UNICEF, is a powerful platform for sharing underlying data and collaborating with national partners on child mortality estimates. Since 2008 a series of regional workshops has trained about 300 participants from more than 100 countries in the use of CME Info and in the demographic

techniques and modelling methods underlying the estimates. In the last few years UNICEF and the UN IGME have sent experts to some 20 countries to conduct training on child mortality estimation. As part of the data review process, UNICEF's network of field offices provides opportunities to assess the plausibility of estimates by engaging in a dialogue about the estimates and the underlying data. The WHO and UNICEF also engage countries in a country consultation process through which governments provide feedback on the estimates and their underlying data (see above).

Guiding this capacity strengthening work is a fundamental principle: child mortality estimation is not simply an academic exercise but a fundamental part of effective policies and programming. UNICEF works with countries to ensure that child mortality estimates are used effectively at the country level, in conjunction with other data on child health, to improve child survival programmes and stimulate action through advocacy. This work involves partnering with other agencies, organizations and initiatives such as the Countdown to 2015.

Levels and Trends in Child Mortality

Under-five mortality

Global under-five mortality has been roughly halved since 1990. A baby born today has a dramatically better chance of living to age five compared with one born in 1990. The global under-five mortality rate dropped 49 percent, from 90 (89, 92) deaths per 1,000 live births in 1990 to 46 (44, 48) in 2013 (table 1). Over the same period the total number of under-five deaths in the world fell from 12.7 million in 1990 to 6.3 million in 2013 (table 2). Put another way, 17,000 fewer children died each day in 2013 than in 1990—thanks to more effective and affordable treatments, innovative ways of delivering critical preventive and curative interventions to the poor and excluded, and sustained political commitment. These and other vital child survival interventions have helped save about 100 million lives since 1990.

All regions except Sub-Saharan Africa and Oceania have more than halved the under-five mortality rate. Eastern Asia, Latin America and the Caribbean, and Northern Africa, have already reduced the under-five mortality rate by more than two-thirds since 1990 and thus achieved MDG 4 (figure 1). Western Asia, with a reduction of 61 percent, and South-eastern Asia, 59 percent, are also close to reaching the MDG 4 target.

TABLE 1 **Levels and trends in the under-five mortality rate, by Millennium Development Goal region, 1990–2013**

Region	Under-five mortality rate (deaths per 1,000 live births)							Decline (percent)	Annual rate of reduction (percent)				
	1990	1995	2000	2005	2010	2013	MDG target 2015	1990–2013	1990–2013	1990–1995	1995–2000	2000–2005	2005–2013
Developed regions	**15**	11	10	8	7	**6**	**5**	58	3.8	5.3	2.5	4.0	3.5
Developing regions	**100**	94	83	69	57	**50**	**33**	50	3.0	1.2	2.4	3.7	4.0
Northern Africa	**72**	57	44	33	26	**24**	**24**	67	4.8	4.8	5.3	5.9	3.9
Sub-Saharan Africa	**179**	172	156	129	103	**92**	**60**	48	2.9	0.8	1.9	3.8	4.2
Latin America and the Caribbean	**54**	43	32	25	23	**18**	**18**	67	4.8	4.7	5.5	5.2	4.1
Caucasus and Central Asia	**73**	74	64	50	39	**35**	**24**	52	3.2	-0.3	3.0	5.0	4.3
Eastern Asia	**53**	46	37	24	16	**13**	**18**	76	6.2	2.7	4.7	8.7	7.7
Excluding China	**27**	33	31	20	17	**15**	**9**	45	2.6	-4.0	1.6	8.2	3.8
Southern Asia	**126**	109	92	76	62	**55**	**42**	56	3.6	2.9	3.4	3.9	4.0
Excluding India	**126**	109	94	78	67	**60**	**42**	52	3.2	2.8	3.1	3.6	3.3
South-eastern Asia	**71**	58	48	39	33	**29**	**24**	59	3.9	4.0	3.8	4.3	3.5
Western Asia	**65**	54	43	36	28	**25**	**22**	61	4.1	3.8	4.3	3.9	4.3
Oceania	**74**	69	67	64	58	**54**	**25**	28	1.4	1.4	0.7	1.0	2.2
World	**90**	**85**	**76**	**63**	**51**	**46**	**30**	**49**	**3.0**	**1.2**	**2.3**	**3.8**	**4.0**

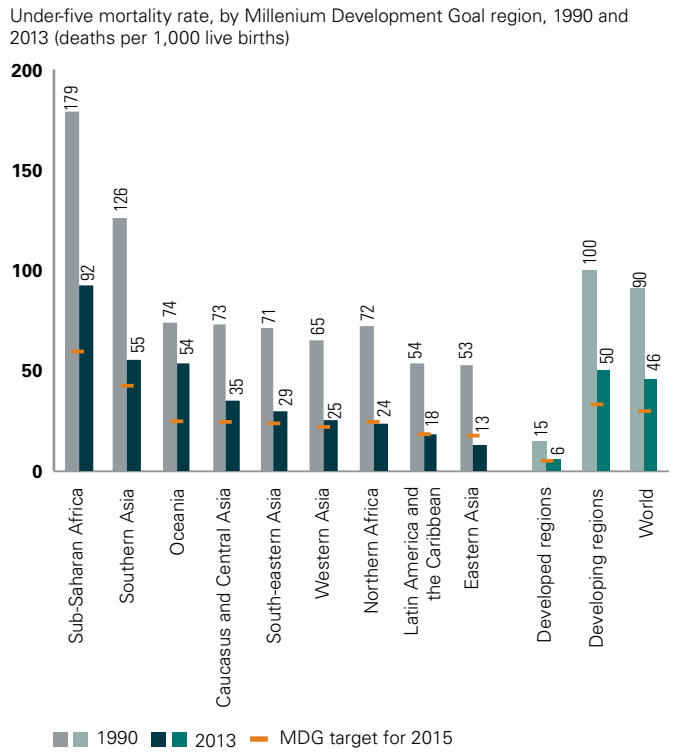
Note: All calculations are based on unrounded numbers.

TABLE 2 **Levels and trends in the number of deaths of children under age five, by Millennium Development Goal region, 1990–2013**

Region	Under-five deaths (thousands)						Decline (percent)	Share of global under-five deaths (percent)	
	1990	1995	2000	2005	2010	2013	1990–2013	1990	2013
Developed regions	226	153	131	112	97	87	62	1.8	1.4
Developing regions	12,444	10,757	9,613	8,108	6,836	6,199	50	98.2	98.6
Northern Africa	266	189	140	105	98	95	64	2.1	1.5
Sub-Saharan Africa	3,809	4,033	4,113	3,766	3,318	3,113	18	30.1	49.5
Latin America and the Caribbean	628	500	383	285	248	196	69	5.0	3.1
Caucasus and Central Asia	145	124	89	73	69	61	58	1.1	1.0
Eastern Asia	1,672	864	659	426	300	249	85	13.2	4.0
Excluding China	28	42	30	17	15	14	51	0.2	0.2
Southern Asia	4,796	4,106	3,495	2,827	2,268	2,015	58	37.9	32.1
Excluding India	1,463	1,245	1,083	853	772	675	54	11.5	10.7
South-eastern Asia	848	696	524	450	383	330	61	6.7	5.3
Western Asia	265	230	195	160	135	124	53	2.1	2.0
Oceania	14	15	16	16	15	14	0	0.1	0.2
World	**12,670**	**10,909**	**9,745**	**8,219**	**6,933**	**6,285**	**50**	**100.0**	**100.0**

Note: All calculations are based on unrounded numbers.

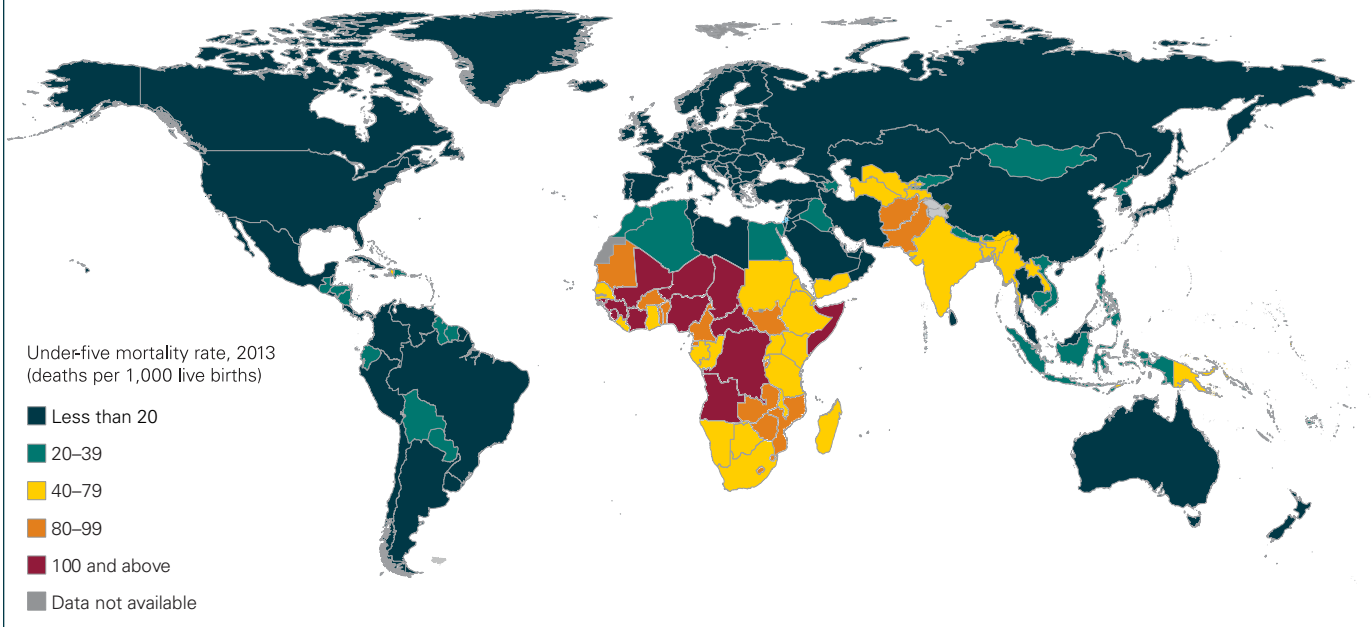
FIGURE 1 **Under-five mortality declined in all regions between 1990 and 2013**



Eight of the 60 high-mortality countries have reduced the under-five mortality rate by two-thirds or more since 1990. Of the 60 countries with at least 40 deaths per 1,000 live births in 2013, 27 have reduced the under-five mortality rate by at least half since 1990, and 8 of those—Malawi (72 percent), Bangladesh (71 percent), Liberia (71 percent), United Republic of Tanzania (69 percent), Ethiopia (69 percent), Timor-Leste (68 percent), Niger (68 percent) and Eritrea (67 percent)—have reduced it by two-thirds. The rapid declines in these countries show that tremendous progress in lowering under-five mortality is possible even in low- and lower middle-income countries.

The world is reducing under-five mortality faster than at any other time in the past two decades. The global annual rate of reduction has steadily accelerated since 1990–1995—more than tripling from 1.2 percent to 4.0 percent in 2005–2013. Sub-Saharan Africa, the region with the highest child mortality rate and least progress, has also seen a continuously faster decline, with the annual rate of reduction rising from 0.8 percent in 1990–1995 to 1.9 percent in 1995–2000 to 3.8 percent in 2000–2005 to 4.2 percent in 2005–2013.

MAP 1 **Children in Sub-Saharan Africa and Southern Asia face a higher risk of dying before their fifth birthday**



Notes: The classification is based on unrounded numbers. This map is stylized and not to scale. It does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

But progress is insufficient to achieve MDG 4. The global toll of under-five deaths over the past two decades is staggering: between 1990 and 2013, 223 million children died before age five. Globally, the 49 percent decline in the under-five mortality rate since 1990 is still far below the two-thirds reduction required to reach the MDG 4 target. If current trends continue, only three regions—Eastern Asia, Latin America and the Caribbean, and Northern Africa—will achieve MDG 4 by 2015. The rate of decline in under-five mortality in all other regions remains insufficient to achieve MDG 4.

Conflicts and political fragility contribute to higher under-five mortality rates. One fifth of all under-five deaths in 2013 occur in countries currently classified as fragile and conflict affected contexts.[6] Of the 20 countries with the highest under-five mortality rates, 11 are affected markedly by conflict or violence or are in fragile situations. Six of these are also among the 20 countries with the lowest annual rate of reduction since 1990 (excluding countries with fewer than 10,000 live births in 2013), indicating little progress where it is needed most.

Reducing inequities across regions and income groups is an important priority to save children's lives. Sub-Saharan Africa's under-five mortality rate, 92 deaths per 1,000 live births in 2013, is more than 15 times the average for developed regions (6). Southern Asia's, 55 deaths per 1,000 live births, is more than 9 times the average for developed regions. And the under-five mortality rate for low-income countries, 76 deaths per 1,000 live births, is more than 12 times the average for high-income countries (6).

Many countries still have very high under-five mortality rates—particularly those in Sub-Saharan Africa, home to all 12 countries with a rate of 100 deaths or more per 1,000 live births (map 1). Children born in Angola, with the highest under-five mortality rate in the world (167 deaths per 1,000 live births), are 84 times more likely to die before age five than children born in Luxembourg, with the lowest rate (2).

Evidence also shows alarming disparities in under-five mortality rates within countries. A child's risk of dying before age five increases if she or he is born in a remote rural area, into a poor household

or to a mother with no education.[7] Survey data show that the under-five mortality rates for the poorest fifth of the population average around twice as high as the rates for the richest fifth. Nevertheless, a child in the poorest fifth of the population born today still has a better chance of surviving through age five than one born in 1990, since under-five mortality has been reduced for the poorest fifth of the population in all regions. Moreover, the disparity in under-five mortality between the richest and poorest households has steadily declined since 1990, except in Sub-Saharan Africa where it has not changed markedly.[8]

Acceleration in reducing child mortality is urgently required, particularly in Sub-Saharan Africa and Southern Asia. As the region with the highest mortality rates, Sub-Saharan Africa continues to face considerable challenges. The region's 48 percent reduction in under-five mortality since 1990 has been slower than any other region's except Oceania. Faster progress in reducing child mortality in the rest of the world has led to a higher concentration of under-five deaths in Sub-Saharan Africa. In 2013, 3.1 million deaths—half of under-five deaths globally—occurred there. It is the only region where the number of live births and child population is expected to rise substantially over the next two decades. By 2050 close to 40 percent of live births will take place in Sub-Saharan Africa, and 37 percent of the world's children under age five will live there. Thus, the number of under-five deaths may stagnate or even increase without further progress in the region.

Southern Asia has made strong progress in reducing the number of child deaths. But the region continues to have a high under-five mortality rate (55 deaths per 1,000 live births in 2013), and nearly one in three under-five deaths still takes place there. Two-thirds of the under-five deaths in Southern Asia occur in India, which has the highest number of under-five deaths in the world (1.3 million in 2013).

Ending child deaths from preventable infectious diseases is critical. Despite strong advances in fighting childhood diseases, infectious diseases—which are most often diseases of the poor and thus are a marker of equity—remain highly prevalent, particularly in Sub-Saharan Africa and Southern Asia. Pneumonia, diarrhoea and malaria remain leading causes of death among children under age five—killing roughly 2 million in 2013 and accounting for almost a third of global under-five deaths.[8] Pneumonia, diarrhoea and malaria accounted for about 1.3 million—or about 40 percent—of under-five deaths in Sub-Saharan Africa and roughly half a million—or about 25 percent—in Southern Asia.

The major improvements in child survival since 1990 are partly attributable to affordable, evidence-based interventions against the leading infectious diseases, such as immunization, insecticide-treated mosquito nets, rehydration treatment for diarrhoea, nutritional supplements and therapeutic food. Accelerating the reduction in under-five mortality is possible by expanding effective preventive and curative interventions that target the main causes of post-neonatal deaths and the most vulnerable newborns and children.

Neonatal mortality

Neonatal mortality is declining globally but more slowly than post-neonatal (1-59 months) mortality. The first 28 days of life—the neonatal period—are the most vulnerable time for a child's survival. Neonatal mortality is becoming increasingly important not only because the proportion of under-five deaths that occur during the neonatal period is increasing as under-five mortality declines, but also because the health interventions needed to address the major causes of neonatal deaths generally differ from those needed to address other under-five deaths and are intimately linked to those that are necessary to protect maternal health.

Globally, the neonatal mortality rate fell from 33 deaths per 1,000 live births in 1990 to 20 in 2013 (figure 2), and the number of neonatal deaths declined from 4.7 million in 1990 to 2.8 million in 2013 (table 3). However, the decline in neonatal mortality over 1990–2013 has been slower than that of post-neonatal mortality: 40 percent, compared with 56 percent (and 49 percent for overall under-five mortality), a pattern consistent across all MDG regions (figure 3).

FIGURE 2 **Neonatal mortality rate is declining in all regions**

Neonatal mortality rate by Millennium Development Goal region, 1990 and 2013 (deaths per 1,000 live births)

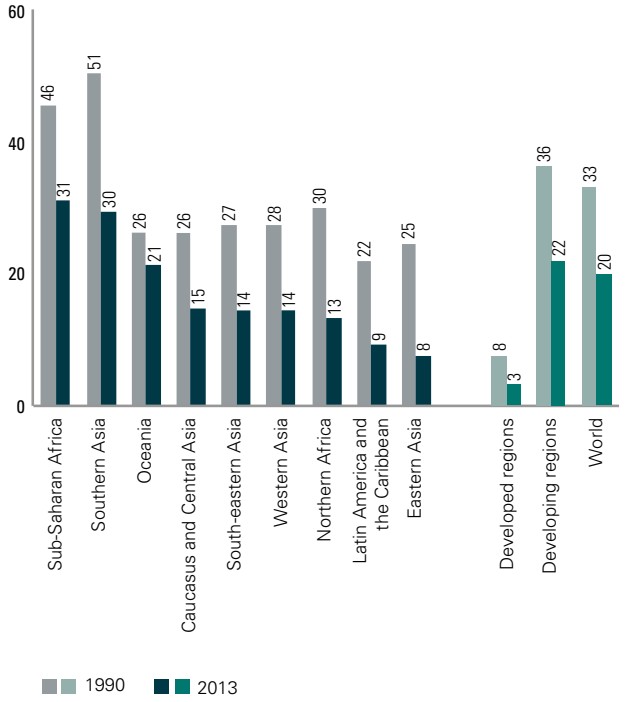


FIGURE 3 **The decline in the neonatal mortality rate has been slower than the decline in the post-neonatal mortality rate in all regions**

Decline in neonatal and post-neonatal (age 1–59 months) mortality rates, by Millennium Development Goal region, 1990–2013 (percent)

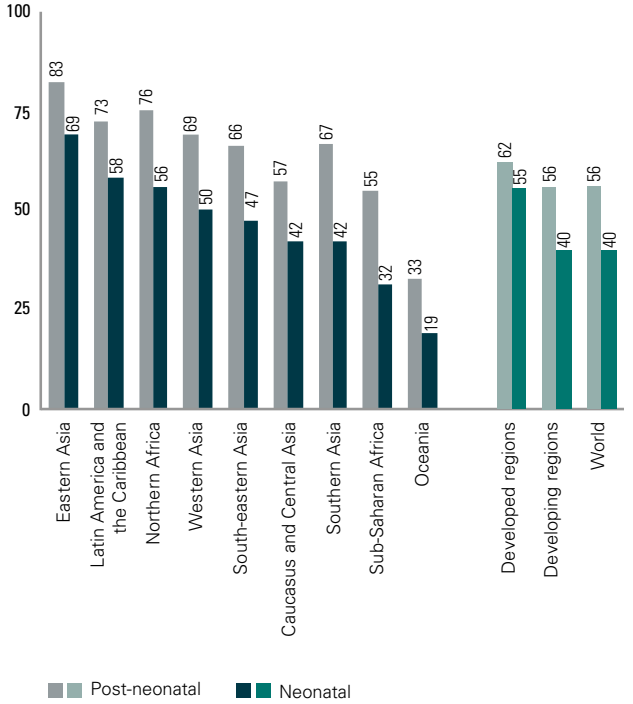


TABLE 3 **Neonatal mortality rate, number of neonatal deaths and neonatal deaths as a share of under-five deaths, by Millennium Development Goal region, 1990 and 2013**

Region	Neonatal mortality rate (deaths per 1,000 live births)			Number of neonatal deaths (thousands)		Neonatal deaths as a share of under-five deaths (percent)		
	1990	2013	Decline (percent) 1990–2013	1990	2013	1990	2013	Relative increase (percent) 1990–2013
Developed regions	8	3	55	118	48	52	56	7
Developing regions	36	22	40	4,554	2,714	37	44	20
Northern Africa	30	13	56	109	53	41	56	37
Sub-Saharan Africa	46	31	32	977	1,066	26	34	34
Latin America and the Caribbean	22	9	58	255	101	41	51	26
Caucasus and Central Asia	26	15	42	51	26	35	42	19
Eastern Asia	25	8	69	784	150	47	60	29
Excluding China	12	8	35	11	7	41	51	25
Southern Asia	51	30	42	1,940	1,086	40	54	33
Excluding India	49	30	39	578	338	39	50	27
South-eastern Asia	27	14	47	321	160	38	49	28
Western Asia	28	14	50	111	67	42	54	28
Oceania	26	21	19	5	6	35	40	12
World	**33**	**20**	**40**	**4,672**	**2,763**	**37**	**44**	**19**

Note: All calculations are based on unrounded numbers.

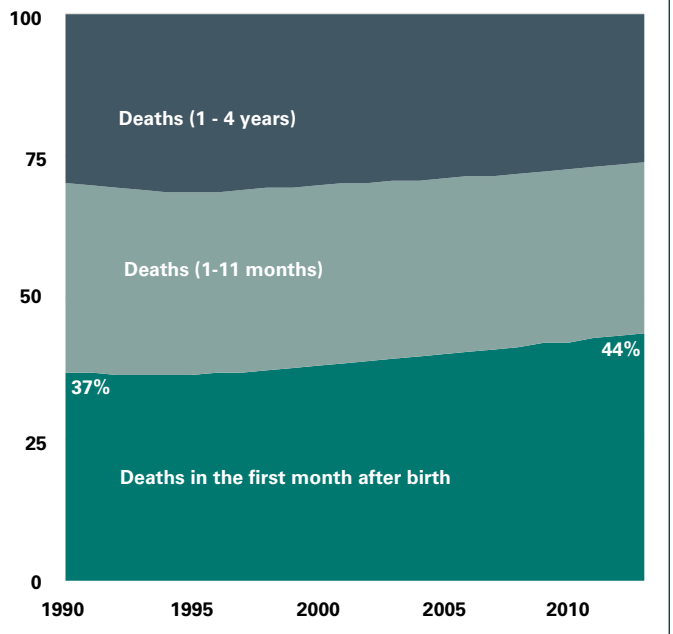
Around 44 percent of under-five deaths worldwide occur during the neonatal period. Despite falling rates and levels of neonatal mortality, its importance in the burden of under-five deaths has never been greater. Because declines in the neonatal mortality rate are slower than those in the post-neonatal mortality rate, the share of neonatal deaths among under-five deaths increased from about 37 percent in 1990 to 44 percent in 2013 (figure 4). This trend is expected to continue as the under-five mortality rate continues to decline.

In five developing regions—Eastern Asia, Latin America and the Caribbean, Northern Africa, Southern Asia and Western Asia—more than half of under-five deaths took place during the neonatal period in 2013. Eastern Asia cut overall under-five mortality rates so quickly that the share of neonatal deaths among under-five deaths jumped from 47 percent in 1990 to 60 percent in 2013 (table 3).

Sub-Saharan Africa lags behind other regions in reducing neonatal mortality. Sub-Saharan Africa—where about a third of under-five deaths occurred during the neonatal period—has the highest neonatal mortality rate (31 deaths per 1,000 live births in 2013) and accounts for 39 percent of global neonatal deaths. Together with Oceania, the region has recorded the least improvement over the last two decades, with the neonatal mortality rate declining only 32 percent. The greatest progress was in Eastern Asia (69 percent decline in the neonatal mortality rate), followed by Latin America and the Caribbean (58 percent) and Northern Africa (56 percent).

FIGURE 4 **The share of neonatal deaths among under-five deaths has increased since 1990**

Age distribution of global under-five deaths, 1990 and 2013 (percent)



At all levels of national income, it is possible to make rapid advances in reducing neonatal mortality. Although neonatal deaths are often more difficult to prevent, 80 countries have reduced the neonatal mortality rate by at least half since 1990, and 27 of those have reduced it by two-thirds or more since 1990. Many of these are countries with low neonatal mortality rates. The largest relative gains in neonatal survival have been in nine European countries and one Asian country. Encouragingly, many low- and lower middle-income countries have also experienced considerable declines in the neonatal mortality rates. The 10 countries with the largest absolute declines in neonatal mortality are all low- and lower middle-income countries in Africa or Asia: Bangladesh, Nepal, Ethiopia, Malawi, Liberia, Mozambique, South Sudan, Bhutan, Timor-Leste and United Republic of Tanzania. The decline in these 10 countries saved the lives of 3.4 million newborns.

The substantial progress in these countries demonstrates that combining political commitment, sound strategies and adequate resources makes it possible to rapidly reduce neonatal mortality, regardless of national income.

The first day and week are most critical for the survival of newborns. In 2013 almost 1 million newborns (36 percent) died on the day they were born, and another 1 million (37 percent) died within the next six days of birth. Some 0.8 million neonatal deaths (27 percent) occurred between day 7 and day 27 of life.[9]

Most neonatal deaths are preventable. Children that die in the first 28 days of life suffer from diseases and conditions that are often associated with quality of care around the time of childbirth and are readily preventable or treatable

with proven, cost-effective interventions. In 2013, 35 percent of the global neonatal deaths were caused by preterm birth complications and 24 percent by intrapartum-related complications (complications during labour and delivery). Another quarter of neonatal deaths worldwide were caused by sepsis (15 percent), pneumonia (5 percent), tetanus (2 percent) or diarrhoea (1 percent)—all highly preventable or treatable diseases, provided simple interventions and basic treatment knowledge are available. Only 7 percent of neonatal deaths in high-income countries are caused by these four infectious diseases, compared with 27 percent in Sub-Saharan Africa and 23 percent in Southern Asia.[8]

Neonatal health will need to be addressed more effectively. Accelerated change for child survival, health and development needs more focus on a healthy start to life. With 2.8 million newborns dying each year, accounting for 44 percent of under-five deaths, progress has been insufficient and is now impeding improvement in child survival worldwide. Neonatal health will need to be addressed more effectively for progress on overall child mortality to continue rapidly. Further reductions in neonatal deaths in particular depend on building stronger health services, ensuring that every birth is attended by skilled personnel and making hospital care available in an emergency. The Every Newborn Action Plan, endorsed by governments, the private sector, civil society and other stakeholders, calls for reducing neonatal mortality rates in all countries to fewer than 10 deaths per 1,000 live births by 2035. The plan uses the most recent evidence to provide a roadmap to end preventable stillbirths and neonatal deaths. Cost-effective interventions for newborn health cover the antenatal period, the time around birth and the first week of life as well as care for small and sick newborns. Examples of high-impact, low-cost interventions for newborn health are breastfeeding support and kangaroo mother care, where the preterm baby is held skin to skin with its mother. Further reduction of neonatal mortality requires educated and equipped health care workers, especially those with midwifery skills, and the provision of essential commodities such as antenatal corticosteroids, resuscitation devices, injectable antibiotics and chlorhexidine for clean cord care. Most of these care packages are most effective when delivered to women and their babies at the same location by the same health care service providers. High coverage of interventions before, during and after pregnancy could save nearly 3 million women, stillbirths and newborns by 2025 in 75 high-burden countries (those where more than 95 percent of all maternal and child deaths occur) at an additional cost of only $1.15 per capita.[10]

Notes

1. Values in parentheses indicate 90 percent uncertainty intervals for the estimates.

2. Pedersen, Jon, and Jing Liu, 'Child Mortality Estimation: Appropriate Time Periods for Child Mortality Estimates from Full Birth Histories', *PLoS Med* 9(8): e1001289, doi:10.1371/journal.pmed.1001289, 2012.

3. Silva, Romesh, 'Child Mortality Estimation: Consistency of Under-Five Mortality Rate Estimates Using Full Birth Histories and Summary Birth Histories', *PLoS Med* 9(8): e1001296, doi:10.1371/journal.pmed.1001296info:doi/10.1371/journal.pmed.1001289, 2012.

4. Alkema, Leontine and Jin Rou New, 'Global estimation of child mortality using a Bayesian B-spline bias-reduction method', *Annals of Applied Statistics,* (forthcoming), available at <imstat.org/aoas>.

5. Alkema, Leontine, Fengqing Chao, Danzhen You, Jon Pedersen, and Cheryl C. Sawyer, 'National, regional, and global sex ratios of infant, child, and under-5 mortality and identification of countries with outlying ratios: a systematic assessment.', The Lancet Global Health, vol. 2, 9, 1 September 2014, pp. e521-e530, DOI: 10.1016/S2214-109X(14)70280-3

6. The World Bank's fragile and conflict-affected situations list (fiscal year 2015) is used to identify countries with conflict or violence or in fragile situations (World Bank, 'Harmonized List of Fragile Situations', Washington, DC, <http://siteresources.worldbank.org/EXTLICUS/Resources/511777-1269623894864/FY15FragileSituationList.pdf>, accessed 15 August 2014).

7. UNICEF, *Progress for Children: Achieving the MDGs with Equity 2010, Number 9*, New York, 2010.

8. UNICEF, *Committing to Child Survival: A Promise Renewed. Progress Report 2014*, New York, 2014.

9. To obtain the number of neonatal deaths by day, the most recent estimates of global neonatal deaths by the UN IGME are distributed according to the proportions of neonatal deaths by day from Lawn, Joy, et al., 'Every Newborn: Progress, Priorities, and Potential beyond Survival', *The Lancet*, 384(9938): 189–205, doi:10.1016/S0140-6736(14)60496-7, 2014.

10. WHO and UNICEF, *Every Newborn: An Action Plan to End Preventable Deaths*, WHO, Geneva, 2014.

Country, regional and global estimates of under-five, infant and neonatal mortality

	Under-five mortality rate (U5MR) (deaths per 1,000 live births)										Annual rate of reduction (ARR) (percent) 1990–2013		
	1990			2000			2013			Millennium Development Goal target for 2015			
Country	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound		ARR	Lower bound	Upper bound
Afghanistan	179	161	198	136	124	149	97	79	120	60	2.7	1.7	3.6
Albania	41	36	46	26	22	30	15	9	24	14	4.3	2.1	6.6
Algeria	47	44	50	40	39	41	25	24	26	16	2.7	2.4	3.0
Andorra	9	5	15	5	4	6	3	2	5	3	4.5	1.2	7.8
Angola	226	201	254	217	190	248	167	108	253	75	1.3	-0.5	3.2
Antigua and Barbuda	26	18	36	15	14	17	9	7	13	9	4.4	2.3	6.6
Argentina	28	27	28	20	20	21	13	13	14	9	3.2	2.9	3.4
Armenia	50	45	55	30	27	33	16	12	20	17	5.0	3.9	6.1
Australia	9	9	9	6	6	6	4	4	4	3	3.6	3.4	3.9
Austria	10	9	10	6	5	6	4	4	4	3	3.9	3.6	4.3
Azerbaijan	95	85	105	74	66	83	34	23	52	32	4.4	2.6	6.2
Bahamas	24	22	25	16	15	17	13	11	16	8	2.6	1.6	3.5
Bahrain	23	22	24	13	12	13	6	5	7	8	5.8	5.1	6.4
Bangladesh	144	140	148	88	85	91	41	37	46	48	5.4	4.9	6.0
Barbados	18	17	19	16	15	18	14	12	17	6	1.0	0.3	1.7
Belarus	17	16	17	14	14	15	5	5	5	6	5.3	5.0	5.6
Belgium	10	10	10	6	6	6	4	4	5	3	3.6	3.2	3.9
Belize	40	35	45	25	24	27	17	14	20	13	3.8	2.8	4.7
Benin	179	168	192	146	134	159	85	55	124	60	3.2	1.6	5.2
Bhutan	134	118	153	79	72	88	36	28	46	45	5.7	4.4	7.1
Bolivia (Plurinational State of)	123	116	130	77	72	83	39	29	52	41	5.0	3.7	6.3
Bosnia and Herzegovina	18	18	19	9	9	10	7	6	8	6	4.4	3.9	5.0
Botswana	50	43	57	85	64	104	47	19	92	17	0.3	-2.9	4.3
Brazil	62	57	66	33	30	36	14	12	16	21	6.5	5.9	7.2
Brunei Darussalam	12	12	13	10	9	10	10	9	11	4	0.9	0.4	1.5
Bulgaria	22	22	23	21	21	22	12	11	13	7	2.8	2.4	3.2
Burkina Faso	202	189	216	186	173	200	98	78	121	67	3.2	2.3	4.1
Burundi	171	155	189	149	131	170	83	50	129	57	3.1	1.2	5.4
Cabo Verde	63	61	65	35	34	36	26	24	28	21	3.8	3.5	4.2
Cambodia	118	109	127	111	102	121	38	21	70	39	4.9	2.2	7.4
Cameroon	136	127	146	151	139	165	95	58	148	45	1.6	-0.4	3.7
Canada	8	8	8	6	6	6	5	5	6	3	2.0	1.7	2.3
Central African Republic	177	160	196	174	156	194	139	100	195	59	1.0	-0.5	2.6
Chad	215	199	232	191	175	207	148	108	199	72	1.6	0.3	3.0
Chile	19	19	20	11	11	11	8	7	10	6	3.7	2.8	4.6
China	54	50	59	37	35	39	13	11	15	18	6.3	5.6	7.0
Colombia	35	33	38	25	23	27	17	13	23	12	3.2	1.8	4.5
Comoros	125	111	139	101	82	119	78	45	139	42	2.1	-0.6	4.5
Congo	92	81	105	121	110	135	49	35	68	31	2.7	1.3	4.3
Cook Islands	24	22	27	17	15	19	9	6	12	8	4.4	2.9	6.0
Costa Rica	17	17	17	13	13	13	10	8	12	6	2.5	1.4	3.5
Côte d'Ivoire	152	141	162	146	134	159	100	83	121	51	1.8	1.0	2.6
Croatia	13	13	13	8	8	9	5	4	5	4	4.5	4.1	5.0
Cuba	13	13	14	8	8	9	6	5	7	4	3.3	2.8	3.9

Country, regional and global estimates of under-five, infant and neonatal mortality

Country	Number of under-five deaths (thousands) 1990 Under-five deaths	1990 Lower bound	1990 Upper bound	2013 Under-five deaths	2013 Lower bound	2013 Upper bound	Sex-specific under-five mortality rate (deaths per 1,000 live births) 1990 Male	1990 Female	2013 Male	2013 Female	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Afghanistan	**98**	87	110	**100**	81	125	184	174	101	94	121	70	67	71	51	36	28	37
Albania	**4**	3	4	**1**	0	1	44	36	16	13	35	13	3	1	17	7	2	0
Algeria	**39**	36	42	**25**	24	25	51	43	26	24	40	22	33	21	23	14	18	14
Andorra	**0**	0	0	**0**	0	0	9	8	3	3	8	2	0	0	4	1	0	0
Angola	**114**	99	131	**153**	96	246	236	215	175	159	133	102	68	93	54	47	28	43
Antigua and Barbuda	**0**	0	0	**0**	0	0	28	23	10	8	23	8	0	0	12	5	0	0
Argentina	**20**	20	21	**9**	9	10	31	24	15	12	24	12	18	8	16	7	12	5
Armenia	**4**	4	4	**1**	0	1	54	45	17	14	42	14	3	1	24	10	2	0
Australia	**2**	2	2	**1**	1	1	10	8	4	4	8	3	2	1	5	2	1	1
Austria	**1**	1	1	**0**	0	0	11	8	4	3	8	3	1	0	5	2	0	0
Azerbaijan	**19**	17	22	**6**	4	9	102	86	37	31	75	30	16	5	32	16	7	3
Bahamas	**0**	0	0	**0**	0	0	25	22	14	12	20	10	0	0	12	7	0	0
Bahrain	**0**	0	0	**0**	0	0	24	22	6	6	20	5	0	0	8	2	0	0
Bangladesh	**531**	514	549	**129**	115	145	146	141	44	38	100	33	366	105	55	24	203	77
Barbados	**0**	0	0	**0**	0	0	20	16	16	13	16	13	0	0	10	8	0	0
Belarus	**3**	3	3	**1**	0	1	19	14	6	4	14	4	2	0	8	2	1	0
Belgium	**1**	1	1	**1**	1	1	11	9	5	4	8	4	1	0	5	2	1	0
Belize	**0**	0	0	**0**	0	0	44	35	18	15	32	14	0	0	16	8	0	0
Benin	**39**	36	42	**31**	19	46	186	172	89	81	108	56	24	20	41	27	9	10
Bhutan	**3**	2	3	**1**	0	1	140	127	40	33	93	30	2	0	43	18	1	0
Bolivia (Plurinational State of)	**29**	28	31	**10**	8	14	129	116	43	35	85	31	20	8	38	18	9	5
Bosnia and Herzegovina	**1**	1	1	**0**	0	0	20	16	7	6	16	6	1	0	12	4	1	0
Botswana	**2**	2	3	**2**	1	5	54	45	50	43	39	36	2	2	25	25	1	1
Brazil	**218**	201	236	**41**	36	47	67	55	15	12	51	12	179	37	28	8	96	25
Brunei Darussalam	**0**	0	0	**0**	0	0	13	11	11	9	9	8	0	0	6	5	0	0
Bulgaria	**3**	3	3	**1**	1	1	25	19	13	10	18	10	2	1	12	6	1	0
Burkina Faso	**79**	73	85	**64**	51	80	210	194	103	92	103	64	40	43	40	27	16	18
Burundi	**45**	41	51	**35**	21	55	181	161	89	77	103	55	28	24	46	30	12	13
Cabo Verde	**1**	1	1	**0**	0	0	67	58	28	23	48	22	1	0	22	11	0	0
Cambodia	**40**	37	44	**14**	8	26	125	109	42	33	86	33	28	12	38	18	12	7
Cameroon	**70**	65	75	**75**	45	121	144	128	101	88	85	61	44	49	35	28	18	23
Canada	**3**	3	3	**2**	2	2	9	7	6	5	7	5	3	2	5	3	2	1
Central African Republic	**20**	18	23	**21**	15	31	184	170	145	132	115	96	13	15	48	43	6	7
Chad	**61**	56	66	**82**	59	114	224	205	155	140	116	89	33	50	48	40	14	23
Chile	**6**	6	6	**2**	2	2	21	17	9	7	16	7	5	2	8	5	2	1
China	**1,644**	1,509	1,803	**236**	205	273	56	52	14	12	42	11	1,315	203	25	8	772	143
Colombia	**32**	29	34	**15**	11	21	39	31	19	15	29	15	26	13	19	10	17	9
Comoros	**2**	2	2	**2**	1	4	133	118	83	72	88	58	1	1	41	31	1	1
Congo	**8**	7	9	**8**	5	11	98	86	53	45	60	36	5	6	30	19	3	3
Cook Islands	**0**	0	0	**0**	0	0	27	22	10	8	21	8	0	0	12	5	0	0
Costa Rica	**1**	1	1	**1**	1	1	19	15	11	9	14	8	1	1	9	6	1	0
Côte d'Ivoire	**73**	68	79	**72**	60	88	163	139	109	91	104	71	50	53	48	38	23	28
Croatia	**1**	1	1	**0**	0	0	14	11	5	4	11	4	1	0	8	3	0	0
Cuba	**2**	2	3	**1**	1	1	15	11	7	5	11	5	2	1	7	3	1	0

Country, regional and global estimates of under-five, infant and neonatal mortality

	Under-five mortality rate (U5MR) (deaths per 1,000 live births)										Annual rate of reduction (ARR) (percent) 1990–2013		
	1990			2000			2013			Millennium Development Goal target for 2015			
Country	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound		ARR	Lower bound	Upper bound
Cyprus	11	11	12	7	6	7	4	3	5	4	4.9	4.0	5.8
Czech Republic	15	14	15	7	6	7	4	3	4	5	6.1	5.6	6.5
Democratic People's Republic of Korea	43	34	56	60	47	77	27	22	35	14	2.0	2.0	2.0
Democratic Republic of the Congo	176	160	193	176	160	193	119	82	167	59	1.7	0.3	3.3
Denmark	9	9	9	6	5	6	4	3	4	3	4.1	3.4	4.6
Djibouti	119	102	137	101	86	120	70	50	96	40	2.3	0.8	3.9
Dominica	17	16	19	16	14	18	11	8	16	6	1.8	0.3	3.3
Dominican Republic	60	56	63	41	38	44	28	23	34	20	3.3	2.4	4.1
Ecuador	57	52	63	34	30	40	23	15	34	19	4.0	2.2	5.7
Egypt	85	81	89	45	42	48	22	21	23	28	5.9	5.7	6.2
El Salvador	60	54	65	32	29	37	16	11	24	20	5.8	4.0	7.6
Equatorial Guinea	184	155	223	142	119	172	96	53	172	61	2.8	0.2	5.5
Eritrea	151	138	165	89	81	99	50	36	70	50	4.8	3.3	6.3
Estonia	20	20	21	11	11	12	3	3	4	7	7.7	7.1	8.5
Ethiopia	205	190	221	146	134	158	64	48	84	68	5.0	3.9	6.4
Fiji	30	25	35	24	23	26	24	21	26	10	1.0	0.2	1.9
Finland	7	7	7	4	4	5	3	2	3	2	4.1	3.8	4.6
France	9	9	9	5	5	6	4	4	4	3	3.3	3.1	3.6
Gabon	93	81	107	85	73	99	56	43	73	31	2.2	0.9	3.5
Gambia	170	152	191	119	105	135	74	51	106	57	3.6	2.1	5.2
Georgia	47	43	53	36	32	41	13	11	16	16	5.6	4.7	6.4
Germany	9	8	9	5	5	5	4	4	4	3	3.4	3.2	3.6
Ghana	128	121	136	101	95	108	78	60	102	43	2.1	1.0	3.3
Greece	13	12	13	8	8	8	4	4	5	4	4.5	4.2	5.0
Grenada	22	21	24	16	15	17	12	9	15	7	2.7	1.6	4.0
Guatemala	81	76	86	51	46	56	31	22	45	27	4.2	2.6	5.6
Guinea	238	223	254	170	159	183	101	82	123	79	3.7	2.9	4.6
Guinea-Bissau	225	200	253	181	161	204	124	88	174	75	2.6	1.0	4.2
Guyana	61	55	68	49	44	55	37	25	54	20	2.2	0.5	4.0
Haiti	145	136	155	104	97	113	73	62	87	48	3.0	2.2	3.7
Holy See	—	—	—	—	—	—	—	—	—	—	—	—	—
Honduras	59	55	63	38	35	41	22	18	27	20	4.3	3.4	5.1
Hungary	19	19	20	11	11	12	6	6	7	6	4.9	4.5	5.4
Iceland	6	6	7	4	4	5	2	2	3	2	4.8	3.5	6.1
India	126	122	130	91	88	95	53	48	58	42	3.8	3.3	4.3
Indonesia	84	81	88	52	50	55	29	26	34	28	4.6	4.0	5.2
Iran (Islamic Republic of)	57	52	61	35	32	38	17	14	21	19	5.3	4.3	6.3
Iraq	53	49	58	45	41	49	34	28	42	18	2.0	1.0	2.9
Ireland	9	9	10	7	7	7	4	4	4	3	3.8	3.4	4.1
Israel	12	11	12	7	7	7	4	4	4	4	4.6	4.3	5.0
Italy	10	10	10	6	5	6	4	3	4	3	4.3	3.9	4.7
Jamaica	30	25	35	24	20	28	17	11	25	10	2.5	0.5	4.3

Country, regional and global estimates of under-five, infant and neonatal mortality

Country	Number of under-five deaths (thousands) 1990 Under-five deaths	1990 Lower bound	1990 Upper bound	2013 Under-five deaths	2013 Lower bound	2013 Upper bound	Sex-specific under-five mortality rate (deaths per 1,000 live births) 1990 Male	1990 Female	2013 Male	2013 Female	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Cyprus	**0**	0	0	**0**	0	0	12	10	4	3	10	3	0	0	6	2	0	0
Czech Republic	**2**	2	2	**0**	0	0	17	13	4	3	13	3	2	0	10	2	1	0
Democratic People's Republic of Korea	**16**	12	20	**10**	8	13	47	39	30	24	33	22	12	8	21	15	7	5
Democratic Republic of the Congo	**275**	248	304	**320**	218	461	184	168	126	111	115	86	183	235	48	38	76	105
Denmark	**1**	1	1	**0**	0	0	10	8	4	3	7	3	0	0	5	2	0	0
Djibouti	**3**	3	4	**2**	1	2	127	110	76	63	92	57	3	1	44	31	1	1
Dominica	**0**	0	0	**0**	0	0	19	16	12	10	14	10	0	0	12	8	0	0
Dominican Republic	**13**	12	13	**6**	5	7	64	55	31	25	46	24	10	5	28	16	6	3
Ecuador	**17**	16	19	**7**	5	11	62	52	25	20	44	19	14	6	21	11	7	3
Egypt	**154**	146	162	**42**	40	43	85	85	23	21	63	19	114	35	32	12	58	22
El Salvador	**10**	9	11	**2**	1	3	64	54	17	14	46	14	8	2	19	7	3	1
Equatorial Guinea	**3**	3	4	**2**	1	5	192	175	101	90	124	69	2	2	48	33	1	1
Eritrea	**21**	19	23	**11**	8	16	161	139	55	45	93	36	13	8	36	18	5	4
Estonia	**0**	0	1	**0**	0	0	23	17	4	3	17	3	0	0	12	2	0	0
Ethiopia	**447**	409	486	**196**	143	259	218	191	70	58	122	44	268	136	55	28	120	84
Fiji	**1**	1	1	**0**	0	0	33	27	26	21	25	20	1	0	13	10	0	0
Finland	**0**	0	0	**0**	0	0	7	6	3	2	6	2	0	0	4	1	0	0
France	**6**	6	6	**3**	3	4	10	8	5	4	7	4	5	3	4	2	2	2
Gabon	**3**	3	4	**3**	2	4	99	86	61	51	60	39	2	2	33	23	1	1
Gambia	**7**	6	8	**6**	4	8	177	162	79	69	80	49	3	4	46	28	2	2
Georgia	**4**	4	5	**1**	1	1	53	42	15	11	41	12	4	1	28	10	3	1
Germany	**7**	7	7	**3**	3	3	10	7	4	4	7	3	6	2	4	2	3	2
Ghana	**70**	66	75	**62**	46	81	136	121	84	72	80	52	44	41	40	29	22	23
Greece	**1**	1	1	**0**	0	1	14	11	5	4	11	4	1	0	9	3	1	0
Grenada	**0**	0	0	**0**	0	0	24	20	13	11	18	11	0	0	10	6	0	0
Guatemala	**27**	25	29	**15**	10	21	86	75	34	28	60	26	20	12	29	15	10	7
Guinea	**63**	58	68	**42**	34	52	246	229	106	95	140	65	37	27	53	33	14	14
Guinea-Bissau	**9**	8	11	**7**	5	11	240	209	133	114	133	78	5	5	61	44	2	3
Guyana	**1**	1	1	**1**	0	1	68	54	41	32	47	30	1	0	29	20	1	0
Haiti	**37**	34	39	**19**	16	23	153	136	79	67	100	55	25	14	38	25	9	7
Holy See	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Honduras	**11**	10	12	**5**	4	6	64	54	25	20	46	19	8	4	25	12	4	2
Hungary	**3**	3	3	**1**	1	1	21	17	6	6	17	5	3	1	13	4	2	0
Iceland	**0**	0	0	**0**	0	0	7	6	2	2	5	2	0	0	3	1	0	0
India	**3,333**	3,216	3,454	**1,340**	1,203	1,478	122	130	51	55	88	41	2,339	1,053	51	29	1,362	748
Indonesia	**387**	369	406	**136**	119	157	91	77	33	26	62	25	281	112	31	14	138	66
Iran (Islamic Republic of)	**107**	99	117	**25**	20	31	57	56	18	16	44	14	83	21	27	10	50	15
Iraq	**35**	32	38	**35**	28	44	57	49	37	31	42	28	28	29	26	19	17	19
Ireland	**0**	0	0	**0**	0	0	10	8	4	3	8	3	0	0	5	2	0	0
Israel	**1**	1	1	**1**	1	1	12	11	4	4	10	3	1	1	6	2	1	0
Italy	**5**	5	6	**2**	2	2	11	9	4	3	8	3	5	2	6	2	4	1
Jamaica	**2**	1	2	**1**	1	1	33	26	19	15	25	14	1	1	17	10	1	1

Country, regional and global estimates of under-five, infant and neonatal mortality

Country	Under-five mortality rate (U5MR) (deaths per 1,000 live births)										Annual rate of reduction (ARR) (percent)		
	1990			2000			2013			Millennium Development Goal target for 2015	1990–2013		
	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound		ARR	Lower bound	Upper bound
Japan	**6**	6	6	**5**	4	5	**3**	3	3	2	**3.4**	3.3	3.6
Jordan	**37**	34	39	**28**	26	30	**19**	16	23	12	**2.9**	2.1	3.8
Kazakhstan	**53**	48	58	**44**	40	48	**16**	15	18	18	**5.1**	4.6	5.6
Kenya	**99**	93	105	**111**	102	121	**71**	47	106	33	**1.5**	-0.3	3.2
Kiribati	**95**	82	111	**71**	61	82	**58**	40	85	32	**2.1**	0.4	3.9
Kuwait	**17**	16	17	**13**	12	13	**10**	9	10	6	**2.5**	2.1	2.8
Kyrgyzstan	**66**	58	74	**49**	44	54	**24**	23	26	22	**4.3**	3.8	4.9
Lao People's Democratic Republic	**162**	147	179	**117**	106	131	**71**	56	90	54	**3.6**	2.5	4.7
Latvia	**20**	20	21	**17**	16	18	**8**	7	10	7	**3.9**	3.2	4.6
Lebanon	**32**	29	36	**20**	17	24	**9**	5	15	11	**5.5**	3.4	7.8
Lesotho	**86**	78	95	**115**	105	125	**98**	72	137	29	**-0.6**	-2.1	0.9
Liberia	**248**	226	272	**175**	160	193	**71**	51	99	83	**5.4**	4.0	6.9
Libya	**42**	36	50	**28**	27	30	**15**	12	19	14	**4.7**	3.4	5.9
Liechtenstein	—	—	—	—	—	—	—	—	—	—	—	—	—
Lithuania	**17**	16	17	**12**	11	12	**5**	4	6	6	**5.3**	4.8	5.8
Luxembourg	**9**	8	10	**5**	4	5	**2**	2	3	3	**6.4**	5.1	7.5
Madagascar	**161**	150	172	**111**	101	121	**56**	38	82	54	**4.6**	2.9	6.3
Malawi	**245**	231	260	**174**	163	186	**68**	52	90	82	**5.6**	4.4	6.8
Malaysia	**17**	16	17	**10**	10	10	**9**	7	10	6	**2.9**	2.3	3.6
Maldives	**94**	85	103	**44**	40	48	**10**	9	11	31	**9.8**	9.0	10.5
Mali	**254**	238	272	**220**	204	238	**123**	85	175	85	**3.2**	1.7	4.8
Malta	**11**	11	12	**8**	7	9	**6**	5	8	4	**2.7**	1.8	3.6
Marshall Islands	**50**	42	58	**42**	35	49	**38**	29	49	17	**1.2**	-0.2	2.6
Mauritania	**118**	106	130	**113**	101	128	**90**	57	145	39	**1.2**	-1.0	3.2
Mauritius	**23**	22	24	**19**	18	20	**14**	13	16	8	**2.1**	1.6	2.5
Mexico	**46**	42	51	**26**	24	28	**15**	14	15	15	**5.1**	4.6	5.5
Micronesia (Federated States of)	**55**	45	68	**53**	37	77	**36**	18	76	18	**1.8**	-1.2	4.7
Monaco	**8**	7	9	**5**	5	6	**4**	3	4	3	**3.2**	2.4	4.0
Mongolia	**108**	99	117	**65**	58	72	**32**	21	47	36	**5.3**	3.6	7.0
Montenegro	**17**	16	18	**14**	13	15	**5**	5	6	6	**5.0**	4.2	5.7
Morocco	**81**	76	86	**51**	47	55	**30**	25	37	27	**4.2**	3.4	5.1
Mozambique	**237**	220	257	**169**	157	182	**87**	73	106	79	**4.3**	3.5	5.1
Myanmar	**109**	99	121	**80**	73	87	**51**	36	68	36	**3.3**	1.9	4.9
Namibia	**74**	67	80	**76**	69	83	**50**	40	64	25	**1.7**	0.5	2.8
Nauru	**58**	36	93	**41**	35	49	**37**	24	54	19	**2.0**	-0.9	4.9
Nepal	**142**	133	152	**82**	76	88	**40**	31	52	47	**5.6**	4.4	6.7
Netherlands	**8**	8	9	**6**	6	6	**4**	4	4	3	**3.2**	2.9	3.4
New Zealand	**11**	11	12	**7**	7	8	**6**	6	7	4	**2.5**	1.9	3.1
Nicaragua	**67**	62	72	**40**	37	44	**24**	16	36	22	**4.5**	2.7	6.3
Niger	**327**	308	348	**227**	212	244	**104**	82	130	109	**5.0**	4.0	6.0
Nigeria	**213**	200	227	**188**	176	200	**117**	96	142	71	**2.6**	1.8	3.4
Niue	**14**	9	20	**23**	15	36	**25**	12	52	5	**-2.5**	-6.1	1.0
Norway	**9**	8	9	**5**	5	5	**3**	3	3	3	**4.9**	4.4	5.5

Country, regional and global estimates of under-five, infant and neonatal mortality

Country	Number of under-five deaths (thousands) 1990 Under-five deaths	1990 Lower bound	1990 Upper bound	2013 Under-five deaths	2013 Lower bound	2013 Upper bound	Sex-specific under-five mortality rate (deaths per 1,000 live births) 1990 Male	1990 Female	2013 Male	2013 Female	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Japan	**8**	8	8	**3**	3	3	7	6	3	3	5	2	5	2	3	1	3	1
Jordan	**4**	4	4	**4**	3	4	38	35	20	18	30	16	3	3	19	11	2	2
Kazakhstan	**21**	19	23	**5**	5	6	59	46	19	14	45	15	18	5	23	9	9	3
Kenya	**96**	90	103	**106**	70	162	104	93	75	66	64	48	63	71	33	26	32	40
Kiribati	**0**	0	0	**0**	0	0	101	89	63	53	69	45	0	0	30	22	0	0
Kuwait	**1**	1	1	**1**	1	1	18	15	10	9	14	8	1	1	9	5	0	0
Kyrgyzstan	**9**	8	10	**4**	3	4	71	60	27	21	55	22	8	3	28	13	4	2
Lao People's Democratic Republic	**28**	26	32	**13**	10	17	172	152	77	65	111	54	20	10	48	29	9	5
Latvia	**1**	1	1	**0**	0	0	23	18	9	8	17	7	1	0	13	5	1	0
Lebanon	**2**	2	2	**1**	0	1	34	31	10	9	27	8	2	1	16	5	1	0
Lesotho	**5**	4	5	**6**	4	8	93	79	105	91	70	73	4	4	45	44	2	3
Liberia	**23**	20	25	**10**	7	15	260	235	76	66	165	54	15	8	52	26	5	4
Libya	**5**	4	6	**2**	1	2	46	39	16	13	36	12	4	2	21	9	2	1
Liechtenstein	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lithuania	**1**	1	1	**0**	0	0	18	15	5	4	13	4	1	0	9	3	1	0
Luxembourg	**0**	0	0	**0**	0	0	10	8	2	2	7	2	0	0	4	1	0	0
Madagascar	**82**	76	88	**43**	29	64	168	153	60	52	98	40	52	31	41	21	22	17
Malawi	**103**	97	111	**41**	31	55	255	235	72	63	143	44	61	27	50	23	21	14
Malaysia	**8**	8	8	**5**	4	5	18	15	9	8	14	7	7	4	8	4	4	2
Maldives	**1**	1	1	**0**	0	0	99	88	11	9	68	8	1	0	36	6	0	0
Mali	**91**	84	98	**82**	56	120	263	245	129	117	131	78	47	53	59	40	21	28
Malta	**0**	0	0	**0**	0	0	12	10	7	6	10	5	0	0	7	4	0	0
Marshall Islands	**0**	0	0	**0**	0	0	54	45	42	33	39	31	0	0	20	16	0	0
Mauritania	**9**	8	10	**12**	7	19	127	108	98	82	78	67	6	9	41	35	3	4
Mauritius	**0**	0	0	**0**	0	0	26	20	16	13	20	13	0	0	16	9	0	0
Mexico	**112**	102	124	**33**	31	34	50	43	16	13	37	13	90	28	17	7	41	15
Micronesia (Federated States of)	**0**	0	0	**0**	0	0	60	51	40	33	43	30	0	0	22	16	0	0
Monaco	**0**	0	0	**0**	0	0	9	7	4	3	6	3	0	0	4	2	0	0
Mongolia	**8**	7	9	**2**	1	3	123	92	38	26	77	26	6	2	31	13	2	1
Montenegro	**0**	0	0	**0**	0	0	18	16	6	5	15	5	0	0	11	4	0	0
Morocco	**57**	53	61	**24**	20	29	86	76	34	27	64	26	44	21	36	18	25	14
Mozambique	**135**	124	148	**83**	69	101	246	228	92	82	158	62	89	59	56	30	32	29
Myanmar	**119**	108	134	**46**	33	63	116	101	55	45	78	40	82	36	42	26	45	23
Namibia	**4**	3	4	**3**	2	4	78	69	54	46	50	35	3	2	29	22	2	1
Nauru	**0**	0	0	**0**	0	0	62	53	40	33	45	30	0	0	28	20	0	0
Nepal	**95**	89	103	**23**	17	30	143	142	42	37	99	32	67	18	53	23	36	13
Netherlands	**2**	2	2	**1**	1	1	9	7	4	4	7	3	1	1	5	3	1	0
New Zealand	**1**	1	1	**0**	0	0	12	10	7	6	9	5	1	0	4	3	0	0
Nicaragua	**10**	9	11	**3**	2	5	72	61	26	21	51	20	7	3	25	12	4	2
Niger	**129**	120	140	**86**	68	109	332	323	108	100	138	60	54	51	50	28	19	24
Nigeria	**852**	792	915	**804**	653	986	224	202	124	111	126	74	503	518	52	37	206	262
Niue	**0**	0	0	**0**	0	0	15	12	27	22	12	21	0	0	7	12	0	0
Norway	**1**	0	1	**0**	0	0	10	8	3	2	7	2	0	0	4	2	0	0

Country, regional and global estimates of under-five, infant and neonatal mortality

	Under-five mortality rate (U5MR) (deaths per 1,000 live births)										Annual rate of reduction (ARR) (percent) 1990–2013		
	1990			2000			2013			Millennium Development Goal target for 2015			
Country	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound		ARR	Lower bound	Upper bound
Oman	39	35	45	17	15	19	11	11	12	13	5.4	4.7	6.0
Pakistan	139	134	144	113	108	118	86	73	101	46	2.1	1.4	2.8
Palau	36	31	42	27	23	31	18	10	30	12	3.1	0.7	5.6
Panama	31	27	35	26	22	30	18	12	27	10	2.4	0.5	4.2
Papua New Guinea	89	80	99	78	68	91	61	40	94	30	1.6	-0.3	3.5
Paraguay	46	42	51	34	29	39	22	15	32	15	3.2	1.6	4.9
Peru	80	76	84	40	37	43	17	13	21	27	6.8	5.7	7.9
Philippines	59	55	63	40	37	43	30	24	38	20	2.9	1.8	4.0
Poland	17	17	18	9	9	10	5	5	5	6	5.2	5.0	5.4
Portugal	15	14	15	7	7	7	4	3	4	5	5.9	5.5	6.4
Qatar	21	19	22	12	12	13	8	8	9	7	4.0	3.6	4.5
Republic of Korea	7	7	7	6	6	6	4	4	4	2	2.8	2.6	3.0
Republic of Moldova	32	27	39	31	25	37	15	12	23	11	3.2	1.4	4.7
Romania	38	37	38	27	27	28	12	11	13	13	5.0	4.8	5.2
Russian Federation	26	26	27	23	23	24	10	9	11	9	4.1	3.6	4.6
Rwanda	152	143	162	182	170	195	52	38	73	51	4.7	3.2	6.0
Saint Kitts and Nevis	29	26	31	18	16	20	10	6	17	10	4.5	2.2	6.7
Saint Lucia	23	21	24	18	17	19	15	13	17	8	1.9	1.2	2.6
Saint Vincent and the Grenadines	25	23	27	22	21	24	19	16	22	8	1.1	0.4	1.9
Samoa	31	27	35	22	19	25	18	13	23	10	2.3	1.1	3.8
San Marino	11	9	14	6	4	8	3	2	6	4	5.5	2.4	8.5
Sao Tome and Principe	110	97	125	89	76	105	51	33	80	37	3.4	1.3	5.3
Saudi Arabia	44	35	55	23	20	26	16	10	26	15	4.5	2.1	6.7
Senegal	141	134	149	137	128	146	55	43	71	47	4.1	3.0	5.2
Serbia	28	27	29	13	12	13	7	6	8	9	6.3	5.7	6.7
Seychelles	17	15	18	14	13	16	14	12	17	6	0.7	-0.2	1.6
Sierra Leone	268	246	291	232	214	252	161	131	193	89	2.2	1.3	3.2
Singapore	8	7	8	4	4	4	3	3	3	3	4.4	3.9	4.9
Slovakia	18	17	18	12	12	12	7	7	8	6	3.9	3.6	4.2
Slovenia	10	10	11	6	5	6	3	3	3	3	5.6	4.8	6.2
Solomon Islands	39	33	45	34	29	41	30	19	50	13	1.1	-1.2	3.3
Somalia	180	149	219	174	137	226	146	91	237	60	0.9	-0.9	2.7
South Africa	61	54	69	74	67	84	44	35	55	20	1.4	0.2	2.6
South Sudan	253	211	296	183	157	213	99	67	143	84	4.1	2.3	5.9
Spain	11	11	11	7	6	7	4	4	5	4	4.2	3.9	4.5
Sri Lanka	21	21	22	16	16	17	10	8	11	7	3.5	2.8	4.1
State of Palestine	43	40	47	30	27	33	22	16	31	14	3.0	1.4	4.5
Sudan	128	119	138	108	98	118	77	61	95	43	2.2	1.3	3.3
Suriname	48	40	56	35	28	45	23	12	42	16	3.2	0.5	5.9
Swaziland	74	64	85	123	111	136	80	55	115	25	-0.3	-1.9	1.2
Sweden	7	7	7	4	4	4	3	3	3	2	3.6	3.3	3.9
Switzerland	8	8	9	6	6	6	4	4	5	3	2.9	2.4	3.4
Syrian Arab Republic	37	34	40	23	22	25	15	12	19	12	4.1	2.9	5.2
Tajikistan	108	98	120	94	82	107	48	34	69	36	3.6	1.9	5.1

Country, regional and global estimates of under-five, infant and neonatal mortality

Country	Number of under-five deaths (thousands)						Sex-specific under-five mortality rate (deaths per 1,000 live births)				Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)		Neonatal mortality rate (deaths per 1,000 live births)		Number of neonatal deaths (thousands)	
	1990			2013			1990		2013									
	Under-five deaths	Lower bound	Upper bound	Under-five deaths	Lower bound	Upper bound	Male	Female	Male	Female	1990	2013	1990	2013	1990	2013	1990	2013
Oman	**3**	2	3	**1**	1	1	43	36	12	10	32	10	2	1	19	7	1	1
Pakistan	**620**	596	646	**394**	333	470	141	136	89	82	106	69	480	316	56	42	255	194
Palau	**0**	0	0	**0**	0	0	40	32	19	16	31	15	0	0	16	9	0	0
Panama	**2**	2	2	**1**	1	2	34	28	20	16	26	15	2	1	13	8	1	1
Papua New Guinea	**12**	11	14	**13**	8	20	94	83	66	57	65	47	9	10	31	24	4	5
Paraguay	**6**	6	7	**3**	2	5	50	42	24	20	37	19	5	3	22	12	3	2
Peru	**52**	49	55	**10**	8	13	84	76	18	15	57	13	37	8	26	8	17	5
Philippines	**119**	111	128	**71**	56	91	64	53	33	26	41	24	85	56	23	14	46	33
Poland	**9**	9	9	**2**	2	2	19	15	6	5	15	5	8	2	11	3	6	1
Portugal	**2**	2	2	**0**	0	0	16	13	4	3	12	3	1	0	7	2	1	0
Qatar	**0**	0	0	**0**	0	0	23	19	9	7	18	7	0	0	10	4	0	0
Republic of Korea	**4**	4	4	**2**	2	2	7	7	4	3	6	3	3	2	3	2	2	1
Republic of Moldova	**3**	2	3	**1**	0	1	36	29	17	14	27	13	2	1	14	8	1	0
Romania	**16**	16	17	**3**	3	3	42	34	13	11	31	11	14	2	17	7	7	2
Russian Federation	**59**	58	60	**17**	15	19	30	22	11	9	22	9	49	14	15	5	33	9
Rwanda	**50**	46	53	**22**	16	31	160	144	56	48	93	37	31	16	39	20	13	9
Saint Kitts and Nevis	**0**	0	0	**0**	0	0	31	26	11	9	23	8	0	0	17	7	0	0
Saint Lucia	**0**	0	0	**0**	0	0	25	20	16	13	19	13	0	0	13	9	0	0
Saint Vincent and the Grenadines	**0**	0	0	**0**	0	0	27	22	21	17	21	17	0	0	15	12	0	0
Samoa	**0**	0	0	**0**	0	0	34	28	20	16	26	16	0	0	12	8	0	0
San Marino	**0**	0	0	**0**	0	0	12	10	3	3	10	3	0	0	4	1	0	0
Sao Tome and Principe	**0**	0	1	**0**	0	1	117	104	55	47	70	37	0	0	32	19	0	0
Saudi Arabia	**24**	19	30	**9**	5	14	46	41	17	14	35	13	19	7	21	9	11	5
Senegal	**44**	42	47	**29**	22	37	148	134	60	50	71	44	22	23	42	23	13	12
Serbia	**4**	4	4	**1**	1	1	30	26	7	6	24	6	4	1	17	4	3	0
Seychelles	**0**	0	0	**0**	0	0	18	15	15	13	14	12	0	0	10	9	0	0
Sierra Leone	**46**	42	51	**34**	27	42	280	255	169	152	158	107	27	23	57	44	10	9
Singapore	**0**	0	0	**0**	0	0	8	7	3	3	6	2	0	0	4	1	0	0
Slovakia	**1**	1	2	**0**	0	0	20	15	8	6	16	6	1	0	12	4	1	0
Slovenia	**0**	0	0	**0**	0	0	11	9	3	3	9	2	0	0	5	2	0	0
Solomon Islands	**0**	0	1	**1**	0	1	42	35	33	27	32	25	0	0	16	13	0	0
Somalia	**50**	41	63	**65**	39	112	187	172	152	139	108	90	31	40	52	46	15	21
South Africa	**65**	57	74	**47**	38	60	67	55	48	39	47	33	50	35	20	15	22	16
South Sudan	**67**	54	80	**39**	26	57	263	242	104	94	150	64	40	25	65	39	17	16
Spain	**5**	4	5	**2**	2	2	12	10	4	4	9	4	4	2	7	3	3	1
Sri Lanka	**7**	7	7	**4**	3	4	23	19	10	9	18	8	6	3	12	6	4	2
State of Palestine	**4**	3	4	**3**	2	4	46	41	24	20	35	19	3	2	21	12	2	2
Sudan	**101**	93	109	**94**	74	117	135	121	81	71	80	51	64	63	41	30	33	37
Suriname	**0**	0	0	**0**	0	0	53	43	25	20	41	20	0	0	22	12	0	0
Swaziland	**3**	2	3	**3**	2	4	79	68	85	75	55	56	2	2	30	30	1	1
Sweden	**1**	1	1	**0**	0	0	8	6	3	3	6	2	1	0	4	2	0	0
Switzerland	**1**	1	1	**0**	0	0	9	7	5	4	7	4	1	0	4	3	0	0
Syrian Arab Republic	**17**	15	18	**8**	6	10	40	34	16	13	30	12	14	6	17	8	8	4
Tajikistan	**24**	21	26	**13**	9	19	117	99	53	42	85	41	19	11	38	22	8	6

Country, regional and global estimates of under-five, infant and neonatal mortality

	Under-five mortality rate (U5MR) (deaths per 1,000 live births)										Annual rate of reduction (ARR) (percent)		
	1990			2000			2013			Millennium Development Goal target for 2015	1990–2013		
Country	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound		ARR	Lower bound	Upper bound
Thailand	**37**	35	40	**23**	20	26	**13**	9	20	12	**4.5**	2.7	6.3
The former Yugoslav Republic of Macedonia	**37**	35	38	**16**	15	17	**7**	5	8	12	**7.4**	6.4	8.8
Timor-Leste	**172**	156	190	**107**	97	118	**55**	39	74	57	**5.0**	3.6	6.5
Togo	**146**	135	158	**122**	111	134	**85**	60	118	49	**2.4**	0.9	3.9
Tonga	**23**	19	27	**18**	14	24	**12**	7	21	8	**2.8**	0.4	5.1
Trinidad and Tobago	**31**	26	36	**29**	22	40	**21**	11	44	10	**1.6**	-1.7	4.3
Tunisia	**52**	45	60	**31**	26	37	**15**	12	19	17	**5.4**	4.1	6.6
Turkey	**74**	69	80	**42**	38	47	**19**	15	28	25	**5.9**	4.3	7.1
Turkmenistan	**91**	78	105	**82**	69	97	**55**	30	96	30	**2.2**	-0.2	4.8
Tuvalu	**57**	48	67	**43**	38	48	**29**	19	45	19	**2.9**	0.9	4.9
Uganda	**179**	168	190	**147**	138	157	**66**	53	83	60	**4.3**	3.3	5.3
Ukraine	**20**	18	22	**18**	17	21	**10**	10	11	7	**2.9**	2.4	3.5
United Arab Emirates	**17**	14	19	**11**	11	12	**8**	7	10	6	**3.0**	2.0	4.0
United Kingdom	**9**	9	10	**7**	6	7	**5**	4	5	3	**3.1**	2.7	3.5
United Republic of Tanzania	**167**	157	177	**132**	123	140	**52**	39	70	56	**5.1**	3.8	6.4
United States	**11**	11	11	**8**	8	9	**7**	6	8	4	**2.1**	1.7	2.6
Uruguay	**23**	23	24	**17**	16	17	**11**	10	12	8	**3.2**	2.9	3.5
Uzbekistan	**71**	63	80	**64**	55	74	**43**	22	79	24	**2.3**	-0.4	5.1
Vanuatu	**33**	28	39	**23**	19	29	**17**	11	28	11	**2.9**	0.8	4.9
Venezuela (Bolivarian Republic of)	**30**	29	30	**21**	21	22	**15**	13	17	10	**3.0**	2.5	3.5
Viet Nam	**51**	47	55	**35**	31	39	**24**	22	28	17	**3.3**	2.5	3.8
Yemen	**125**	117	133	**96**	88	104	**51**	41	64	42	**3.9**	2.8	4.9
Zambia	**193**	180	205	**169**	156	183	**87**	55	155	64	**3.4**	0.9	5.4
Zimbabwe	**75**	69	81	**103**	93	113	**89**	66	122	25	**-0.7**	-2.2	0.5

Estimates of under-five, infant and neonatal mortality by Millennium Development Goal region[a]

Developed regions	**15**	15	15	**10**	10	10	**6**	6	6	5	**3.8**	3.6	4.0
Developing regions	**100**	98	101	**83**	82	85	**50**	49	53	33	**3.0**	2.7	3.1
Northern Africa	**72**	70	75	**44**	42	45	**24**	23	25	24	**4.8**	4.5	5.1
Sub-Saharan Africa	**179**	175	183	**156**	153	160	**92**	87	101	60	**2.9**	2.5	3.1
Latin America & Caribbean	**54**	52	56	**32**	31	34	**18**	17	19	18	**4.8**	4.4	5.0
Caucasus & Central Asia	**73**	69	77	**64**	60	69	**35**	28	49	24	**3.2**	1.7	4.2
Eastern Asia	**53**	49	58	**37**	35	39	**13**	11	15	18	**6.2**	5.5	6.9
Excluding China	**27**	24	32	**31**	25	38	**15**	13	18	9	**2.6**	2.3	2.9
Southern Asia	**126**	123	129	**92**	90	95	**55**	51	59	42	**3.6**	3.3	3.9
Excluding India	**126**	123	128	**94**	91	96	**60**	55	67	42	**3.2**	2.7	3.6
South-eastern Asia	**71**	69	73	**48**	47	50	**29**	27	33	24	**3.9**	3.4	4.2
Western Asia	**65**	63	68	**43**	42	46	**25**	23	29	22	**4.1**	3.5	4.6
Oceania	**74**	68	81	**67**	59	76	**54**	37	80	25	**1.4**	-0.3	3.0
World	**90**	89	92	**76**	75	77	**46**	44	48	30	**3.0**	2.7	3.1

Country, regional and global estimates of under-five, infant and neonatal mortality

Country	Number of under-five deaths (thousands) 1990 Under-five deaths	1990 Lower bound	1990 Upper bound	2013 Under-five deaths	2013 Lower bound	2013 Upper bound	Sex-specific under-five mortality rate (deaths per 1,000 live births) 1990 Male	1990 Female	2013 Male	2013 Female	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Thailand	**40**	38	43	**9**	6	14	42	32	15	11	30	11	33	8	19	8	20	5
The former Yugoslav Republic of Macedonia	**1**	1	1	**0**	0	0	38	35	7	6	33	6	1	0	17	4	1	0
Timor-Leste	**5**	4	5	**2**	2	3	180	163	59	50	130	46	4	2	48	24	1	1
Togo	**23**	21	25	**20**	14	29	155	137	91	78	90	56	14	14	42	30	7	7
Tonga	**0**	0	0	**0**	0	0	25	20	13	11	19	10	0	0	11	6	0	0
Trinidad and Tobago	**1**	1	1	**0**	0	1	33	28	23	19	27	19	1	0	20	15	0	0
Tunisia	**11**	10	13	**3**	2	4	55	49	16	14	41	13	9	2	24	9	5	2
Turkey	**103**	96	111	**25**	19	36	78	71	21	17	56	17	77	21	31	11	43	14
Turkmenistan	**12**	10	14	**6**	3	11	101	79	63	47	73	47	10	5	32	23	4	3
Tuvalu	**0**	0	0	**0**	0	0	61	53	32	26	44	24	0	0	22	13	0	0
Uganda	**146**	137	156	**102**	81	129	191	166	72	60	107	44	89	68	40	22	33	35
Ukraine	**14**	12	16	**5**	5	5	22	17	11	9	17	9	12	4	9	5	6	2
United Arab Emirates	**1**	1	1	**1**	1	1	18	14	9	7	14	7	1	1	9	5	0	1
United Kingdom	**7**	7	7	**4**	3	4	10	8	5	4	8	4	6	3	5	3	4	2
United Republic of Tanzania	**180**	168	192	**95**	71	130	174	160	55	48	101	36	110	68	43	21	47	39
United States	**44**	43	44	**29**	26	32	12	10	8	6	9	6	37	25	6	4	22	17
Uruguay	**1**	1	1	**1**	1	1	26	20	12	10	20	10	1	0	11	6	1	0
Uzbekistan	**52**	46	59	**26**	14	50	79	63	48	37	59	37	43	23	20	14	15	9
Vanuatu	**0**	0	0	**0**	0	0	36	29	19	15	27	15	0	0	15	9	0	0
Venezuela (Bolivarian Republic of)	**17**	17	17	**9**	8	10	33	26	17	13	25	13	14	8	15	8	9	5
Viet Nam	**99**	92	108	**33**	30	40	56	45	27	20	37	19	72	26	23	13	45	18
Yemen	**71**	67	76	**38**	30	48	130	119	55	47	88	40	50	30	43	24	25	18
Zambia	**63**	59	68	**51**	32	95	201	183	93	82	115	56	38	34	44	29	15	18
Zimbabwe	**28**	26	30	**39**	29	55	81	68	95	82	50	55	19	24	31	39	12	17

Estimates of under-five, infant and neonatal mortality by Millennium Development Goal region[a] (continued)

Developed regions	**226**	224	229	**87**	83	90	16	13	7	5	12	5	189	73	8	3	118	48
Developing regions	**12,444**	12,252	12,672	**6,199**	5,981	6,598	102	97	52	48	69	37	8,691	4,568	36	22	4,554	2,714
Northern Africa	**266**	257	276	**95**	90	100	74	70	25	22	55	20	204	82	30	13	109	53
Sub-Saharan Africa	**3,809**	3,728	3,901	**3,113**	2,931	3,441	188	169	98	86	107	61	2,305	2,084	46	31	977	1,066
Latin America & Caribbean	**628**	608	651	**196**	188	211	59	49	20	16	43	15	497	167	22	9	255	101
Caucasus & Central Asia	**145**	138	154	**61**	48	87	80	65	39	31	59	31	120	53	26	15	51	26
Eastern Asia	**1,672**	1,536	1,832	**249**	218	287	55	51	14	12	42	11	1,336	214	25	8	784	150
Excluding China	**28**	24	33	**14**	11	17	29	25	16	13	21	12	21	11	12	8	11	7
Southern Asia	**4,796**	4,675	4,924	**2,015**	1,869	2,178	124	128	55	55	90	43	3,409	1,588	51	30	1,940	1,086
Excluding India	**1,463**	1,429	1,498	**675**	610	758	128	123	63	57	92	48	1,070	535	49	30	578	338
South-eastern Asia	**848**	823	875	**330**	303	368	77	65	33	26	52	24	611	267	27	14	321	160
Western Asia	**265**	254	277	**124**	112	143	69	61	28	23	49	21	200	102	28	14	111	67
Oceania	**14**	13	16	**14**	10	22	79	69	58	49	55	42	11	11	26	21	5	6
World	**12,670**	12,479	12,900	**6,285**	6,069	6,686	93	88	47	44	63	34	8,880	4,641	33	20	4,672	2,763

Country, regional and global estimates of under-five, infant and neonatal mortality

Estimates of under-five, infant and neonatal mortality by UNICEF region[a]

	Under-five mortality rate (U5MR) (deaths per 1,000 live births)									Annual rate of reduction (ARR) (percent) 1990-2013		
	1990			2000			2013			Millennium Development Goal target for 2015			
Region	**U5MR**	Lower bound	Upper bound	**U5MR**	Lower bound	Upper bound	**U5MR**	Lower bound	Upper bound		**ARR**	Lower bound	Upper bound
Africa	**163**	160	167	**144**	141	147	**85**	80	93	54	**2.8**	2.4	3.1
Sub-Saharan Africa	**179**	175	183	**156**	153	160	**92**	87	101	60	**2.9**	2.5	3.1
Eastern and Southern Africa	**165**	161	170	**140**	137	145	**74**	69	85	55	**3.5**	2.9	3.8
West and Central Africa	**197**	191	203	**175**	170	181	**109**	99	123	66	**2.6**	2.0	3.0
Middle East and North Africa	**70**	69	72	**50**	49	52	**31**	28	33	23	**3.6**	3.2	4.0
Asia	**90**	88	93	**70**	69	72	**39**	37	42	30	**3.7**	3.4	3.9
South Asia	**129**	126	133	**94**	92	97	**57**	53	61	43	**3.6**	3.3	3.9
East Asia and Pacific	**58**	55	62	**41**	40	43	**19**	18	21	19	**4.8**	4.4	5.2
Latin America and Caribbean	**54**	52	56	**32**	31	34	**18**	17	19	18	**4.8**	4.4	5.0
Central and Eastern Europe/Commonwealth of Independent States	**47**	46	49	**37**	36	39	**20**	17	24	16	**3.8**	2.9	4.4
World	**90**	89	92	**76**	75	77	**46**	44	48	30	**3.0**	2.7	3.1

Estimates of under-five, infant and neonatal mortality by World Health Organization region[a]

	Under-five mortality rate (U5MR) (deaths per 1,000 live births)									Annual rate of reduction (ARR) (percent) 1990-2013		
	1990			2000			2013			Millennium Development Goal target for 2015			
Region	**U5MR**	Lower bound	Upper bound	**U5MR**	Lower bound	Upper bound	**U5MR**	Lower bound	Upper bound		**ARR**	Lower bound	Upper bound
Africa	**176**	172	179	**155**	152	159	**90**	85	99	59	**2.9**	2.5	3.2
Americas	**42**	41	44	**26**	25	27	**15**	14	16	14	**4.6**	4.3	4.9
Eastern Mediterranean	**101**	98	103	**80**	78	83	**55**	51	62	34	**2.6**	2.1	3.0
Europe	**32**	31	33	**23**	22	24	**12**	11	15	11	**4.2**	3.4	4.7
South-East Asia	**118**	115	121	**83**	81	86	**47**	43	51	39	**4.0**	3.7	4.4
Western Pacific	**52**	49	56	**36**	34	37	**15**	14	17	17	**5.3**	4.7	5.8
World	**90**	89	92	**76**	75	77	**46**	44	48	30	**3.0**	2.7	3.1

Country, regional and global estimates of under-five, infant and neonatal mortality

Estimates of under-five, infant and neonatal mortality by UNICEF region[a] (continued)

Region	Number of under-five deaths (thousands)						Sex-specific under-five mortality rate (deaths per 1,000 live births)				Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)		Neonatal mortality rate (deaths per 1,000 live births)		Number of neonatal deaths (thousands)	
	1990			2013			1990		2013									
	Under-five deaths	Lower bound	Upper bound	Under-five deaths	Lower bound	Upper bound	Male	Female	Male	Female	1990	2013	1990	2013	1990	2013	1990	2013
Africa	**4,076**	3,994	4,168	**3,208**	3,026	3,536	171	155	90	79	100	57	2,508	2,166	43	29	1,086	1,120
Sub-Saharan Africa	**3,809**	3,728	3,901	**3,113**	2,931	3,441	188	169	98	86	107	61	2,305	2,084	46	31	977	1,066
Eastern and Southern Africa	**1,707**	1,659	1,762	**1,144**	1,052	1,318	174	156	79	69	102	50	1,062	770	43	27	452	419
West and Central Africa	**1,998**	1,931	2,072	**1,874**	1,690	2,129	206	187	116	103	115	72	1,177	1,250	48	35	491	609
Middle East and North Africa	**639**	623	657	**314**	291	344	73	67	33	28	52	24	475	249	29	15	262	159
Asia	**7,223**	7,042	7,429	**2,584**	2,435	2,758	91	90	39	39	65	31	5,284	2,059	37	21	3,000	1,387
South Asia	**4,689**	4,568	4,816	**1,991**	1,843	2,153	127	132	56	57	92	45	3,327	1,567	52	30	1,890	1,070
East Asia and Pacific	**2,534**	2,397	2,696	**594**	553	650	61	55	21	17	44	16	1,958	492	25	10	1,110	316
Latin America and Caribbean	**628**	608	651	**196**	188	211	59	49	20	16	43	15	497	167	22	9	255	101
Central and Eastern Europe/Commonwealth of Independent States	**357**	347	369	**114**	100	143	52	43	22	17	38	17	288	99	20	9	150	55
World	**12,670**	12,479	12,900	**6,285**	6,069	6,686	93	88	47	44	63	34	8,880	4,641	33	20	4,672	2,763

Estimates of under-five, infant and neonatal mortality by World Health Organization region[a] (continued)

Region	Number of under-five deaths (thousands)						Sex-specific under-five mortality rate (deaths per 1,000 live births)				Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)		Neonatal mortality rate (deaths per 1,000 live births)		Number of neonatal deaths (thousands)	
	1990			2013			1990		2013									
	Under-five deaths	Lower bound	Upper bound	Under-five deaths	Lower bound	Upper bound	Male	Female	Male	Female	1990	2013	1990	2013	1990	2013	1990	2013
Africa	**3,694**	3,612	3,783	**2,978**	2,791	3,294	185	166	96	84	106	60	2,240	2,000	45	31	947	1,021
Americas	**675**	654	698	**227**	218	242	46	39	16	13	34	12	536	193	18	8	279	119
Eastern Mediterranean	**1,365**	1,333	1,401	**845**	775	951	103	98	58	52	75	43	1,018	652	40	26	540	395
Europe	**417**	407	429	**137**	122	166	35	29	14	11	26	11	338	118	14	6	183	68
South-East Asia	**4,538**	4,418	4,665	**1,700**	1,562	1,843	117	120	47	47	84	37	3,191	1,346	47	26	1,819	941
Western Pacific	**1,977**	1,841	2,139	**395**	360	443	55	49	17	14	40	13	1,555	330	24	8	902	217
World	**12,670**	12,479	12,900	**6,285**	6,069	6,686	93	88	47	44	63	34	8,880	4,641	33	20	4,672	2,763

Country, regional and global estimates of under-five, infant and neonatal mortality

Estimates of under-five, infant and neonatal mortality by World Bank region[a]

	Under-five mortality rate (U5MR) (deaths per 1,000 live births)											
	1990			2000			2013			Millennium Development Goal target for 2015	Annual rate of reduction (ARR) (percent) 1990-2013		
Region	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound		ARR	Lower bound	Upper bound
Low income	**167**	164	170	**135**	133	138	**76**	72	84	56	**3.4**	3.0	3.7
Middle income	**87**	86	89	**71**	70	73	**43**	41	47	29	**3.0**	2.7	3.3
Lower middle income	**119**	117	121	**93**	91	96	**59**	56	64	40	**3.0**	2.7	3.3
Upper middle income	**54**	52	58	**39**	37	40	**20**	18	22	18	**4.4**	3.8	4.9
Low and middle income	**100**	98	101	**84**	83	85	**50**	49	54	33	**3.0**	2.7	3.1
High income	**14**	14	15	**10**	10	10	**6**	6	7	5	**3.6**	3.2	3.8
World	**90**	89	92	**76**	75	77	**46**	44	48	30	**3.0**	2.7	3.1

Estimates of under-five, infant and neonatal mortality by United Nations Population Division region[a]

	Under-five mortality rate (U5MR) (deaths per 1,000 live births)											
	1990			2000			2013			Millennium Development Goal target for 2015	Annual rate of reduction (ARR) (percent) 1990-2013		
Region	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound	U5MR	Lower bound	Upper bound		ARR	Lower bound	Upper bound
More developed regions	**15**	15	15	**10**	10	10	**6**	6	6	5	**3.8**	3.6	4.0
Less developed regions	**100**	98	101	**83**	82	85	**50**	48	53	33	**3.0**	2.7	3.1
Least developed countries	**174**	171	177	**139**	136	142	**80**	76	88	58	**3.4**	3.0	3.6
Excluding least developed countries	**85**	83	87	**69**	67	70	**41**	39	44	28	**3.1**	2.8	3.4
Excluding China	**114**	113	116	**91**	90	93	**57**	55	60	38	**3.0**	2.8	3.2
Sub-Saharan Africa	**181**	177	185	**158**	155	162	**93**	87	102	60	**2.9**	2.5	3.2
Africa	**163**	160	167	**144**	141	147	**85**	80	93	54	**2.8**	2.4	3.1
Asia	**87**	85	89	**67**	65	68	**37**	35	39	29	**3.7**	3.4	4.0
Europe	**18**	17	18	**12**	12	12	**6**	6	7	6	**4.5**	4.3	4.7
Latin America & Caribbean	**54**	52	56	**32**	31	34	**18**	17	19	18	**4.8**	4.4	5.0
Northern America	**11**	11	11	**8**	8	8	**7**	6	7	4	**2.1**	1.7	2.5
Oceania	**34**	32	37	**33**	30	37	**25**	18	36	11	**1.5**	-0.1	2.9
World	**90**	89	92	**76**	75	77	**46**	44	48	30	**3.0**	2.7	3.1

Definitions
Under-five mortality rate: Probability of dying between birth and exactly five years of age, expressed per 1,000 live births.
Infant mortality rate: Probability of dying between birth and exactly one year of age, expressed per 1,000 live births.
Neonatal mortality rate: Probability of dying in the first month of life, expressed per 1,000 live births.

Note: Upper and lower bounds refer to the 90 percent uncertainty intervals for the estimates. 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 UN Member States, which may use alternative rigorous methods.

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

Country, regional and global estimates of under-five, infant and neonatal mortality

Estimates of under-five, infant and neonatal mortality by World Bank region[a] (continued)

Region	Number of under-five deaths (thousands)						Sex-specific under-five mortality rate (deaths per 1,000 live births)				Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)		Neonatal mortality rate (deaths per 1,000 live births)		Number of neonatal deaths (thousands)	
	1990			2013			1990		2013									
	Under-five deaths	Lower bound	Upper bound	Under-five deaths	Lower bound	Upper bound	Male	Female	Male	Female	1990	2013	1990	2013	1990	2013	1990	2013
Low income	**3,209**	3,155	3,276	**2,000**	1,877	2,221	174	159	81	71	105	53	2,015	1,396	47	28	914	748
Middle income	**9,241**	9,051	9,459	**4,191**	3,986	4,494	89	86	45	42	63	33	6,685	3,166	34	20	3,645	1,963
Lower middle income	**6,475**	6,341	6,618	**3,456**	3,254	3,727	120	118	61	57	83	44	4,497	2,579	44	27	2,409	1,596
Upper middle income	**2,766**	2,630	2,931	**736**	672	842	57	51	21	18	43	16	2,188	586	24	10	1,236	366
Low and middle income	**12,451**	12,260	12,680	**6,191**	5,973	6,591	102	97	52	48	69	37	8,699	4,562	36	22	4,559	2,711
High income	**219**	214	225	**94**	89	101	16	13	7	6	12	5	180	79	8	4	113	52
World	**12,670**	12,479	12,900	**6,285**	6,069	6,686	93	88	47	44	63	34	8,880	4,641	33	20	4,672	2,763

Estimates of under-five, infant and neonatal mortality by United Nations Population Division region[a] (continued)

Region	Number of under-five deaths (thousands)						Sex-specific under-five mortality rate (deaths per 1,000 live births)				Infant mortality rate (deaths per 1,000 live births)		Number of infant deaths (thousands)		Neonatal mortality rate (deaths per 1,000 live births)		Number of neonatal deaths (thousands)	
	1990			2013			1990		2013									
	Under-five deaths	Lower bound	Upper bound	Under-five deaths	Lower bound	Upper bound	Male	Female	Male	Female	1990	2013	1990	2013	1990	2013	1990	2013
More developed regions	**224**	223	227	**86**	82	90	16	13	7	6	12	5	187	73	8	3	117	48
Less developed regions	**12,445**	12,253	12,673	**6,199**	5,982	6,599	102	97	52	48	69	37	8,693	4,569	36	22	4,555	2,715
Least developed countries	**3,563**	3,504	3,635	**2,275**	2,149	2,523	181	166	85	75	108	55	2,227	1,579	49	29	1,004	838
Excluding least developed countries	**8,882**	8,693	9,097	**3,925**	3,716	4,203	87	83	43	40	61	31	6,466	2,990	34	20	3,551	1,876
Excluding China	**10,801**	10,657	10,966	**5,964**	5,744	6,360	117	111	59	54	78	41	7,377	4,366	40	25	3,782	2,572
Sub-Saharan Africa	**3,709**	3,627	3,799	**3,019**	2,837	3,344	190	171	99	87	109	61	2,241	2,021	46	31	944	1,029
Africa	**4,076**	3,994	4,168	**3,208**	3,026	3,536	171	155	90	79	100	57	2,508	2,166	43	29	1,086	1,120
Asia	**7,735**	7,553	7,945	**2,784**	2,638	2,967	87	86	38	36	63	30	5,682	2,228	36	20	3,211	1,490
Europe	**167**	165	170	**50**	48	52	20	15	7	6	15	5	140	42	9	4	89	28
Latin America & Caribbean	**628**	608	651	**196**	188	211	59	49	20	16	43	15	497	167	22	9	255	101
Northern America	**47**	46	48	**31**	28	34	12	10	7	6	9	6	39	27	6	4	24	18
Oceania	**17**	16	19	**16**	11	23	37	32	27	22	26	19	13	12	13	10	6	7
World	**12,670**	12,479	12,900	**6,285**	6,069	6,686	93	88	47	44	63	34	8,880	4,641	33	20	4,672	2,763

Regional Classifications

The regional classifications that are referred to in the report and for which aggregate data are provided in the statistical table are Millennium Development Goal regions (see below). Aggregates presented for member organizations of the Inter-agency Group for Child Mortality Estimation may differ. Regions with the same names in different agencies may include different countries.

Developed regions

Albania, Andorra, Australia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, Ukraine, United Kingdom, United States

Developing regions

Caucasus and Central Asia

Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan

Eastern Asia

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

Latin America and the Caribbean

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

Northern Africa

Algeria, Egypt, Libya, Morocco, Tunisia

Oceania

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

South-eastern Asia

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

Southern Asia

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

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, 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, Sudan, Swaziland, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe

Western Asia

Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, State of Palestine, Syrian Arab Republic, Turkey, United Arab Emirates, Yemen

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The UN Inter-agency Group for Child Mortality Estimation

The UN Inter-agency Group for Child Mortality Estimation (UN IGME) was formed in 2004 to share data on child mortality, harmonize estimates within the UN system, improve methods for child mortality estimation, report on progress towards the Millennium Development Goals and enhance country capacity to produce timely and properly assessed estimates of child mortality. The UN IGME includes the United Nations Children's Fund, the World Health Organization, the World Bank and the United Nations Population Division of the Department of Economic and Social Affairs as full members.

The UN IGME's independent Technical Advisory Group, comprising eminent scholars and independent experts in demography, 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.