

A Neglected Tragedy

The global burden of stillbirths

Report of the UN Inter-agency Group for
Child Mortality Estimation, 2020



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2020

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A woman experiencing labour pain from West Bengal, India, waits for the doctor.

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A GLOBAL HEALTH PROBLEM

One stillbirth occurs every 16 seconds. This means that every year, about 2 million babies are stillborn. This loss reaches far beyond the loss of life. The psychological costs, such as maternal depression, are profound, not to mention the financial consequences for parents and long-term economic repercussions for society.¹ Though the difficult impacts on families – and most especially on women – are severe and long lasting, stigma and taboo hide the hardship of stillbirths, even in high-income countries.²

But this traumatic loss of life remains a neglected issue. Stillbirths are largely absent in worldwide data tracking, rendering the true extent of the problem hidden. They are invisible in policies and programmes and underfinanced as an area requiring intervention. Targets specific to stillbirths were absent from the Millennium Development Goals (MDGs)³ and are still missing in the 2030 Agenda for Sustainable Development.⁴

A growing public health issue

Over the past two decades, progress in lowering the stillbirth rate has not kept pace with achievements in saving mothers' lives or those of newborns in the first 28 days of life. In the first two decades of this century, the annual rate of reduction in the stillbirth rate was just 2.3 per cent, compared to a 2.9 per cent reduction in neonatal mortality and 4.3 per cent among children aged 1–59 months.⁵ Meanwhile, between 2000 and 2017, maternal mortality decreased by 2.9 per cent.⁶

Available data demonstrate that stillbirths are an increasingly critical global health problem. In 2000, the ratio of the number of stillbirths to the number of under-five deaths was 0.30; by 2019, it had increased

to 0.38. In sub-Saharan Africa, the number of stillbirths is rising: They increased from 0.77 million in 2000 to 0.82 million in 2019, as the growth in total births outpaced the decline in the region's stillbirth rate. And in some high-income countries – despite very low levels of neonatal mortality – more stillbirths than neonatal deaths occur, and in some cases, even surpass the number of infant deaths.

Slow progress in preventing stillbirths means the losses have been enormous. In the past two decades, the world suffered a total of 48 million stillbirths. If current trends continue, an additional 20 million stillbirths will take place before 2030, placing immense and unjust strain on women, families and society.

Preventable losses

Why are we losing so many babies before they take their first breath? Why is progress in reducing the stillbirth rate so slow? There are a variety of reasons: absence of or poor quality of care during pregnancy and birth; lack of investment in preventative interventions and the health workforce; inadequate social recognition of stillbirths as a burden on families; measurement challenges and major data gaps; absence of global and national leadership; and no established global targets, such as the Sustainable Development Goals (SDGs).

What makes these deaths even more tragic is that the majority could have been prevented with high-quality monitoring and care antenatally⁷ and at birth.^{8, 9, 10} Over 40 per cent of all stillbirths occur during labour – a loss that could be avoided with improved monitoring and timely access to emergency obstetric care when required.

A call to action

The health community recognizes the urgent need to prevent stillbirths; the issue has become an essential part of global child survival initiatives and goals. The United Nations' [Global Strategy for Women's, Children's and Adolescents' Health](#) (2016–2030) includes stillbirths in its vision, “An end to preventable maternal, newborn, child and adolescent deaths and stillbirths”, and urges for stillbirths to be prioritized.¹¹ The [Every Newborn Action Plan](#) (ENAP), which was endorsed by 194 WHO Member States, calls for each country to achieve a rate of 12 stillbirths or fewer per 1,000 total births by 2030 and to reduce equity gaps, particularly in countries that have already met the stillbirth target.¹²

The stillbirth rate is a sensitive indicator of quality of care in pregnancy and childbirth and a marker of a health system's strength.² International organizations, governments and other partners must act urgently to avert stillborn deaths and ensure that every woman is being supported through pregnancy and childbirth by trained health care providers. Stakeholders can demand health care for all to fulfil the promise of universal health coverage and help keep every child alive.

The need for high-quality data

Timely, accurate recording and counting of stillbirths is essential to understanding the scale and geographic distribution of the problem and working to solve it. However, many countries do not have a functioning health management information system (HMIS) or civil registration vital statistics system to collect these data; in other settings, stillbirths are excluded

from routine registration despite functioning systems. While household surveys provide important information on child mortality, most suffer from substantial data quality issues when it comes to stillbirth.¹³ Omission of events and misclassification between stillbirths and early neonatal deaths are common, posing challenges to accurate measurement. In addition, the definition of stillbirth varies across settings and over time, limiting data comparability. Measures to improve the accuracy of stillbirth data are needed in all settings.

Poor data availability and quality require innovative methodological work to understand the global picture of stillbirths. The UN Inter-agency Group for Child Mortality Estimation (UN IGME), together with its Technical Advisory Group and Core Stillbirth Estimation Group, has developed robust methods to estimate stillbirths. Though these estimates are vital to addressing the neglected burden of stillbirths, in many countries, they remain highly uncertain. Precise, high-quality and complete data on stillbirths are needed to develop and evaluate targeted national strategies. Without these data, the efficacy of policy initiatives cannot be shown, depriving citizens of the information they need to advocate for better health and social policies and protect their families.

The overlooked tragedy of stillbirths demands urgent attention. To prevent stillbirths, we need to provide data and evidence to answer various questions. Where are stillbirths occurring? Where has progress been made? Which countries must accelerate progress? What must be done to stop this unnecessary loss of life? By outlining the picture of the global burden of stillbirths, this UN IGME report sets out to answer these questions and inform the way forward.

STILLBIRTH: Key facts and figures

The burden of stillbirths is enormous, but overlooked.

Globally, **1** baby is stillborn every **16** seconds
nearly **4** every minute
over **200** every hour
nearly **5,400** every day
nearly **164,000** every month
nearly **2 million** a year



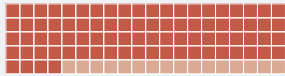
In the past two decades,
48 million babies
were stillborn



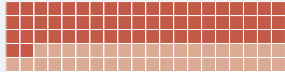
Three in four stillbirths
occur in **sub-Saharan Africa**
or **Southern Asia**



Low and lower-middle income
countries account for
84% of all stillbirths



but **only 62% of all live births**



Over 40% of stillbirths
occur after the onset of
labour



Most stillbirths are preventable with life-saving interventions and high-quality health care



For every woman and baby, **quality care and support**



Note: Unless otherwise noted, statements and data refer to the year 2019 through this report.

Acceleration in progress is urgently needed.

56 countries are at risk to miss the ENAP target of 12 or fewer stillbirths per 1,000 total births by 2030



20 million babies are projected to be stillborn in the next decade, if trends observed between 2000 and 2019 in reducing the stillbirth rate continue



Among the 20 million, **2.9 million stillbirths could be prevented** by accelerating progress to meet the ENAP target in the 56 countries at risk to miss the goal



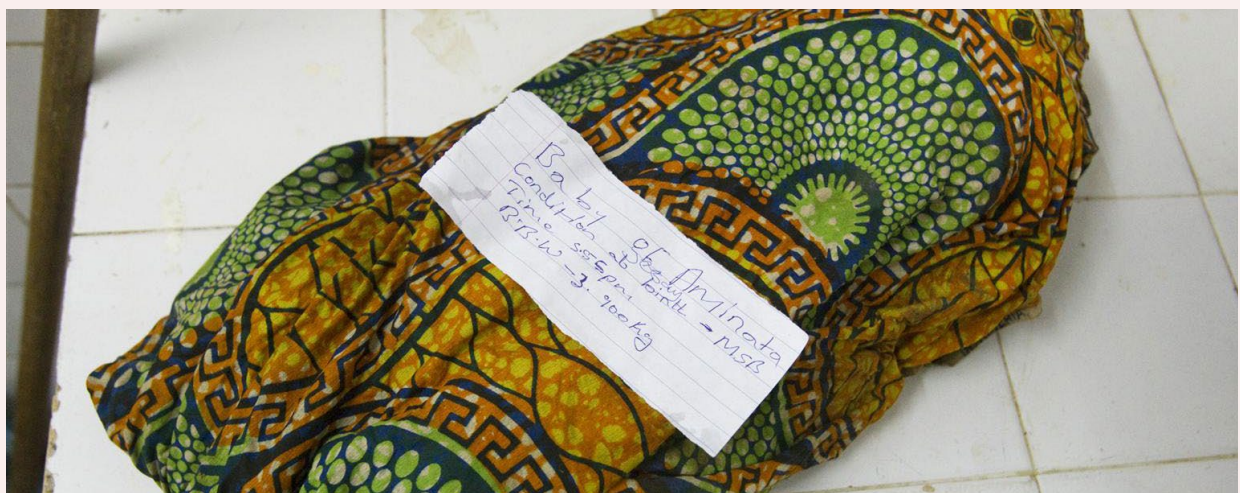
📄 How do we define stillbirths?

A stillbirth is defined as a baby born with no signs of life after a given threshold, usually related to the gestational age or weight of the baby. Stillbirths are reported inconsistently across countries due to the use of different criteria or combinations of criteria and varying thresholds in areas such as gestational age and/or birthweight. These differences make it difficult to compare stillbirth levels and trends across countries and calculate the global burden.^{14, 15, 16, 17}

For international comparison, UN IGME stillbirth estimates refer to “late gestation fetal deaths” as deaths occurring at or after 28 weeks of gestation, which is in-line with the International Classification of Diseases.¹⁸ UN IGME recommends using a stillbirth definition that uses the gestational age as the single criteria. Gestational age is preferred to birthweight and/or length criteria as it is a better predictor of maturity and viability, and is the most commonly available criteria across data sources. However, using a 28 week or more definition

underestimates the real burden of stillbirths, since it excludes stillbirths occurring at earlier gestational ages.

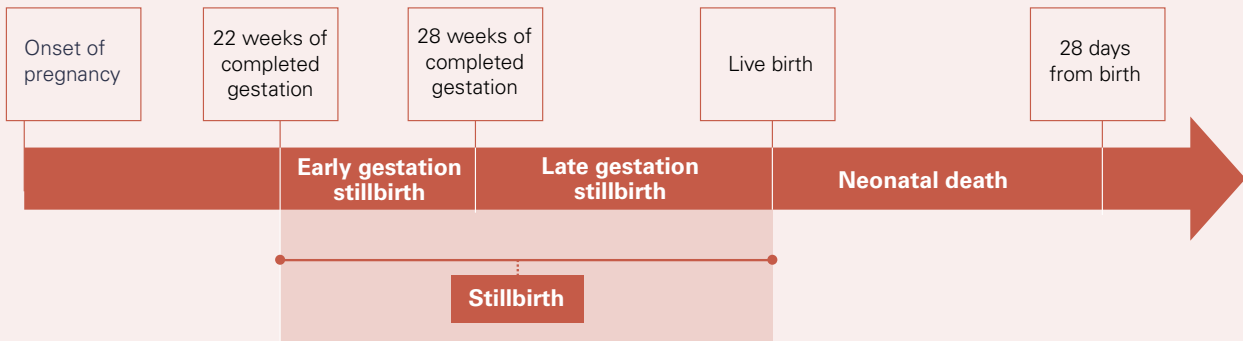
For the estimates in this report, countries were requested to provide stillbirth data using the 28 week definition. To allow for international comparison, the UN IGME adjusted the stillbirth rate in cases where data used a different definition, e.g., birthweight. In this round of estimation (see Figure 1), 61 per cent of data used the criteria of 28 weeks or more of gestation, 29 per cent of the data points were adjusted or reclassified to a 28 week or more definition, and 10 per cent of data points could not be adjusted because no definition was specified or a non-standard threshold was used (e.g., 26 or more weeks) – these data points were excluded in the estimation process. Among the 171 countries with data, about two thirds (97) provided data points using the 28 week or more definition exclusively. For 66 countries, data points were based on 28 week and other definitions, and for eight countries none of the data points could be adjusted.



A stillborn baby at the Princess Christian Maternity Hospital in Freetown, Sierra Leone, wrapped in cloth and lying on a counter, awaiting burial by the family.

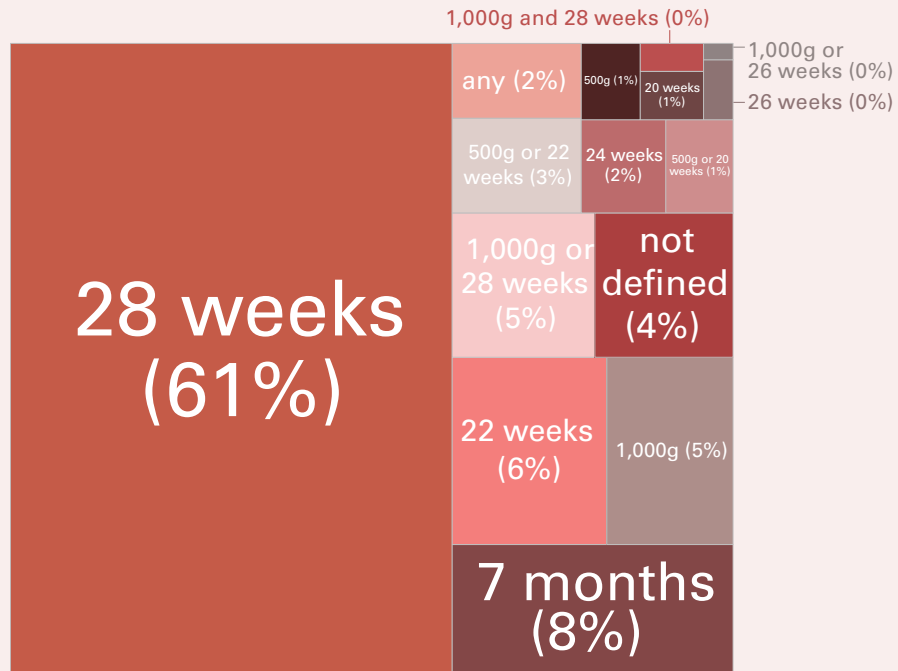
© UNICEF/UNI85526/Asselin


Stillbirths, live births and neonatal deaths



About one third of stillbirth data used a different cut-off criteria

Figure 1: Proportion of data points by criteria used in reporting on stillbirths (%)



A woman is lying in a hospital bed, looking towards the camera with a somber expression. She is wearing a patterned headscarf and a blue hospital gown. Her hands are resting on her lap. The background shows a hospital room with a blue wall and a brown curtain. A medical stand with wires is visible behind her.

A woman recovers in the maternity ward of Al-Shifa Hospital in Gaza after giving birth to a full-term stillborn baby girl; doctors said the loss was induced by conflict-related stress.

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ENORMOUS BURDEN AND LOSS

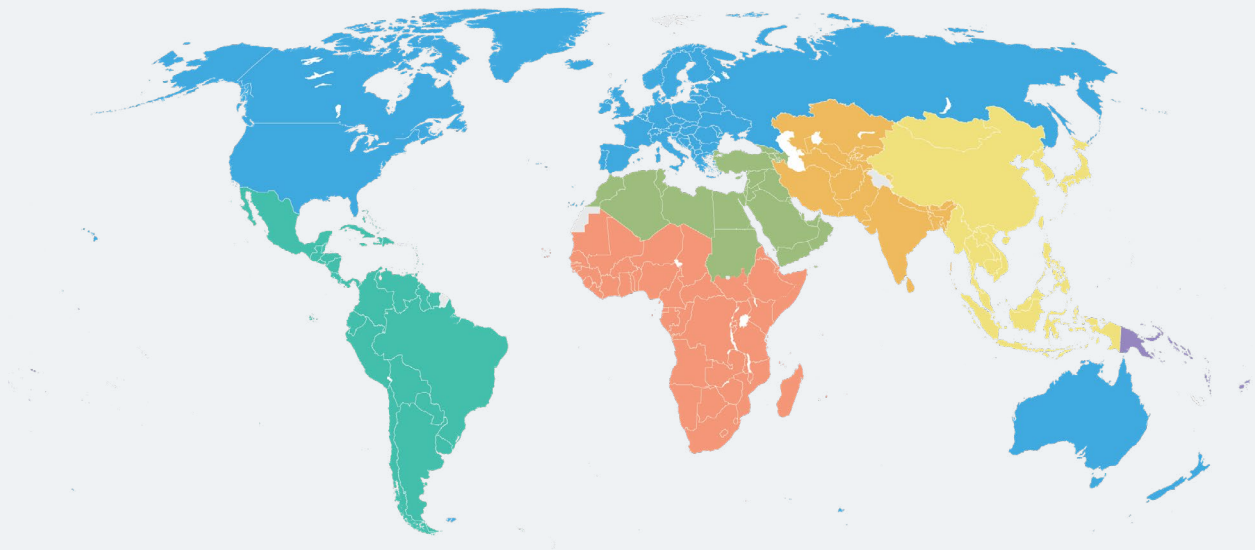
Enormous global burden of stillbirths

Nearly **2 million**
babies are stillborn
annually worldwide

Every day, nearly **5,400**
babies are stillborn

Globally, **1 in 72**
babies is stillborn

Substantial disparities between regions



Central and Southern Asia
1 in 58 is stillborn
34% of global stillborn babies
27% of global live births

Eastern and South-Eastern Asia
1 in 144
11%
21%

**Europe, Northern America, Australia
and New Zealand**
1 in 321
2%
9%

**Latin America and
the Caribbean**
1 in 126
4%
7%

**Northern Africa and
Western Asia**
1 in 87
7%
8%

**Oceania (exc. Australia
and New Zealand)**
1 in 68
less than 1%
less than 1%

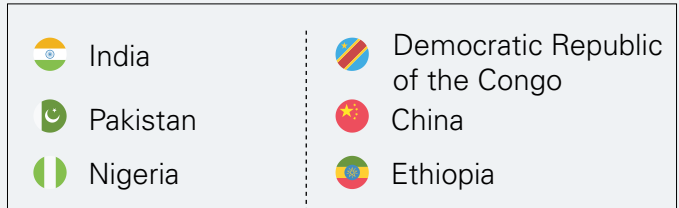
Sub-Saharan Africa
1 in 46
42%
27%

Note: All references to regions in this report are based on the Sustainable Development Goal regional classification <<https://unstats.un.org/sdgs/indicators/regional-groups/>>. For the purposes of this report, the Europe and Northern America region is combined with the Australia and New Zealand region.

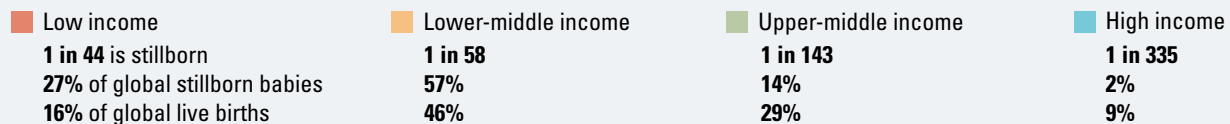
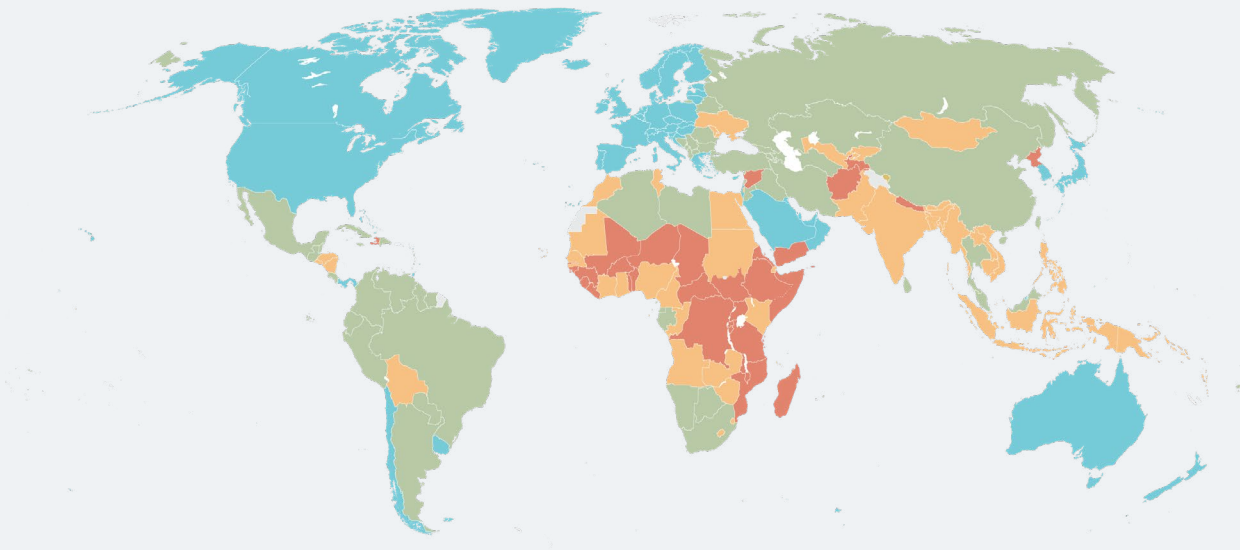
Large variations across countries



About **half** of all stillbirths occur in **6** countries



Substantial disparities between income groups



Note: National income classification follows the World Bank income classification, 2020. Two countries/territories with stillbirth estimates do not have income classification available. Details can be found at: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>, accessed on 3 August 2020.

The world has suffered the tremendous loss of 48 million stillbirths in the past two decades. This persistent burden resulted in around 2 million stillbirths annually in recent years – many of which might have been prevented with proper care. The loss of stillborn children is not experienced uniformly: National stillbirth rates around the globe ranged from 1.4 to 32.2 stillbirths per 1,000 total births in 2019. Sub-Saharan Africa, followed by Southern Asia, had the highest stillbirth rate and the greatest number of stillbirths. Six countries bore the burden of half of all stillbirths – India, Pakistan, Nigeria, the Democratic Republic of the Congo, China and Ethiopia, in order of burden (highest to lowest).

Global scale

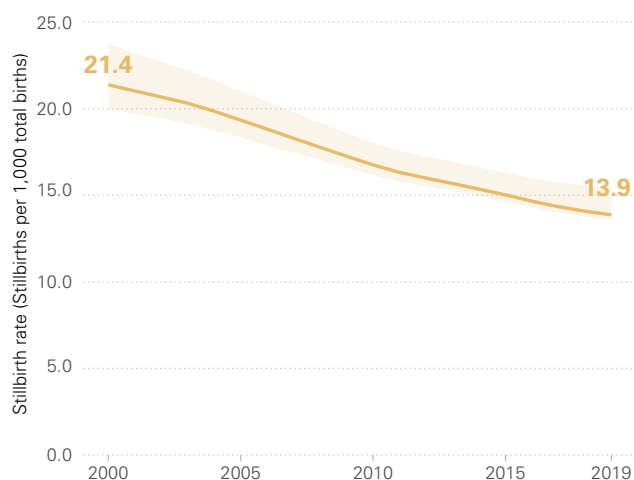
In 2019, an estimated 2.0 (1.9, 2.2)* million babies were stillborn at 28 weeks or more of gestation, with a global stillbirth rate of 13.9 (13.5, 15.4) stillbirths per 1,000 total births (see Figure 2). This equates to 1 in

72 total births resulting in a stillborn baby, or 1 every 16 seconds. This number may be an underestimate, as stillbirths are often underreported.

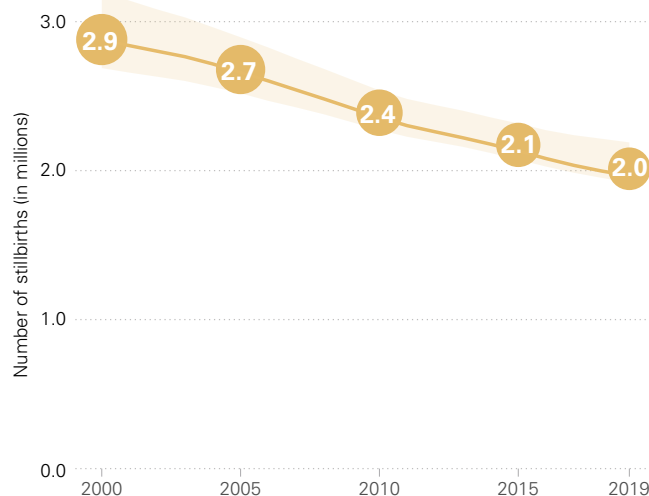
Nearly 2 million babies were stillborn in 2019 – a stillbirth occurred every 16 seconds

Figure 2: Global stillbirth rate and number of stillbirths (2000–2019)

2a) Stillbirth rate



2b) Number of stillbirths



Note: The solid line represents the median and the shaded area represents the 90 per cent uncertainty around the median value.

* Throughout this document, values in parentheses indicate 90 per cent uncertainty intervals for the estimates. Owing to the lack of availability in stillbirth data in some countries and regions uncertainty intervals may be large, and should be considered when interpreting point estimates. Uncertainty intervals for all stillbirth indicators are provided in the Statistical Tables in the Annex

Large regional disparities

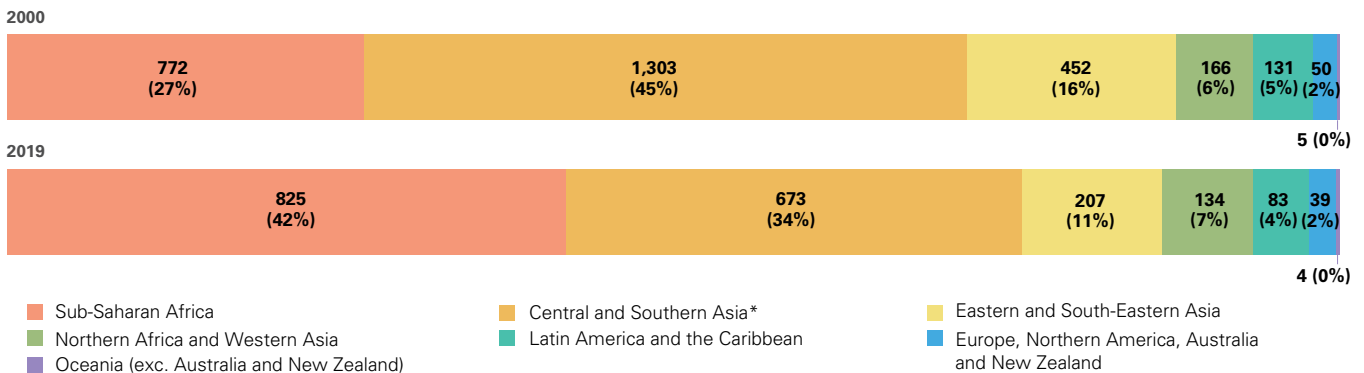
Women in sub-Saharan Africa and Southern Asia bear the greatest burden of stillbirths in the world. More than three quarters of estimated stillbirths in 2019 occurred in these two regions, with 42 per cent of the global total in sub-Saharan Africa (see Figure 3) and 34 per cent in Southern Asia (see Statistical Table in Annex). In sub-Saharan Africa, the estimated stillbirth rate of 21.7 stillbirths per 1,000 total births was seven times higher than the lowest regional average stillbirth rate of 3.1 found in the Europe, Northern America, Australia and New Zealand region. Southern Asia had the second highest stillbirth rate, at 17.7 stillbirths per 1,000 total births (see Statistical Table in Annex).

Large disparities were observed across regions with different levels of income. An estimated 84 per cent of all stillbirths in 2019 occurred in low- and lower-middle income countries, while those countries only accounted for 62 per cent of live births. High-income countries accounted for just 2 per cent of the global burden of stillbirths but constituted 9 per cent of live births worldwide. On average, the risk of a stillbirth was 7.6 times higher in low-income countries (22.7 stillbirths per 1,000 total births) than in high-income countries (3.0 stillbirths per 1,000 total births).

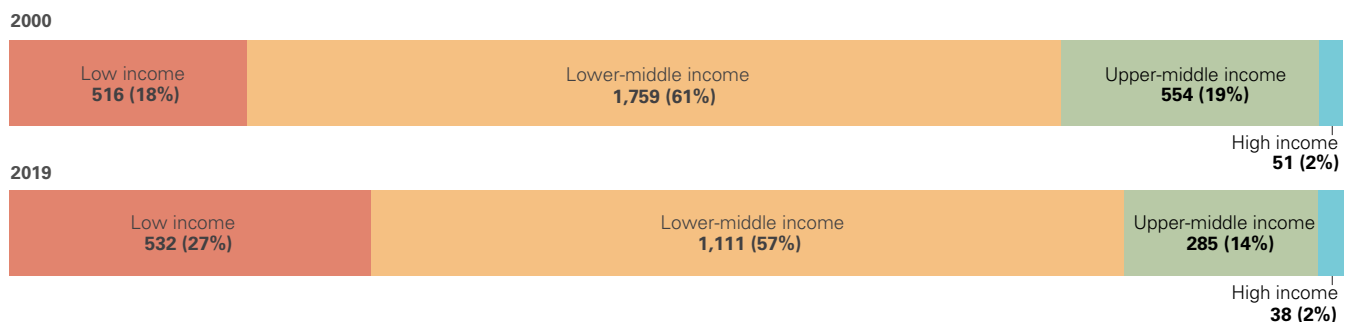
Stillbirths are increasingly concentrated in sub-Saharan Africa

Figure 3: Share of stillbirths, by Sustainable Development Goal region and national income group (2000 and 2019)

3a) By Sustainable Development Goal region



3b) By national income group

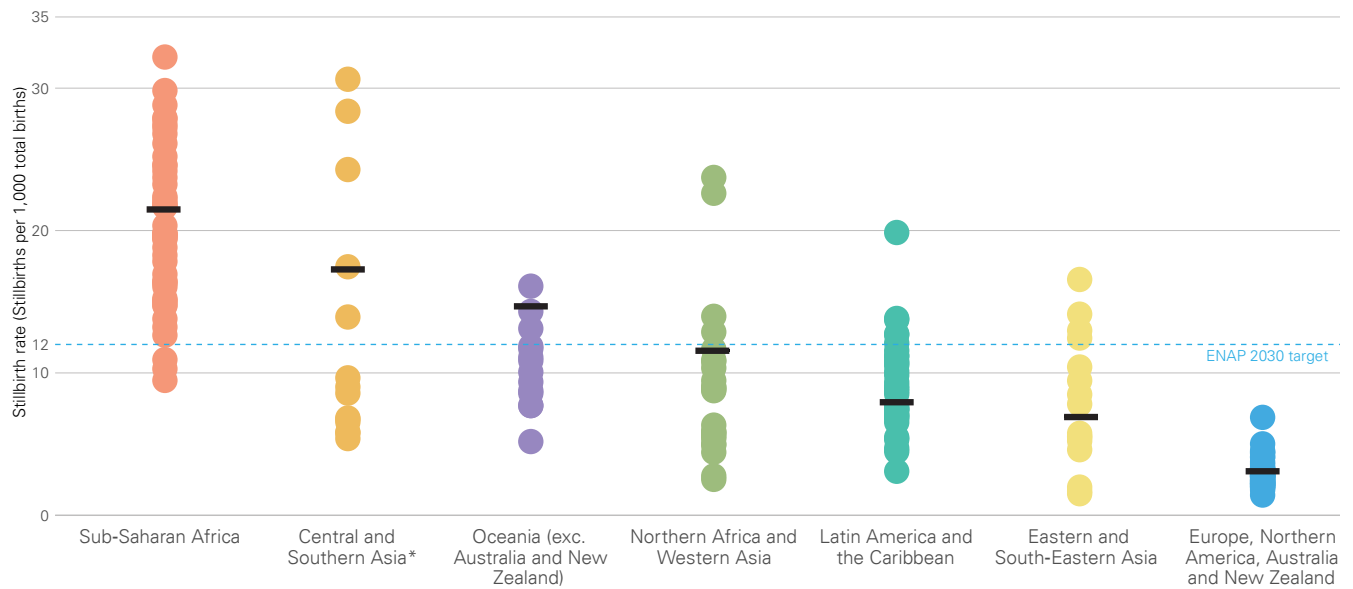


Note: The first number cited for each region or income group refers to the number of stillbirths (in thousands); the second (in parentheses) is the share of stillbirths by region or income group. *Of Central and Southern Asia's 45 per cent share of global stillbirths in 2000, Central Asia accounted for 0.5 per cent and Southern Asia for 44.8 per cent; of the SDG region's 34 per cent share of global stillbirths in 2019, Central Asia accounted for 0.6 per cent and Southern Asia for 33.7 per cent. National income classifications follow the World Bank classification, 2020. Among the 195 countries with stillbirth estimates, 29 are classified as low income, 50 as lower-middle income, 54 as upper-middle income and 60 as high income. Two countries/territories are not classified.

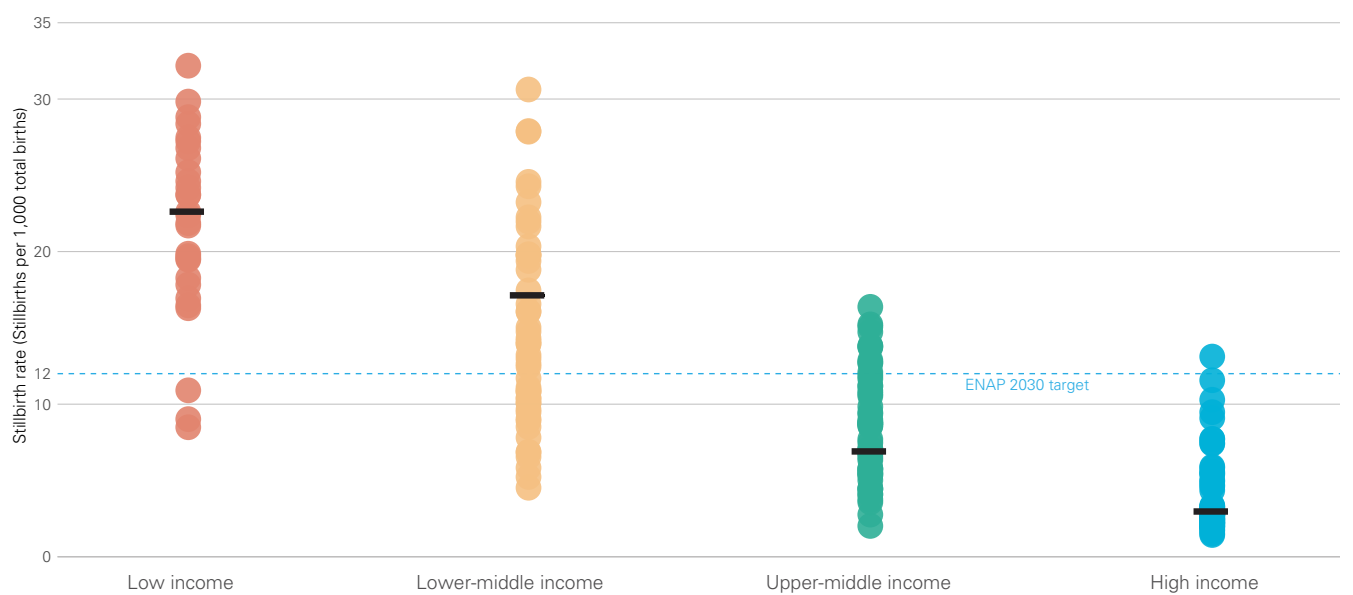
Sub-Saharan Africa has the highest stillbirth rate in the world

Figure 4: Stillbirth rates in countries, by Sustainable Development Goal region and national income group (2019)

4a) By Sustainable Development Goal region



4b) By national income group



Note: Each dot represents a country in a region. Each solid black line represents the regional or income group average. *Central and Southern Asia's average stillbirth rate in 2019 was 17.2; individually, Central Asia's stillbirth rate was 6.9 and Southern Asia's was 17.7.

Vast differences between countries

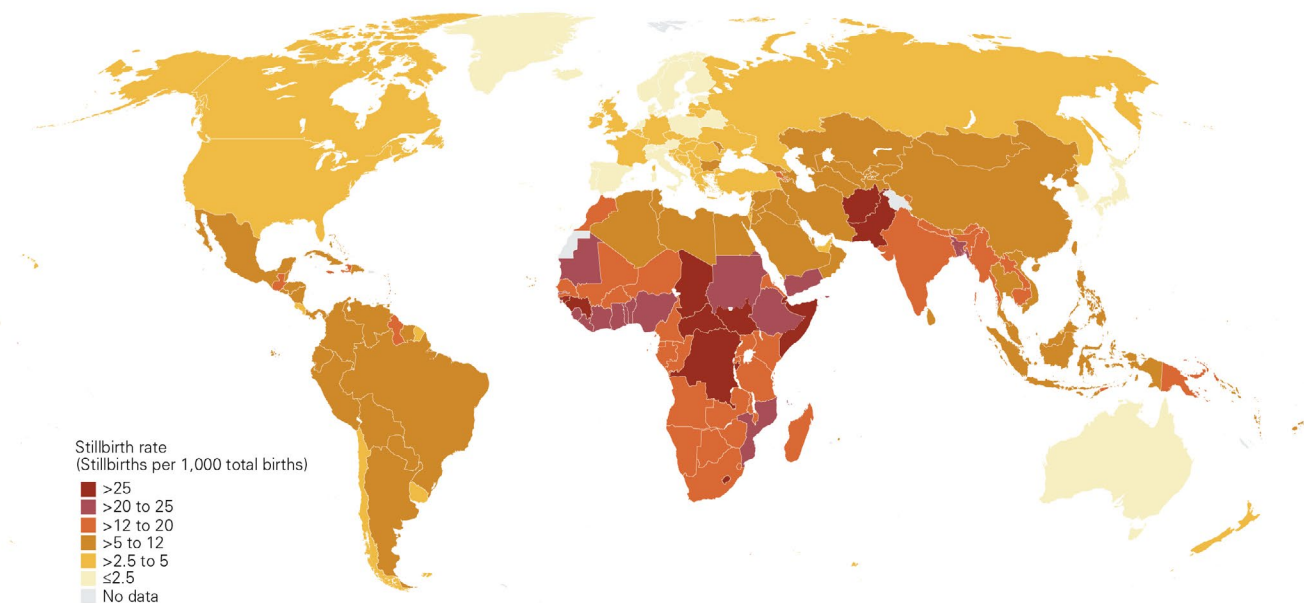
The burden of stillbirths is not distributed evenly across countries. In 2019, stillbirth rates ranged from 1.4 stillbirths per 1,000 total births to 32.2 stillbirths per 1,000 total births (see Map 1). The risk of a stillbirth in the country with the highest stillbirth rate was about 23 times higher than the country with the lowest rate. Of the 27 countries where an estimated rate above 20 was observed, the majority (22) are in sub-Saharan Africa and the remaining five in Southern Asia or Western Asia and Northern Africa. Comparatively, for 21 countries – mainly in Europe – the estimated stillbirth rate was below 2.5 stillbirths

per 1,000 total births. This wide gap between countries within and across regions indicates the great potential to reduce preventable stillbirths.

Stillbirths were concentrated in a few countries, with the greatest number in India, followed by Pakistan, Nigeria, the Democratic Republic of the Congo, China and Ethiopia. These six countries accounted for half of the estimated global number of stillbirths and 44 per cent of global live births. India, Pakistan and Nigeria alone accounted for a third of the total burden of stillbirths and 27 per cent of live births.

Substantial inequity in stillbirth rates exists between countries

Map 1: Stillbirth rates, by country (2019)



Note: Categories are based on unrounded numbers. Map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

Variation within countries

The unequal burden of stillbirths observed across nations and regions is also seen within countries themselves. Access to health care, maternal education, and other socioeconomic factors contribute to the variation of stillbirth rates observed subnationally.

In both low- and high-income settings, higher stillbirth rates are reported in rural areas compared to urban areas.^{19, 20, 21} In rural southern Nepal, where most births occur at home without a skilled birth attendant, the stillbirth rate is 30 to 50 per cent higher than in urban regions, where skilled birth attendance is more common.²² The stillbirth rate in less developed, predominantly rural western China is nearly twice the national average.²³ These subnational disparities are likely to be largely driven by lack of access to quality antenatal and childbirth care, including strong referral systems with timely access to emergency obstetric care and ability to have C-section births if needed. Ensuring these acutely affected regions have the necessary resources and are benefiting from the appropriate investments can help end these preventable deaths.

Ethnic minorities in high-income countries may also lack access to sufficient antenatal care, leading to higher rates of antepartum stillbirths. Inuit populations in Canada have been observed to have stillbirth rates nearly three times higher than the rest of Canada, and African American women in the US have nearly twice the risk of stillbirth compared to white women.²⁴

A mother's level of education is one of the greatest drivers of inequity in experiences of stillbirth in high-income countries. Several studies have found that mothers with post-secondary or higher education have at least half the risk of stillbirths compared to their counterparts with less education.^{20, 25, 26} Socioeconomic status is also linked to greater stillbirth risk. Nepalese women of minority castes had stillbirth rates between 40 to 60 per cent higher than women from upper-class castes.²² A UK-based population study examining composite measures of socioeconomic status, including education indicators, found that those at the lowest end of the socioeconomic spectrum are three times more likely to experience a stillbirth due to antepartum complications, compared to those at the highest end.²⁷ In high-income settings, where pregnancy is often delayed, high rates of stillbirth have also been observed in older mothers, particularly those with pre-existing health issues.²¹ Providing necessary antenatal care for populations with little or no access and raising community awareness of modifiable risk factors can help close these equity gaps.

Wide discrepancies in the stillbirth rate in low-, middle- and high-income countries alike reiterate the need for all countries to take action. Understanding where and by whom the heaviest burden is carried can help reach the goal of ending preventable stillbirths for all women and families, everywhere.

Preventable stillbirths during labour

Most stillbirths are preventable, so long as proven interventions that improve the health of mothers and their babies along the continuum of care are available and accessed.

Globally, an estimated 42 per cent of all stillbirths are intrapartum (i.e., the baby died during labour); almost all of these 832,000 stillborn deaths that occurred in 2019 could have been prevented with access to high-quality care during childbirth, including ongoing intrapartum monitoring and timely intervention in case of complications.

Around half of all stillbirths in sub-Saharan Africa and Central and Southern Asia are intrapartum, compared to 6.4 per cent in Europe, Northern America, Australia and New Zealand (see Figure 5). Overall, an estimated 729,000 babies died during labour in 2019 in sub-Saharan Africa and Southern Asia, accounting for 88 per cent of all intrapartum stillbirths worldwide. Intrapartum stillbirth is a sensitive marker of timeliness and quality of intrapartum care. Actions

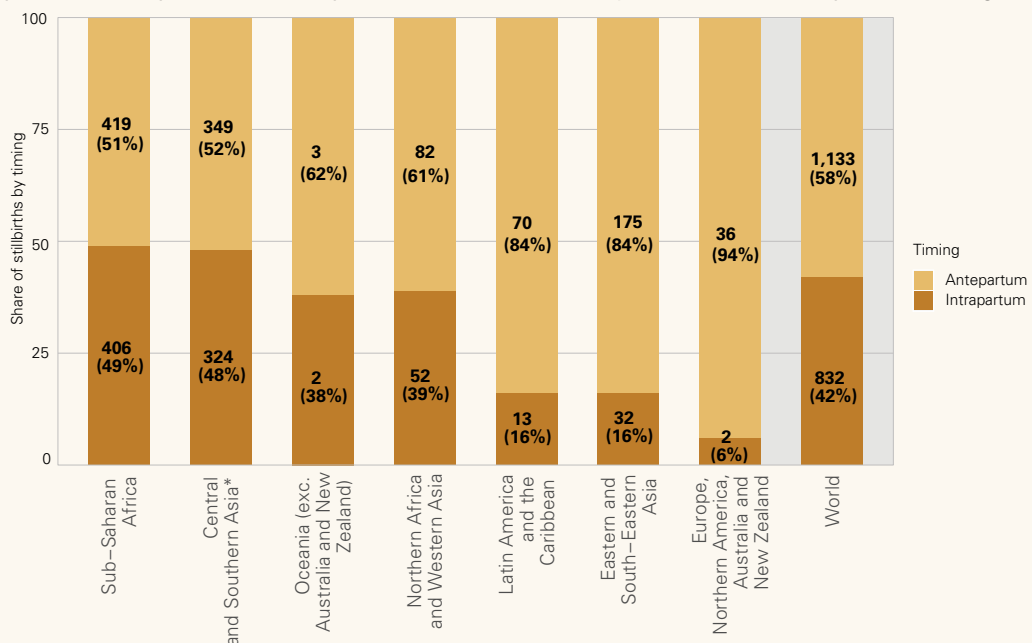
are urgently needed in the two regions to provide critical interventions to save lives.

Gaps in availability and quality of data have posed challenges to understanding the true burden of intrapartum stillbirths, contributing to insufficient action to save these children’s lives. Although information on intrapartum stillbirths should be available from birth registers in health facilities, many use fresh appearance of the skin as a surrogate marker for intrapartum stillbirth, which can be an unreliable measure. Furthermore, data are infrequently collated at a national level.

Improving data on intrapartum stillbirth is critical to reducing knowledge gaps in stillbirth prevention. Timely and reliable data would not only drive investments in improved quality of childbirth care to end preventable maternal, neonatal and stillbirth deaths, but also allow for these actions to be monitored.

Over 40 per cent of stillbirths worldwide occurred during labour

Figure 5: Proportion of antepartum and intrapartum stillbirths in 2019, by Sustainable Development Goal region (%)



Note: The first number cited for each region or income group refers to the number of stillbirths (in thousands); the second is the share of stillbirths by region or income group. *The share of intrapartum stillbirths in Central and Southern Asia combined is 48 per cent. In Central Asia, intrapartum stillbirths accounted for 9 per cent of all stillbirths, and in Southern Asia they accounted for 49 per cent of all stillbirths.

Causes and risk factors of stillbirth

To help end preventable stillbirths and identify the necessary interventions and resources, it is essential to first understand the causes of death. Currently, globally comparable cause of stillbirth estimates cannot be generated due to lack of data and of a unified death classification system. However, available data do indicate certain causes and risk factors that are avoidable through improved pregnancy and childbirth care for mothers and babies.

Commonly reported causes of stillbirth include intrapartum complications (including hypoxia), antepartum haemorrhage (including placental abruption), infections and maternal conditions such as hypertensive disorders of pregnancy, with fetal growth restriction as a common underlying pathway.^{28, 29, 30, 31} Many of these causes can be avoided through improved nutrition, antenatal care, fetal growth monitoring, and access to safe and high-quality labour care.

A mother's health is linked to causes of stillbirth. Within low- and middle-income settings, infection (e.g., malaria, syphilis, HIV) is one of the top five causes of stillbirths, with the percentage of stillbirths attributed to maternal infection ranging from 8 to 50 per cent.^{28, 29} In sub-Saharan Africa, malaria is estimated to contribute to 20 per cent of stillbirths and syphilis is attributed to more than an estimated 11 per cent of stillbirths.³² In low-, middle- and high-income settings alike, the presence of diseases in mothers, such as obesity, diabetes and hypertension, is reported as or linked to causes of stillbirth. An estimated 10 per cent of worldwide stillbirths are the result of obesity, diabetes and hypertension.³² In addition to presence of disease in mothers, factors related to the mother such as age and practising smoking can also increase the risk of maternal disease and stillbirths. A UK population-based study found that

mothers who smoked were nearly four times more likely to experience fetal growth restriction than mothers who did not.³¹

Some stillbirths are associated with congenital anomalies. While the exact proportion of these types of deaths in low-income settings is unknown due to limitations in diagnostic capacity, they account for less than 10 per cent of all stillbirths reported nationally in high-income countries.^{28, 29, 32} Often, deaths related to congenital anomalies are thought to be inevitable, but some are preventable with available interventions, such as improving folic acid intake in mothers to reduce neural tube defects.³²

Despite improvements in information regarding causes and risk factors of stillbirth, data gaps remain. One of the most commonly recorded causes of stillbirth in low- and high-income settings is "unknown" or "unspecified".^{29, 30, 33} Improving health care workers' skills on reporting of fetal deaths and perinatal audits could strengthen cause of death data quality and availability.^{28, 31} The historical lack of a unified classification system – which prevents cross-country comparison – has also weakened understanding of the causes of stillbirths.^{28, 32} The introduction of the ICD-perinatal mortality (ICD-PM) classification system could help standardize stillbirth cause of death reporting, however adoption and subsequent availability of comparable data will take time.³⁴

From what we do know about the causes of stillbirth, it is clear that providing quality care, support and resources that encourage healthy lifestyles and pregnancies can greatly reduce a woman's risk of stillbirth. Improved reporting can enhance knowledge of these causes and drive further progress in ending preventable deaths.

SLOW PROGRESS IN PREVENTING STILLBIRTHS

A woman from Mattru Jong, Sierra Leone, sleeps after giving birth to a stillborn baby at home after 10 hours of labour; she was brought to the hospital for emergency removal of a retained placenta. Of eight pregnancies, she has four surviving children.




















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Some progress has been made in preventing stillbirths

Globally, the stillbirth rate declined by **35 per cent** since 2000

>> Percentage decline in stillbirth rate and best performers in each region^a

Central and Southern Asia 44 (28, 51)%	Eastern and South-Eastern Asia 51 (45, 56)%	Europe, Northern America, Australia and New Zealand 26 (22, 30)%	Latin America and the Caribbean 29 (22, 36)%
-----	-----	-----	-----
 India 53 (28, 60)%	 China 63 (57, 68)%	 North Macedonia 62 (55, 67)%	 El Salvador 50 (30, 64)%
 Kazakhstan 52 (34, 64)%	 Mongolia 57 (46, 65)%	 Belarus 60 (49, 68)%	 Peru 48 (32, 61)%
 Nepal 44 (23, 59)%	 Republic of Korea 45 (28, 57)%	 Netherlands 55 (46, 63)%	 Ecuador 45 (23, 60)%
Northern Africa and Western Asia 34 (25, 43)%	Oceania (exc. Australia and New Zealand) ^b 16 (-14, 38)%	Sub-Saharan Africa 23 (15, 31)%	
-----	-----	-----	
 Turkey 63 (55, 70)%	 Fiji 16 (-10, 36)%	 Rwanda 41 (19, 57)%	
 Georgia 62 (53, 70)%		 Burkina Faso 34 (13, 51)%	
 Azerbaijan 53 (34, 67)%		 Cabo Verde 31 (1, 51)%	

Low income 23 (15, 32)%	Lower-middle income 39 (27, 45)%	Upper-middle income 48 (43, 52)%	High income 24 (19, 29)%
-----	-----	-----	-----
 Rwanda 41 (19, 57)%	 Mongolia 57 (46, 65)%	 China 63 (57, 68)%	 Netherlands 55 (46, 63)%
 Burkina Faso 34 (13, 51)%	 India 53 (28, 60)%	 Turkey 63 (55, 70)%	 Estonia 53 (44, 61)%
 Mali 30 (5, 49)%	 El Salvador 50 (30, 64)%	 Georgia 62 (53, 70)%	 Romania 52 (41, 61)%

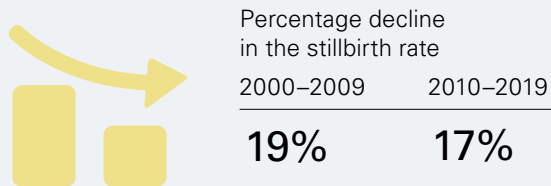
Note: Values in parentheses indicate 90 per cent uncertainty intervals for the percentage declines in the stillbirth rate between 2000 and 2019.

^a Top-performers are selected based on percentage decline point estimates, and exclude countries with no quality data on stillbirths and countries with less than 10,000 estimated live births in 2019. Regional top-performing countries that have less than 10,000 live births or with no quality data available are: Maldives (Central and Southern Asia); Cambodia (Eastern and South-Eastern Asia); the Cook Islands, Palau, Solomon Islands (Oceania (exc. Australia and New Zealand)); Angola (Sub-Saharan Africa). Within income groups, top-performing countries that have less than 10,000 live births or with no quality data available are: the Democratic People's Republic of Korea, Tajikistan (low Income); Cambodia (lower-middle income).

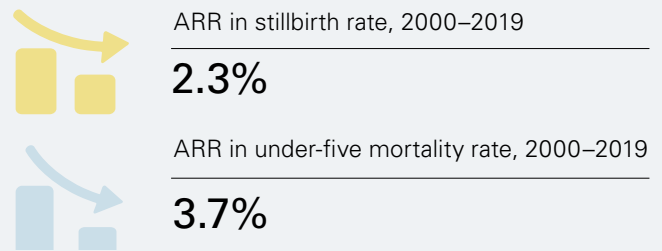
^b Only one country in region after excluding countries with no quality data on stillbirths and those with small number of live births.

...but progress is slow

Global progress in reducing the stillbirth rate did not improve over the 2010s compared to the 2000s

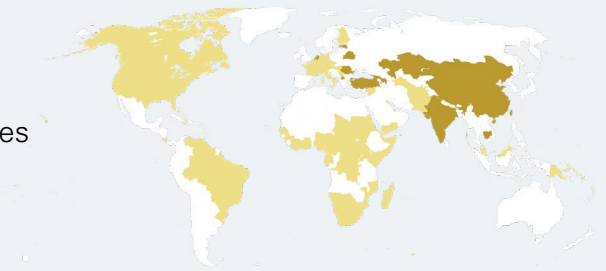


...and is slower than in reducing mortality among children under age 5: The annual rate of reduction in stillbirth rates in the past two decades was about two thirds of the ARR in mortality among children under 5 years of age



More than **40 per cent** of countries have had **less than a quarter** reduction in the stillbirth rates since 2000

80 countries



Less than **10 per cent** of all countries reduced the stillbirth risk by

more than half

14 countries

A stagnant trend in the number of stillbirths has been found in **sub-Saharan Africa** – about **0.8 million** babies were stillborn every year

More than two thirds of **44** countries with **no reduction** in the number of stillbirths are in sub-Saharan Africa



Sub-Saharan Africa accounts for a larger share of global stillbirths over time, with the proportion increasing from **27 per cent** in 2000 to **42 per cent** in 2019

Globally, some progress was made in reducing the stillbirth rate over the past two decades, which declined from 21.4 stillbirths per 1,000 total births in 2000 to 13.9 in 2019 – a reduction of 35 per cent. The total number of stillbirths declined by 32 per cent, from 2.9 million in 2000 to 2.0 million in 2019. Notably, these declines have not kept pace with progress in under-five mortality. In many sub-Saharan African countries, the number of stillbirths stagnated or even increased, as population growth outpaced decreases in the stillbirth rate.

Large variations in progress and top performers

The risk of giving birth to a stillborn declined in all regions (see Figure 6 and Statistical Table in Annex). Among regions with stillbirth rates above 12 stillbirths per 1,000 total births in 2000, rapid reductions were seen in Eastern and South-Eastern Asia, with a decline of 51 per cent from a rate of 14.3 in 2000 to 7.0 in 2019, and Southern Asia, with a 44 per cent decline from 31.5 in 2000 to 17.7 in 2019.

Comparatively, progress was much slower in sub-Saharan Africa, where the stillbirth rate between 2000 and 2019 declined by 23 per cent, from 28.1 per 1,000 births to 21.7.

Reductions were also relatively modest in countries and regions with low stillbirth rate levels. Latin America and the Caribbean registered a decrease of about 29 per cent; Europe, Northern America,

Australia and New Zealand had an average reduction of 26 per cent.

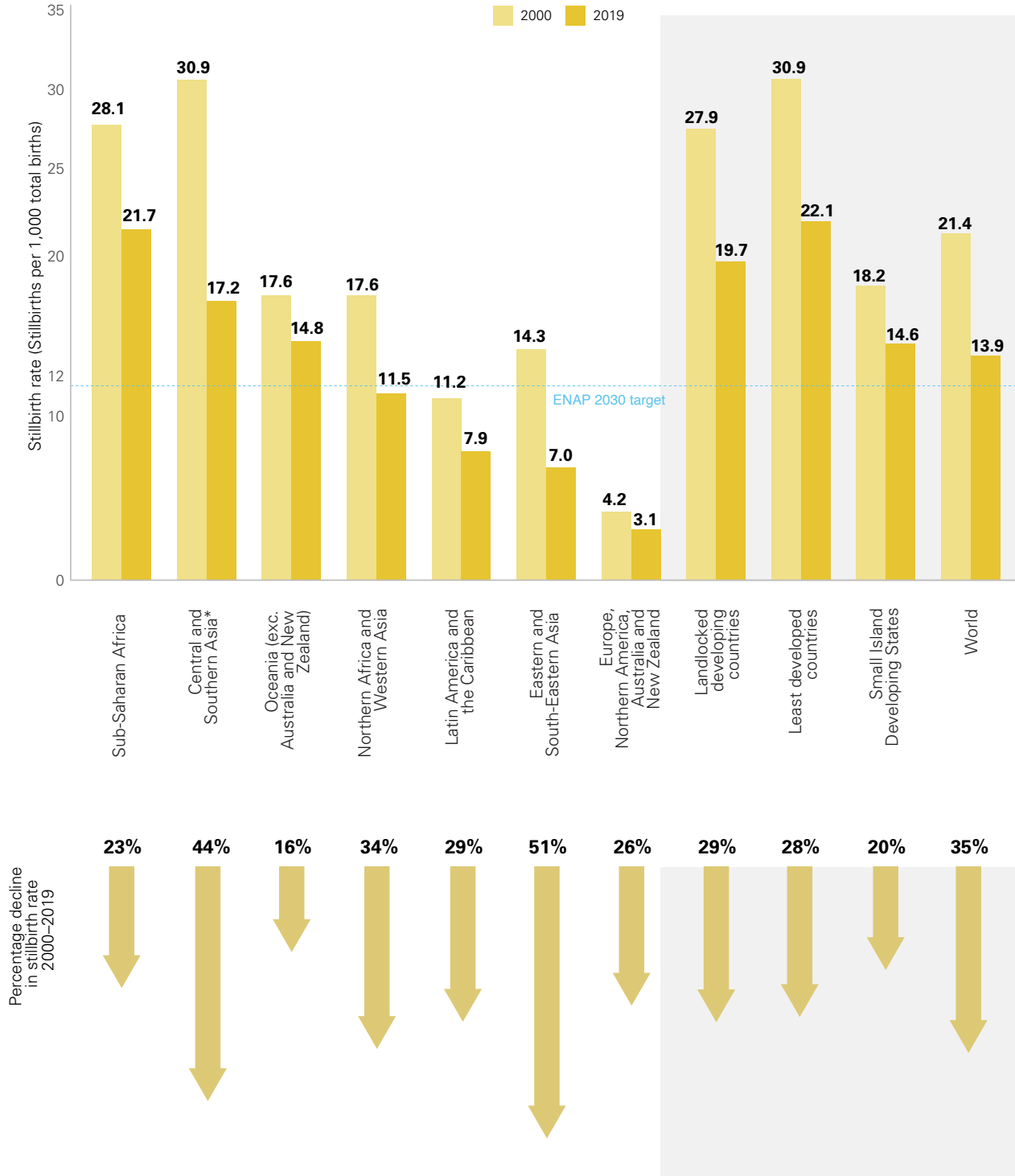
Progress varied across countries (see Map 2). A total of 14 countries – including three low- and lower-middle income countries (Cambodia, India, Mongolia) – cut the stillbirth rate by more than half. The largest reductions since 2000 were estimated for Turkey and China, with percentage declines around 63 per cent. When considering the uncertainty in estimates of percentage decline of the stillbirth rate (i.e. 90 per cent lower uncertainty bound greater than 50 per cent), four countries reduced stillbirth rates by more than half between 2000 and 2019. On the other hand, 80 countries achieved a decrease of less than one quarter. Among them, 28 countries reduced the stillbirth rate by less than 15 per cent – including seven low- and lower-middle income countries.



A woman whose child was stillborn is comforted by a nurse in the government hospital in Bo, Sierra Leone, where prenatal care is limited and health care costly. She has five surviving children from 13 pregnancies; she received no prenatal care for this one.

All regions made progress in reducing stillbirth rates

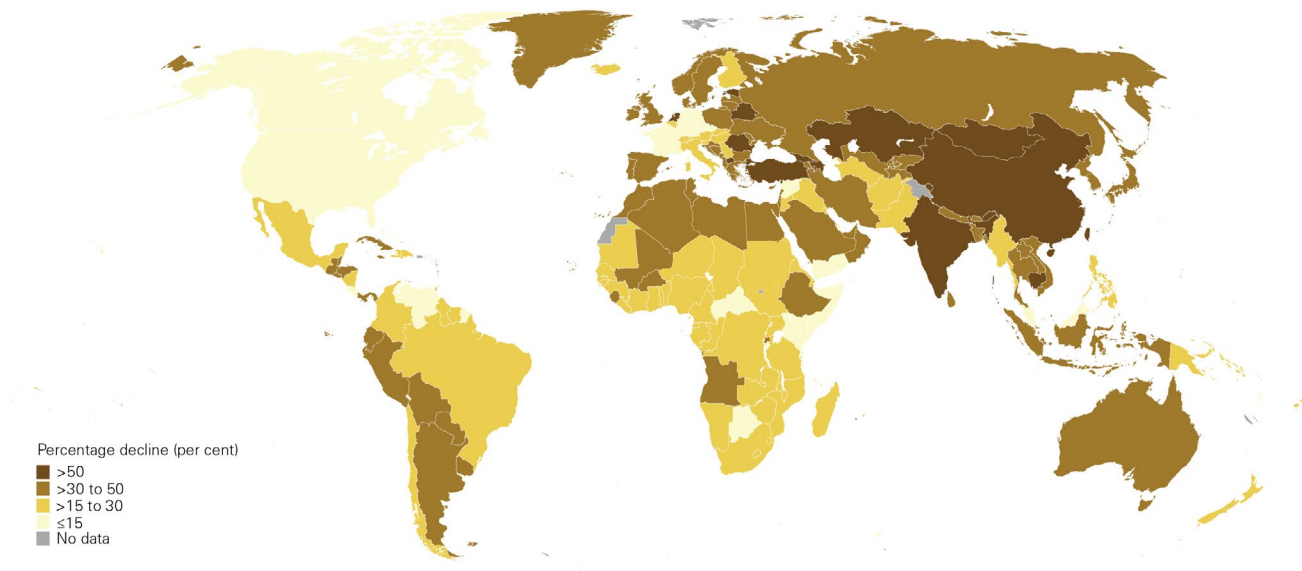
Figure 6: Stillbirth rates (2000 and 2019) and percentage declines (between 2000 and 2019), by Sustainable Development Goal region



Note: *In 2000, the combined stillbirth rate for Central and Southern Asia was 30.9; individually, Central Asia’s stillbirth rate was 11.5 and Southern Asia’s was 31.5. In 2019, Central and Southern Asia’s combined stillbirth rate was 17.2; individually, Central Asia’s stillbirth rate was 6.9 and Southern Asia’s was 17.7. The percent decline in stillbirth rate from 2000 to 2019 was 44 per cent for Central and Southern Asia combined, but 40 per cent for Central Asia and 44 per cent for Southern Asia.
















Progress in reducing the stillbirth rate varies across countries

Map 2: Percentage decline in stillbirth rate, by country (2000–2019)



Note: Categories are based on unrounded numbers. Map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

Top 15 countries with the greatest % decline in the stillbirth rate (2000–2019)

 China	63 (57, 68)%	 Estonia	53 (44, 61)%
 Turkey	63 (55, 70)%	 India	53 (28, 60)%
 Georgia	62 (53, 70)%	 Kazakhstan	52 (34, 64)%
 North Macedonia	62 (55, 67)%	 Romania	52 (41, 61)%
 Belarus	60 (49, 68)%	 El Salvador	50 (30, 64)%
 Mongolia	57 (46, 65)%	 Peru	48 (32, 61)%
 Netherlands	55 (46, 63)%	 Latvia	46 (36, 54)%
 Azerbaijan	53 (34, 67)%		

Note: Values in parentheses indicate 90 per cent uncertainty intervals for the percentage declines in the stillbirth rate between 2000 and 2019. Countries listed are selected based on percentage decline point estimates, and exclude countries with no quality data on stillbirths and or countries with less than 10,000 estimated live births in 2019. Additional countries that were top-performers in reducing stillbirth rate between 2000 and 2019 with less than 10,000 live births or have no quality data available are Maldives and Cambodia.

Poorer gains than in maternal or under-five mortality rates

Progress in reducing the stillbirth rate has been slow compared to what has been achieved in the mortality rate among children under 5. The global annual rate of reduction* in the stillbirth rate was 2.3 per cent from 2000 to 2019, lower than the 2.9 per cent in neonatal mortality and 4.3 per cent in mortality among children aged 1–59 months over the same period. The maternal mortality rate also showed stronger progress, declining by 2.9 per cent between 2000 and 2017 (see Figure 7). This pattern was echoed in all regions, but the most marked differences were seen in sub-Saharan Africa, where the average annual rate of reduction of mortality among children aged 1–59 months, 4.4 per cent, was three times faster than the

annual rate of reduction of the stillbirth rate, 1.4 per cent.

Worldwide, progress in reducing the stillbirth rate in the 2010s was similar to that of the 2000s (see Figure 8). While acceleration in reducing rates was seen in Eastern and South-Eastern Asia, Oceania (excluding Australia and New Zealand), and Central and Southern Asia, slowed progress was recorded in other regions – which together accounted for 55 per cent of global stillbirths. It is particularly concerning that in regions with relatively high stillbirth rates – i.e., sub-Saharan Africa and Northern Africa and Western Asia – gains in preventing stillbirths have not strengthened.

In Mali's Djenne District, a woman recovers from delivery complications that resulted in stillbirth. She was in labour for three days before being transported by bull cart and ambulance to the regional hospital.

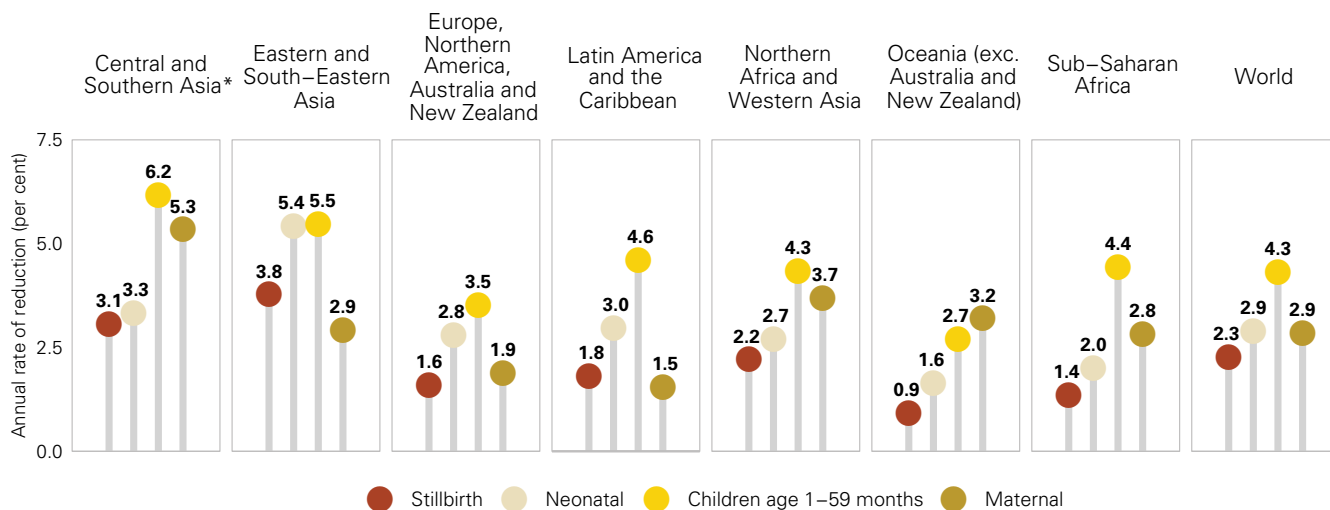
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* The annual rate of reduction (ARR) in the stillbirth rates is defined as $ARR = \log(SBR1/SBR2) / (t1 - t2)$ where $t1$ and $t2$ refer to different years with $t1 < t2$.

Progress is slower in preventing stillbirths than in under-five mortality, particularly after the neonatal period

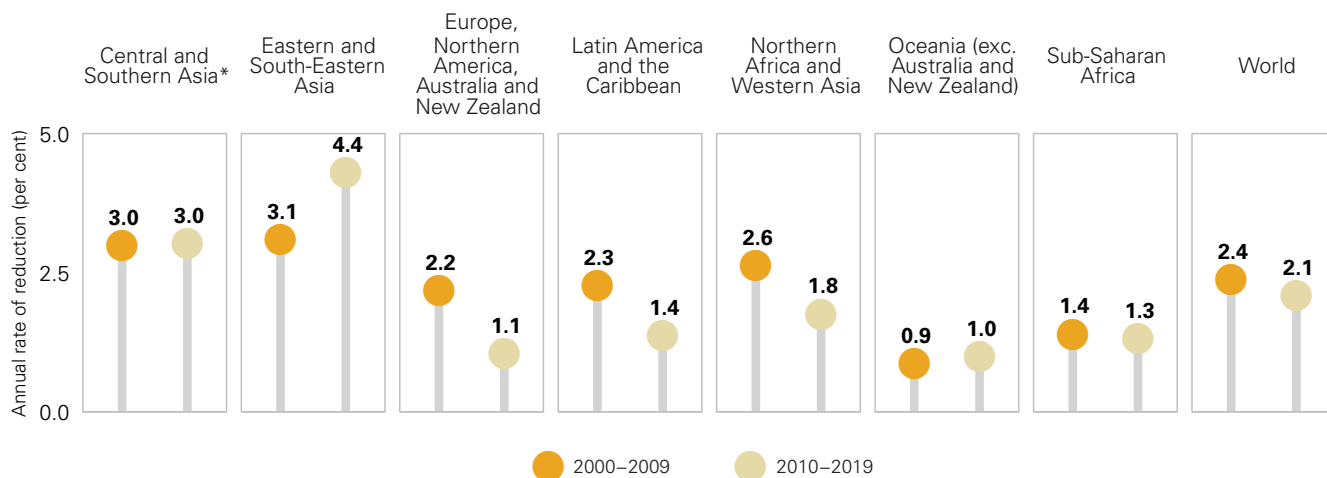
Figure 7: Annual rate of reduction in stillbirth rate, mortality rates among neonates and children aged 1–59 months and maternal mortality ratio, by Sustainable Development Goal region (2000–2019)



Note: Annual rate of reduction for the maternal mortality ratio covers 2000–2017; all other indicators refer to 2000–2019. *The annual rate of reduction for stillbirths in Central Asia was 2.7, and the annual rates of reduction for neonatal mortality, mortality among children aged 1–59 months and maternal mortality, were 4.7, 6.7, and 4.3, respectively. For Southern Asia, the annual rate of reduction for stillbirths was 3.0, and the annual rates of reduction for neonatal mortality, mortality among children aged 1–59 months and maternal mortality, were 3.3, 6.1, and 5.3, respectively.

Progress in preventing stillbirths globally did not accelerate over the past decade

Figure 8: Annual rate of reduction in stillbirth rate, by Sustainable Development Goal region (2000–2009 and 2010–2019)



Note: *The annual rate of reduction for Central and Southern Asia from 2000 to 2009 was 3.0, while in Central Asia it was 2.5 and Southern Asia's was 2.9. From 2010 to 2019, the annual rate of reduction in Central and Southern Asia was 3.0, while in Central Asia it was 2.7 and Southern Asia's was 3.0.

Following the stillbirth of her baby, a woman in Lusaka, Zambia, unpacks the baby clothes and blankets she had prepared for her newborn. Her pregnancy was complicated by diabetes and HIV status.

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Stagnant stillbirth numbers in sub-Saharan Africa

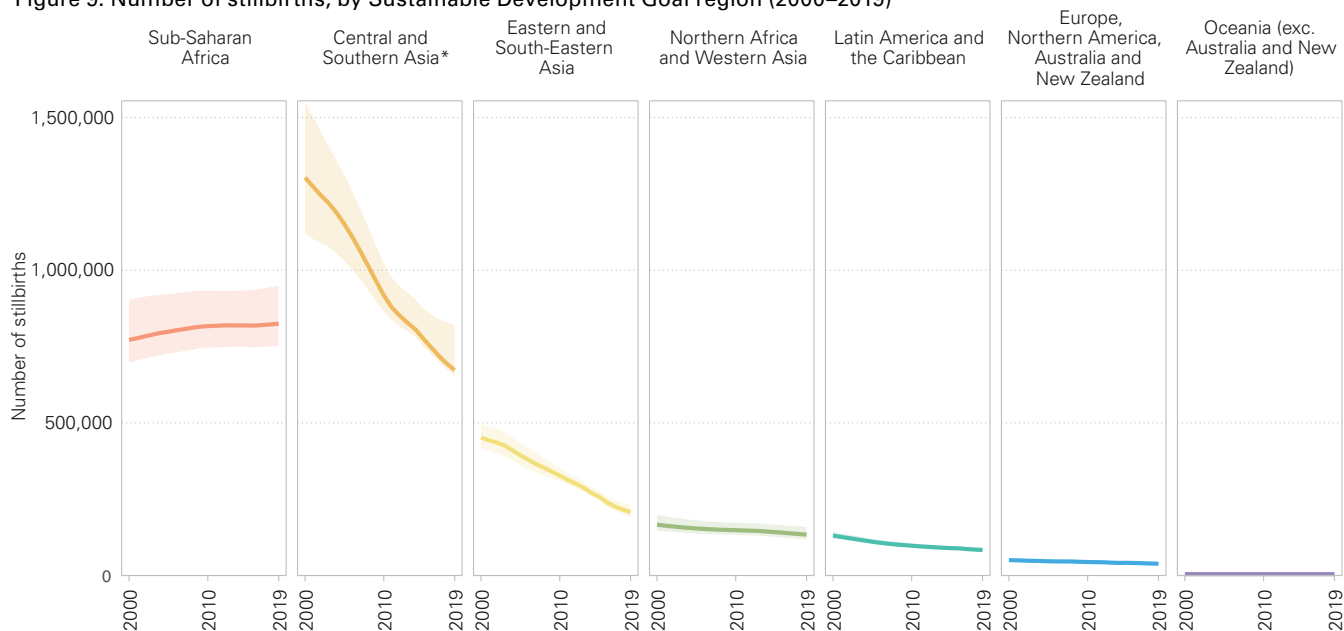
The world reduced the number of stillbirths by less than a third over the past two decades, but sub-Saharan Africa did not show a declining trend – about 0.8 million babies were stillborn every year (see Figure 9). In 2000, sub-Saharan Africa accounted for 27 per cent of the global number of stillbirths. This proportion increased to 42 per cent in 2019.

While only five countries did not record a decline in the stillbirth rate between 2000 and 2019, 44 countries experienced a stagnant trend or small

increase in the number of stillbirths despite reductions in stillbirth rates. More than two thirds (31) of these countries are in sub-Saharan Africa. This is due to the decline of stillbirth rates being outpaced by an increasing number of births over the same period. When accounting uncertainty in estimates of percentage increase in stillbirths (i.e. 90 per cent lower uncertainty bound greater than zero), five countries had an increase in the number of stillbirths between 2000 and 2019.

Sub-Saharan Africa had a small increase in the number of stillbirths

Figure 9: Number of stillbirths, by Sustainable Development Goal region (2000–2019)



Note: The solid line represents the median and the shaded area represents the 90 per cent uncertainty around the median value.
 *The number of stillbirths occurring in the Central and Southern Asia region in 2000, 2010, and 2019 was 1.3, 0.9, and 0.7 million, respectively. In Central Asia, the total number of stillbirths was slightly above 0.01 million for all three years. In Southern Asia, the total number of stillbirths occurring in 2000, 2010, and 2019 was 1.3, 0.9, and 0.7 million, respectively.


































A woman is comforted by her mother-in-law at Qatar Hospital, Pakistan, following the C-section delivery of her stillborn baby; delivery was complicated by poverty-related issues in securing transport to the hospital and obtaining her husband's permission for the operation. She has four surviving children from eight pregnancies.

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Countries with percentage increase in the number of stillbirths (2000–2019)

Sub-Saharan Africa

 Botswana	50%	 Madagascar	9%
 Equatorial Guinea	48%	 Mauritania	9%
 Burundi	36%	 Uganda	9%
 Somalia	33%	 Benin	8%
 Democratic Republic of the Congo	30%	 Namibia	7%
 Gabon	28%	 Seychelles	7%
 Gambia	27%	 Angola	6%
 Niger	25%	 Comoros	6%
 Chad	22%	 Eritrea	6%
 South Sudan	22%	 Togo	6%
 Nigeria	15%	 Congo	5%
 Cameroon	13%	 Côte d'Ivoire	4%
 Liberia	12%	 Mali	4%
 Senegal	11%	 Guinea	3%
 United Republic of Tanzania	11%	 Kenya	2%
 Mozambique	10%		

Central and Southern Asia

 Turkmenistan	9%
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Eastern and South-Eastern Asia

 Malaysia	16%
--	-----

Europe, Northern America, Australia and New Zealand

 Czechia	15%	 Luxembourg	10%
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Northern Africa and Western Asia

 Qatar	92%	 United Arab Emirates	10%
 Oman	13%	 Kuwait	3%
 Yemen	12%	 Bahrain	2%

Oceania (exc. Australia and New Zealand)

 Vanuatu	27%	 Kiribati	4%
 Solomon Islands	11%		

Note: Uncertainty intervals for the percentage decrease in the number of stillbirths between 2000 and 2019 are available in Statistical Table in the Annex.

THE FUTURE WE WANT

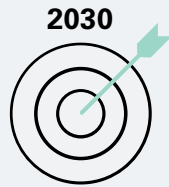
A new mother (left) admires her newborn daughter in Bwaila Hospital in Lilongwe, Malawi, as the baby's grandmother cradles the infant, with the mother's aunt looking on.

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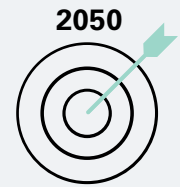


Looking ahead

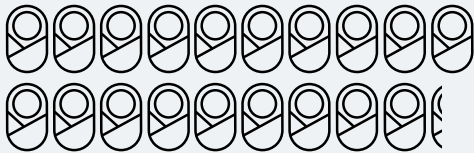
56 of 195 countries studied are at risk of missing the ENAP target by 2030



34 countries are at risk of not meeting the ENAP target by 2050



If current trends continue, **20 million** babies will be stillborn between now and 2030



Meeting the ENAP target in the 34 countries could save **2.9 million** stillbirths



45 countries need to **more than double** their progress in reducing stillbirths in order to achieve the ENAP target of **12** stillbirths per 1,000 total births

X2

7 in 10 prevented stillbirths would be in sub-Saharan Africa if the ENAP target is reached



The Every Newborn Action Plan (ENAP) calls for each country to achieve a rate of 12 stillbirths or fewer per 1,000 total births by 2030 and to close equity gaps. To meet this goal, 56 countries need to accelerate progress. The difference in the number of lives saved between action and inaction is stark. It is critical that countries take quick, robust action to quicken progress and save more young lives.

Acceleration urgently needed

The world is not on track to meet the ENAP stillbirth target by 2030, if current trends continue. Although 128 of the 195 countries studied have already met the target, with a further 11 on track to meet it, 56 countries will miss the target (see Figure 10 and Map 3). More than half (34) of these countries will not meet the target by 2050, and of these, eight will not do so by the end of the century. The majority (27) of countries projected to meet the target only after 2050 are in sub-Saharan Africa. If current trends of relatively low progress continue, the worldwide burden of stillbirths will become more concentrated in sub-Saharan Africa, with the share increasing from 42 per cent in 2019 to 50 per cent by 2030 (see Figure 11).

Action is needed in all countries and regions to close equity gaps. But to meet the ENAP milestones

between 2020 and 2025³⁵ and achieve the 2030 stillbirth target, urgent attention and investment are needed. Forty-five countries need to more than double their annual rate of reduction to achieve the target (see Figure 12).

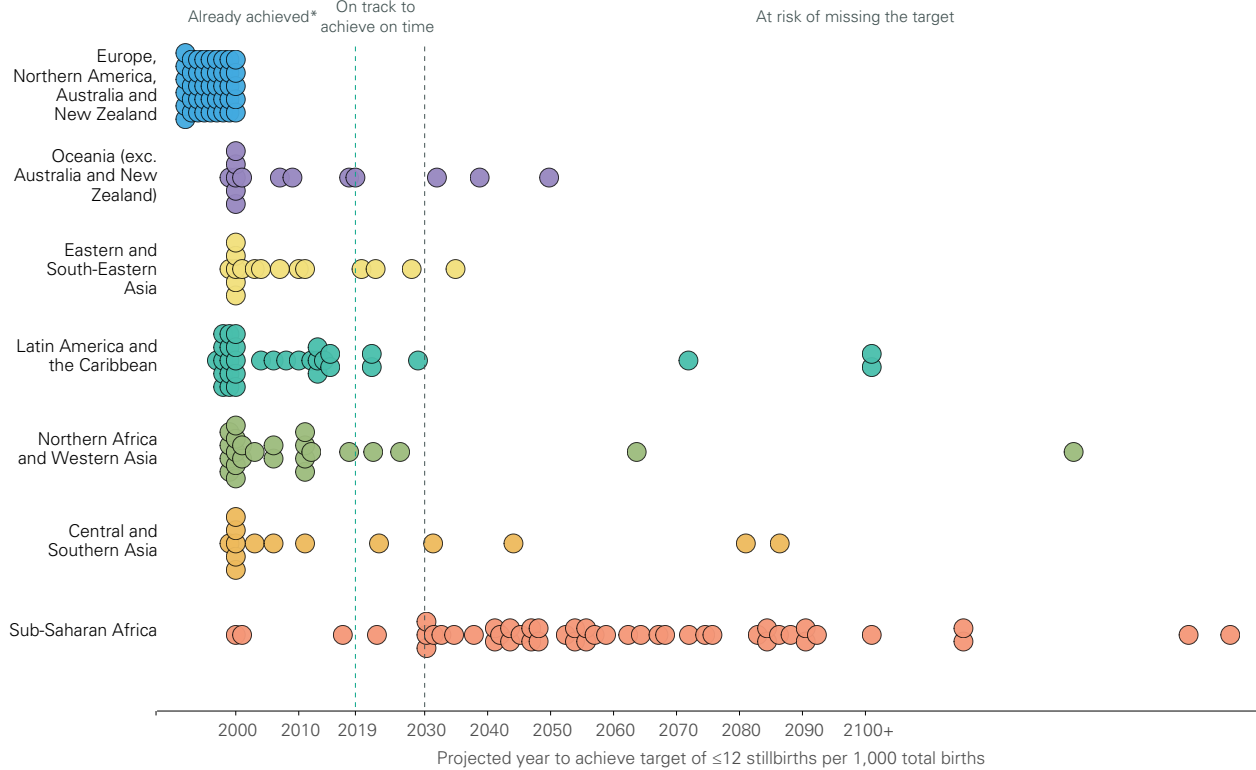
Strong political will, sound policies, and targeted investment along the continuum of care for every mother and child – especially to improve universal access to high-quality antenatal and delivery care – must be put in place now to prevent millions of stillbirths and maternal and neonatal deaths and to ensure a bright future for every baby. Increased accountability for stillbirths and their families is needed to ensure accelerated progress over the next decade.



A 14-day old baby girl, one of a pair of twins born in Godada village, India.

56 countries are at risk of missing the ENAP stillbirth target by 2030

Figure 10: Projected year to achieve ENAP stillbirth target if current trends continue, by country and Sustainable Development Goal region



Note: Each dot represents a country. *Countries plotted on 2000 had a stillbirth rate of 12 or fewer deaths per 1,000 total births that year. In this case, the dot does not refer to the year they achieved the target as the estimates only start in 2000, and the stillbirth rate of 12 may have been achieved prior to that year.

Sub-Saharan Africa

- Angola
- Benin
- Botswana
- Burkina Faso
- Burundi
- 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
- Mozambique
- Namibia
- Niger
- Nigeria
- Rwanda
- Senegal
- Sierra Leone
- Somalia
- South Africa
- South Sudan
- Togo
- Uganda
- United Republic of Tanzania
- Zambia
- Zimbabwe

Central and Southern Asia

- Afghanistan
- Bangladesh
- Nepal
- Pakistan

Latin America and the Caribbean

- Dominica
- Haiti
- Saint Vincent and the Grenadines

Oceania (exc. Australia and New Zealand)

- Kiribati
- Nauru
- Papua New Guinea

Eastern and South-Eastern Asia

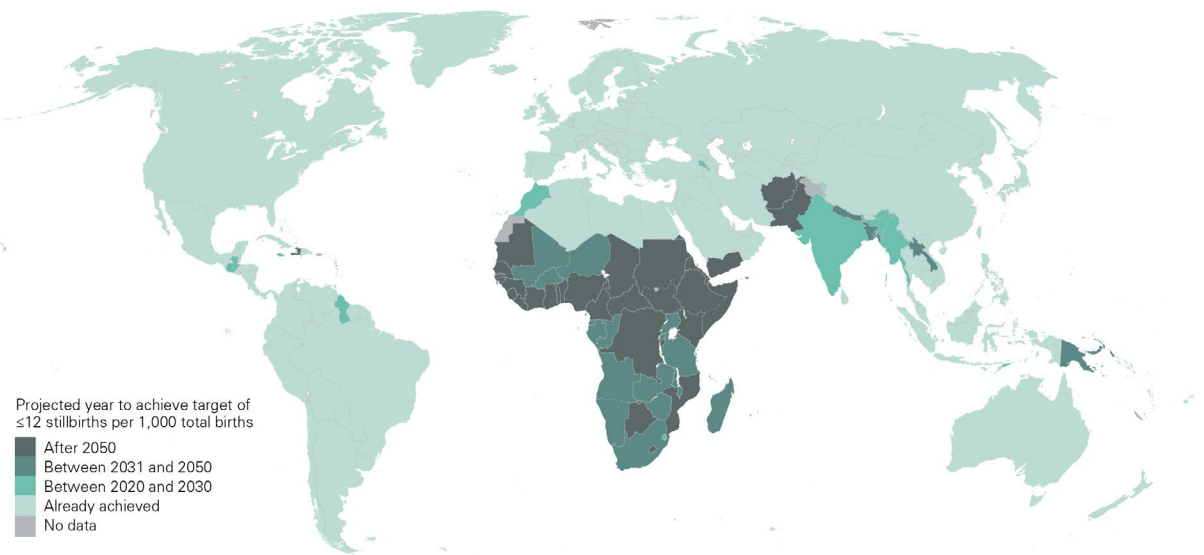
- Lao People's Democratic Republic

Northern Africa and Western Asia

- Sudan
- Yemen

Many sub-Saharan African countries are at risk of missing the stillbirth target

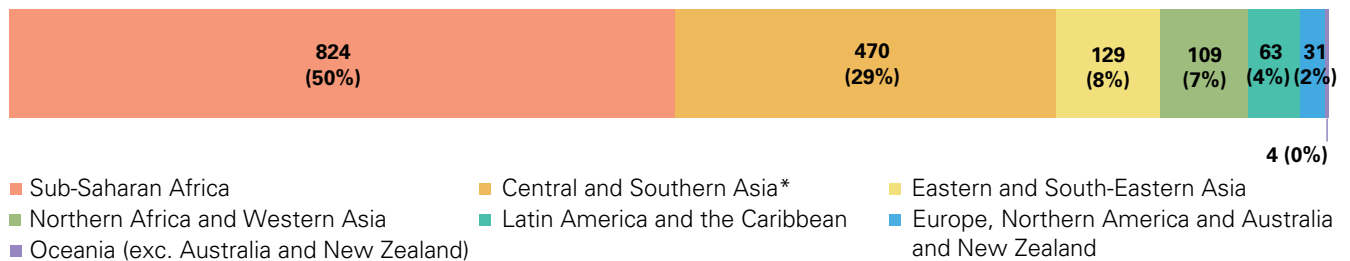
Map 3: Projected year to achieve ENAP stillbirth target if current trends continue, by country



Note: Categories are based on unrounded numbers. Map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

With current trends, more than half of all stillbirths in 2030 will occur in sub-Saharan Africa

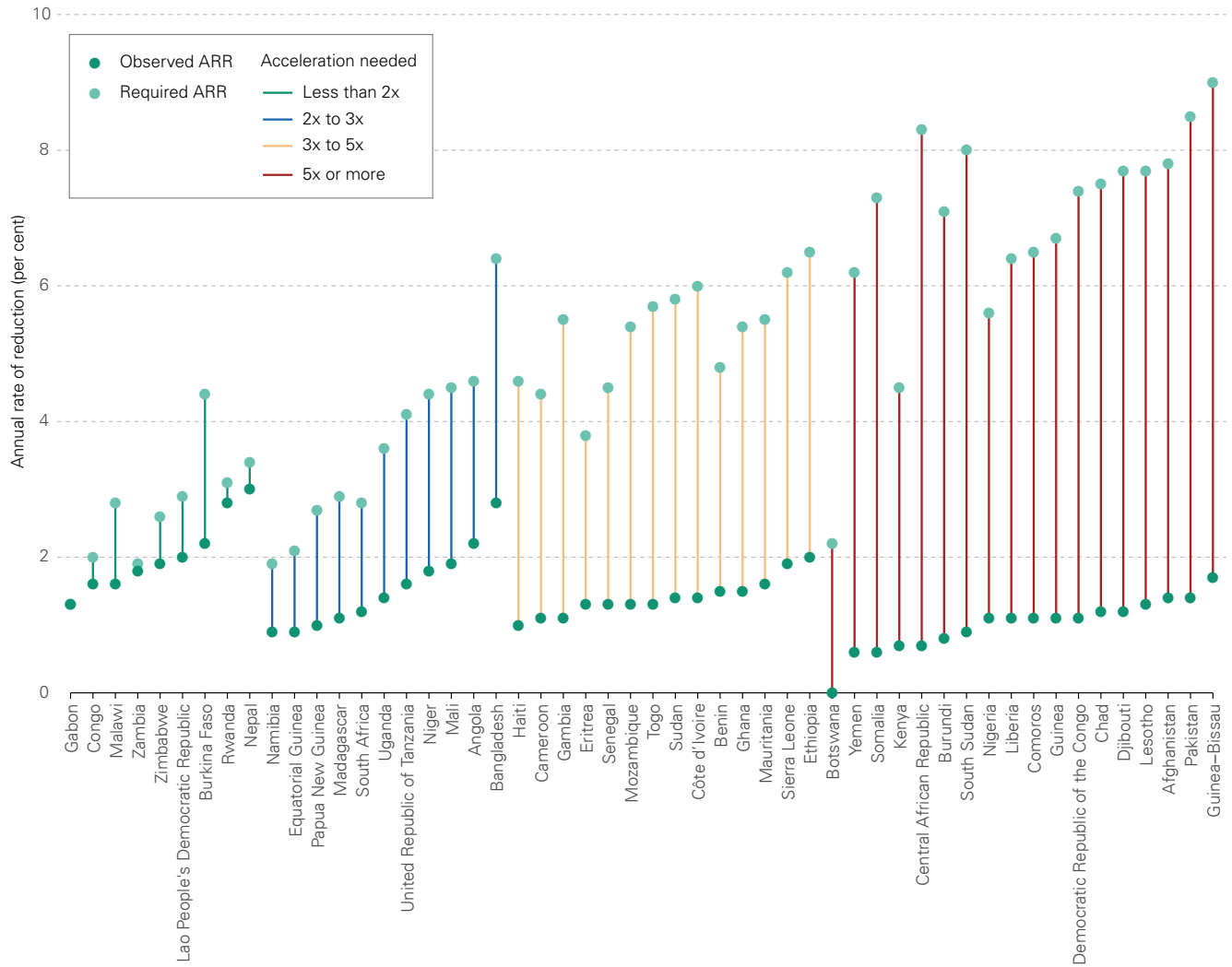
Figure 11: Projected number of stillbirths (in thousands) in 2030 if current trends continue, by Sustainable Development Goal region



Note: The first number cited for each region or income group refers to the number of stillbirths (in thousands); the second is the share of stillbirths by region. *Of Central and Southern Asia's 29 per cent share of global stillbirths in 2030, Central Asia will account for 0.5 per cent and Southern Asia for nearly 28 per cent.

Substantial acceleration is needed to achieve the ENAP stillbirth target

Figure 12: Annual rate of reduction (ARR) achieved in 2000–2019 and ARR required in 2020–2030 to meet the ENAP stillbirth target, in countries at risk of missing the target by 2030



Note: 'Countries at risk of missing the target' refers to those not on track to achieve the ENAP stillbirth target by 2030 if current trends continue.

Lives that could be saved

Without urgent action, millions of families will experience the tragic stillbirth of a baby in the next decade. The decisions and policies made today will determine where things stand in 2030, and if the ENAP target will be met. This translates into lives saved – or lost. The differences between slowing, maintaining or accelerating momentum are stark.

Over the last two decades, some progress has been seen in reducing the stillbirth rate by investing in high-quality antenatal and delivery care. Without continued investment, the momentum of the last 20 years will diminish and lives will be needlessly lost. If the stillbirth rate for each country stays at the 2019 level, 22.1 million babies will be stillborn between now and 2030 (see Figure 13). Even more babies could be stillborn if investment is paused and stillbirth rates increase.

If the world sustains the progress made in the past two decades through 2030, 2.6 million more babies will live. The second scenario promises a better world

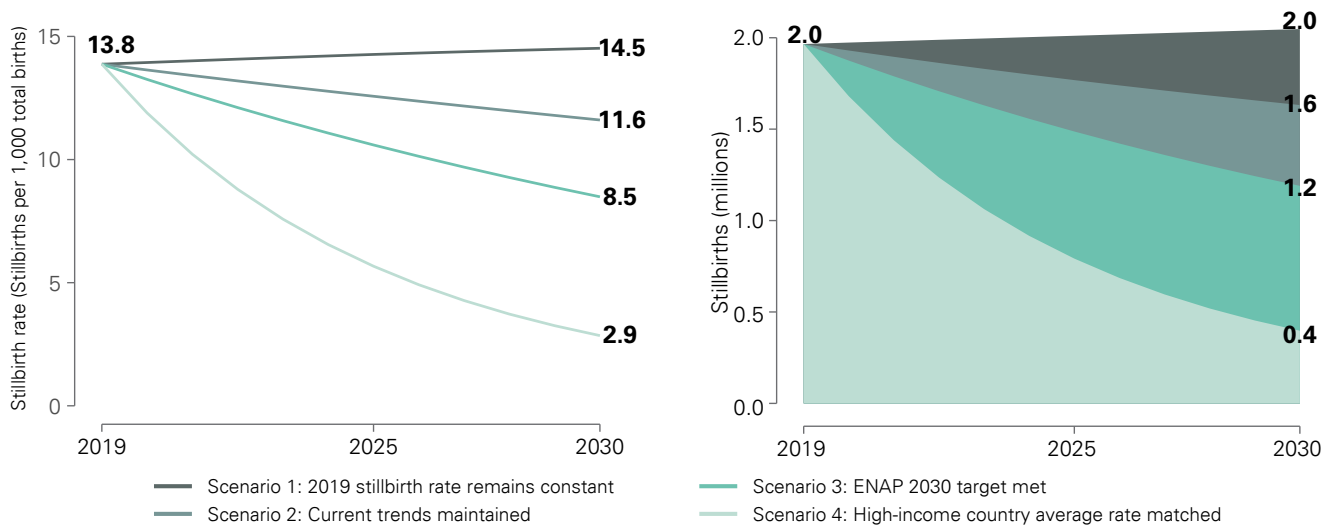
for women and children, but one that still involves the loss of 19.5 stillborn babies from 2020 to 2030.

The world must do better. If progress is accelerated to meet the ENAP target by 2030, 16.6 million babies are projected to be stillborn over the next decade – and an additional 2.9 million lives will be saved. The lives of these girls and boys depend on accelerated progress. About 7 in 10 of these preventable deaths would involve sub-Saharan African children. If countries meet the ENAP target earlier – which is possible, in some countries – even more babies will get the chance to live.

More ambitiously, if each country’s stillbirth rate reached or fell below the current average rate in high-income countries (3.0 stillbirths per 1,000 total births) by 2030, an additional 6.6 million lives could be saved. Although this scenario is aspirational, it shows what is possible with strong health systems and high-quality care.

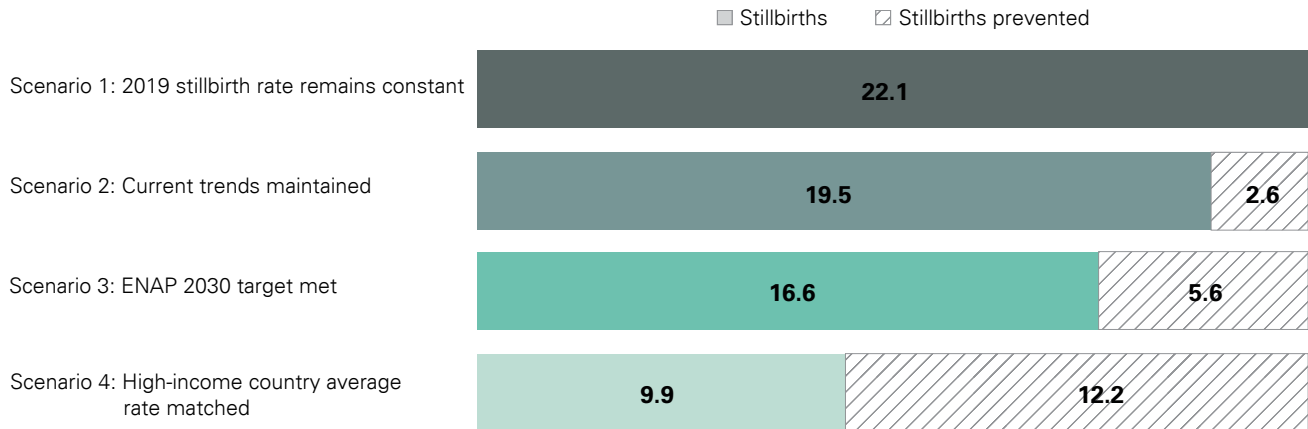
Meeting the ENAP target could prevent millions of stillbirths

Figure 13a. Projected global stillbirth rates and number of stillbirths by different scenario (2020–2030)



Note: The increasing number of stillbirths in the ‘2019 stillbirth rate remains constant’ scenario is the result of the growing size of births and the shift of the population share towards high-mortality regions over the next 11 years.

Figure 13b. Lives saved with accelerated progress compared to the 2019 stillbirth rate remaining constant (in millions)



Note: Calculations are based on unrounded numbers and displayed rounded numbers therefore may not sum up.

Projection scenarios explained

Four projection scenarios provide insight into how current trends in stillbirths will impact future lives, and how much progress is needed to meet critical goals.

Scenario 1: 2019 stillbirth rate remains constant

For each country, the stillbirth rate for 2020 to 2030 remains at the 2019 level; in other words, progress is halted.

Scenario 2: Current trends maintained

For each country, the 2020 to 2030 trend in stillbirth rate is equal to the estimated country-specific declines for 2000 to 2019 (as measured by annual rate of reduction). If a country has an increase in the stillbirth rate from 2000 to 2019, projections from scenario 1 (constant stillbirth rate) are used.

Scenario 3: ENAP 2030 target met

For each country, the stillbirth rate in 2030 is equal to 12 deaths per 1,000 total births (the upper bound of the ENAP target) and annual rates of reduction for 2020 to 2030 are calculated based on the country's stillbirth rate in 2019 and the ENAP target; this means declines in stillbirth rate may be accelerated to meet the target by 2030. For countries that have already reached the target or are on track to reach the target before 2030 based on scenario 2, projections from scenario 2 are used.

Scenario 4: High-income country average rate matched

The same projection strategy as in scenario 3 is used, except that the 2030 stillbirth rate target is 3.0 stillbirths per 1,000 total births – the average stillbirth rate in high-income countries as of 2019.

COVID-19 and stillbirths

There is still much to learn about the relationship between COVID-19 and stillbirth; to date, evidence of the direct impact of COVID-19 on pregnancy outcomes is limited.^{36, 37}

However, it is likely we will see consequences for the stillbirth rate, as seen in 'Projecting the indirect impact of COVID-19 on stillbirths' on p. 43. For many pregnant women around the world, the pandemic has meant weakened health care systems and inability to access quality care, including new obstacles to care, such as reduced transport options and fear of contracting the virus.

Due to the shortage of human resources to respond to the COVID-19 outbreak, maternity health workers and midwives in hospital and community settings across countries of different income levels have been tasked with additional work. This can mean essential maternal and newborn services are less available to mothers and children.

Experience with past epidemics like the 2014 Ebola outbreak in West Africa shows that use of vital services that ensure healthy pregnancies and deliveries – such as antenatal care visits and institutional deliveries – decreased substantially during the outbreak³⁸ and contributed to increased counts of stillbirths.³⁹ Moreover, these services may be slow to recover, with subsequent stillbirths occurring for an extended period after the initial outbreak.³⁸

The COVID-19 pandemic has also disrupted supply chains for essential medicine and equipment, impacting health care workers' ability to ensure adequate and quality antenatal and intrapartum care.⁴⁰ Additionally, lack of access to family planning counselling and

contraception and safe abortion services can increase the number of unplanned pregnancies at higher risk of miscarriage or stillbirth.⁴¹

The impact of these factors on stillbirth will likely vary greatly within and between countries. Pregnant women in fragile and conflict-affected settings where the majority of stillbirths occur are especially vulnerable and at greatest risk given their already limited access to care. Even in high-income country settings, women in marginalized and disadvantaged communities – such as indigenous, migrant and refugee populations and other groups with low socioeconomic status – may face greater and longer-term risks.

Country-level policies and mitigation efforts, severity of the outbreak, and strength of the existing health care system, coupled with baseline stillbirth levels, will undoubtedly contribute to the number of excess stillbirths observed due to COVID-19. The true impact is yet to be seen and will rely on reporting and collecting available data at a time when health and vital registration systems are already overburdened.

Alongside the additional lives expected to be lost, there is already evidence that COVID-19-related issues are impacting women and their partners after delivering a stillborn, including forced isolation of mothers delivering babies in facilities and reduced or even absent bereavement care following a stillborn death. The pandemic is depriving many parents of a sense of control over their care and experience around birth; this is even more pronounced for those whose child is stillborn. The resulting mental health consequences of this time may be severe and long lasting.^{1, 42}

Projecting the indirect impact of COVID-19 on stillbirths

COVID-19 has disrupted health services around the world – including care for women antenatally and during birth. This will likely mean more women lose a child to stillbirth. To understand how severe these effects might be, three possible health service disruption scenarios of increasing severity were modelled for 117 low- and middle-income countries (see Roberton).⁴⁰ Mild (around 15 per cent), moderate (around 25 per cent) and severe (around 50 per cent) declines from pre-pandemic levels were considered, impacting coverage of eight key interventions that prevent stillbirths (see Annex for details on methods).

It is estimated that anywhere from nearly 60,000 (mild disruption) to 200,000 (severe disruption) additional stillbirths could occur over a 12-month period as a result of COVID-19 health service disruptions. These levels would translate to a global increase in the number of stillbirths ranging from 3.2 per cent (mild disruption) to 11.1 per cent (severe disruption). At country level, with severe disruption, 13 countries could see the number of stillbirths over a 12-month period increase by 20 per cent or more, with a maximum percentage increase as high as 26.6 per cent. These projections may underestimate the additional stillbirth burden that could occur as some base intervention coverage estimates may be conservative.

The greatest potential indirect impacts of COVID-19 on stillbirths were estimated to

occur in countries where pre-pandemic levels of antenatal and childbirth care were relatively high. Countries with low coverage of stillbirth interventions prior to the pandemic were estimated to have small increases in stillbirths. This highlights the pre-existing inequalities and lack of critical interventions in many countries prior to the additional burden of the pandemic.

Overall, few women were receiving timely and high-quality care to prevent stillbirth before the pandemic began. For the eight intervention indicators in the 117 countries analysed, the median coverage of interventions ranged from 2 to 50 per cent, indicating that in half of these countries, only 2 to 50 per cent pregnant women received the necessary care. Over a quarter of the 117 countries had less than 20 per cent coverage for six or more key interventions. Coverage for assisted vaginal delivery – critical to preventing intrapartum stillbirths – is estimated to reach less than half of pregnant women in the countries studied. Even lower levels of coverage are estimated for other key interventions.

It is unacceptable that so many pregnant women in resource-limited countries are struggling to receive the care to prevent a stillbirth – even without the disruptions caused by COVID-19. The COVID crisis will continue to exacerbate the ongoing crucial global health issue of stillbirths unless critical interventions are made available to every woman, worldwide.

THE WAY FORWARD: ESSENTIAL ACTIONS AND RECOMMENDATIONS







A UNICEF-supported midwife listens to the heartbeat of a 9-month-old unborn baby at the Auno health clinic in north-eastern Nigeria. She became a midwife because her mother's last child – her youngest sibling – was stillborn.

© UNICEF/UN0158796/Naftalin



There is hope, but only if we act, together, now

Collectively, by:

-  Raising voices, increasing awareness, reducing stigma, taboo and misconception
-  Supporting bereaved women and families
-  Strengthening health systems to provide high-quality care
-  Nationalizing and localizing stillbirth targets
-  Realizing equity in every country and region through sustained investments
-  Improving measurement of stillbirths to enhance evidence and knowledge

An integrated programmatic approach within the continuum of care

Preconception care

- Maintain and improve health and nutrition, including folic acid intake
- Improve access to comprehensive family planning services
- Protect girls and promote adolescent health

Pregnancy care

- Support linkages to the community to empower women and families to demand quality health care services
- Train health care workers and midwives to provide appropriate preventative care and support in case of stillbirth
- Ensure access to functional and sanitary health facilities, medicines and equipment
- Monitor and manage fetal growth restriction
- Prevent and manage infectious diseases, obesity, diabetes and hypertension

Labour

- Provide intrapartum monitoring for every woman and baby
- Ensure referral pathways and remove barriers to specialized care
- Invest in implementable clinical pathways to manage intrapartum complications
- Provide assisted vaginal or C-section deliveries if needed
- Provide post-term labour induction if appropriate

Postnatal care

- Deliver high-quality postnatal care package to all women and babies
- Support the woman, her family and the community following a perinatal death

Perinatal audit and response

Respectful care

The fact that over 5,000 women experience the hardship of stillbirth every day is unacceptable – not least because most of these babies’ lives could have been saved. Countries, international organizations, health communities and other partners must act now to stop this unnecessary loss of life.

Investing in regions and countries with a high burden and realizing equity in every country and region

Eliminating preventable stillbirths requires strong political commitment and sustained investments. Sub-Saharan Africa, the region with the highest stillbirth rate and the greatest number of stillbirths, is of particular concern. Relatively slow progress in preventing stillbirths over the past two decades has left mothers in this region far behind. Sub-Saharan Africa also endures the lowest coverage of skilled attendants at birth, lowest C-section rates and greatest gaps in trained human resources for health. The region’s rapid population growth has introduced new challenges in providing essential health services, cancelling out the gains from a declining stillbirth rate and resulting in a slightly increased number of stillbirths over time.

It is projected that the number of women of reproductive age in sub-Saharan Africa will continue to grow, increasing from 263 million in 2020 to 349 million in 2030 and to 548 million by mid-century.⁴³

The number of pregnancies and of total births are also expected to increase substantially, putting health services under greater strain. If current trends continue, 43 sub-Saharan countries are not on track to meet the ENAP stillbirth target. Among them, 36 must at least double their rate of progress to achieve the goal. Without acceleration, 5 in 10 stillbirths will occur in sub-Saharan Africa by 2030. Renewed efforts and investments are urgently required to prevent stillbirths in sub-Saharan countries.

Southern Asia is another region demanding focused attention, with the second highest stillbirth rate and number of stillbirths in the world. In countries with low stillbirth rates, much work still remains to give every baby a fair chance of survival. Reaching out to poor communities and households is essential to further reduce stillbirths and accelerate progress.

Strengthening health systems and providing high-quality care

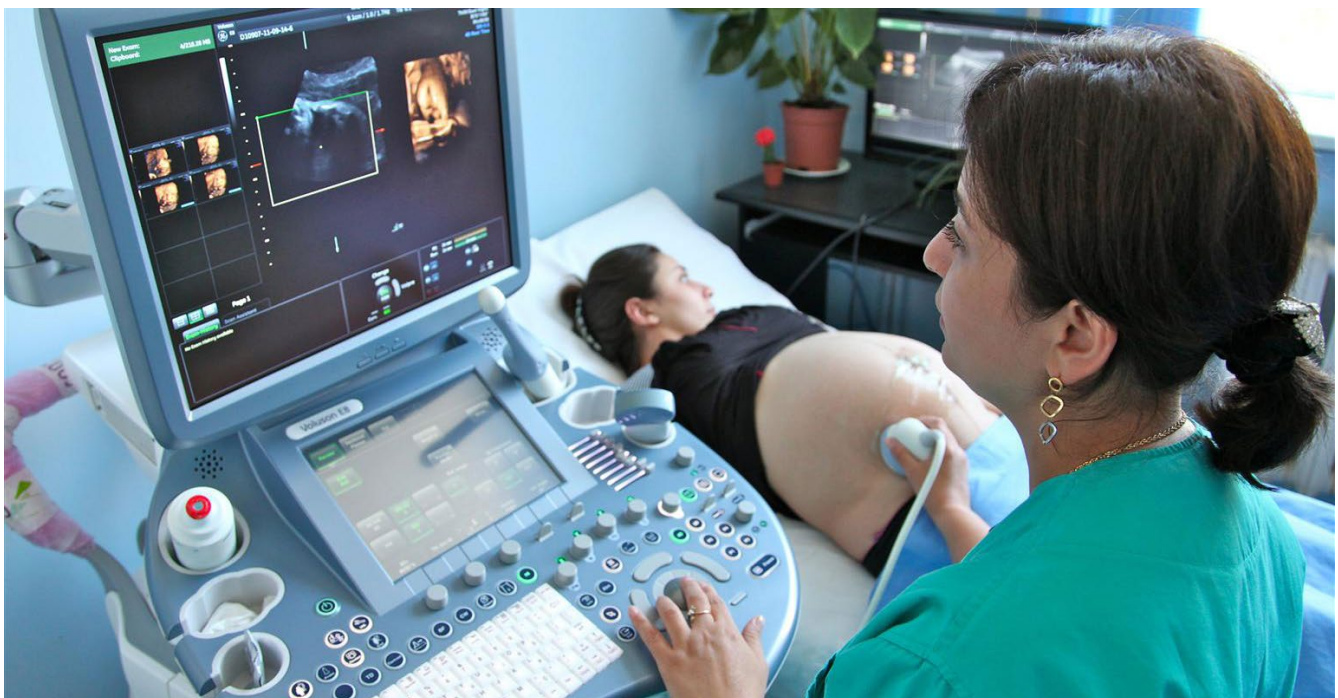
Stillbirth prevention and response cannot be a standalone issue. An integrated programmatic approach within the continuum of care for women and children is needed.² This includes planning and preconception care to improve reproductive health, high-quality antenatal care to promote a healthy pregnancy, high-quality care during delivery to support a safe birth, and respectful, supportive care for the woman, her family and the community if a death occurs.

Access to comprehensive family planning services must be improved, along with education and programmes that empower women to delay first pregnancy if desired and to space subsequent pregnancies, thus allowing women to maximize their own and their children's health.

Improved health systems and high-quality antenatal and delivery care are critical to end preventable

stillbirths. This means access to functional health facilities with adequate medicine and equipment, electricity, running water, soap and blankets and availability of round-the-clock referral systems every day of the week. Adequate numbers of competent health care workers are essential, including midwives in the public and private sectors trained to national and international standards. Finally, linkages between functional health systems and women and their families are important in order to foster demand for services and accountability for care.

Key interventions during pregnancy are outlined in WHO recommendations on antenatal care for a positive pregnancy experience. This includes eight contacts with a health provider throughout pregnancy to reduce the risk of stillbirths.⁴⁴ Specific interventions include diagnosis and treatment of maternal infections such as malaria and syphilis; management of maternal hypertension, diabetes, HIV, alcohol and



In the antenatal care unit of a UNICEF-supported neonatal centre in Baku, Azerbaijan, a medical technician nurse performs an ultrasound scan on a woman who is nine months pregnant during a routine antenatal check-up. © UNICEF/UNI117113/Pirozzi

substance abuse; detection and management of fetal growth restriction; and birth preparedness, including planning for transport. A model of antenatal care where women, partners and health providers work together to improve the health of the woman-baby dyad throughout pregnancy and into infancy must be promoted.

In the intrapartum period, quality and respectful care during birth is essential. Specific interventions in the WHO recommendations for intrapartum care for a positive pregnancy experience include intrapartum monitoring for every woman and her baby, with suitable equipment (e.g., fetal heart doppler, blood pressure monitoring devices) and adequately

resourced clinical pathways to manage complications, such as access to assisted delivery, emergency C-section, blood and appropriate drugs (e.g., magnesium sulphate), and neonatal resuscitation.⁴⁵

To address maternal and newborn deaths and stillbirths and provide good-quality care, WHO and UNICEF launched the Network for Improving Quality of Care for Maternal, Newborn and Child Health (Quality of Care Network),⁴⁶ a broad partnership of committed governments, implementation partners and funding agencies. The goal is to halve maternal and newborn deaths and stillbirths in health facilities by 2022 and improve patients' experience of care in participating health facilities in 10 Network countries.

Counting and tracking stillbirths, improving measures and enhancing evidence, knowledge and research

Data are essential to understanding the burden of stillbirths and identifying where, when and why they occur. They also provide the necessary evidence to implement and monitor interventions. But as Figure 14 shows, stillbirth data availability is limited in many countries, particularly in low- and middle-income countries, and data quality is often poor. Among the 195 countries for which the UN IGME generates stillbirth estimates, 62 countries – nearly a third – have either no stillbirth data (24 countries) or no quality data (38 countries). Addressing gaps in counting and reporting of stillbirths and improving relevant measures is essential to the prevention of stillbirths.

Immediate actions are needed to strengthen data systems and their ability to collect, analyse and use timely, quality and disaggregated stillbirth data. To improve stillbirth data availability and quality, it is recommended that countries and relevant stakeholders:

- Align the stillbirth definition and measures with international standards
- Integrate stillbirth-specific components within relevant plans for data system strengthening and improvement
- Record stillbirth outcomes in all relevant maternal and newborn health programmes, including routine HMIS (registers and monthly reporting forms)
- Provide training and support to include stillbirths within civil and vital registration systems as the coverage of these systems increases
- Include information on timing of stillbirth (ante-partum or intra-partum) in all settings and record causes and contributing factors to stillbirth where possible
- Report and review stillbirth data locally – at facility or district level – alongside data on neonatal deaths (by day of death) to reduce incentives for misreporting of outcomes, and to monitor potential misclassification

- Collate reported stillbirth rate data up the data system to a national level to enable tracking of progress towards the ENAP target of 12 stillbirths or fewer per 1,000 total births in every country by 2030 and to enable monitoring of geographical inequities

To enhance evidence and knowledge, it is also critical to conduct research to:

- Improve understanding of and identify reasons why stillbirths occur in any given setting to enable development and testing of stillbirth prevention strategies
- Develop improved methods for fetal growth monitoring in routine antenatal care
- Develop improved methods to assess gestational age
- Develop improved methods to implement effective fetal monitoring during labour in all settings
- Identify referral and care pathways and their implementation in different settings
- Develop resources that can be used by women and health providers in high-burden settings to detect babies at risk of stillbirth, building on the body of work around fetal movements from high-income countries
- Understand stigma around stillbirth; how it affects women, families and health workers in different settings; and how it can be overcome
- Develop and test approaches and tools for bereavement care for women and families who experience a stillbirth



Health in Madagascar

An urgent need to address data concerns

Poor availability and quality of stillbirth data pose a major challenge to estimating stillbirth rates. For some countries, vital and medical registration systems, HMIS, or household surveys may not record stillbirths at all. In cases where stillbirth data are captured, non-standard definitions, underreporting or misclassification of stillbirths, and other data quality issues may render the data unusable. The UN IGME measures data quality by using criteria such as the ratio of the stillbirth rate to the neonatal mortality rate. Among the 195 countries for which stillbirth estimates are generated, 24 countries have no stillbirth data, and an additional 38 countries lack quality stillbirth data. For 62 countries, the UN IGME stillbirth estimates are derived using covariates without empirical stillbirth data included in the model.

Data availability and quality is uneven among regions: Due to data quality concerns, 46 per cent of data points on stillbirths are excluded from the UN IGME model. While in the group of high-income countries less than 20 per cent of the national data on stillbirths are excluded in the modelling, in low- or lower-middle income countries over 70 per cent are excluded due to data quality issues. Only 18 per cent of the national stillbirth data informing the estimates

are from low- and lower-middle income countries. More than 40 per cent of low- and lower-middle income countries do not produce usable stillbirth data.

Data availability also varies by region. Apart from the Europe, Northern America, Australia and New Zealand region, around a third of countries in the remaining regions have no quality stillbirth data. The proportion increases to 44 per cent in sub-Saharan Africa and 86 per cent in Oceania (excluding Australia and New Zealand). In sub-Saharan Africa, an additional 23 per cent of countries have less than five data points over the past two decades, and only 8 per cent have more than 10 data points.

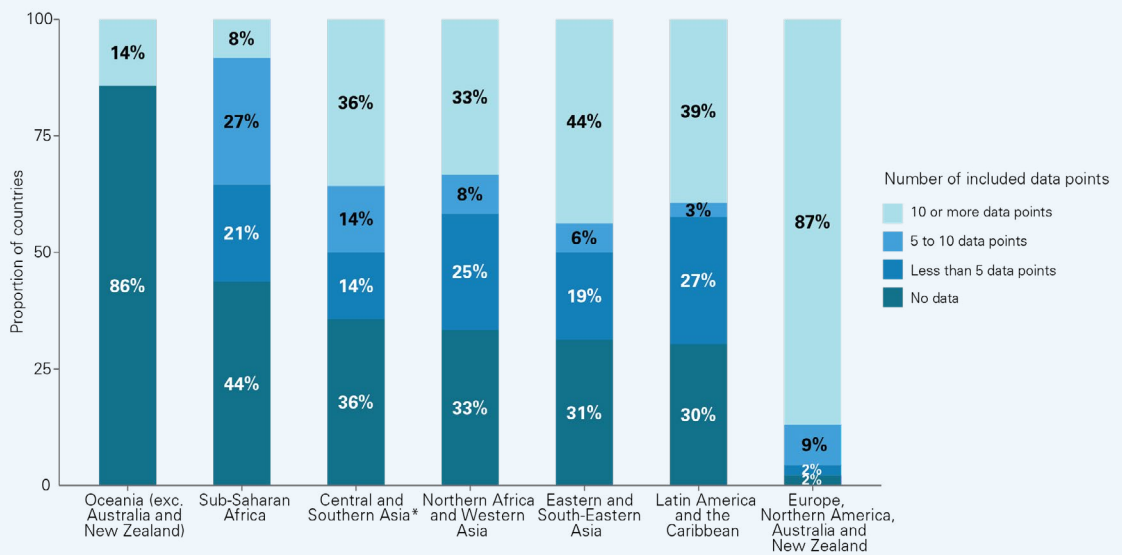
In the 62 countries with no quality stillbirth data, 31 million live births are estimated to have occurred in 2019 alone – accounting for 22 per cent of live births worldwide. It is estimated that these 62 countries account for 29 per cent of global stillbirths. This highlights the immediate need to increase the reporting of stillbirths and improve data quality for planning and programming. Strengthening data collection and improving data quality in HMIS and household surveys is key to fill the enormous data gaps.

Figure 14: Availability of stillbirth data is limited in many countries

14a) Number of data points available, by income group



14b) Proportion of countries by number of data points that meet quality criteria to be included in the UN IGME model, by Sustainable Development Goal region



Note: *In Central and Southern Asia, 36 per cent of countries had no data available or data did not meet quality criteria for inclusion; this proportion was 60 per cent in Central Asia region alone and 22 per cent in Southern Asia.

Increasing awareness and raising voices

The invisibility of stillbirths is not only apparent in data and statistics. It is also an issue at community and social levels. Stillbirths are often regarded as inevitable events and may be grouped with miscarriages for reporting.^{47, 48} In some cultures, stillbirths are perceived as the mother's fault, resulting in public shaming or individual feelings of guilt or shame that prevent public mourning of their loss.^{47, 49, 50} Moreover, the lack of opportunity to publicly grieve can cause stillbirths to be considered "non-events". These social taboos, stigmas and misconceptions often silence families or impact the recognition and grieving of stillbirths, contributing to their invisibility.

Stillbirths are often excluded from the public health agenda at country, regional and global levels. This lack of attention may be the result of unclear and inconsistent definitions, poor data availability and quality, inadequate understanding of mechanisms and risk factors, and fatalism about stillborn babies, as well as the silence that can surround the topic.^{51, 52} In some countries, stillbirths are perceived as rare, accounting for a negligible fraction of the burden of disease in countries or at global level. Ending preventable stillbirths was not included in the MDG agenda and is still absent from the SDGs.^{2, 52}

In 2014, a national stillbirth rate of 12 stillbirths or fewer per 1,000 total births was set as a target for all countries to achieve by 2030 as part of the ENAP and later the Global Strategy for Women's, Children's

and Adolescents' Health.¹¹ But only 23 per cent of high-burden countries have included these targets in national health plans. Lack of well-defined agendas and national or global targets or goals impedes investment in and visibility of stillbirths.

Raising awareness of the burden of stillbirths and amplifying the voices of bereaved parents in policy and action are important to:

- Understand and remove social taboos, stigmas and misconceptions that silence families who have a stillborn child and reduce recognition and grieving
- Facilitate opportunities for women and families to demand high-quality, respectful maternity care
- Target actions to actively involve parents in receiving high-quality care and in their child's death review, where applicable, and nurture stillbirth champions⁵³
- Ensure national-level actors, governments and global organizations include stillbirths when acting for women and children
- Include stillbirths in all relevant maternal and newborn health investments, policies and programmes
- Improve data availability and quality to provide strong evidence on the burden of and risk factors for stillbirths and the importance of ending preventable stillbirths

Policies for family support and counselling

A stillborn baby can be a devastating life event for women and their partners and families. The grief that results after a stillbirth has been described as complex and unique, in part because of a lack of acceptance or legitimization of the grieving process by society. Women and their partners who experience stillbirth have higher rates of depression, anxiety, and other psychological symptoms that may be long lasting.¹ For many women, losing their child and the care they receive will impact their approach to life and death, self-esteem, and even their own identity. They may feel less valued as members of society and stigmatized.⁵² Many women who experience a stillbirth may avoid people or social activities, socially isolating themselves and worsening depressive symptoms in the short and long term.⁴² Negative psychological effects may continue into subsequent pregnancies, even following the birth of a healthy child. Policies for individualized care for subsequent pregnancies are needed.⁵⁴

Studies show that professional services, support from family, and local social networks that enable parents to share experiences may lower rates of depression and improve mental health.^{55, 56} In low- and middle-income countries, some reports show that the main support mechanisms were family and local religious communities, rather than health care professionals and wider society as noted in high-income countries.⁵⁵ In low- and middle-income settings, interventions designed to improve emotional and informational support may depend on enhancement of community esteem for those who have had a stillbirth, including through religious groups. In all settings, networking and support interventions that promote belonging are important mechanisms for improving women's well-being after a stillbirth.

Although women, partners, and their families are most profoundly affected by stillbirths, effects on health care providers are also substantial.

Some studies show that many midwives are not adequately prepared for stillbirths and unable to appropriately support women when stillbirth occurs.⁵⁷ These issues can be addressed by education, training, and provision of formal and informal support during and after stillbirth. It is critical to develop a bereavement care package that can be adapted to different cultural settings, offer bereavement training as a standard part of obstetric and midwifery training, and prepare health care workers to deliver respectful bereavement care, recognize abnormal grief reactions and make referrals to appropriate mental health services where available.⁵⁷

A number of key elements are needed to reduce the effects of stillbirth on bereaved parents and families:

- Reducing stigma by increasing awareness of stillbirth within communities
- Providing respectful maternity care to bereaved women, their babies and their families
- Supporting women and families to make shared, informed and supported decisions about birth options
- Investigating and identifying contributing factors to provide an acceptable explanation to women and families for the death of their baby
- Acknowledging the depth and variety of normal grief responses associated with stillbirth and offering appropriate emotional support
- Providing information for women and their families about future pregnancy planning
- Enabling the highest quality bereavement care by providing comprehensive and ongoing training and support to all members of the health care team
- Listening to women and their partners about their needs

Nationalizing and localizing targets

Although the SDGs do not include ending preventable stillbirths as a target, the global public health community realized the urgent need to prevent stillbirths and set stillbirth targets through the ENAP initiative and the Global Strategy for Women's, Children's and Adolescents' Health. However, many countries have not prioritized improving stillbirth outcomes. As per the 2019 ENAP report, only 30 of the 90 reporting countries had a defined stillbirth target, as compared to 78 countries that had a national target on neonatal mortality.⁵⁸ This gap reflects the lack of political will to invest in ending preventable stillbirths.







Setting clear goals and nationalizing and localizing targets often accelerate progress in improving child survival and health, as seen in the MDG era and results seen in reducing under-five mortality. When a goal is outlined in national or local development plans, policies and investment usually follow. Strong commitment is needed to include stillbirths as a national health priority area and in development strategies and plans, particularly for low- and middle-income countries with high stillbirth rates but slow progress. Even in high-income countries with relatively low stillbirth rates, much work is still needed to reduce rates for vulnerable populations and reduce inequity.

A strong call for immediate action

Though the burden of stillbirths is enormous, it remains largely unseen and unaddressed. The world has suffered the great loss of 48 million stillborn babies over the past two decades; that number will grow by 20 million between now and 2030 if current trends continue. Ending preventable stillbirths does not necessarily require new or innovative interventions, but rather expanding quality and respectful pregnancy and delivery care for all women and families.

International organizations, countries, public health communities and donors must act now to ensure strong political will and sustained investments. Sound strategies, effective interventions, and robust monitoring and data collection linked to strong accountability mechanisms must be in place to prevent future stillbirths. This is the only way to ensure every child has a fair chance.

Renew commitment to the Call to Action to End Preventable Stillbirths by 2030, to ensure

-  12 stillbirths or fewer per 1,000 total births in every country
-  All countries set and meet targets to close equity gaps and use data to track and prevent stillbirths
-  Universal access to sexual and reproductive health care services and integration of reproductive health into national strategies and programmes
-  Universal quality of care and comprehensive antenatal care for all women
-  Effective and respectful intrapartum care for all women in all countries, including bereavement support after a death and support for those providing stillbirth care
-  All countries identify mechanisms to reduce stigma associated with stillbirth among stakeholders, particularly health workers and communities

Country consultations

UNICEF and WHO, on behalf of the UN IGME, undertook joint country consultations in early 2020 to give each country's ministry of health, national statistics office or other relevant agency the opportunity to review data inputs, estimation methodology, and draft estimates for national stillbirth rates. The objective was to identify relevant additional data that were not included in the database and to allow countries to review and provide feedback on the methodology and the estimates. In total, 102 countries provided

feedback to the process and 84 provided new or updated data. Northern Africa and Western Asia was the region with the largest number of countries to send additional data, with nearly 67 per cent of countries (16 of 24) providing new or updated stillbirth figures. After the country consultation, the estimation model was rerun for all countries using the new and updated database. Countries were informed of the final estimates.



A data operator at Prabhawati Hospital's Special Newborn Care Unit (SNCU) in Gaya, India, collects and analyses daily data from every SNCU case, playing a key role in translating data into action steps for clinicians.

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ANNEX

Estimating stillbirth rates

The United Nations Inter-agency Group for Child Mortality Estimation (UN IGME) was established in 2004 to advance the work on monitoring progress towards the achievement of child survival goals regarding child mortality. The group is led by UNICEF and includes members of the World Health Organization (WHO), the United Nations Population Division, and the World Bank Group.

Since 2018, UN IGME has been working on estimating stillbirth indicators. Stillbirths are a marker of maternal health, as well as access to quality care during pregnancy and around the time of birth. Ending preventable stillbirths is among the core goals of the UN’s Global Strategy for Women’s, Children’s and Adolescents’ Health (2016–2030)¹¹ and the Every Newborn Action Plan (ENAP).¹² These global initiatives aim to reduce the stillbirth rate to 12 or fewer third

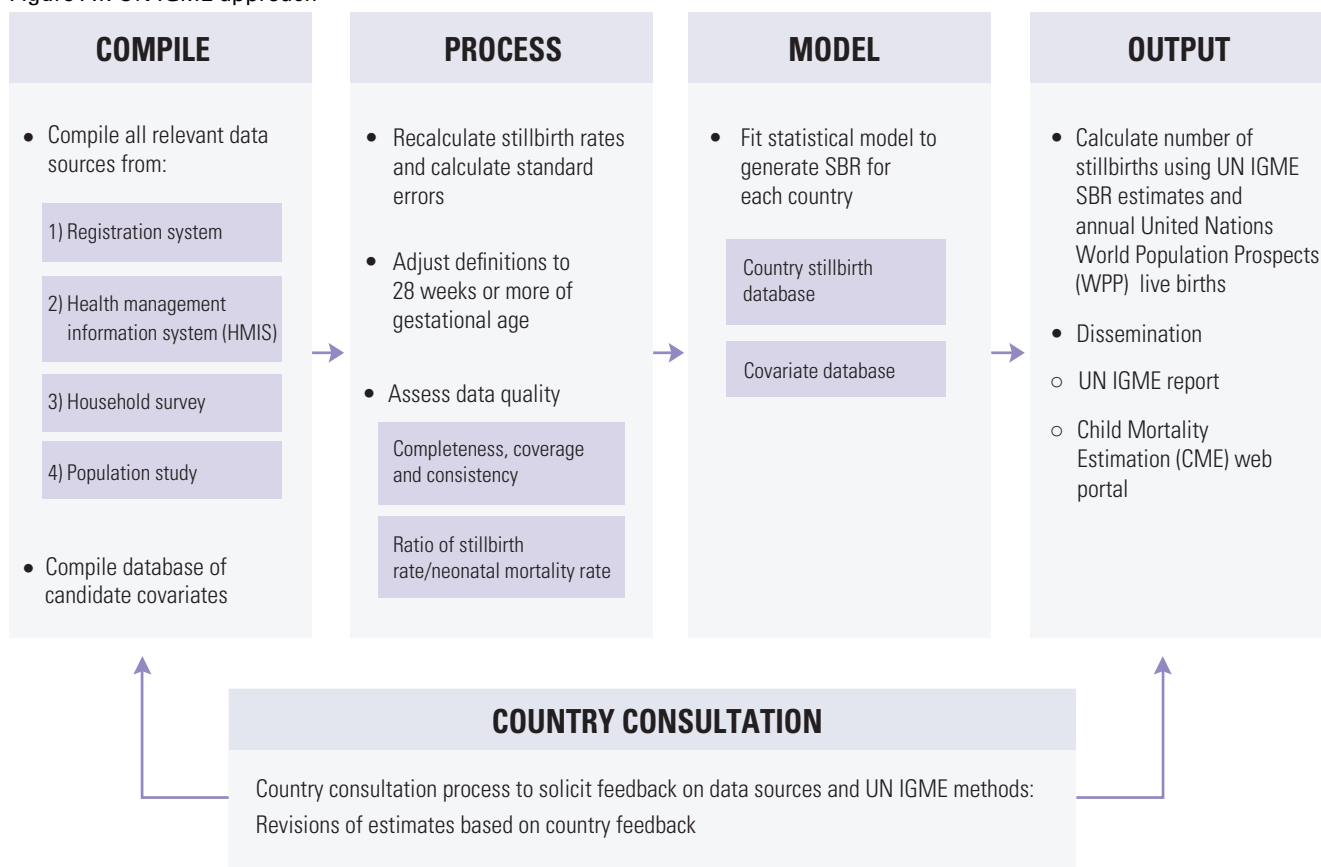
trimester (late) stillbirths per 1,000 total births in every country by 2030.

UN IGME stillbirth estimates are produced in consultation with countries on their national estimated stillbirth rates.* At the end of country consultations, the estimation model is run again incorporating any data amendments emerging from the consultation process. For this reason, the final estimates may differ slightly from the provisional estimates reviewed during the country consultation, as they depend on the final results of all the countries.

These estimates will also be published in the next issue of UNICEF’s *The State of the World’s Children* report and in the WHO’s Global Health Observatory.

The methods used to generate the UN IGME estimates of stillbirth rate and the number of stillbirths are summarized in this document. Estimates by the UN IGME may differ from the official statistics

Figure A1: UN IGME approach



* Throughout the document, ‘stillbirth’ refers to third trimester (late) stillbirth.

by Member States, which may use alternative and equally rigorous methods.

Strategy

The UN IGME's approach to estimate stillbirth rates includes the following steps (see Figure A1):

1. Compile all available stillbirth data at a country level, derived from administrative sources, household surveys or population-based studies
2. Evaluate data in accordance with the data quality criteria and produce adjustment or recalculation by applying standardized definitions
3. Estimate global and country-specific trends of stillbirth rates using a smoothing time series model, supplemented with covariates associated with stillbirth rates. This process averages empirical data on stillbirths derived from the different sources for a given country. In the case of countries with sparse or no data, identified covariates associated with stillbirth will inform the trend in stillbirth rate.

To increase the transparency of the estimation methodology and make stillbirth data available to users worldwide, UN IGME makes all data sources and stillbirth estimates available on its web portal, <www.childmortality.org.

Stillbirth concept and definition

In the UN IGME estimation work, consistent with International Classification of Diseases (ICD),¹⁸ only 'late gestation fetal deaths' are included in UN IGME international stillbirth monitoring. The **stillbirth rate (SBR)** is defined as the number of babies born with no signs of life at 28 weeks or more of gestation, per 1,000 total births.

The stillbirth rate is calculated as:

$$SBR = 1000 * \frac{sb}{sb + lb}$$

sb refers to the number of stillbirths \geq 28 weeks or more of gestational age

lb refers to the number of live births regardless of gestational age or birthweight

As stillbirth rates using gestational age are not equivalent to those using birthweight criteria, to improve comparability of stillbirth data from different countries, the Core Stillbirth Estimation Group (CSEG) of UN IGME recommends using a stillbirth definition that uses the gestational age as a single criterion. Gestational age is used in preference to birthweight and length criteria as it is a better predictor of maturity and hence viability. It is also the most commonly used criterion across data sources including household surveys.

Data sources

Estimates of stillbirth rates for a country can be derived from various sources, such as administrative data (e.g., civil registration and vital statistics systems (CRVS), birth or death registries, or HMIS), household surveys, or from population-based studies obtained from a review of academic literature.

Data from registration systems are the preferred data source for estimating stillbirths by UN IGME. The reliability of stillbirth estimates depends on the accuracy and completeness of reporting and recording of births and deaths. Not all countries maintain a timely and complete registration system for stillbirths. As a result, stillbirth data from registries can be biased due to underreporting or misclassifications. Moreover, in many low- and middle-income countries (LMIC), stillbirths are not reported in registration systems at all.

Household surveys, such as the United States Agency for International Development (USAID)-supported Demographic and Health Surveys and the UNICEF-supported Multiple Indicator Cluster Surveys and other nationally representative surveys, are another source of data on stillbirths in LMICs. In addition, in several LMIC countries, data from population-based studies provide an important data source on stillbirths.

Data on stillbirths are systematically collected and compiled by UN IGME. The current database contains time series of stillbirth rates that started in the year 2000. In total, the empirical data are available for 171 countries.

Key terms

Stillbirth: A stillbirth is a baby born with no signs of life after a given threshold. Stillbirth is classified as either early or late gestational stillbirth. An early stillbirth occurs at 22 to 27 completed weeks of gestation and a late stillbirth occurs at 28 weeks or more of gestation.

Fetal death: A fetal death is defined as a death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy. The death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

Gestational age: Gestational age is defined as the duration of pregnancy, measured from

the first day of the last normal menstrual period. Gestational age at birth is therefore the duration measured from the first day of the last menstruation period to the day of birth.

Birthweight: Birthweight is defined as the first measured weight of a baby after birth. This weight should be measured as soon as possible in the hours after birth prior to onset of postnatal weight loss.

Live birth: Live birth refers to the complete expulsion or extraction of a baby from its mother of a product of conception, irrespective of the duration of the pregnancy. After this separation, the baby breathes or shows any other evidence of life – e.g., beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles – whether or not the umbilical cord has been cut or the placenta is attached.

The full dataset used to estimate stillbirth rates is available on the UN IGME web portal (<www.childmortality.org>). In total, the database contains almost 2,800 country-year data points from 171 countries, starting in 2000 and through 2019. Most of these data points (1,738, or 61 per cent) are from administrative systems, including CRVS systems and medical birth and death registries; 506 (18 per cent) are from HMIS systems; 226 (8 per cent) are from household surveys; and 363 (13 per cent) are from population studies. After assessing the data quality, about 1,500 (54 per cent) data points were included in the estimation model.

Administrative data

The majority of administrative data comes from registration systems and health data systems, including HMIS (see Figure A2, data source 1). Data from registration systems often record stillbirths and live births using detailed gestational age and/or birthweight. HMIS data are collected in health

Figure A2: Data sources for stillbirth data in countries

1. Administrative data

Collected data from administrative data systems including CRVS systems and HMIS

2. Household survey data

Collected data through pregnancy histories or reproductive calendars

3. Population study data in LMIC

Literature review of population studies

facilities, and, in many countries, the District Health Information System-2 (DHIS2) is the most common HMIS data platform.⁵⁹ Few HMIS systems currently report detailed gestational age and/or birthweight data on stillbirths.

Household survey data

Information on stillbirths in household surveys can be collected in two different ways: with a full pregnancy history (PH) or with a reproductive calendar (RC) (see Figure A2, data source 2).¹³ In the PH, women of reproductive age are asked about all pregnancies in their lifetime. For each pregnancy, they are asked to provide information on its duration and outcome (e.g., miscarriage, stillbirth or live birth) and the date of birth or end of pregnancy. In the RC, women are asked about the duration and month of pregnancy end for pregnancies that did not end in a live birth in the last 60 months. RCs are usually administered alongside a full birth history.

In PHs, the stillbirth rate is the number of stillbirths with the end of the pregnancy in the seventh month or later divided by the number of stillbirths plus live births. In some surveys with PH modules, the women were only asked whether they had a stillbirth and the date of the stillbirth. In these cases, a seven-month duration of pregnancy was assumed. In some survey-specific cases, a stillbirth was defined by the questionnaire as a fetal death occurring at the fifth or sixth month or later. In RCs, the stillbirth rate is the number of pregnancies that are terminated in the seventh month of pregnancy or later divided by the number of pregnancies that reached at least the seventh month. PH data allow for the calculation of stillbirth rates for specific past time periods. Where the microdata were available, UN IGME recalculated the stillbirth estimates with standard errors from PH and RC. For PH data, stillbirth rates are estimated for five-year calendar periods, for five intervals (e.g., 25 years) before the survey date. The most recent five-year calendar period was included in the estimation model. The RC data allow the calculation of stillbirth rates for the five-year period preceding the survey. However, stillbirth estimates from the RC were not included in the model if estimates from the PH in the same survey were available.

Population studies on stillbirth

Another source for data on stillbirths are subnational population-based studies (see Figure A2, data source 3). Subnational population-based study data were sought for all countries without high coverage of routine administrative data. The literature review undertaken for the previous stillbirth estimates¹⁷ was updated through 29 January 2019. In addition, further reanalysed population-based stillbirth data were obtained from a WHO data call to maternal-newborn health experts.

Comparability of stillbirth data across data sources

The lack of a standard application of definitions for stillbirth in many data sources results in comparability challenges for the assessment of stillbirth rates between settings and over time. Stillbirths are reported by different gestational age week cut-offs, ranging from 16 to 28 weeks or more, or by birthweight ranging from 500 to 1,000 grams or more, or by a combination of gestational age and birthweight. In several cases, no clear definition in the data source is given. Using different gestational age and birthweight thresholds will inevitably produce different estimates of the stillbirth rate. Missing information on gestational age or birthweight can also impact overall data comparability, especially when the proportion missing such information is large. As a result, UN IGME adjusts stillbirth data to the 28 week or more definition, taking into account missing gestational age or birthweight data where possible (see below).

Covariates

To inform stillbirth rates in the case of countries with little or no data, the estimation model included factors associated with stillbirth rates as covariates. The candidate covariates were based on a conceptual framework identified from published literature in 2016 by Blencowe et al.¹⁷ The framework includes distal determinants such as socioeconomic factors, interacting and overlapping demographic and biomedical factors, associated perinatal outcome markers and access to health care. The covariate data are smoothed with a time series trend to reduce small fluctuations in measured covariates. The covariates

that had the most explanatory power were selected for inclusion in the model. Table A1 lists the selected covariates for the estimation model.

Methodology to estimate stillbirth rates

CSEG members sought to reconcile differences across data sources and better account for the systematic biases associated with the various types of data inputs. They developed a new approach to make decisions regarding data exclusion, analyse the definitional adjustments needed and fit a smoothed trend curve to a set of observations that are described below. The estimated trends are extrapolated to provide estimates through 2019.

Data quality assessment

The UN IGME assessed the quality of the stillbirth data from the four types of data sources used to evaluate completeness and consistency. Data were excluded if:

- they lacked a clear source of definition or clear information on data collection systems;
- more than 50 per cent of reported stillbirths from a single source had unknown gestational age or birthweight;

- data were internally inconsistent or coverage of live births in administrative data systems was estimated below 75 per cent (for HMIS) or 80 per cent (for all other administrative data).

CRVS systems data with incomplete coverage below 90 per cent of child deaths were also excluded. Further internal and external consistency across data sources was assessed by comparing stillbirth estimates to similar data sources within the same country and expected global and regional age and sex patterns in child mortality.

As part of the assessment of data quality, the plausibility of the ratio of stillbirth rates (measured as per the 28 week or more definition) to neonatal mortality rates was assessed, by comparing these ratios to the distribution of ratios obtained from high-quality LMIC study data. High-quality LMIC study data are defined as population-based prospectively collected data with recruitment prior to 28 weeks or more of gestation, and follow-up to at least 28 days of age of live births.

In assessing the SBR:NMR ratio in the input database, the NMR from the data source was used

Table A1: Selected covariates indicators and data sources

Indicator	Data source
Antenatal care 4+ visits: Percentage of women (aged 15–49 years) attended at least four times during pregnancy by any provider	WHO/UNICEF: DHS, MICS and other national household surveys
C-section rate: Percentage of deliveries by C-section	UNICEF: DHS, MICS and other national household surveys
Low birthweight: Percentage of live births that weighed less than 2,500 grams (less than 5.51 pounds)	UNICEF/WHO low birthweight (LBW) estimates, 2019 Edition
Mean years of schooling (female): Average number of years of education received by females aged 25 years and older, converted from educational attainment levels using official durations of each level	UNDP: Estimated by Barro and Lee (2016) using population census, MICS, DHS and other national surveys
Neonatal mortality rate: Probability of dying in the first 28 days of life, expressed per 1,000 live births	UN IGME: Modelled based on data from CRVS systems, household survey and population census. 2020 round of estimation
GNI per capita based on purchasing power parity (PPP). PPP GNI is gross national income (GNI) converted to international dollars using purchasing power parity rates	World Bank: World Development Indicators database, World Bank

where available. Where data sources had missing NMR data, the estimated NMR by UN IGME⁵ was used. For observations from HMIS and population studies on stillbirths, the ratio of observed SBR to the UN IGME NMR was calculated and the same exclusion approach applied so that observations with extremely low SBR compared to national level NMR were excluded. In summary, the mean and variance of the setting-specific SBR:NMR ratios is estimated, assuming that each observed SBR:NMR ratio is the sum of a setting-specific SBR:NMR ratio and random stochastic error.

If stillbirths were underreported relative to neonatal deaths for a specific observation, the associated observed ratio of SBR to NMR would be lower than the true ratio. To quantify whether an observed ratio is 'extremely' low, the probability of observing a ratio that is smaller than the observed ratio was calculated (taking account of the uncertainty associated with the observed ratio) using the distribution of ratios obtained from the high-quality data. If this probability was less than 0.05, the observation was excluded from the database. This approach was applied to all observations in the database with 28 weeks or more of gestation definitions and adjusted 28 week definitions.

Definitional adjustment of stillbirth data

Stillbirth rate estimates are constructed using a stillbirth at 28 weeks or more of gestation definition. If information based on the 28 week definition was unavailable, observations recorded using alternative definitions are adjusted as described below prior to being used in the model fitting. Bias and additional uncertainty associated with alternative definitions are taken into account in the model fitting for such observations.

For LMIC, high-quality data from LMIC studies were used to calculate the conversion, while for high-income countries, national administrative data from high-income countries were used. For each conversion, the mean and variance associated with the ratio of the expected SBR based on an alternative definition to the expected SBR based on the 28 week or more definition is estimated. The mean is used as a bias-adjustment parameter in the model fitting,

and the variance is used to account for additional uncertainty associated with the alternative definition.

Data limitations necessitated some assumptions regarding definitional adjustments. For survey data, a seven-month duration of pregnancy is assumed to be equal to a 28 weeks or more of gestation definition. Further, in LMICs it is assumed that the stillbirth rate observed using a stillbirth definition of a birthweight of 1,000 grams or more is equal to the SBR observed using the 28 week or more definition; similarly, that the SBR observed with a birthweight of 500 grams or more birthweight definition equals the SBR observed with a 22 weeks or more of gestation definition.

Estimation of stillbirth rates

Estimation and projection of stillbirth rates is undertaken using a statistical model for all country years. In the model, the SBR is estimated assuming that the

$$\text{Observed } \log(\text{SBR}) = \log(\text{true SBR}) + \text{bias} + \text{measurement error}$$

where the true SBR in a country for 2000 to 2019 = country-intercept + SBR predicted by covariates + country-specific temporal smoothing process (explained further below). The model produces estimates of the SBR for 2000 to 2019 with uncertainty.

True SBR component

The model for the true SBR includes three terms: (1) country intercept; (2) SBR predicted by covariates; and (3) country-specific temporal smoothing process. Covariates were used to inform SBR levels and trends, i.e., the NMR is found to be predictive of SBR, NMR-driven estimates of the SBR are higher in country-periods with higher NMR. Country-year estimates can deviate from covariate-based ones through the country intercept and the temporal smoothing process. Figure A3 illustrates how the trend estimates (green) are a weighted combination of information from country data and covariate data. If data are precise, the SBR estimates follow the country data. In the case of no data or imprecise data, the estimates are covariate based.

Country-year estimates can deviate from covariate-based ones through the country intercept and the temporal smoothing process. The country intercept is estimated using a multilevel model so that information on the level of SBR is exchanged across countries within the same region.⁶⁰ For countries with data meeting inclusion criteria, the intercept is a weighted average of country data and the regional intercept, with weights taking account of the quantity and uncertainty associated with the country data and the variability of the estimated country intercepts. The process results in data-driven intercepts in countries with precise data. For countries without data included, the intercept is equal to the regional intercept. The temporal smoother allows deviations away from covariate + intercept-based estimates based on the data so that estimates can follow precise data where available.

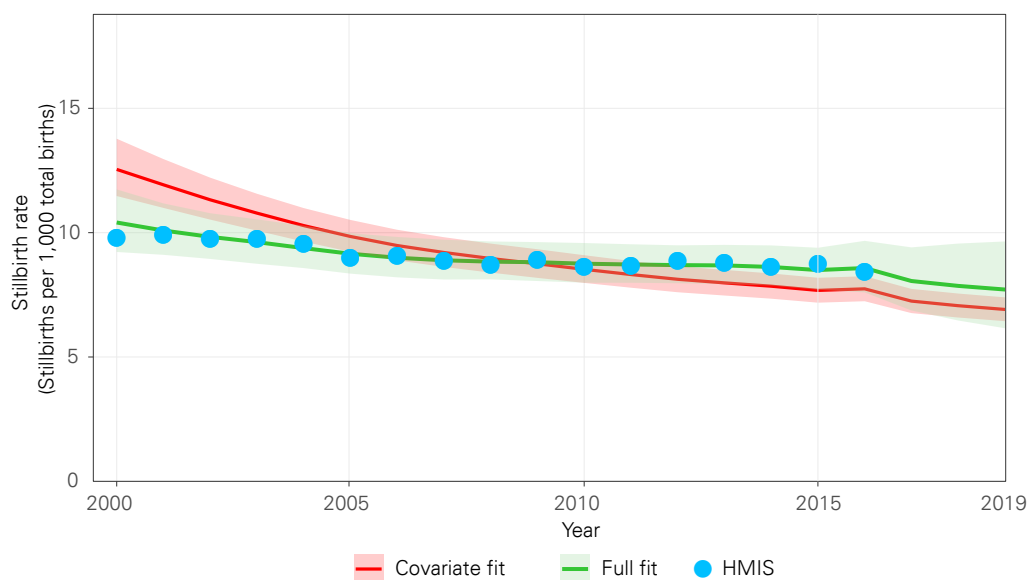
Bias component

In the model fitting, bias terms are included to account for the bias associated with the use of definitions other than the 28 week or more of gestation definition, and with the use of different types of data source. The *bias* refers to the *definitional adjustment bias + source type bias*. *Definitional adjustment bias* is equal to zero for observations based on the 28 weeks or more of gestation definition and given by estimated adjustments otherwise. *The source type bias* is equal to zero for all observations except for observations from surveys.

Measurement error component

To account for the extent of random measurement error, varying levels of uncertainty (error variance) affect the weighting of individual observations in the model. Observations with lower error variance carry a higher weight in determining estimates as compared to observations with higher error variance.

Figure A3: Covariates and country data

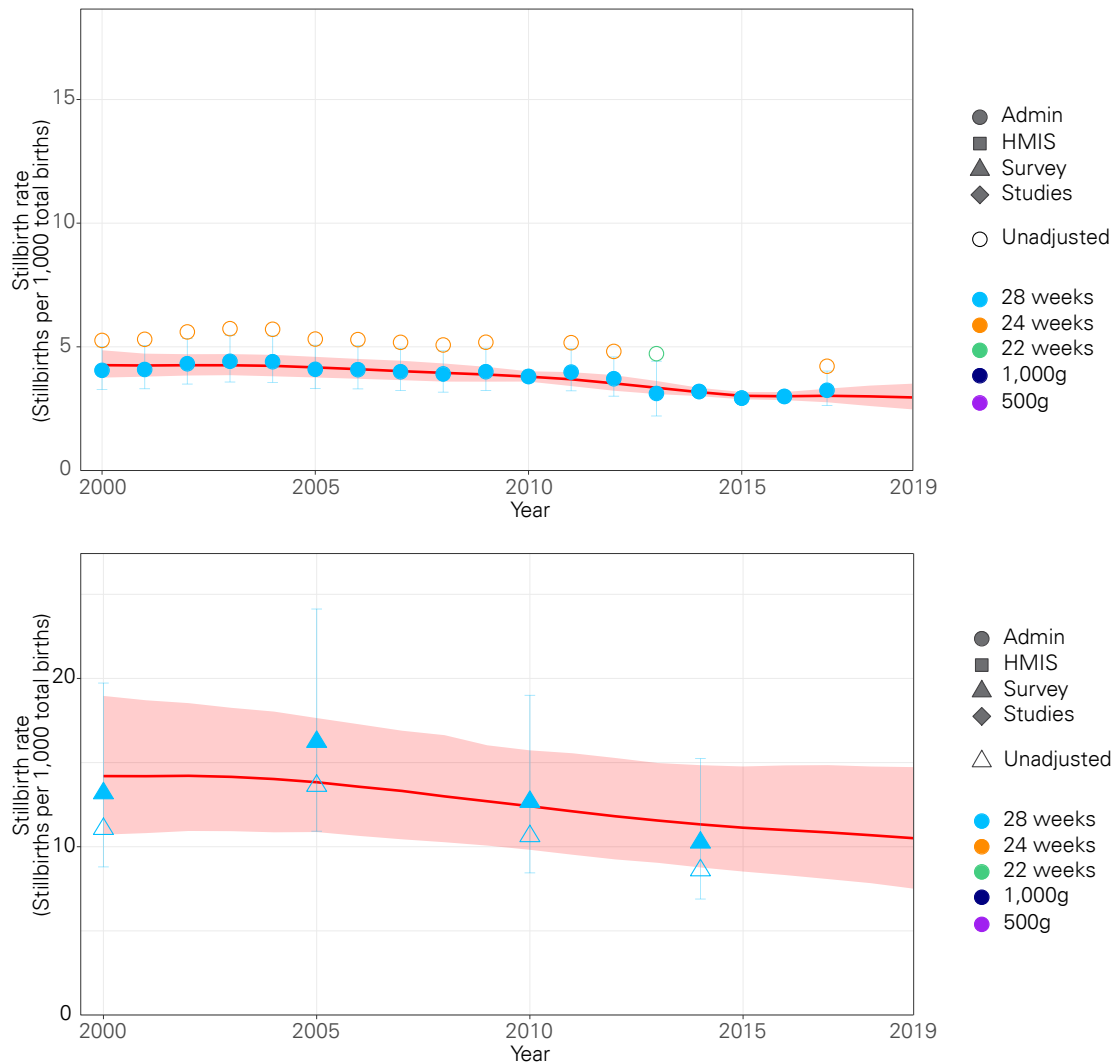


Note: Figure A3 shows estimated SBR trends with 90 per cent uncertainty intervals and source data. The dots represent observed SBR data in the country. The red line shows the estimated SBR trend based on model covariates alone with the uncertainty interval shown with the pink shaded area. The green line, with the uncertainty interval shown with the light green shaded area, shows the estimated SBR trend based on the country-specific data, via a country-specific intercept, and applying temporal smoothing process to the red line. Note that the green line more closely fits the observed data, as it is a weighted combination of the covariate estimates and country data.

The measurement error refers to the stochastic/sampling error + random definitional adjustment error + source type error, where each error is expected to be zero on average but has a variance term associated with it that reflects how much uncertainty is associated with the error. The stochastic/sampling error is due to observing a finite

number of events and/or survey sampling design, the random definitional adjustment error that is equal to zero for observations based on the 28 weeks or more of gestation definition and non-zero otherwise. The source type error refers to a random error with source-type specific variance, to account for random errors that may occur in the data collection

Figure A4: Estimated uncertainty in country data and trend estimates



Note: Figure A4 illustrates SBR estimates when using data subject to bias and varying measurement errors. The top panel shows data with definitional adjustments applied. The hollow orange and green circles show unadjusted SBR country data using a non-28 week or more of gestation definition (e.g. 22 or 24 week definition). To use the observed, non-28 week SBR data in the model fitting procedure, a definitional adjustment is applied, resulting in an adjusted SBR with a 28 week definition. Bias adjusted SBR data are indicated by the solid blue circles with the respective standard errors shown with the vertical bands. Note that the standard error around adjusted data points is larger than for data points where no definitional adjustment is applied (e.g. adjusted 2012 data point versus unadjusted 2014 data point), due to the added measurement error from bias adjustment. The bottom panel shows data with source type adjustments applied. Household surveys have been shown to underreport SBRs, thus observed SBRs and corresponding standard errors obtained from surveys are adjusted. The hollow triangles show the observed SBR from the survey, and the filled triangle show the adjusted SBR. The adjusted standard errors include the source type specific measurement error and are represented with the vertical lines extending from the solid triangles.

process and potential non-representativeness of the observation. The different data source types are (1) national administrative, (2) HMIS, (3) household surveys, and (4) population studies.

The uncertainty associated with the measurement error in the SBR estimates depends on data availability and precision for the respective country period. Uncertainty decreases as data availability and precision increases. Uncertainty in SBR estimates increases when extrapolating to periods without data.

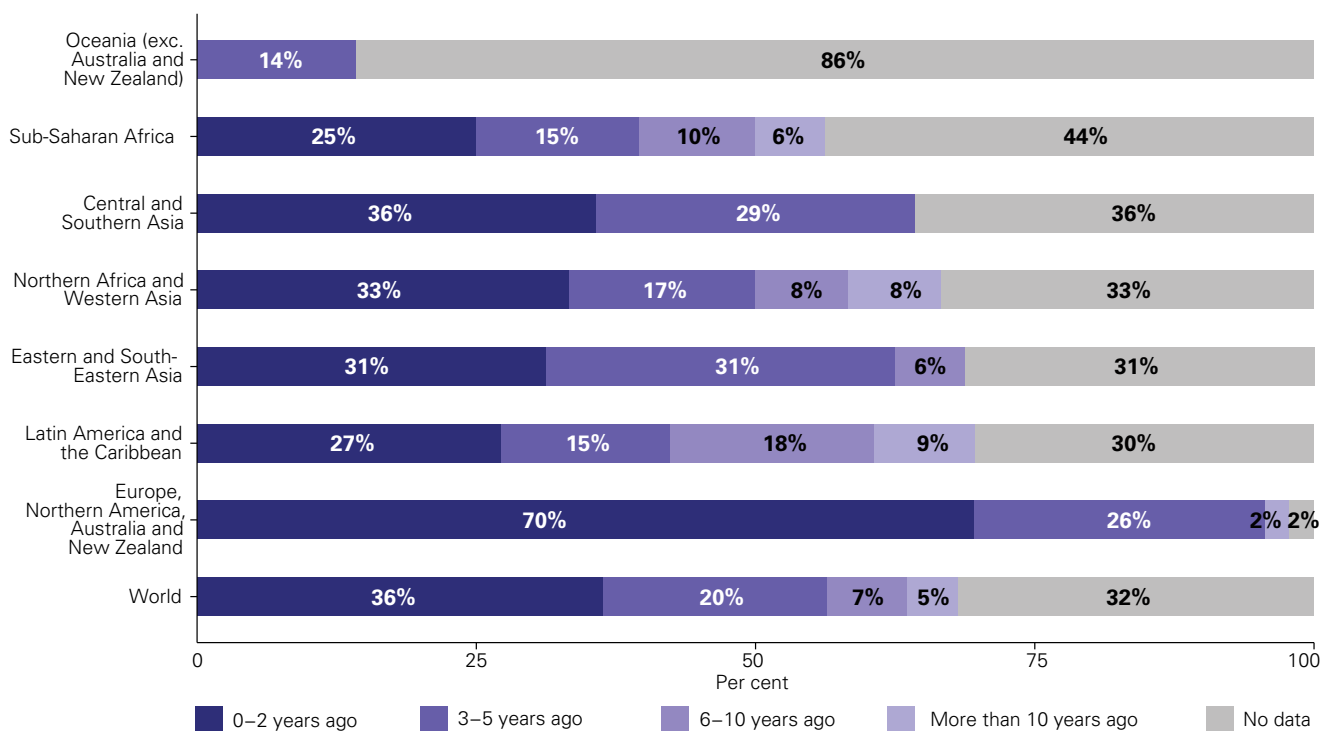
Figure A4 shows the effect of varying levels of uncertainty associated with different observations. The dots show country data by definition and source type and the vertical line illustrates uncertainty associated with each observation. The red line is the trend estimate and the pink area represents the uncertainty. Varying levels of uncertainty (error variance) affect the uncertainty in final estimates. Observations with lower-error variance carry higher

weight in determining estimates compared to observations with higher-error variance.

Extrapolation to target year

In countries where recent stillbirth data are not available, stillbirth estimates are extrapolated from the most recent year of available national stillbirth data to 2019. Among the countries with stillbirth data, on average 3.3 years needed to be extrapolated, with almost half of the countries having their latest datapoint before 2017. For more than two-thirds of the countries with included data the most recent datapoint referred to the last three years (see Figure A5).

Figure A5: Distribution of country extrapolation period, Sustainable Development Goal region



Calculation of stillbirths

The number of stillbirths in each country is calculated as:

The number of stillbirths:

$$\text{Number of stillbirths} = lb * \frac{SBR}{(1-SBR)}$$

SBR refers to stillbirth rate

lb refers to the number of live births regardless of gestational age or birthweight

The annual estimate of the number of live births in each country from the *World Population Prospects: The 2019 revision*⁴³ are used along with the UN IGME SBR estimates to calculate the estimated numbers of stillbirths.

Methods for intrapartum stillbirth estimates

An intrapartum stillbirth is a death that occurs after the onset of labour but before birth. Diagnosis of intrapartum stillbirth needs confirmation of the presence of a fetal heart rate at the onset of labour. In settings where fetal heart rate monitoring is unavailable, assessment of the skin appearance is frequently used to estimate stillbirth timing. Signs of skin maceration begin 6–12 hours after fetal death and therefore a fresh appearance of the skin with no signs of maceration is judged as a surrogate measure for intrapartum stillbirth.⁶¹ However, this assessment might be unreliable and can underestimate

intrapartum stillbirth, especially when fetal death during labour occurs at home, and delays in access to care are more than 6–12 hours long.⁶² The intrapartum or fresh stillbirth rate is a useful marker of stillbirths preventable through improved care during labour.

For the purpose of these estimates, all intrapartum stillbirths are included. For programmatic action, where possible, the intrapartum stillbirth rate should be calculated, excluding those with severe congenital abnormalities because antenatal diagnosis of these conditions will affect the level of intervention during labour.

Intrapartum data sources

All available intrapartum stillbirth data at a national or subnational level are derived from administrative sources, household surveys, or population-based studies. Data on intrapartum stillbirths were identified through web-based searches of national statistics office and ministry of health websites and systematic literature searches for all countries. Further data were requested from national WHO/ UNICEF point contacts as part of the UN IGME child mortality country consultation progress. Data were assessed using specified inclusion/exclusion criteria.

Data points were included if the proportion of all stillbirths at 28 weeks or more that were intrapartum was specified or could be calculated from the information given. Definitions of intrapartum stillbirth using skin appearance, clinical assessment, post-mortem or verbal autopsy were included. Data collected between 2000 and 2019 were included.

Table A2: Summary of number countries included by Sustainable Development Goal region

Region*	Number of countries	Total births included
Central and Southern Asia	6	405,000
Eastern and South-Eastern Asia	5	31,047,000
Europe, Northern America, Australia and New Zealand	9	12,465,000
Latin America and the Caribbean	2	93,174,000
Northern Africa and Western Asia	4	413,000
Sub-Saharan Africa	12	13,783,000

* No data on intrapartum stillbirths were available from countries in the Oceania (excluding Australia and New Zealand) region.

Data points from national routine data sources (e.g., CRVS, HMIS/DHIS2) were included if the data source captured more than 80 per cent of *World Population Prospects: The 2019 revision*⁴³ estimated live births in the given year.

Population-based studies were included if details of the birth outcome were available for 80 per cent or more of births in the population. Studies from health facilities were included if they reported birth outcomes for 80 per cent or more of births in a geographical population.

Data points where the timing (ante-partum/intrapartum) was unknown for more than 20 per cent of stillbirths were excluded. In addition, studies reporting overall stillbirth rates less than half or more than twice the national estimated rate for the year of the study were excluded, as these were unlikely to be representative of the country.

Only studies using the definition of late gestation stillbirth, 28 weeks or more or seven months or birthweight equivalent (1,000 grams or more), were included as there is some evidence that the proportion of stillbirths that is intrapartum varies by definition used. In settings with good capture of stillbirths, the proportion that are intrapartum (defined by clinical assessment) is generally higher when using a lower gestation cut-off (e.g., 20 weeks or more or 22 weeks or more). The impact of using different stillbirth definitions is not known from LMIC settings. In these settings, there is high variability

in the methods used to assess stillbirth timing. Proxy methods, such as clinician assessment of skin appearance and verbal autopsy and omission of stillbirths within studies, and routine data are common, and likely to affect early gestation stillbirths (22 to 27 weeks) more. Therefore, consistent with high income country data inputs, only late gestation stillbirths were included in the final data set.

Data were included from 38 countries (see Table A2). This included 230 data points covering over 150 million births, with 0.9 million stillbirths.

Intrapartum stillbirth estimation approach

For countries with national-level data meeting inclusion criteria

For countries with national routine data (CRVS system, birth or death registry, or HMIS) reported using the 28 week or more definition and meeting inclusion criteria, the median proportion of stillbirths that were intrapartum for any data year, 2000 to 2019, was calculated and applied to the 2019 estimated number of stillbirths.

For all other countries

Consistent with previous approaches, we used a median proportion-based approach to estimate global and regional intrapartum stillbirth numbers and rates.^{19,32} Previous approaches calculated the median proportion of stillbirths that is intrapartum by Millennium Development Goal region. The regional median approach would be unlikely to represent

Table A3: Summary of data inputs for intrapartum stillbirth estimates by stillbirth rate grouping

Stillbirth rate in the data source	Number of included data points	Median per cent of stillbirths, intrapartum	Lower-bound per cent, intrapartum	Upper-bound per cent, intrapartum
Under 5	140	6.2	4.0	8.3
5 – 10	35	8.7	3.6	18.9
10 – 20	23	41.3	32.0	51.3
20 – 30	24	52.4	44.8	66.5
30 – 35	8	66.3	51.4	70.0

Table A4: Estimated number of intrapartum stillbirths in 2019 by Sustainable Development Goal region (2019)

Region	Number of total stillbirths	Number of intrapartum stillbirths			Per cent stillbirths intrapartum
		Total	Lower-bound	Upper-bound	
Central and Southern Asia	673,000	324,000	289,000	415,000	48
Eastern and South-Eastern Asia	207,000	32,000	28,000	47,000	16
Europe, Northern America, Australia and New Zealand	39,000	2,000	2,000	3,000	6
Latin America and the Caribbean	83,000	13,000	12,000	17,000	16
Northern Africa and Western Asia	134,000	52,000	47,000	69,000	39
Oceania (excluding Australia and New Zealand)	4,000	2,000	1,000	3,000	38
Sub-Saharan Africa	825,000	406,000	384,000	501,000	49
World	1,966,000	832,000	811,000	990,000	42

a true estimate of the proportion of stillbirths in some regions that is intrapartum. This is in view of the large heterogeneity between health systems' contexts within the new Sustainable Development Goal (SDG) regions. Hence, the wide spread of different stillbirth rates in some of the SDG regions (notably Eastern and South-Eastern Asia and Northern Africa and Western Asia) with data predominantly coming from countries with stronger health systems, lower stillbirth rates and hence lower proportions of stillbirths that are intrapartum. As intrapartum stillbirth rates are more closely correlated with overall stillbirth rates, the median proportion of stillbirths that are intrapartum was calculated by stillbirth rate groups.

Countries were sorted into stillbirth rate groups based on their estimated stillbirth rate in 2019. Intrapartum stillbirth numbers were estimated by applying the median percent of stillbirths (with known timing) that were intrapartum from data points in their stillbirth rate group to the country-estimated stillbirth numbers for 2019 for all countries without recent high-quality intrapartum stillbirth data availability.

Details of uncertainty

Uncertainty estimates for the proportion of stillbirths that is intrapartum were derived by using the stillbirth group intraquartile range (see Table A3). We simulated uncertainty estimates for intrapartum

stillbirth rates by using 1,000 independent random draws of the uncertainty around the total number of stillbirths estimated and for the proportion of total stillbirths that were intrapartum. The 2.5th and the 97.5th percentiles were used for the lower and upper uncertainty bounds for the number of stillbirths in each country.

Estimation of global and regional intrapartum stillbirths

National-level estimates of the total number of intrapartum stillbirths for 195 countries were summed at the regional level using SDG regions (see Table A4).

Modelling the impact of stillbirth interventions

Disruptions to coverage of key maternal and child health interventions due to the COVID-19 pandemic can have consequences for the number of preventable stillbirths. The Lives Saved Tool (LiST), a mathematical modelling tool, was used to estimate these indirect impacts in low- and middle-income country settings.

LiST is a linear, deterministic model that estimates impact on the morbidity and mortality of mothers, newborns and children due to changes in coverage

or health interventions. . The tool is maintained by a multidisciplinary team at Johns Hopkins Bloomberg School of Public health; detailed methodology are available at <www.LivesSavedTool.org>.

For this analysis, LiST (version 5.88 b41) was used to create national models for 117 low- and middle-income countries with available data to produce national, regional and global estimates. The model describes fixed relationships between intervention coverage and cause-specific stillbirth risk, under the assumptions that 1) country-specific stillbirth rates and cause of death structure will not change dynamically, 2) changes in stillbirth risk occur in response to changes in intervention coverage, and 3) distal factors, such as improvements in wealth, affect mortality by increasing intervention coverage or reducing risk factors. Interventions used in the analysis and underlying data sources can be viewed on the LiST Visualizer tool.⁶³

As previously published, three disruption scenarios of varying severity were modelled.⁴⁰ Potential disruptions in the provision and utilization of health services were assumed to translate into reductions in intervention coverage (see Table A6). The three disruption scenarios were applied to reduce the country-specific coverage of eight stillbirth interventions from levels observed prior to the pandemic. Coverage of each stillbirth intervention was based on the hypothesized disruption to the health service mechanism through which the intervention is delivered. Disruption to antenatal care translated to a reduction in coverage of 1) balanced energy supplementation, 2) prevention of malaria in pregnancy, 3) syphilis detection and treatment, 4)

Table A5: Coverage reduction scenarios

Scenario	Coverage reduction
Mild	
Antenatal care	18.5%
Childbirth care	14.3%
Moderate	
Antenatal care	26.9%
Childbirth care	23.1%
Severe	
Antenatal care	51.9%
Childbirth care	49.4%

hypertension case management, 5) diabetes case management and 6) folic acid fortification (if baseline estimate was available). Disruption to childbirth care translated to a reduction in coverage of 1) induction of labour, 2) assisted vaginal delivery and 3) C-section delivery.

Each scenario was applied assuming a 12-month interval of coverage disruption. The number of stillbirths estimated under each scenario was compared against a model of stable intervention coverage at country-specific pre-pandemic levels, and the additional stillbirths resulting from a reduction in intervention coverage considered above baseline levels prior to the pandemic were calculated.

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Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
Afghanistan	36.9	22.1	63.4	32.6	20.6	53.2	28.4	16.8	47.3	23.2	-9.3	46.2	1.4	-0.5	3.3
Albania	6.4	4.6	8.9	4.5	4.0	5.2	4.1	3.3	5.0	36.0	11.9	53.6	2.3	0.7	4.0
Algeria	17.2	14.7	20.0	12.1	10.7	13.5	9.5	7.7	11.6	44.9	32.0	55.9	3.1	2.0	4.3
Andorra	3.5	2.5	5.1	2.6	1.9	3.5	2.1	1.4	3.0	41.2	16.7	58.4	2.8	1.0	4.6
Angola	30.0	18.3	50.0	23.4	14.8	37.0	19.8	12.2	32.7	34.0	5.9	53.4	2.2	0.3	4.0
Antigua and Barbuda	8.8	5.4	14.7	6.8	4.2	10.8	5.5	3.2	9.0	37.9	11.9	57.1	2.5	0.7	4.5
Argentina	7.8	7.5	8.1	4.9	4.7	5.0	5.3	4.9	5.8	31.8	26.1	37.0	2.0	1.6	2.4
Armenia	20.7	14.9	28.4	15.1	13.5	16.9	12.9	11.1	14.8	37.7	15.8	53.8	2.5	0.9	4.1
Australia	3.2	3.0	3.4	2.9	2.7	3.0	2.2	1.9	2.6	31.0	19.4	40.9	1.9	1.1	2.8
Austria	2.8	2.6	3.1	2.5	2.3	2.7	2.2	1.9	2.5	22.1	10.8	31.9	1.3	0.6	2.0
Azerbaijan	19.2	13.4	27.6	12.6	8.9	18.4	9.0	5.9	14.0	53.2	33.7	67.4	4.0	2.2	5.9
Bahamas	12.5	10.8	14.4	13.3	12.0	14.6	11.6	9.9	13.7	7.1	-11.8	22.6	0.4	-0.6	1.4
Bahrain	8.5	7.0	10.3	6.2	5.6	6.8	5.9	5.0	7.0	30.7	14.0	44.5	1.9	0.8	3.1
Bangladesh	41.4	34.1	50.3	29.7	26.0	34.0	24.3	19.9	29.6	41.3	26.0	53.6	2.8	1.6	4.0
Barbados	8.4	5.0	14.0	8.4	5.3	13.1	7.4	4.5	12.3	12.0	-26.4	38.7	0.7	-1.2	2.6
Belarus	5.0	3.8	6.4	2.5	2.3	2.6	2.0	1.8	2.3	59.6	48.8	68.0	4.8	3.5	6.0
Belgium	3.4	3.1	3.7	3.1	2.9	3.3	2.8	2.4	3.4	16.2	1.6	29.1	0.9	0.1	1.8
Belize	11.2	8.4	15.1	8.7	7.6	10.1	6.5	5.5	7.8	41.8	22.6	56.1	2.9	1.3	4.3
Benin	27.2	20.2	37.1	24.6	22.9	26.4	20.3	17.1	24.3	25.2	-0.1	44.7	1.5	0.0	3.1
Bhutan	16.3	11.0	24.3	12.2	9.4	15.7	9.7	7.5	12.6	40.9	16.2	58.1	2.8	0.9	4.6
Bolivia (Plurinational State of)^e	15.5	10.2	23.7	12.0	8.6	16.5	8.9	6.1	12.9	42.7	17.9	59.9	2.9	1.0	4.8
Bosnia and Herzegovina	4.0	3.4	4.7	3.2	2.9	3.6	2.8	2.2	3.4	30.5	12.3	44.9	1.9	0.7	3.1
Botswana	11.8	10.8	12.9	15.5	14.4	16.7	15.2	12.8	18.1	-29.2	-52.1	-9.2	-1.3	-2.2	-0.5
Brazil	10.0	8.8	11.2	8.5	7.8	9.3	7.5	6.1	9.2	24.9	8.7	38.4	1.5	0.5	2.6
Brunei Darussalam	5.1	4.2	6.1	4.3	3.7	5.0	4.6	3.7	5.7	9.4	-14.0	28.1	0.5	-0.7	1.7
Bulgaria	7.6	7.1	8.2	6.8	6.4	7.2	5.0	4.6	5.5	34.0	27.7	39.8	2.2	1.7	2.7
Burkina Faso	29.7	21.2	41.6	23.7	21.3	26.4	19.5	17.7	21.4	34.4	13.0	50.8	2.2	0.7	3.7
Burundi	30.4	21.7	42.9	26.7	21.7	32.5	26.1	24.2	28.0	14.2	-14.3	35.4	0.8	-0.7	2.3
Cabo Verde	15.8	9.9	24.9	14.3	9.2	22.4	10.9	6.8	17.8	30.6	1.3	51.0	1.9	0.1	3.7
Cambodia	25.5	14.9	43.7	16.5	10.3	26.6	12.4	7.6	20.9	51.2	28.9	66.6	3.8	1.8	5.8
Cameroon	23.9	14.6	39.2	21.7	13.6	34.7	19.4	11.5	31.7	19.0	-14.6	43.2	1.1	-0.7	3.0
Canada	3.2	3.0	3.4	2.9	2.8	3.1	2.8	2.5	3.1	14.2	5.6	21.9	0.8	0.3	1.3
Central African Republic	34.0	20.5	56.2	32.5	20.8	51.2	29.8	18.5	48.4	12.3	-25.2	37.9	0.7	-1.2	2.5
Chad	34.7	20.5	57.8	30.1	18.7	48.9	27.5	16.7	45.5	20.9	-12.3	44.7	1.2	-0.6	3.1
Chile	4.2	3.3	5.3	3.7	3.5	3.9	3.1	2.6	3.7	25.8	4.5	42.0	1.6	0.2	2.9
China	15.0	13.2	17.1	10.2	9.3	11.1	5.5	4.9	6.3	63.2	56.9	68.3	5.3	4.4	6.0
Colombia	9.6	7.1	12.9	8.4	6.6	10.8	7.1	5.2	9.9	25.7	-2.9	45.6	1.6	-0.2	3.2
Comoros	30.3	18.2	50.5	28.0	17.6	44.5	24.6	14.9	39.8	18.9	-15.1	42.6	1.1	-0.7	2.9
Congo	20.6	12.3	33.5	17.1	10.6	27.3	15.0	9.2	24.5	26.9	-4.5	48.5	1.6	-0.2	3.5
Cook Islands	9.6	6.9	13.3	6.9	5.0	9.3	5.2	3.5	7.5	46.0	24.6	61.4	3.2	1.5	5.0
Costa Rica	4.9	4.1	5.7	5.1	4.8	5.4	4.5	4.0	5.0	7.7	-8.9	21.8	0.4	-0.4	1.3
Côte d'Ivoire	30.2	18.1	50.6	26.8	16.9	42.7	23.2	13.8	38.3	23.0	-9.2	45.6	1.4	-0.5	3.2

Country, regional and global estimates of stillbirths

Country	Number of stillbirths															Number of births (thousands) ^a	
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Live births 2019	Total births 2019
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound		
Afghanistan	39,296	25,167	63,161	39,734	26,424	60,832	35,384	22,732	55,529	10.0	-29.6	37.7	0.6	-1.4	2.5	1,212	1,247
Albania	329	249	430	161	144	180	137	114	164	58.4	42.5	69.8	4.6	2.9	6.3	33	34
Algeria	10,605	9,293	12,091	10,796	9,793	11,884	9,674	8,102	11,477	8.8	-12.9	27.2	0.5	-0.6	1.7	1,012	1,022
Andorra	3	2	3	2	2	3	1	1	2	a	a	a	a	a	a	1	1
Angola	24,539	16,046	38,491	25,603	17,303	38,545	25,967	17,234	40,126	-5.8	-52.2	26.1	-0.3	-2.2	1.6	1,283	1,309
Antigua and Barbuda	13	9	20	10	7	15	8	5	12	38.5	13.3	58.8	2.6	0.8	4.7	1	1
Argentina	5,669	5,489	5,852	3,624	3,519	3,743	4,042	3,751	4,353	28.7	22.7	34.2	1.8	1.4	2.2	754	758
Armenia	835	632	1,108	681	619	749	526	466	594	37.0	14.4	53.7	2.4	0.8	4.1	40	41
Australia	794	754	836	868	828	909	707	613	819	11.0	-4.0	23.7	0.6	-0.2	1.4	319	319
Austria	226	209	245	194	182	206	195	176	218	13.7	1.0	24.6	0.8	0.1	1.5	89	89
Azerbaijan	2,753	2,031	3,749	2,093	1,540	2,845	1,466	1,020	2,130	46.7	24.2	63.0	3.3	1.5	5.2	162	163
Bahamas	66	59	75	71	65	77	63	55	73	4.5	-14.9	20.8	0.2	-0.7	1.2	5	5
Bahrain	128	108	150	123	114	133	131	112	152	-2.3	-27.5	18.0	-0.1	-1.3	1.0	22	22
Bangladesh	151,590	128,018	180,265	95,370	85,134	107,036	72,508	60,932	86,073	52.2	39.2	62.5	3.9	2.6	5.2	2,913	2,986
Barbados	32	21	49	28	19	41	23	15	35	28.1	-0.1	51.2	1.7	0.0	3.8	3	3
Belarus	443	359	545	273	257	288	222	199	247	49.9	36.4	60.3	3.6	2.4	4.9	110	110
Belgium	388	363	413	393	373	413	354	303	411	8.8	-7.3	22.8	0.5	-0.4	1.4	124	125
Belize	83	65	106	67	59	75	53	46	61	36.1	15.8	52.4	2.4	0.9	3.9	8	8
Benin	8,156	6,355	10,623	9,141	8,603	9,699	8,795	7,578	10,257	-7.8	-45.3	20.9	-0.4	-2.0	1.2	423	432
Bhutan	265	191	369	165	131	205	127	101	158	52.1	32.0	66.3	3.9	2.0	5.7	13	13
Bolivia (Plurinational State of)^c	4,033	2,801	5,750	3,048	2,305	4,029	2,219	1,604	3,039	45.0	20.7	61.7	3.1	1.2	5.0	247	249
Bosnia and Herzegovina	164	142	188	110	101	120	73	61	87	55.5	44.0	64.8	4.3	3.0	5.5	26	26
Botswana	574	531	623	869	813	929	862	744	998	-50.2	-77.3	-26.7	-2.1	-3.0	-1.2	56	57
Brazil	35,340	31,945	39,093	25,632	23,843	27,654	21,771	18,361	25,773	38.4	25.0	49.6	2.5	1.5	3.6	2,890	2,912
Brunei Darussalam	39	33	45	29	26	33	29	24	35	25.6	5.7	40.5	1.6	0.3	2.7	6	6
Bulgaria	501	472	533	503	479	527	312	291	335	37.7	31.6	43.1	2.5	2.0	3.0	62	62
Burkina Faso	16,462	12,466	21,936	16,031	14,646	17,627	15,141	13,953	16,440	8.0	-22.9	31.7	0.4	-1.1	2.0	762	778
Burundi	8,736	6,562	11,671	10,212	8,579	12,135	11,880	11,146	12,607	-36.0	-82.4	-1.3	-1.6	-3.2	-0.1	443	455
Cabo Verde	189	128	283	160	111	233	116	78	176	38.6	12.5	57.0	2.6	0.7	4.4	10	11
Cambodia	8,905	5,651	14,137	6,146	4,095	9,256	4,573	3,008	7,082	48.6	24.6	65.1	3.5	1.5	5.5	363	367
Cameroon	15,798	10,312	24,582	17,831	12,059	26,556	17,872	11,650	27,137	-13.1	-61.2	21.4	-0.6	-2.5	1.3	904	922
Canada	1,075	1,025	1,126	1,114	1,071	1,157	1,072	987	1,164	0.3	-9.9	9.2	0.0	-0.5	0.5	386	388
Central African Republic	5,298	3,448	8,211	5,671	3,836	8,372	5,147	3,410	7,845	2.9	-40.4	32.1	0.2	-1.8	2.0	167	173
Chad	15,404	9,868	24,233	17,361	11,722	26,067	18,802	12,297	28,597	-22.1	-75.0	15.7	-1.0	-2.9	0.9	666	685
Chile	1,062	866	1,302	922	885	960	711	617	821	33.1	13.8	47.8	2.1	0.8	3.4	229	230
China	268,416	240,484	298,695	179,677	165,959	194,298	92,170	82,934	102,854	65.7	59.8	70.5	5.6	4.8	6.4	16,539	16,631
Colombia	8,517	6,672	10,888	6,455	5,224	7,989	5,237	4,016	6,963	38.5	14.5	55.1	2.6	0.8	4.2	732	738
Comoros	636	412	1,006	702	472	1,065	674	440	1,032	-6.0	-51.9	25.9	-0.3	-2.2	1.6	27	27
Congo	2,535	1,650	3,839	2,748	1,844	4,070	2,664	1,746	4,070	-5.1	-51.1	26.4	-0.3	-2.2	1.6	175	177
Cook Islands	4	3	6	2	2	3	1	1	2	a	a	a	a	a	a	0	0
Costa Rica	373	327	425	367	348	387	311	281	344	16.6	1.5	29.3	1.0	0.1	1.8	69	69
Côte d'Ivoire	20,940	13,680	32,534	21,259	14,323	32,010	21,735	14,072	33,571	-3.8	-48.6	27.5	-0.2	-2.1	1.7	913	935

Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
Croatia	5.2	4.7	5.7	3.4	3.1	3.6	3.0	2.6	3.5	41.9	32.5	49.8	2.9	2.1	3.6
Cuba	10.9	10.4	11.5	6.9	6.5	7.2	6.9	6.5	7.4	36.8	32.3	41.0	2.4	2.1	2.8
Cyprus	4.4	3.1	6.2	3.0	2.5	3.7	2.5	2.0	3.2	42.5	19.7	59.3	2.9	1.2	4.7
Czechia	2.8	2.6	3.1	2.6	2.4	2.7	2.6	2.4	2.9	6.9	-2.9	15.8	0.4	-0.2	0.9
Democratic People's Republic of Korea	13.7	8.4	22.7	10.9	6.9	17.3	8.5	5.3	13.8	38.0	12.2	56.4	2.5	0.7	4.4
Democratic Republic of the Congo	33.8	22.9	49.4	30.1	23.2	38.6	27.2	21.7	34.3	19.4	-12.8	42.6	1.1	-0.6	2.9
Denmark	3.1	2.8	3.6	2.1	1.9	2.3	2.0	1.6	2.5	35.9	21.9	47.6	2.3	1.3	3.4
Djibouti	34.9	24.7	49.6	32.2	27.1	38.2	27.9	21.6	36.5	20.2	-13.9	43.5	1.2	-0.7	3.0
Dominica	11.5	6.7	18.8	12.6	7.9	19.6	13.7	8.3	22.4	-19.4	-72.3	16.3	-0.9	-2.9	0.9
Dominican Republic	14.4	8.7	23.6	12.6	8.0	20.0	10.7	6.4	17.9	25.7	-5.9	48.7	1.6	-0.3	3.5
Ecuador	15.7	11.9	20.4	11.1	8.9	13.7	8.7	6.2	12.4	44.5	22.7	59.6	3.1	1.4	4.8
Egypt	17.5	10.5	29.1	12.3	7.8	19.8	9.0	5.5	15.6	48.3	24.6	64.2	3.5	1.5	5.4
El Salvador	20.1	15.8	25.2	12.6	9.5	16.7	10.1	6.7	14.9	49.7	30.4	64.2	3.6	1.9	5.4
Equatorial Guinea	18.0	10.7	30.4	15.8	9.7	25.8	15.1	9.1	25.3	16.4	-17.8	41.4	0.9	-0.9	2.8
Eritrea	23.2	14.3	38.1	20.5	13.3	32.6	18.3	11.1	30.2	21.3	-11.7	45.1	1.3	-0.6	3.2
Estonia	4.7	4.1	5.4	3.0	2.7	3.4	2.2	1.8	2.6	53.5	44.1	61.2	4.0	3.1	5.0
Eswatini	15.7	11.2	21.9	14.3	10.6	19.0	13.2	8.9	19.4	15.6	-18.6	39.7	0.9	-0.9	2.7
Ethiopia	35.8	21.7	59.4	31.1	19.4	49.5	24.6	15.1	40.5	31.2	2.3	52.2	2.0	0.1	3.9
Fiji	10.2	8.0	13.0	10.0	9.1	10.9	8.6	7.0	10.5	15.9	-10.5	35.7	0.9	-0.5	2.3
Finland	2.7	2.4	3.0	2.1	1.9	2.2	2.0	1.7	2.4	23.9	11.7	34.6	1.4	0.7	2.2
France	5.0	4.5	5.6	4.5	4.0	5.0	4.3	3.7	5.1	13.2	-2.2	26.5	0.7	-0.1	1.6
Gabon	17.6	10.6	29.7	16.0	10.0	25.8	13.8	8.4	22.5	21.4	-11.1	45.1	1.3	-0.6	3.2
Gambia	27.1	17.5	41.7	24.5	17.2	35.1	21.9	14.6	33.2	19.4	-15.1	43.3	1.1	-0.7	3.0
Georgia	15.2	11.9	19.4	9.3	8.4	10.2	5.7	5.3	6.2	62.3	53.4	69.8	5.1	4.0	6.3
Germany	2.9	2.7	3.2	2.3	2.2	2.4	2.7	2.3	3.2	7.9	-9.1	21.4	0.4	-0.5	1.3
Ghana	28.7	22.0	37.6	25.1	20.8	30.5	21.7	16.4	28.3	24.5	-2.2	43.9	1.5	-0.1	3.0
Greece	4.6	4.2	4.9	3.3	3.1	3.5	3.1	2.8	3.5	32.0	23.5	39.7	2.0	1.4	2.7
Grenada	10.2	6.2	17.1	9.9	6.2	15.6	9.8	6.0	16.1	3.8	-36.3	34.1	0.2	-1.6	2.2
Guatemala	19.9	15.8	24.9	15.9	13.5	18.7	12.7	10.2	15.9	36.0	16.8	50.5	2.3	1.0	3.7
Guinea	30.9	19.0	51.3	26.8	16.9	42.8	25.2	15.5	40.8	18.5	-14.9	43.2	1.1	-0.7	3.0
Guinea-Bissau	44.8	32.2	64.4	38.2	28.3	51.8	32.2	22.0	47.0	28.2	0.5	48.4	1.7	0.0	3.5
Guyana	18.1	12.3	26.3	16.1	11.4	22.8	13.8	9.1	21.2	23.7	-8.7	46.4	1.4	-0.4	3.3
Haiti	23.8	14.6	40.1	22.6	14.4	35.5	19.9	12.1	32.7	16.6	-17.5	41.2	1.0	-0.8	2.8
Honduras	13.9	10.7	18.1	10.1	8.9	11.5	8.5	7.1	10.1	38.7	20.4	53.4	2.6	1.2	4.0
Hungary	4.3	4.0	4.6	3.5	3.3	3.7	3.3	2.7	4.0	23.2	8.1	36.2	1.4	0.4	2.4
Iceland	2.7	2.2	3.4	2.1	1.7	2.5	1.9	1.5	2.4	29.4	7.6	46.2	1.8	0.4	3.3
India ^d	29.6	21.9	40.2	20.2	17.3	23.5	13.9	11.4	17.0	53.0	28.2	59.9	4.0	1.7	4.8
Indonesia	15.2	11.8	19.9	11.9	9.8	14.4	9.5	6.9	12.8	37.8	15.6	54.8	2.5	0.9	4.2
Iran (Islamic Republic of)	11.3	6.6	19.7	8.4	5.1	14.1	6.8	3.9	11.5	40.2	15.1	58.2	2.7	0.9	4.6
Iraq	16.4	9.6	27.6	14.4	9.0	23.1	11.7	7.1	19.4	28.8	-2.1	50.6	1.8	-0.1	3.7
Ireland	5.0	4.5	5.4	3.7	3.5	3.9	2.8	2.4	3.3	42.9	33.2	51.4	2.9	2.1	3.8
Israel	4.1	3.7	4.6	2.7	2.6	2.9	2.8	2.3	3.3	33.0	20.4	43.5	2.1	1.2	3.0

Country, regional and global estimates of stillbirths

Country	Number of stillbirths															Number of births (thousands) ^b	
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Live births 2019	Total births 2019
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound		
Croatia	234	215	256	144	135	154	109	96	123	53.4	46.1	59.9	4.0	3.3	4.8	36	36
Cuba	1,605	1,538	1,675	868	833	904	784	744	827	51.2	47.6	54.4	3.8	3.4	4.1	113	114
Cyprus	55	41	74	39	33	46	31	26	38	43.6	20.7	60.0	3.0	1.2	4.8	12	12
Czechia	252	234	271	288	273	305	291	271	312	-15.5	-27.8	-4.5	-0.8	-1.3	-0.2	110	110
Democratic People's Republic of Korea	5,729	3,734	8,814	3,785	2,567	5,608	3,042	2,023	4,571	46.9	24.4	62.8	3.3	1.5	5.2	355	358
Democratic Republic of the Congo	76,296	54,639	107,020	90,155	72,648	112,433	98,871	80,995	120,773	-29.6	-83.4	8.8	-1.4	-3.2	0.5	3,532	3,631
Denmark	207	187	229	131	122	142	126	105	149	39.1	25.9	50.2	2.6	1.6	3.7	62	63
Djibouti	812	604	1,100	710	614	826	586	468	742	27.8	-4.1	49.6	1.7	-0.2	3.6	20	21
Dominica	14	9	21	11	8	17	14	9	21	0.0	-41.2	33.3	0.0	-1.8	2.1	1	1
Dominican Republic	3,062	1,984	4,722	2,638	1,762	3,936	2,224	1,426	3,447	27.4	-4.0	50.1	1.7	-0.2	3.7	206	208
Ecuador	5,159	4,088	6,450	3,615	3,007	4,365	2,966	2,209	3,994	42.5	19.6	58.3	2.9	1.2	4.6	337	340
Egypt	31,828	20,771	49,478	28,380	19,363	42,642	23,527	15,545	36,889	26.1	-8.4	49.0	1.6	-0.4	3.5	2,577	2,600
El Salvador	3,001	2,427	3,691	1,551	1,219	1,963	1,189	848	1,643	60.4	44.9	71.9	4.9	3.1	6.7	117	118
Equatorial Guinea	460	297	725	571	378	869	681	441	1,058	-48.0	-109.8	-3.1	-2.1	-3.9	-0.2	44	45
Eritrea	1,835	1,200	2,831	2,380	1,633	3,525	1,945	1,285	2,936	-6.0	-51.5	26.7	-0.3	-2.2	1.6	105	106
Estonia	60	53	67	46	42	50	29	26	34	51.7	40.7	58.7	3.8	2.7	4.7	14	14
Eswatini	513	388	684	471	366	601	398	287	559	22.4	-9.6	44.8	1.3	-0.5	3.1	30	30
Ethiopia	107,622	69,249	168,719	101,121	67,533	152,356	90,323	58,886	139,027	16.1	-20.5	42.5	0.9	-1.0	2.9	3,579	3,670
Fiji	206	166	252	191	176	207	161	135	192	21.8	-3.5	40.1	1.3	-0.2	2.7	19	19
Finland	153	140	168	124	115	133	102	90	115	33.3	23.2	43.3	2.1	1.4	3.0	50	50
France	3,800	3,472	4,166	3,564	3,235	3,952	3,157	2,753	3,619	16.9	2.2	29.7	1.0	0.1	1.9	723	726
Gabon	733	473	1,159	885	591	1,316	940	612	1,431	-28.2	-82.4	10.9	-1.3	-3.2	0.6	67	68
Gambia	1,574	1,084	2,273	1,848	1,372	2,508	2,001	1,414	2,875	-27.1	-83.0	11.5	-1.3	-3.2	0.6	90	92
Georgia	827	677	1,022	532	489	579	304	282	326	63.2	54.5	70.7	5.3	4.1	6.5	53	53
Germany	2,209	2,027	2,400	1,550	1,480	1,624	2,137	1,861	2,465	3.3	-14.6	17.5	0.2	-0.7	1.0	786	788
Ghana	20,347	16,165	25,716	20,687	17,447	24,481	19,529	15,409	24,690	4.0	-31.0	29.2	0.2	-1.4	1.8	882	902
Greece	491	462	522	345	328	363	244	221	270	50.3	43.9	55.9	3.7	3.0	4.3	79	79
Grenada	20	13	30	19	13	27	18	12	27	10.0	-30.8	37.0	0.6	-1.4	2.4	2	2
Guatemala	8,391	6,888	10,224	6,576	5,723	7,560	5,498	4,576	6,618	34.5	14.5	49.6	2.2	0.8	3.6	426	431
Guinea	11,583	7,613	18,003	11,147	7,514	16,659	11,895	7,850	18,224	-2.7	-46.2	29.2	-0.1	-2.0	1.8	460	472
Guinea-Bissau	2,366	1,750	3,235	2,370	1,819	3,092	2,209	1,602	3,076	6.6	-31.0	33.9	0.4	-1.4	2.2	66	69
Guyana	356	257	500	260	194	352	216	151	313	39.3	13.0	57.5	2.6	0.7	4.5	15	16
Haiti	6,562	4,284	10,226	6,361	4,312	9,420	5,470	3,595	8,293	16.6	-18.4	41.8	1.0	-0.9	2.9	270	275
Honduras	3,133	2,507	3,938	2,112	1,892	2,363	1,787	1,533	2,068	43.0	25.7	56.8	3.0	1.6	4.4	208	210
Hungary	414	389	441	324	308	342	303	254	359	26.8	12.4	39.3	1.6	0.7	2.6	91	92
Iceland	11	9	13	10	8	11	8	6	9	27.3	10.0	46.7	1.7	0.6	3.3	4	4
India ^d	852,386	675,197	1,086,996	535,683	487,933	629,195	340,622	328,322	471,827	60.0	38.4	66.1	4.8	2.5	5.7	24,116	24,457
Indonesia	71,240	56,944	89,594	60,411	51,591	71,494	45,857	35,460	58,987	35.6	12.4	53.4	2.3	0.7	4.0	4,801	4,847
Iran (Islamic Republic of)	13,282	8,452	21,123	11,414	7,504	17,541	10,367	6,676	16,275	21.9	-11.2	45.7	1.3	-0.6	3.2	1,524	1,535
Iraq	14,028	9,033	22,104	14,767	9,832	22,195	13,270	8,633	20,352	5.4	-36.4	34.7	0.3	-1.6	2.2	1,124	1,138
Ireland	276	256	297	267	253	282	172	149	196	37.7	27.1	47.0	2.5	1.7	3.3	61	61
Israel	522	479	572	430	409	452	472	409	548	9.6	-7.6	23.8	0.5	-0.4	1.4	170	171

Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
Italy	2.8	2.4	3.3	2.4	2.2	2.5	2.4	2.1	2.7	15.1	-1.9	29.3	0.9	-0.1	1.8
Jamaica	18.9	15.8	22.7	15.6	13.5	17.9	12.7	9.2	17.6	32.9	9.0	50.5	2.1	0.5	3.7
Japan	2.5	2.4	2.7	2.0	2.0	2.1	1.5	1.4	1.7	40.2	34.7	45.4	2.7	2.2	3.2
Jordan	12.2	9.4	15.9	10.0	7.5	13.2	8.8	6.0	13.0	27.5	-0.4	48.4	1.7	0.0	3.5
Kazakhstan	11.2	8.3	14.9	7.4	6.9	8.1	5.4	4.3	6.7	51.7	34.2	64.3	3.8	2.2	5.4
Kenya	22.5	15.7	32.2	20.6	16.4	25.5	19.7	18.3	21.1	12.1	-17.8	36.0	0.7	-0.9	2.4
Kiribati	17.0	10.3	28.0	15.6	9.7	25.0	14.3	8.7	24.1	15.7	-20.7	40.5	0.9	-1.0	2.7
Kuwait	7.1	4.2	11.6	6.4	4.0	10.1	5.8	3.6	9.6	17.6	-17.7	41.6	1.0	-0.9	2.8
Kyrgyzstan	10.8	8.0	14.6	9.0	8.5	9.5	6.8	6.2	7.5	36.7	17.6	51.4	2.4	1.0	3.8
Lao People's Democratic Republic	24.3	15.0	39.0	20.9	13.6	31.1	16.6	10.6	25.4	32.0	3.6	52.8	2.0	0.2	3.9
Latvia	6.0	5.3	6.7	4.2	3.8	4.6	3.2	2.8	3.8	45.8	35.9	53.9	3.2	2.3	4.1
Lebanon	10.8	6.4	18.2	7.6	4.7	12.1	6.3	3.8	10.4	41.4	17.3	58.9	2.8	1.0	4.7
Lesotho	35.6	26.7	45.9	30.4	23.4	38.9	27.9	19.6	39.7	21.7	-8.2	43.0	1.3	-0.4	3.0
Liberia	29.8	18.2	49.3	25.4	16.1	40.1	24.2	15.0	39.6	18.8	-17.0	43.3	1.1	-0.8	3.0
Libya	13.8	8.3	23.6	10.4	6.6	16.6	8.8	5.3	14.6	36.8	10.8	56.1	2.4	0.6	4.3
Lithuania	4.5	3.3	6.2	3.4	3.1	3.8	2.8	2.4	3.2	39.4	18.1	54.8	2.6	1.1	4.2
Luxembourg	3.6	3.0	4.4	3.5	3.0	4.0	3.4	2.6	4.3	8.1	-19.6	29.2	0.4	-0.9	1.8
Madagascar	20.2	14.4	28.6	17.5	12.9	23.7	16.5	11.1	24.5	18.6	-15.0	42.5	1.1	-0.7	2.9
Malawi	22.2	17.2	29.0	20.0	17.0	23.2	16.3	14.7	18.1	26.6	7.1	42.3	1.6	0.4	2.9
Malaysia	4.9	3.8	6.4	4.5	4.3	4.7	5.5	5.0	6.0	-11.1	-41.3	12.6	-0.6	-1.8	0.7
Maldives	13.7	10.5	18.0	7.6	6.7	8.6	5.8	4.4	7.5	57.6	41.8	69.5	4.5	2.8	6.3
Mali	28.2	19.5	41.0	23.0	18.0	29.7	19.7	18.4	21.2	30.2	4.5	49.5	1.9	0.2	3.6
Malta	3.9	3.1	4.8	3.6	3.1	4.2	3.0	2.4	3.8	21.6	-1.5	39.5	1.3	-0.1	2.6
Marshall Islands	12.0	7.3	20.6	11.7	7.3	19.2	10.9	6.5	18.2	9.8	-28.1	37.8	0.5	-1.3	2.5
Mauritania	30.0	18.1	49.7	25.4	15.9	40.8	22.0	13.3	35.9	26.8	-4.7	49.1	1.6	-0.2	3.6
Mauritius	12.5	11.5	13.7	9.0	8.3	9.7	10.3	9.3	11.4	17.8	7.7	27.1	1.0	0.4	1.7
Mexico	9.6	6.7	13.9	7.3	5.9	9.2	6.8	5.3	8.8	29.0	0.9	50.1	1.8	0.0	3.7
Micronesia (Federated States of)	15.1	9.2	25.6	13.2	8.3	21.5	11.7	7.2	19.6	22.7	-9.0	45.6	1.4	-0.5	3.2
Monaco	2.2	1.3	3.8	1.7	1.0	2.9	1.4	0.8	2.5	35.6	8.4	55.1	2.3	0.5	4.2
Mongolia	12.1	10.7	13.7	6.7	6.3	7.2	5.2	4.2	6.6	56.8	46.2	65.3	4.4	3.3	5.6
Montenegro	5.2	4.5	6.0	4.4	3.9	5.0	3.6	3.0	4.3	31.2	15.3	44.0	2.0	0.9	3.1
Morocco	21.0	16.3	27.4	16.8	13.4	20.9	14.0	10.3	18.8	33.5	10.6	51.0	2.1	0.6	3.8
Mozambique	27.8	21.6	36.7	25.5	19.9	32.8	21.7	16.8	27.7	22.0	-2.4	40.9	1.3	-0.1	2.8
Myanmar	20.0	12.1	33.7	16.3	10.3	25.8	14.1	8.6	23.8	29.3	-0.1	51.1	1.8	0.0	3.8
Namibia	17.5	10.7	28.4	15.8	9.8	24.7	14.7	8.8	24.0	15.9	-19.5	40.4	0.9	-0.9	2.7
Nauru	15.0	8.8	24.8	14.4	8.9	22.9	13.1	7.7	21.5	12.3	-23.9	38.3	0.7	-1.1	2.5
Nepal	31.1	24.1	40.2	23.0	18.2	29.1	17.5	12.9	23.9	43.8	23.3	58.6	3.0	1.4	4.6
Netherlands	5.2	4.9	5.5	3.0	2.8	3.2	2.3	1.9	2.8	55.3	46.4	62.6	4.2	3.3	5.2
New Zealand	3.6	3.2	4.1	3.3	3.0	3.6	2.7	2.1	3.4	26.3	7.9	40.6	1.6	0.4	2.7
Nicaragua	15.4	11.3	20.6	12.6	9.8	16.3	10.8	7.5	15.4	29.6	0.8	50.1	1.8	0.0	3.7
Niger	27.3	18.9	40.3	21.9	16.8	29.2	19.6	13.5	28.4	28.4	-2.1	50.6	1.8	-0.1	3.7
Nigeria	27.5	16.4	45.2	23.7	14.9	37.0	22.2	13.4	35.9	19.0	-15.8	43.1	1.1	-0.8	3.0

Country, regional and global estimates of stillbirths

Country	Number of stillbirths															Number of births (thousands) ^a	
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Live births 2019	Total births 2019
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound		
Italy	1,507	1,315	1,732	1,319	1,260	1,386	1,070	954	1,202	29.0	14.8	40.9	1.8	0.8	2.8	447	448
Jamaica	1,090	930	1,273	791	702	891	602	460	784	44.8	24.7	59.4	3.1	1.5	4.8	47	47
Japan	2,967	2,863	3,079	2,255	2,182	2,330	1,407	1,297	1,525	52.6	48.1	56.7	3.9	3.5	4.4	926	928
Jordan	2,009	1,601	2,520	2,117	1,674	2,691	1,914	1,390	2,649	4.7	-32.5	32.3	0.3	-1.5	2.1	215	217
Kazakhstan	2,670	2,085	3,412	2,762	2,581	2,949	2,040	1,718	2,443	23.6	-4.4	43.7	1.4	-0.2	3.0	376	379
Kenya	29,465	21,873	40,409	31,077	25,725	37,503	30,030	28,181	31,807	-1.9	-37.4	26.5	-0.1	-1.7	1.6	1,491	1,521
Kiribati	45	29	69	48	32	72	47	31	73	-4.4	-51.6	26.3	-0.2	-2.2	1.6	3	3
Kuwait	316	203	492	379	253	570	325	215	500	-2.8	-47.4	27.2	-0.1	-2.0	1.7	55	56
Kyrgyzstan	1,151	891	1,483	1,327	1,269	1,388	1,051	965	1,144	8.7	-19.2	30.2	0.5	-0.9	1.9	153	154
Lao People's Democratic Republic	4,247	2,812	6,371	3,586	2,496	5,049	2,791	1,919	4,065	34.3	6.2	54.7	2.2	0.3	4.2	166	168
Latvia	116	105	128	93	86	101	65	57	75	44.0	33.3	52.1	3.0	2.1	3.9	20	20
Lebanon	915	603	1,421	664	449	987	745	485	1,147	18.6	-15.1	43.1	1.1	-0.7	3.0	117	118
Lesotho	2,292	1,796	2,875	1,824	1,450	2,268	1,611	1,184	2,178	29.7	1.9	49.3	1.9	0.1	3.6	56	58
Liberia	3,594	2,314	5,485	3,739	2,537	5,554	4,008	2,647	6,137	-11.5	-62.4	23.0	-0.6	-2.6	1.4	162	166
Libya	1,631	1,062	2,557	1,417	952	2,097	1,094	717	1,653	32.9	5.0	53.6	2.1	0.3	4.0	124	125
Lithuania	152	116	197	109	99	120	78	69	89	48.7	30.1	61.4	3.5	1.9	5.0	28	28
Luxembourg	20	17	23	20	18	23	22	18	27	-10.0	-43.8	15.8	-0.5	-1.9	0.9	6	6
Madagascar	13,453	10,015	18,119	13,261	10,261	17,125	14,671	10,469	20,545	-9.1	-55.0	23.4	-0.5	-2.3	1.4	876	890
Malawi	11,042	8,848	13,871	11,947	10,447	13,711	10,440	9,524	11,467	5.5	-20.1	26.1	0.3	-1.0	1.6	630	641
Malaysia	2,514	1,996	3,168	2,184	2,114	2,258	2,921	2,705	3,156	-16.2	-47.9	8.8	-0.8	-2.1	0.5	531	534
Maldives	84	67	106	56	51	62	41	33	51	51.2	32.9	65.2	3.8	2.1	5.6	7	7
Mali	15,592	11,354	21,704	16,391	13,325	20,375	16,251	15,326	17,293	-4.2	-43.7	25.4	-0.2	-1.9	1.5	809	825
Malta	17	14	20	14	13	16	13	11	16	23.5	0.0	40.0	1.4	0.0	2.7	4	4
Marshall Islands	23	15	36	20	13	30	15	10	23	34.8	5.6	54.6	2.2	0.3	4.2	1	1
Mauritania	3,117	2,004	4,840	3,341	2,238	5,004	3,385	2,208	5,160	-8.6	-57.0	25.3	-0.4	-2.4	1.5	151	154
Mauritius	255	236	275	136	127	145	133	121	146	47.8	41.3	53.8	3.4	2.8	4.1	13	13
Mexico	22,850	16,822	31,362	16,826	13,901	20,456	15,136	12,200	18,839	33.8	7.3	53.6	2.2	0.4	4.0	2,206	2,221
Micronesia (Federated States of)	50	32	77	34	23	51	31	20	47	38.0	12.5	56.8	2.5	0.7	4.4	3	3
Monaco	1	1	1	1	0	1	1	0	1	a	a	a	a	a	a	0	0
Mongolia	567	510	631	458	432	487	395	325	478	30.3	13.3	44.2	1.9	0.8	3.1	75	76
Montenegro	44	39	50	35	31	38	26	22	31	40.9	26.3	51.2	2.8	1.6	3.8	7	7
Morocco	13,754	10,993	17,236	11,743	9,655	14,265	9,562	7,375	12,354	30.5	6.0	49.1	1.9	0.3	3.6	675	684
Mozambique	22,833	18,366	28,782	25,126	20,460	31,260	25,096	20,130	31,308	-9.9	-45.3	17.3	-0.5	-2.0	1.0	1,131	1,156
Myanmar	23,402	15,037	37,446	16,639	11,116	24,999	13,493	8,783	20,935	42.3	17.9	60.4	2.9	1.0	4.9	942	955
Namibia	985	646	1,500	1,039	708	1,525	1,050	690	1,602	-6.6	-52.4	24.9	-0.3	-2.2	1.5	70	71
Nauru	5	3	8	5	3	7	4	3	6	20.0	-20.0	50.0	1.2	-1.0	3.6	0	0
Nepal	24,153	19,285	30,180	14,330	11,710	17,448	9,997	7,663	13,127	58.6	43.0	69.7	4.6	3.0	6.3	563	573
Netherlands	1,025	976	1,075	542	516	568	400	337	477	61.0	53.3	67.4	5.0	4.0	5.9	173	173
New Zealand	203	184	225	211	196	227	160	133	195	21.2	1.6	36.6	1.3	0.1	2.4	60	60
Nicaragua	2,142	1,637	2,780	1,753	1,414	2,168	1,448	1,048	1,976	32.4	4.3	52.3	2.1	0.2	3.9	132	134
Niger	17,090	12,476	23,843	18,416	14,689	23,432	21,283	15,558	29,051	-24.5	-79.1	15.0	-1.2	-3.1	0.9	1,067	1,089
Nigeria	149,396	96,254	230,361	159,399	107,518	237,094	171,428	112,440	260,571	-14.7	-65.6	20.2	-0.7	-2.7	1.2	7,535	7,706

Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
Niue	11.1	6.6	18.2	11.1	6.8	17.7	9.4	5.7	15.7	15.5	-21.1	40.3	0.9	-1.0	2.7
North Macedonia	10.8	9.9	11.7	6.2	5.4	7.0	4.1	3.5	4.8	62.0	55.4	67.4	5.1	4.3	5.9
Norway	3.7	3.3	4.0	2.9	2.7	3.1	2.4	2.1	2.8	33.5	23.7	42.4	2.1	1.4	2.9
Oman	8.0	6.0	10.9	6.2	5.7	6.8	5.6	5.1	6.0	30.7	10.7	46.9	1.9	0.6	3.3
Pakistan	39.9	31.1	51.7	36.5	31.5	42.4	30.6	24.9	37.8	23.2	-0.8	41.2	1.4	0.0	2.8
Palau	10.6	6.4	17.5	9.2	5.9	14.7	7.7	4.7	12.7	26.9	-4.5	49.0	1.7	-0.2	3.5
Panama	11.5	7.0	19.2	9.5	5.9	15.0	7.7	4.7	12.7	32.9	4.4	53.2	2.1	0.2	4.0
Papua New Guinea	19.3	11.5	32.1	17.6	10.9	27.8	16.1	9.6	26.4	16.6	-19.4	41.7	1.0	-0.9	2.8
Paraguay	17.1	12.8	22.2	13.4	9.7	18.1	10.5	7.1	15.4	38.2	13.0	55.4	2.5	0.7	4.2
Peru	13.6	10.5	17.8	9.0	7.8	10.4	7.1	5.5	8.8	48.2	32.1	61.3	3.5	2.0	5.0
Philippines	14.0	11.1	17.9	12.3	10.0	15.1	10.4	7.6	14.2	25.7	0.2	45.0	1.6	0.0	3.1
Poland	4.3	4.0	4.5	3.0	2.8	3.1	2.3	2.2	2.5	45.5	41.6	49.1	3.2	2.8	3.6
Portugal	4.0	3.7	4.3	2.7	2.5	2.8	2.5	2.3	2.7	38.0	31.6	43.9	2.5	2.0	3.0
Qatar	6.3	5.6	7.2	6.6	6.0	7.2	5.4	4.1	7.3	14.7	-11.7	34.4	0.8	-0.6	2.2
Republic of Korea	3.1	2.3	4.1	2.1	2.0	2.2	1.7	1.5	1.9	44.8	27.6	57.3	3.1	1.7	4.5
Republic of Moldova	11.7	7.9	17.2	8.1	5.4	12.0	6.9	4.3	10.8	41.3	18.4	58.4	2.8	1.1	4.6
Romania	6.7	5.4	8.3	4.1	3.9	4.3	3.2	2.9	3.6	52.0	41.4	60.8	3.9	2.8	4.9
Russian Federation	6.7	6.5	6.9	4.6	4.5	4.7	3.8	3.3	4.3	43.9	36.8	50.3	3.0	2.4	3.7
Rwanda	28.7	21.0	39.0	18.9	17.1	21.0	16.9	13.9	20.5	40.9	19.1	57.0	2.8	1.1	4.4
Saint Kitts and Nevis	10.6	6.3	17.9	8.5	5.3	13.6	7.4	4.5	12.4	29.7	-1.8	51.0	1.9	-0.1	3.8
Saint Lucia	13.4	11.4	15.9	12.2	10.5	14.1	11.2	9.1	13.7	16.5	-4.8	33.1	1.0	-0.2	2.1
Saint Vincent and the Grenadines	10.9	8.9	13.2	13.5	11.8	15.4	12.1	9.5	15.4	-11.1	-44.0	14.0	-0.6	-1.9	0.8
Samoa	10.8	6.3	18.1	9.7	6.1	15.5	8.8	5.2	14.7	18.8	-16.0	43.4	1.1	-0.8	3.0
San Marino	3.3	2.0	5.2	2.1	1.4	3.2	1.8	1.1	2.8	45.8	21.6	62.2	3.2	1.3	5.1
Sao Tome and Principe	16.9	10.1	28.6	14.7	9.1	23.9	12.6	7.4	21.0	25.3	-4.7	47.5	1.5	-0.2	3.4
Saudi Arabia	9.3	5.6	15.4	6.7	4.2	10.8	5.0	3.0	8.4	45.9	21.9	61.6	3.2	1.3	5.0
Senegal	25.3	19.9	32.4	22.6	19.7	26.0	19.7	18.4	21.2	22.1	3.6	37.5	1.3	0.2	2.5
Serbia	5.3	4.9	5.7	4.9	4.6	5.2	4.4	4.0	5.0	15.7	4.6	25.2	0.9	0.2	1.5
Seychelles	9.0	7.2	11.2	9.3	7.9	11.0	9.5	7.1	12.7	-5.6	-43.0	21.6	-0.3	-1.9	1.3
Sierra Leone	34.3	20.6	56.5	27.7	17.2	43.9	23.7	14.4	39.1	30.8	1.3	51.6	1.9	0.1	3.8
Singapore	3.0	2.6	3.3	2.3	2.0	2.5	2.0	1.6	2.5	33.1	18.0	45.1	2.1	1.0	3.2
Slovakia	4.0	3.6	4.4	3.3	3.1	3.6	2.8	2.5	3.1	29.9	21.5	37.6	1.9	1.3	2.5
Slovenia	3.6	3.1	4.1	2.9	2.6	3.2	2.5	2.1	3.1	28.9	13.1	41.9	1.8	0.7	2.9
Solomon Islands	13.1	7.8	21.9	11.7	7.2	18.8	10.1	5.9	16.8	23.1	-8.7	45.8	1.4	-0.4	3.2
Somalia	29.9	18.0	48.7	29.1	18.0	45.9	26.8	16.1	43.9	10.4	-25.9	36.9	0.6	-1.2	2.4
South Africa	20.8	16.1	26.7	17.3	14.9	20.0	16.4	12.7	21.3	21.1	-6.1	41.0	1.2	-0.3	2.8
South Sudan	34.2	20.8	56.1	29.9	18.9	47.3	28.8	17.6	47.2	15.9	-17.7	40.1	0.9	-0.9	2.7
Spain	3.3	3.1	3.4	2.7	2.6	2.8	2.2	1.9	2.7	31.2	20.3	40.5	2.0	1.2	2.7
Sri Lanka	10.3	7.8	13.6	7.4	6.5	8.5	5.8	5.4	6.3	43.2	27.7	55.6	3.0	1.7	4.3
State of Palestine	14.8	8.8	25.1	12.3	7.6	19.2	10.4	6.3	16.9	30.2	0.6	50.5	1.9	0.0	3.7
Sudan	29.6	19.0	46.3	26.0	17.7	37.9	22.6	14.5	34.7	23.6	-7.8	46.1	1.4	-0.4	3.3
Suriname	14.4	8.6	24.5	12.9	8.1	20.7	11.2	6.8	18.6	22.4	-9.8	45.6	1.3	-0.5	3.2

Country, regional and global estimates of stillbirths

Country	Number of stillbirths															Number of births (thousands) ^a	
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Live births 2019	Total births 2019
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound		
Niue	0	0	1	0	0	0	0	0	0	a	a	a	a	a	a	0	0
North Macedonia	288	266	309	143	128	159	91	80	105	68.4	62.7	72.8	6.1	5.2	6.9	22	22
Norway	213	197	230	175	164	187	146	129	163	31.5	21.5	40.8	2.0	1.3	2.8	60	60
Oman	450	352	582	429	399	463	509	475	543	-13.1	-45.8	13.7	-0.6	-2.0	0.8	91	91
Pakistan	204,880	164,694	256,014	204,648	180,187	232,700	190,483	159,505	228,681	7.0	-23.3	29.6	0.4	-1.1	1.8	6,029	6,220
Palau	3	2	5	2	2	4	2	1	3	33.3	0.0	66.7	2.1	0.0	5.8	0	0
Panama	827	541	1,272	739	493	1,084	617	407	949	25.4	-6.8	48.1	1.5	-0.3	3.5	79	80
Papua New Guinea	3,902	2,502	6,078	3,911	2,629	5,801	3,850	2,489	5,810	1.3	-42.2	31.6	0.1	-1.9	2.0	235	239
Paraguay	2,487	1,972	3,124	1,905	1,471	2,442	1,526	1,095	2,123	38.6	13.3	55.9	2.6	0.7	4.3	143	145
Peru	8,481	6,862	10,614	5,433	4,796	6,152	4,080	3,324	4,949	51.9	36.8	64.1	3.9	2.4	5.4	575	579
Philippines	32,900	26,854	40,519	29,338	24,704	34,843	22,966	17,614	29,758	30.2	5.8	48.5	1.9	0.3	3.5	2,182	2,205
Poland	1,627	1,555	1,704	1,171	1,127	1,217	859	817	904	47.2	43.4	50.7	3.4	3.0	3.7	367	368
Portugal	454	427	483	256	241	271	197	182	213	56.6	52.1	60.7	4.4	3.9	4.9	79	79
Qatar	75	67	84	135	125	146	144	114	185	-92.0	-151.8	-47.9	-3.4	-4.9	-2.1	27	27
Republic of Korea	1,758	1,371	2,233	945	908	984	625	572	684	64.4	53.4	72.5	5.4	4.0	6.8	367	368
Republic of Moldova	567	408	789	369	266	515	278	189	406	51.0	31.6	65.4	3.8	2.0	5.6	40	40
Romania	1,464	1,220	1,759	888	852	925	604	553	659	58.7	49.6	66.4	4.7	3.6	5.7	187	187
Russian Federation	8,938	8,671	9,214	8,190	7,979	8,410	6,805	6,060	7,631	23.9	14.2	32.6	1.4	0.8	2.1	1,806	1,813
Rwanda	8,851	6,752	11,679	6,701	6,159	7,324	6,798	5,729	8,022	23.2	-5.9	44.6	1.4	-0.3	3.1	395	401
Saint Kitts and Nevis	8	5	13	6	4	9	5	3	8	37.5	12.5	58.3	2.5	0.7	4.6	1	1
Saint Lucia	39	34	46	28	25	32	24	21	29	38.5	22.0	50.0	2.6	1.3	3.6	2	2
Saint Vincent and the Grenadines	24	20	28	24	21	27	19	16	23	20.8	-4.8	38.5	1.2	-0.2	2.6	2	2
Samoa	58	38	90	51	35	76	42	28	65	27.6	-3.6	50.0	1.7	-0.2	3.6	5	5
San Marino	1	1	1	1	0	1	0	0	1	a	a	a	a	a	a	0	0
Sao Tome and Principe	98	63	152	96	65	145	86	56	133	12.2	-24.3	38.5	0.7	-1.1	2.6	7	7
Saudi Arabia	5,156	3,328	7,938	4,102	2,757	6,094	2,984	1,947	4,556	42.1	16.3	59.0	2.9	0.9	4.7	592	595
Senegal	10,018	8,143	12,477	11,270	9,996	12,720	11,157	10,484	11,821	-11.4	-38.5	11.2	-0.6	-1.7	0.6	554	565
Serbia	622	584	665	458	434	483	367	331	406	41.0	33.3	47.8	2.8	2.1	3.4	82	83
Seychelles	14	12	17	16	14	18	15	12	19	-7.1	-46.2	20.0	-0.4	-2.0	1.2	2	2
Sierra Leone	7,393	4,763	11,559	7,073	4,751	10,672	6,249	4,072	9,611	15.5	-21.9	41.6	0.9	-1.0	2.8	257	263
Singapore	149	136	164	112	102	123	99	84	119	33.6	18.4	45.4	2.2	1.1	3.2	50	50
Slovakia	214	198	232	189	177	201	157	144	171	26.6	17.8	34.7	1.6	1.0	2.2	56	56
Slovenia	62	56	70	61	56	67	50	43	59	19.4	1.7	34.3	1.1	0.1	2.2	20	20
Solomon Islands	195	126	304	214	143	325	217	140	339	-11.3	-58.4	21.6	-0.6	-2.4	1.3	21	22
Somalia	13,377	8,653	20,709	15,939	10,577	23,935	17,738	11,534	27,337	-32.6	-88.2	7.5	-1.5	-3.3	0.4	644	662
South Africa	21,766	17,627	26,897	21,016	18,515	23,895	19,612	15,689	24,581	9.9	-21.8	33.0	0.5	-1.0	2.1	1,178	1,197
South Sudan	9,408	6,117	14,678	11,060	7,460	16,652	11,515	7,490	17,600	-22.4	-73.1	14.0	-1.1	-2.9	0.8	388	400
Spain	1,300	1,242	1,360	1,334	1,287	1,386	870	758	1,002	33.1	22.5	42.2	2.1	1.3	2.9	387	388
Sri Lanka	3,607	2,852	4,561	2,711	2,422	3,037	1,943	1,822	2,069	46.1	31.3	58.0	3.3	2.0	4.6	331	333
State of Palestine	1,811	1,163	2,821	1,690	1,130	2,505	1,499	992	2,284	17.2	-18.3	41.6	1.0	-0.9	2.8	143	145
Sudan	33,073	22,509	48,255	32,875	23,755	44,929	31,584	21,614	45,513	4.5	-36.2	33.2	0.2	-1.6	2.1	1,365	1,396
Suriname	164	108	254	142	96	209	120	79	184	26.8	-4.5	48.7	1.6	-0.2	3.5	11	11

Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
Sweden	3.7	3.4	4.1	2.9	2.7	3.1	2.4	2.1	2.9	34.4	24.0	43.1	2.2	1.4	3.0
Switzerland	2.7	2.4	3.1	2.3	2.1	2.5	2.2	1.8	2.7	19.0	0.6	33.5	1.1	0.0	2.1
Syrian Arab Republic	12.7	7.7	21.1	10.7	6.8	17.0	10.9	6.7	17.9	14.4	-21.8	39.2	0.8	-1.0	2.6
Tajikistan	13.8	8.1	23.0	10.9	6.8	16.9	9.0	5.4	14.8	34.7	7.3	54.5	2.2	0.4	4.1
Thailand	10.5	6.3	17.5	7.5	4.7	11.8	5.8	3.5	9.4	45.2	22.1	61.5	3.2	1.3	5.0
Timor-Leste	20.6	12.2	34.4	15.4	9.4	24.2	13.0	7.7	21.6	37.1	9.0	56.1	2.4	0.5	4.3
Togo	28.5	17.4	47.4	25.0	15.6	40.1	22.4	13.7	36.8	21.4	-10.2	45.3	1.3	-0.5	3.2
Tonga	8.4	5.1	14.1	7.8	4.8	12.7	7.7	4.5	12.8	8.5	-30.5	34.9	0.5	-1.4	2.3
Trinidad and Tobago	11.9	8.7	16.3	10.4	9.3	11.5	9.1	6.8	12.1	23.5	-8.1	46.3	1.4	-0.4	3.3
Tunisia	16.7	11.8	23.7	12.1	10.1	14.4	10.8	9.0	12.8	35.5	10.7	53.8	2.3	0.6	4.1
Turkey	12.1	9.4	15.4	6.2	5.7	6.7	4.4	4.3	4.6	63.4	54.7	70.2	5.3	4.2	6.4
Turkmenistan	10.1	6.2	16.6	8.7	5.4	13.7	8.6	5.2	13.9	15.1	-20.1	39.7	0.9	-1.0	2.7
Tuvalu	14.8	8.9	24.3	13.6	8.6	22.0	11.9	7.1	19.7	19.5	-13.8	43.3	1.1	-0.7	3.0
Uganda	23.3	17.9	30.7	20.8	17.7	24.2	17.8	16.4	19.4	23.5	3.8	39.3	1.4	0.2	2.6
Ukraine	6.8	5.2	8.9	5.2	4.8	5.6	4.5	3.8	5.4	33.5	12.3	49.1	2.1	0.7	3.6
United Arab Emirates	8.4	7.6	9.4	6.1	5.6	6.6	4.9	4.3	5.7	41.5	32.2	49.8	2.8	2.0	3.6
United Kingdom	4.4	3.8	5.3	3.8	3.6	4.0	3.0	2.6	3.5	31.6	16.9	43.6	2.0	1.0	3.0
United Republic of Tanzania	25.3	20.0	32.1	21.8	18.3	26.2	18.8	14.4	24.8	25.6	0.8	44.0	1.6	0.0	3.0
United States of America	3.3	3.2	3.4	3.0	2.9	3.1	3.0	2.6	3.5	9.3	-4.2	21.2	0.5	-0.2	1.3
Uruguay	7.3	6.8	7.9	4.9	4.5	5.3	4.7	4.2	5.4	35.8	27.3	43.2	2.3	1.7	3.0
Uzbekistan	11.2	6.7	18.3	8.9	5.7	13.9	6.5	4.0	10.7	41.3	15.9	58.9	2.8	0.9	4.7
Vanuatu	12.2	7.1	20.0	11.9	7.5	18.8	11.1	6.8	18.2	9.3	-31.1	35.7	0.5	-1.4	2.3
Venezuela (Bolivarian Republic of)*	9.8	5.6	16.7	8.8	5.5	14.4	9.4	5.7	15.4	4.5	-38.2	33.8	0.2	-1.7	2.2
Viet Nam	13.3	8.7	20.2	9.6	6.9	13.7	7.8	5.2	11.9	41.1	15.5	58.9	2.8	0.9	4.7
Yemen	26.6	18.1	38.9	22.0	17.2	28.5	23.7	17.1	32.9	10.7	-26.7	37.1	0.6	-1.2	2.4
Zambia	20.7	15.1	28.4	17.3	14.8	20.3	14.8	11.8	18.4	28.6	1.8	48.2	1.8	0.1	3.5
Zimbabwe	22.8	16.4	31.9	23.7	20.1	28.0	16.0	14.9	17.2	29.7	6.2	47.2	1.9	0.3	3.4

Country, regional and global estimates of stillbirths

Country	Number of stillbirths															Number of births (thousands) ^a	
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Live births 2019	Total births 2019
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound		
Sweden	343	320	367	326	309	345	293	258	333	14.6	0.9	25.9	0.8	0.0	1.6	119	119
Switzerland	209	188	231	180	167	195	197	166	234	5.7	-15.4	22.8	0.3	-0.8	1.4	88	88
Syrian Arab Republic	6,618	4,308	10,208	6,102	4,206	9,043	4,649	3,077	7,126	29.8	-0.4	50.3	1.9	0.0	3.7	422	426
Tajikistan	2,673	1,706	4,180	2,623	1,762	3,865	2,542	1,651	3,886	4.9	-35.6	34.1	0.3	-1.6	2.2	279	282
Thailand	9,683	6,232	15,062	5,965	4,051	8,807	4,098	2,723	6,223	57.7	39.7	70.4	4.5	2.7	6.4	707	711
Timor-Leste	751	484	1,178	524	347	786	498	324	776	33.7	3.5	54.0	2.2	0.2	4.1	38	38
Togo	5,739	3,775	9,026	6,130	4,120	9,200	6,062	3,989	9,299	-5.6	-49.5	27.3	-0.3	-2.1	1.7	265	271
Tonga	24	15	36	22	15	33	19	13	30	20.8	-18.8	41.7	1.2	-0.9	2.8	3	3
Trinidad and Tobago	225	173	293	212	194	231	161	126	206	28.4	-1.2	50.2	1.8	-0.1	3.7	18	18
Tunisia	2,855	2,128	3,854	2,374	2,047	2,750	2,178	1,868	2,522	23.7	-6.1	45.6	1.4	-0.3	3.2	200	202
Turkey	16,812	13,562	20,756	8,097	7,561	8,669	5,823	5,636	6,020	65.4	57.0	71.9	5.6	4.4	6.7	1,308	1,314
Turkmenistan	1,089	708	1,653	1,142	774	1,677	1,184	784	1,788	-8.7	-54.3	23.2	-0.4	-2.3	1.4	137	138
Tuvalu	4	2	6	4	3	6	3	2	5	25.0	-40.0	40.0	1.5	-1.8	2.7	0	0
Uganda	27,555	21,952	34,678	30,869	26,878	35,280	29,928	27,874	32,240	-8.6	-37.3	14.3	-0.4	-1.7	0.8	1,649	1,678
Ukraine	2,761	2,179	3,456	2,590	2,414	2,774	1,853	1,600	2,140	32.9	11.4	48.8	2.1	0.6	3.5	408	410
United Arab Emirates	450	412	493	579	539	619	496	441	559	-10.2	-27.9	5.6	-0.5	-1.3	0.3	100	101
United Kingdom	3,110	2,697	3,588	3,048	2,932	3,172	2,358	2,070	2,679	24.2	7.8	37.5	1.5	0.4	2.5	773	775
United Republic of Tanzania	36,405	29,837	44,823	39,826	34,114	46,639	40,480	32,131	51,190	-11.2	-49.2	16.8	-0.6	-2.1	1.0	2,111	2,152
United States of America	13,163	12,799	13,548	12,147	11,841	12,460	11,844	10,331	13,555	10.0	-3.5	21.8	0.6	-0.2	1.3	3,932	3,944
Uruguay	399	374	426	236	221	252	225	203	251	43.6	36.1	50.1	3.0	2.4	3.7	48	48
Uzbekistan	6,357	4,121	9,734	5,840	3,942	8,589	4,535	2,988	6,864	28.7	-2.7	50.2	1.8	-0.1	3.7	688	693
Vanuatu	77	49	120	92	62	138	98	65	151	-27.3	-85.0	10.2	-1.3	-3.2	0.6	9	9
Venezuela (Bolivarian Republic of) ^a	5,699	3,641	8,991	5,263	3,544	8,006	4,865	3,212	7,516	14.6	-24.0	41.1	0.8	-1.1	2.8	515	520
Viet Nam	18,734	13,043	27,224	14,783	11,086	19,820	12,479	8,850	17,746	33.4	4.0	53.8	2.1	0.2	4.1	1,585	1,597
Yemen	18,890	13,620	26,397	18,041	14,573	22,554	21,184	16,010	27,950	-12.1	-60.6	21.7	-0.6	-2.5	1.3	872	893
Zambia	9,952	7,622	13,076	9,930	8,687	11,347	9,597	7,920	11,652	3.6	-33.3	30.5	0.2	-1.5	1.9	641	650
Zimbabwe	8,787	6,570	11,748	11,335	9,818	13,060	7,113	6,687	7,548	19.1	-8.6	39.7	1.1	-0.4	2.7	436	443

Country, regional and global estimates of stillbirths

Estimates of stillbirths by Sustainable Development Goal region

Region	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
Sub-Saharan Africa	28.1	25.5	32.8	24.4	22.4	27.8	21.7	19.8	24.8	22.9	15.1	30.9	1.4	0.9	1.9
Northern Africa and Western Asia	17.6	15.6	20.9	13.5	12.1	15.7	11.5	10.2	13.7	34.4	25.2	42.7	2.2	1.5	2.9
Northern Africa	20.9	17.3	26.4	15.9	13.6	19.5	12.9	10.7	16.2	38.3	25.1	49.2	2.5	1.5	3.6
Western Asia	14.6	12.7	17.5	11.1	9.8	13.1	10.1	8.8	12.1	30.9	19.4	40.9	1.9	1.1	2.8
Central and Southern Asia	30.9	26.7	36.7	22.7	21.4	25.2	17.2	16.7	20.9	44.2	27.9	50.8	3.1	1.7	3.7
Central Asia	11.5	9.3	14.7	8.8	7.4	10.9	6.9	5.8	8.6	39.8	27.2	50.2	2.7	1.7	3.7
Southern Asia	31.5	27.1	37.4	23.2	21.9	25.8	17.7	17.1	21.5	43.8	27.1	50.4	3.0	1.7	3.7
Eastern and South-Eastern Asia	14.3	13.2	15.7	10.3	9.7	11.1	7.0	6.4	7.7	51.2	45.4	56.4	3.8	3.2	4.4
Eastern Asia	13.9	12.6	15.4	9.5	8.8	10.3	5.3	4.8	5.9	61.9	55.7	66.9	5.1	4.3	5.8
South-Eastern Asia	14.8	13.1	17.4	11.7	10.5	13.2	9.6	8.4	11.2	35.4	24.4	45.3	2.3	1.5	3.2
Latin America and the Caribbean	11.2	10.5	12.4	9.0	8.5	9.7	7.9	7.4	8.8	29.3	22.1	36.1	1.8	1.3	2.4
Oceania	9.9	7.4	13.8	8.7	6.7	11.6	7.8	5.9	10.8	20.8	-2.3	38.6	1.2	-0.1	2.6
Australia and New Zealand	3.3	3.1	3.4	2.9	2.8	3.1	2.3	2.0	2.6	30.4	20.3	38.9	1.9	1.2	2.6
Oceania (exc. Australia and New Zealand)	17.6	12.3	25.9	16.1	11.7	22.7	14.8	10.3	21.2	16.1	-13.7	38.1	0.9	-0.7	2.5
Europe and Northern America	4.2	4.2	4.3	3.4	3.4	3.5	3.1	3.0	3.3	26.0	21.7	30.0	1.6	1.3	1.9
Europe	4.8	4.7	4.9	3.7	3.6	3.8	3.2	3.1	3.4	32.7	29.1	36.0	2.1	1.8	2.4
Northern America	3.3	3.2	3.4	3.0	2.9	3.0	3.0	2.6	3.4	9.8	-2.6	20.6	0.5	-0.1	1.2
Europe, Northern America, Australia and New Zealand	4.2	4.1	4.3	3.4	3.4	3.5	3.1	3.0	3.3	26.2	22.0	30.1	1.6	1.3	1.9
Landlocked developing countries	27.9	24.5	33.7	23.4	21.0	27.5	19.7	17.6	23.2	29.4	20.2	38.4	1.8	1.2	2.6
Least developed countries	30.9	28.7	35.0	25.6	24.1	28.3	22.1	20.9	24.5	28.4	22.3	34.7	1.8	1.3	2.2
Small Island Developing States	18.2	15.8	22.2	16.4	14.3	19.7	14.6	12.6	17.8	19.5	7.1	30.3	1.1	0.4	1.9
World	21.4	20.0	23.7	16.8	16.2	18.0	13.9	13.5	15.4	35.1	27.2	39.6	2.3	1.7	2.7

Estimates of stillbirths by UNICEF region

Region	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
Sub-Saharan Africa	28.2	25.7	32.7	24.5	22.5	27.8	21.7	19.9	24.8	23.0	15.4	30.6	1.4	0.9	1.9
West and Central Africa	29.0	25.0	35.9	25.2	22.1	30.1	22.8	19.8	27.7	21.4	9.0	32.9	1.3	0.5	2.1
Eastern and Southern Africa	27.3	24.4	32.4	23.7	21.6	27.3	20.5	18.7	23.6	24.9	16.0	33.8	1.5	0.9	2.2
Middle East and North Africa	15.9	14.0	19.2	12.2	10.9	14.4	10.3	9.1	12.3	35.3	25.8	43.9	2.3	1.6	3.0
South Asia	32.1	27.6	38.1	23.7	22.3	26.4	18.2	17.6	22.1	43.4	26.3	50.1	3.0	1.6	3.7
East Asia and the Pacific	14.2	13.1	15.6	10.3	9.7	11.1	7.0	6.4	7.7	50.8	45.1	55.9	3.7	3.2	4.3
Latin America and the Caribbean	11.2	10.5	12.4	9.0	8.5	9.7	7.9	7.4	8.8	29.3	22.1	36.1	1.8	1.3	2.4
North America	3.3	3.2	3.4	3.0	2.9	3.0	3.0	2.6	3.4	9.8	-2.6	20.6	0.5	-0.1	1.2
Europe and Central Asia	6.9	6.5	7.5	4.9	4.7	5.2	4.1	3.9	4.4	41.2	36.7	45.5	2.8	2.4	3.2
Eastern Europe and Central Asia	9.7	8.9	10.9	6.4	6.0	7.0	5.0	4.7	5.5	48.4	43.0	53.4	3.5	3.0	4.0
Western Europe	3.9	3.7	4.0	3.1	3.1	3.2	2.9	2.7	3.0	25.7	21.1	29.9	1.6	1.3	1.9
World	21.4	20.0	23.7	16.8	16.2	18.0	13.9	13.5	15.4	35.1	27.2	39.6	2.3	1.7	2.7

Country, regional and global estimates of stillbirths

Estimates of stillbirths by Sustainable Development Goal region^f (continued)

Region	Number of stillbirths (thousands) ^a																
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound	2019	2019
Sub-Saharan Africa	772	698	904	817	746	933	825	751	948	-6.9	-17.9	4.5	-0.3	-0.9	0.2	37,223	49.2
Northern Africa and Western Asia	166	147	199	149	133	173	134	118	159	19.4	8.0	29.8	1.1	0.4	1.9	11,477	39.1
Northern Africa	94	77	119	88	75	107	78	64	98	17.2	-0.7	32.1	1.0	0.0	2.0	5,952	41.3
Western Asia	73	63	87	61	54	72	56	49	68	22.3	9.1	33.6	1.3	0.5	2.2	5,525	36.1
Central and Southern Asia	1,303	1,120	1,555	918	864	1,022	673	652	820	48.4	32.8	54.7	3.5	2.1	4.2	38,342	48.2
Central Asia	14	11	18	14	11	17	11	9	14	18.6	1.3	32.7	1.1	0.1	2.1	1,634	8.7
Southern Asia	1,290	1,106	1,540	904	850	1,008	661	640	808	48.7	33.0	55.0	3.5	2.1	4.2	36,709	48.8
Eastern and South-Eastern Asia	452	418	498	327	308	352	207	191	230	54.1	48.5	59.0	4.1	3.5	4.7	29,633	15.6
Eastern Asia	279	252	310	187	174	202	98	88	109	65.1	59.4	69.7	5.5	4.7	6.3	18,263	8.7
South-Eastern Asia	173	152	204	140	126	159	110	96	129	36.4	25.4	46.3	2.4	1.5	3.3	11,370	21.9
Latin America and the Caribbean	131	122	144	98	92	105	83	78	92	36.3	29.8	42.5	2.4	1.9	2.9	10,412	15.8
Oceania	6	4	8	6	4	8	5	4	7	4.2	-24.1	26.0	0.2	-1.1	1.6	678	33.4
Australia and New Zealand	1	1	1	1	1	1	1	1	1	13.0	0.4	23.7	0.7	0.0	1.4	378	9.0
Oceania (exc. Australia and New Zealand)	5	3	7	5	3	7	4	3	6	2.2	-33.2	28.2	0.1	-1.5	1.7	300	38.1
Europe and Northern America	49	48	51	43	43	44	38	36	40	23.8	19.3	27.8	1.4	1.1	1.7	11,960	6.3
Europe	35	34	36	30	29	30	25	24	26	29.7	25.9	33.1	1.9	1.6	2.1	7,641	6.4
Northern America	14	14	15	13	13	14	13	11	15	9.3	-3.3	20.2	0.5	-0.2	1.2	4,319	6.2
Europe, Northern America, Australia and New Zealand	50	49	52	44	44	45	39	37	41	23.6	19.2	27.5	1.4	1.1	1.7	12,339	6.4
Landlocked developing countries	359	315	436	350	313	413	323	289	381	9.9	-2.2	21.7	0.5	-0.1	1.3	16,091	46.8
Least developed countries	811	750	920	762	713	843	729	685	807	10.1	2.3	18.3	0.6	0.1	1.1	32,166	49.5
Small island developing States	22	20	28	20	18	25	18	16	22	19.3	6.6	30.2	1.1	0.4	1.9	1,224	41.4
World	2,880	2,688	3,202	2,357	2,272	2,538	1,966	1,919	2,189	31.7	23.3	36.5	2.0	1.4	2.4	139,725	42.3

Estimates of stillbirths by UNICEF region^f (continued)

Region	Number of stillbirths (thousands) ^a																
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound	2019	2019
Sub-Saharan Africa	805	731	938	850	778	968	856	782	980	-6.4	-17.1	4.5	-0.3	-0.8	0.2	38,588	49.3
West and Central Africa	410	352	510	444	387	534	466	403	568	-13.7	-32.2	3.4	-0.7	-1.5	0.2	19,969	50.7
Eastern and Southern Africa	395	351	471	406	368	468	390	355	450	1.2	-10.9	13.2	0.1	-0.5	0.7	18,618	47.7
Middle East and North Africa	125	110	151	116	103	136	105	92	125	16.4	4.1	27.7	0.9	0.2	1.7	10,061	34.5
South Asia	1,276	1,092	1,526	893	839	995	651	630	796	49	33.2	55.3	3.5	2.1	4.2	35,184	49.5
East Asia and the Pacific	458	424	504	333	313	358	213	196	236	53.5	48	58.3	4.0	3.4	4.6	30,311	16.1
Latin America and the Caribbean	131	122	144	98	92	105	83	78	92	36.3	29.8	42.5	2.4	1.9	2.9	10,412	15.8
North America	14	14	15	13	13	14	13	11	15	9.3	-3.3	20.2	0.5	-0.2	1.2	4,319	6.2
Europe and Central Asia	70	66	77	55	53	59	44	42	48	37.1	32.2	41.8	2.4	2	2.8	10,850	7.4
Eastern Europe and Central Asia	52	47	58	39	37	42	30	28	34	41.1	34.8	46.8	2.8	2.3	3.3	6,017	7.9
Western Europe	19	18	20	16	16	17	14	13	15	26.4	21.9	30.5	1.6	1.3	1.9	4,834	6.4
World	2,880	2,688	3,202	2,357	2,272	2,538	1,966	1,919	2,189	31.7	23.3	36.5	2.0	1.4	2.4	139,725	42.3

Country, regional and global estimates of stillbirths

Estimates of stillbirths by World Health Organization region

Region	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
Africa	27.8	25.3	32.4	24.0	22.0	27.3	21.3	19.4	24.3	23.6	15.9	31.6	1.4	0.9	2.0
Americas	9.1	8.5	9.9	7.2	6.9	7.7	6.5	6.1	7.1	28.6	22.0	34.8	1.8	1.3	2.3
Eastern Mediterranean	27.3	24.2	32.0	23.4	21.5	26.2	20.1	18.1	23.0	26.4	14.2	37.0	1.6	0.8	2.4
Europe	6.9	6.4	7.5	4.9	4.7	5.2	4.0	3.8	4.3	41.2	36.7	45.5	2.8	2.4	3.2
South-East Asia	28.0	23.8	33.8	19.3	18.1	21.8	14.0	13.6	17.7	50.2	32.0	56.1	3.7	2.0	4.3
Western Pacific	13.8	12.7	15.2	9.8	9.2	10.5	6.2	5.7	6.8	55.4	49.5	60.3	4.3	3.6	4.9
World	21.4	20.0	23.7	16.8	16.2	18.0	13.9	13.5	15.4	35.1	27.2	39.6	2.3	1.7	2.7

Estimates of stillbirths by World Bank region

Region	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
East Asia and the Pacific	14.2	13.1	15.6	10.3	9.7	11.1	7.0	6.4	7.7	50.8	45.1	55.9	3.7	3.2	4.3
Europe and Central Asia	6.9	6.5	7.5	4.9	4.7	5.2	4.1	3.9	4.4	41.2	36.7	45.5	2.8	2.4	3.2
Latin America and the Caribbean	11.2	10.5	12.4	9.0	8.5	9.7	7.9	7.4	8.8	29.3	22.1	36.1	1.8	1.3	2.4
Middle East and North Africa	16.0	14.0	19.2	12.3	10.9	14.4	10.3	9.1	12.3	35.3	25.9	43.8	2.3	1.6	3.0
North America	3.3	3.2	3.4	3.0	2.9	3.0	3.0	2.6	3.4	9.8	-2.6	20.6	0.5	-0.1	1.2
South Asia	32.1	27.6	38.1	23.7	22.3	26.4	18.2	17.6	22.1	43.4	26.3	50.1	3.0	1.6	3.7
Sub-Saharan Africa	28.2	25.7	32.7	24.5	22.5	27.8	21.7	19.9	24.8	23.0	15.4	30.6	1.4	0.9	1.9
Low income	29.5	26.6	34.7	25.7	23.6	29.2	22.7	20.9	25.6	23.1	15.1	31.7	1.4	0.9	2.0
Lower-middle income	28.0	25.2	32.3	21.2	20.1	23.4	17.1	16.5	20.0	38.9	26.5	45.0	2.6	1.6	3.1
Upper-middle income	13.4	12.6	14.4	9.7	9.3	10.3	7.0	6.6	7.6	47.6	42.7	51.9	3.4	2.9	3.9
High income	3.9	3.8	4.2	3.3	3.2	3.4	3.0	2.8	3.2	24.4	19.4	28.9	1.5	1.1	1.8
World	21.4	20.0	23.7	16.8	16.2	18.0	13.9	13.5	15.4	35.1	27.2	39.6	2.3	1.7	2.7

Country, regional and global estimates of stillbirths

Estimates of stillbirths by World Health Organization region^f (continued)

Region	Number of stillbirths (thousands) ^g																
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound	2019	2019
Africa	768	695	899	811	741	926	816	744	937	-6.2	-17.3	5.1	-0.3	-0.8	0.3	37,570	48.7
Americas	145	136	159	111	105	119	96	90	105	33.6	27.5	39.5	2.2	1.7	2.6	14,731	14.5
Eastern Mediterranean	404	356	476	397	364	445	369	333	423	8.7	-7.0	22.1	0.5	-0.4	1.3	18,006	54.2
Europe	71	66	77	56	53	59	45	43	48	36.9	32.0	41.5	2.4	2.0	2.8	11,021	7.4
South-East Asia	1,143	965	1,387	736	687	833	492	480	627	56.9	40.8	62.2	4.4	2.8	5.1	34,786	39.3
Western Pacific	347	317	382	245	230	263	146	134	161	58.0	52.3	62.6	4.6	3.9	5.2	23,468	16.4
World	2,880	2,688	3,202	2,357	2,272	2,538	1,966	1,919	2,189	31.7	23.3	36.5	2.0	1.4	2.4	139,725	42.3

Estimates of stillbirths by World Bank region^f (continued)

Region	Number of stillbirths (thousands) ^g																
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound	2019	2019
East Asia and the Pacific	458	424	504	333	313	358	213	196	236	53.5	48.0	58.3	4.0	3.4	4.6	30,311	16.1
Europe and Central Asia	70	66	77	55	53	58	44	42	48	37.1	32.3	41.8	2.4	2.0	2.8	10,846	7.4
Latin America and the Caribbean	131	122	144	98	92	105	83	78	92	36.3	29.8	42.5	2.4	1.9	2.9	10,412	15.8
Middle East and North Africa	126	110	152	116	104	137	105	93	125	16.5	4.3	27.8	0.9	0.2	1.7	10,086	34.6
North America	14	14	15	13	13	14	13	11	15	9.3	-3.3	20.2	0.5	-0.2	1.2	4,319	6.2
South Asia	1,276	1,092	1,526	893	839	995	651	630	796	49.0	33.2	55.3	3.5	2.1	4.2	35,184	49.5
Sub-Saharan Africa	804	731	938	849	777	968	856	782	980	-6.4	-17.1	4.5	-0.3	-0.8	0.2	38,567	49.3
Low income	516	464	610	534	489	610	532	490	603	-3.1	-14.2	8.7	-0.2	-0.7	0.5	22,917	50.0
Lower-middle income	1,759	1,577	2,037	1,370	1,296	1,514	1,111	1,073	1,303	36.8	23.7	43.3	2.4	1.4	3.0	63,836	47.1
Upper-middle income	554	522	599	409	391	433	285	269	309	48.6	43.8	52.9	3.5	3.0	4.0	40,412	14.1
High income	51	49	54	43	42	46	38	36	40	25.9	21.0	30.4	1.6	1.2	1.9	12,559	6.6
World	2,880	2,688	3,202	2,357	2,272	2,538	1,966	1,919	2,189	31.7	23.3	36.5	2.0	1.4	2.4	139,725	42.3

Country, regional and global estimates of stillbirths

Estimates of stillbirths by United Nations Population Division region

Region	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)		
	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	SBR	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound
More developed regions	4.1	4.0	4.2	3.3	3.3	3.4	3.0	2.9	3.2	26.3	22.2	29.9	1.6	1.3	1.9
Less developed regions	23.3	21.7	25.8	18.2	17.6	19.7	15.0	14.6	16.7	35.5	27.5	40.0	2.3	1.7	2.7
Least developed countries	30.9	28.7	35.0	25.6	24.1	28.3	22.1	20.9	24.5	28.4	22.3	34.7	1.8	1.3	2.2
Excluding least developed countries	21.2	19.3	24.0	16.0	15.3	17.4	12.5	12.1	14.5	40.7	29.8	46.0	2.8	1.9	3.2
Excluding China	24.7	22.9	27.7	19.6	18.8	21.2	16.4	16.0	18.4	33.5	24.7	38.6	2.1	1.5	2.6
Sub-Saharan Africa	28.1	25.5	32.8	24.4	22.4	27.8	21.7	19.8	24.8	22.9	15.1	30.9	1.4	0.9	1.9
Africa	27.1	24.8	31.3	23.2	21.4	26.2	20.5	18.8	23.3	24.5	17.4	31.7	1.5	1.0	2.0
Asia	23.2	20.9	26.4	16.8	16.1	18.2	12.6	12.3	14.6	45.7	34.6	50.6	3.2	2.2	3.7
Europe	4.8	4.7	4.9	3.7	3.6	3.8	3.2	3.1	3.4	32.7	29.1	36.0	2.1	1.8	2.4
Latin America and the Caribbean	11.2	10.5	12.4	9.0	8.5	9.7	7.9	7.4	8.8	29.3	22.1	36.1	1.8	1.3	2.4
Northern America	3.3	3.2	3.4	3.0	2.9	3.0	3.0	2.6	3.4	9.8	-2.6	20.6	0.5	-0.1	1.2
Oceania	9.9	7.4	13.8	8.7	6.7	11.6	7.8	5.9	10.8	20.8	-2.3	38.6	1.2	-0.1	2.6
World	21.4	20.0	23.7	16.8	16.2	18.0	13.9	13.5	15.4	35.1	27.2	39.6	2.3	1.7	2.7

Definitions

The stillbirth rate (SBR) is defined as the number of babies born with no sign of life at 28 weeks or more of gestation, per 1,000 total births. An intrapartum stillbirth is a death that occurs after the onset of labor but before birth.

Note

Upper and lower bounds refer to the 90 per cent 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 United Nations Member States, which may use alternative rigorous methods.

- Percentage decline and annual rate of reduction were not calculated where stillbirths were too small to calculate meaningful rates of change.
- Number of live births and total births are rounded to thousands in the countries. A zero indicates that the number of live births or total births is below 500.
- These estimates are not the official stillbirth estimates for Bolivia (Plurinational State of), and may differ from the equally representative stillbirth figures given by the Bolivia (Plurinational State of) Ministry of Health and the National Statistical Office.
- The UN IGME estimates are not necessarily the official statistics of United Nations Member States. The Sample Registration System is the preferred source for estimates of stillbirth rates, which are the endorsed official estimates of stillbirth in India. The Sample Registration System is a nationally representative data collection system that records both stillbirths and live births. The most recent national official estimates of stillbirth rates in India are from the Sample Registration System, with a rate of 4 stillbirths per 1,000 total births in 2018.
- These estimates are not the official stillbirth estimates for Venezuela (Bolivarian Republic of), and may differ from the equally representative stillbirth figures given by the Venezuela (Bolivarian Republic of), Ministry of Health and the National Statistical Office.
- The sum of the number of live births by region may differ from the world total because of rounding.
- Number of stillbirths are rounded to thousands in the regions. A zero indicates that the number of stillbirth is below 500. Unrounded number of stillbirths are available at <www.childmortality.org> for download.

Country, regional and global estimates of stillbirths

Estimates of stillbirths by United Nations Population Division region^f (continued)

Region	Number of stillbirths (thousands) ^a																
	2000			2010			2019			Percentage decline 2000–2019 (per cent)			Annual rate of reduction (ARR) 2000–2019 (per cent)			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Stillbirths	Lower bound	Upper bound	Decline	Lower bound	Upper bound	ARR	Lower bound	Upper bound	2019	2019
More developed regions	53	52	55	47	46	47	40	38	42	25.2	21.1	28.9	1.5	1.2	1.8	13,265	6.4
Less developed regions	2,826	2,634	3,148	2,310	2,226	2,492	1,926	1,879	2,149	31.9	23.2	36.7	2.0	1.4	2.4	126,460	43.1
Least developed countries	811	750	920	762	713	843	729	685	807	10.1	2.3	18.3	0.6	0.1	1.1	32,166	49.5
Excluding least developed countries	2,015	1,832	2,290	1,548	1,477	1,692	1,196	1,158	1,387	40.6	29.4	46.0	2.7	1.8	3.2	94,250	39.2
Excluding China	2,558	2,369	2,876	2,130	2,047	2,311	1,833	1,787	2,056	28.3	18.7	33.9	1.8	1.1	2.2	109,921	44.8
Sub-Saharan Africa	772	698	904	817	746	933	825	751	948	-6.9	-17.9	4.5	-0.3	-0.9	0.2	37,221	49.2
Africa	866	791	1,003	904	833	1,025	902	829	1,028	-4.2	-14.2	6.0	-0.2	-0.7	0.3	43,175	48.5
Asia	1,828	1,645	2,090	1,306	1,251	1,417	937	915	1,090	48.8	38.0	53.5	3.5	2.5	4.0	73,500	40.2
Europe	35	34	36	30	29	30	25	24	26	29.7	25.9	33.1	1.9	1.6	2.1	7,641	6.4
Latin America and the Caribbean	131	122	144	98	92	105	83	78	92	36.3	29.8	42.5	2.4	1.9	2.9	10,412	15.8
Northern America	14	14	15	13	13	14	13	11	15	9.3	-3.3	20.2	0.5	-0.2	1.2	4,319	6.2
Oceania	6	4	8	6	4	8	5	4	7	4.2	-24.1	26.0	0.2	-1.1	1.6	678	33.4
World	2,880	2,688	3,202	2,357	2,272	2,538	1,966	1,919	2,189	31.7	23.3	36.5	2.0	1.4	2.4	139,725	42.3



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