Never Forgotten

The situation of stillbirth around the globe

Report of the United Nations Inter-agency Group for Child Mortality Estimation, 2022

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2022

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MILLIONS OF PREVENTABLE TRAGEDIES

Their names are Ashley, Everett and Shayen. They are among the 53 million babies that have been stillborn since 2000. Yet many of these children did not have to die. Many would be alive today had their mothers had access to proper care during pregnancy and labour. Instead of mourning them, their families would be celebrating birthdays, first steps and first words. Though these children's lives have been cut tragically short, their parents will never forget them, nor the trauma of their death.

Every day, a staggering number of stillbirths occur. Over 5,000 babies are stillborn at 28 weeks or more of gestation on a daily basis, or 1.9 million every year.* Two in five of these babies die during labour – what is known as intrapartum stillbirth. The estimates in this publication, the second report to address stillbirth by the United Nations Inter-agency Group for Child Mortality Estimation (UN IGME), are derived from the most up-to-date data from 195 countries and provide a picture of late gestation stillbirth, or deaths that occur at 28 weeks or more of gestation (see Box 1). They highlight the immense and continued annual burden of stillbirths, and the women in the world at greatest risk of having a stillbirth. They also call attention to the fact that when pregnant women have access to quality care, most stillbirths can be prevented.

Stillbirths are happening with alarming frequency in many countries. And while some progress has been made in reducing the global stillbirth rate, gains are uneven: Substantial inequities in stillbirth rates persist among regions and countries. Mothers in sub-Saharan Africa and Southern Asia have the highest risk of losing their babies to stillbirth, with nearly 1.5 million of these tragedies taking place in these regions in 2021.** Women from the most vulnerable groups across all countries also face higher risks of having a stillbirth.

The impacts of the COVID-19 pandemic – disruptions to health services, weakened health care and social protection systems, rising poverty levels, economic uncertainty – have likely exacerbated the inequities that surround stillbirth. Pregnant women around the world have grappled with challenges like financial hardships and reduced essential maternal and newborn services that can affect their options for care. Some countries reported increased stillbirth rates during the pandemic – but more data, research, and continuous monitoring and reporting are still needed to understand the true impact of COVID-19 on stillbirths (see Box 6).

A shroud of silence

Though the scale of these deaths continues to be enormous, stillbirth remains nearly invisible in personal and public conversations, in national health care planning and systems, and as a global public health issue. Stillbirths are largely missing from worldwide data tracking. Efforts to prevent stillbirths are frequently left out of maternal health policies and programmes, even though so many of these deaths are in fact preventable. This widespread neglect is evident when we compare progress in reducing

An invisible issue

- Stillbirth prevention is part of the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) continuum but is often not included in public health plans or communication platforms.
- Many countries do not regularly collect or produce quality data on stillbirth.
- Globally comparable cause-of-stillbirth estimates cannot be generated due to lack of data and of a unified death classification system.
- Many governments have not set stillbirth reduction targets or developed plans to prevent stillbirths and are therefore unaccountable for action.

*Unless otherwise noted, statements and data refer to the year 2021 throughout this report.
**All references to regions 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.

stillbirth rates to those of maternal and child mortality, where greater success has been realized.

As the testimonials included in this report demonstrate (see p. 29), in many cases, stillbirths are never talked about – neither to address the causes and risk factors during pregnancy nor once a stillbirth has occurred. Many bereaved parents are left with unanswered questions and unaddressed grief. These deaths remain hidden behind a shroud of silence fueled by stigma, taboo and the misconception that nothing can be done to prevent them.[1] Yet stillbirths take a high, and often lifelong, toll: Many mothers experience depression after their loss, and there are associated financial and economic consequences for parents, communities and society.[2]

The lack of attention, investment and urgency to address stillbirth has direct consequences: Progress to reduce the stillbirth rate is far too slow, and the global burden of stillbirths remains far too large.

Taking action today to save lives

UN IGME's stillbirth estimates make a clear case for immediate and urgent action to address preventable stillbirths. If current trends continue and investments are not accelerated, another 16 million babies will be stillborn by the time this decade ends, and 56 countries will not meet the stillbirth target in the Every Newborn Action Plan (ENAP) of 12 or fewer stillbirths per 1,000 total births by 2030. Three in four countries that are off-track to meet the ENAP target are in sub-Saharan Africa.

With dedicated efforts to strengthen data systems to ensure every stillbirth is properly counted and its cause of death classified, and by undertaking more research to close remaining knowledge gaps, sustainable change is possible. When governments and health care practitioners are able to use quality data to inform policies and programmes, stillbirth rates will decline. And when maternal health advocates and parents have access to evidence, they can hold decision makers accountable.

Low stillbirth rates in some regions and countries suggest that with focus and commitment, many stillbirths can be prevented. Through sound investments and sustained political will, progress in regions and countries with a high burden can be accelerated. The inequitable outcomes during pregnancy and in the delivery room can be reversed. And millions of babies will live as a result.

Ending the silence

- √ The United Nations recognizes the stillbirth rate as a core progress indicator for global health.
- √ Ending preventable stillbirths is a central goal of the United Nations' Global Strategy for Women's, Children's and Adolescents' Health (2016–2030) and the Every Newborn Action Plan (ENAP). 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.[3]
    - ○ Progress on stillbirth target setting at the country level is being measured through a joint ENAP-EPMM (Strategies for Ending Preventable Maternal Mortality) tracking tool.
- √ UN IGME's stillbirth estimation work demonstrates the need for collaborative work to produce timely, reliable estimates to drive evidence-based decision making.
- √ UNICEF, WHO and partners call for renewed efforts to end preventable stillbirths – beginning with universal access to high-quality and timely antenatal and delivery care as an essential first step.

Box 1. What is a stillbirth?

A stillbirth is defined by the International Classification of Diseases 11th Revision as a baby born with no signs of life at 22 or more completed weeks of gestation. There are two categories of stillbirths by age: *early gestation stillbirth* (at 22 to 27 completed weeks of gestation) and *late gestation stillbirth* (at 28 or more completed weeks of gestation) (see Figure 1).[4] **For purposes of international comparison, UN IGME stillbirth estimates represent *late gestation stillbirths*.** Note that using this definition underestimates the real burden of stillbirths, since it excludes those that occur at 22 to 27 weeks of gestation.[5]

Currently, because many countries use different criteria or combinations of criteria and varying thresholds of gestational age and/or birthweight, stillbirths are often reported inconsistently. These differences make it difficult to calculate the global number of stillbirths that occur annually and to compare stillbirth levels and trends across countries.[6] To provide health care workers and data managers further guidance, the UN IGME recently published a guideline that addresses both definitions and criteria for collecting information when stillbirths occur.[7]

For the estimates in this report, countries were requested to provide stillbirth data using the 28-week-or-more definition. To allow for international comparison, the UN IGME adjusted the stillbirth rate in cases where data used a different criterion, e.g., birthweight or 22-week threshold. In this round of estimation (see Figure 2), 64 per cent of data points used the 28-week-or-more threshold, 27 per cent of data points were adjusted or reclassified to a 28-week-or-more definition, and 9 per cent of data points could not be adjusted because no definition was specified or a nonstandard threshold was used (e.g., 26 or more weeks) – these data points were excluded in the estimation process. Among the 173 countries with data, about 60 per cent (98) provided data points with a 28-week-or-more definition that required no further adjustment. Another 67 countries provided data points that required adjustments to the 28-week-or-more definition, and for eight countries, none of the data points could be adjusted.

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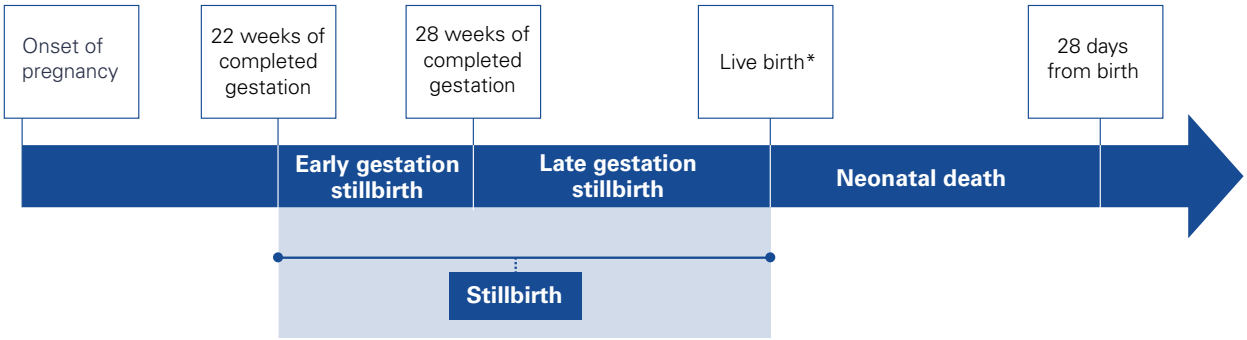
Timing is a critical component in clear definitions

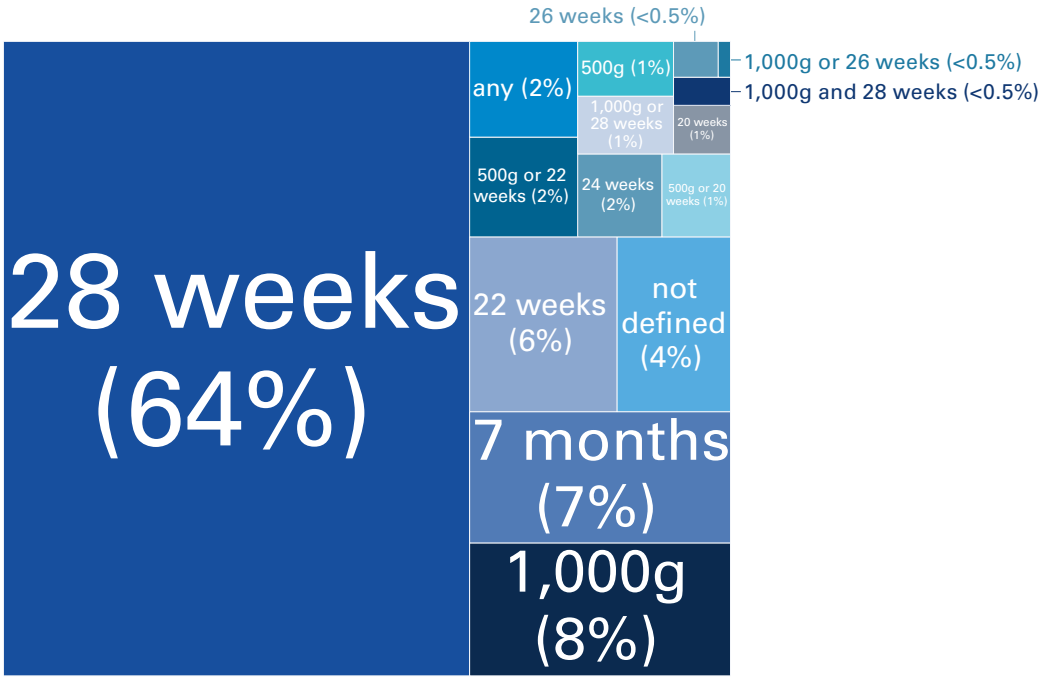
Figure 1. Stillbirths, live births and neonatal deaths



Note: *For the purpose of differentiating stillbirth and neonatal death, the live birth box is placed here in the timeline but can occur at other points during gestation.

In about a third of data points, data were based on different cut-off criteria

Figure 2. Proportion of data points by criteria used in reporting on stillbirths



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STILLBIRTH – 10 Things To Know

The stillbirth rate is an important marker of quality of care in pregnancy and childbirth. This section answers critical big picture questions about the situation of stillbirth around the globe, based on UN IGME's joint stillbirth estimates from 195 countries. Detailed findings and further analysis on each topic can be found in section 3, 'Inequitable Outcomes', and section 5, 'Saving Lives Today and Tomorrow'.

The latest estimates make clear that the global stillbirth rate is still unacceptably high – and that these deaths are not borne equally around the world. What's more, many of these babies could have been saved with appropriate care.

The cost of taking no action to prevent stillbirths is too great to ignore. Millions of lives are on the line. With the right investments, we can change the stillbirth trajectory and protect children's futures.

1) How many babies are we losing to stillbirth every year?

The magnitude of stillbirth is immense: In 2021, almost 1.9 million babies were stillborn at 28 weeks or more of gestation; for every 1,000 births, 14 were stillbirths. This means 1 in 72 babies were stillborn.

Every

minute...nearly 4

hour...over 200

day...over 5,000

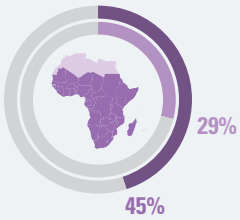
year...nearly 1.9 M

children are stillborn

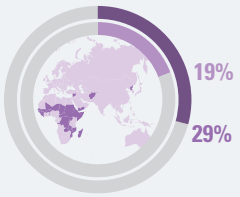
2) Where in the world are most stillbirths taking place?

Mothers in sub-Saharan Africa and Southern Asia suffered nearly 8 in 10 (77 per cent) stillbirths in 2021. Almost one in three (29 per cent) took place in low-income countries. Nearly half (45 per cent) of all stillbirths happened in sub-Saharan Africa, despite the fact that less than a third (29 per cent) of all live births occurred in the region. The number and share of stillbirths that take place in sub-Saharan Africa continue to increase. The risk of stillbirth varies widely between countries: The highest national stillbirth rate in 2021 was 20 times that of the lowest national rate.

Almost 8 in 10 **(77%)** stillbirths occur in **sub-Saharan Africa** and **Southern Asia**



Sub-Saharan Africa accounts for nearly half **(45%)** of global stillbirths, but less than 1 in 3 **(29%)** live births



Low-income countries account for 3 in 10 **(29%)** stillbirths, but only 2 in 10 **(19%)** live births

Global live births

Global stillbirths

Note: 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.

Widely ranging national stillbirth rates

Highest stillbirth rate across countries
31.2 stillbirths per 1,000 total births

Lowest stillbirth rate across countries
1.6 stillbirths per 1,000 total births

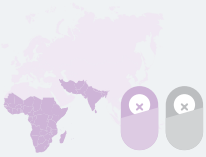
20 times higher

The highest national stillbirth rate in 2021 was **20** times that of the lowest national rate

3) When do most stillbirths occur? Can stillbirths be prevented?

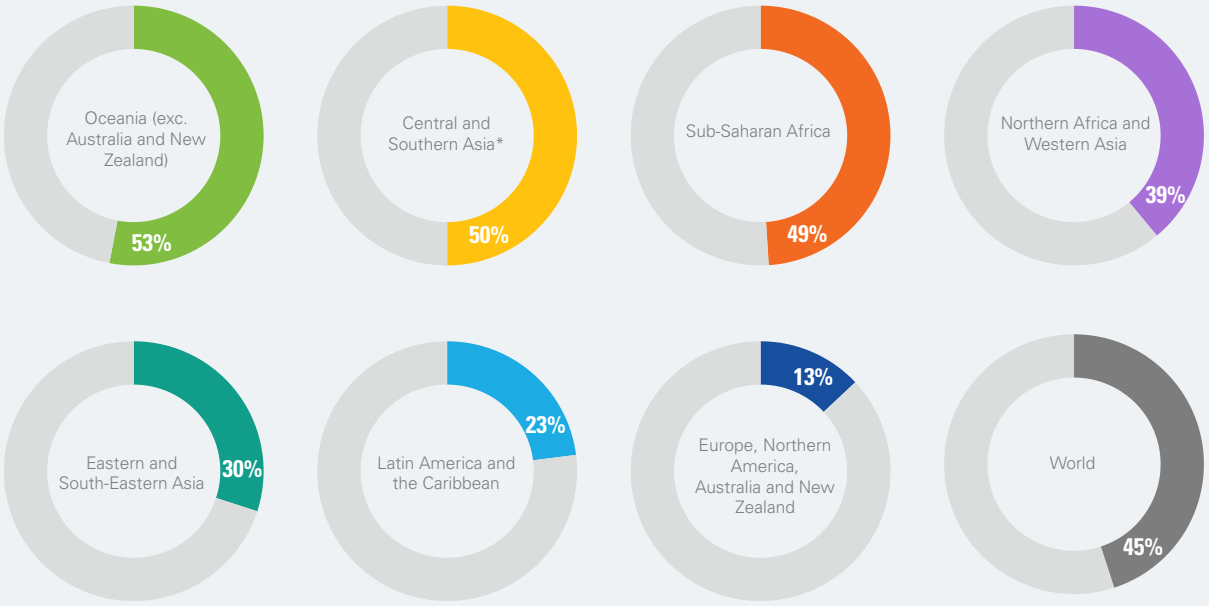
Every 37 seconds a baby dies during labour as a stillbirth. In 2021, more than two in five stillbirths that took place were intrapartum; in high-burden settings, this rises to one in two (see Box 2). Had these women had access to high-quality care during childbirth – such as timely monitoring and interventions to address complications as needed – most of these children would be alive today. Most intrapartum stillbirths are preventable.

Globally, **2 in 5** stillbirths take place during labour



In sub-Saharan Africa and Southern Asia, almost **1 in 2** stillbirths occur during childbirth

Percentage of stillbirths that are intrapartum, by Sustainable Development Goal region



Note: *For Central and Southern Asia, the percentage of stillbirths that occurs during labour is 24 per cent for Central Asia and 51 per cent for Southern Asia.

4) What are the key causes of and risk factors for stillbirth?

Many of the causes of stillbirth are treatable. Support and treatment for maternal infections (e.g., malaria and syphilis), non-communicable diseases, and nutrition and lifestyle factors are critical.

Other determinants – such as a woman's ethnicity, race, education level, migration status and economic situation – have been associated with a higher risk of stillbirth. These links must be investigated and talked about to ensure vulnerable groups are identified and supported.

Causes and risk factors for stillbirth[8]

Access to health services

- Quality antenatal care (number of visits during pregnancy)
- Quality care during labour and childbirth

Socio-economic determinants

- Rural residence
- Migration status
- Sexual, physical, violent assault
- Ethnicity
- Consanguinity
- Economic status

Environmental impacts

- Exposure to high temperatures
- Indoor and outdoor air pollution

Maternal fertility-related conditions

- Complications during birth (e.g., hypoxia)
- Antepartum haemorrhage (e.g., placental abruption)
- Maternal age (younger than 16, older than 35)
- Fetal growth restriction
- Infections and maternal conditions
    - Malaria, syphilis, HIV
    - Obesity, diabetes, hypertension
    - Sickle cell disease

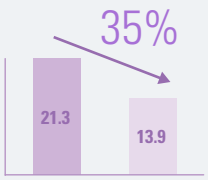
Behavioural factors

- Lifestyle choices

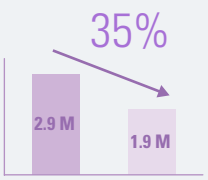
5) How successful have we been in preventing stillbirths?

Both the global stillbirth rate and annual number of stillbirths have declined by about 35 per cent since 2000. While this might appear to be promising progress, it falls far short of where we need to be to achieve global goals. It is concerning that progress over the last decade has been slower than the decade prior.

Percentage decline in 2000–2021

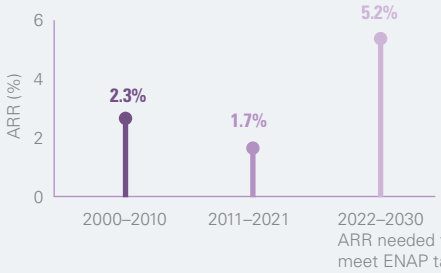


The global stillbirth rate declined by **35%**, from 21.3 per 1,000 total births to 13.9 per 1,000 total births



The annual number of stillbirths decreased by **35%**, from 2.9 million to 1.9 million

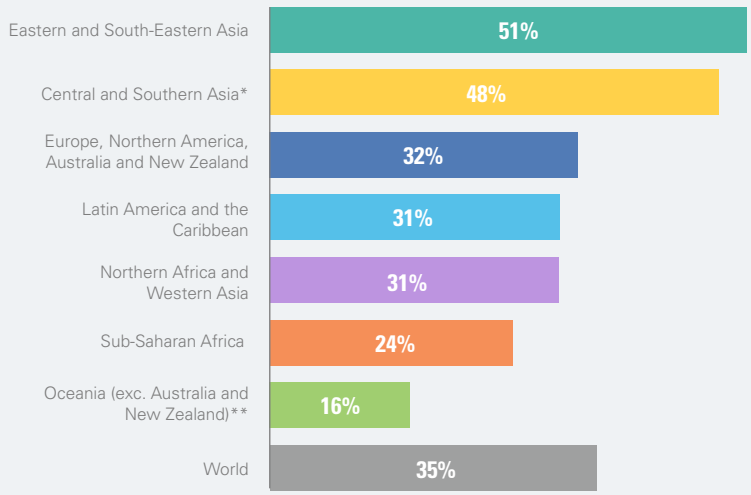
Annual rates of reduction (ARR)*



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

6) Worldwide, are we making the same strides towards preventing stillbirths?

All regions have seen their stillbirth rate go down – but the degree of these reductions varies widely around the globe, and gains are not felt equally. The greatest declines from 2000 to 2021 were in Asia's two regions. Sub-Saharan Africa is among the regions that made the least progress – and its stillbirth rate continues to be the world's highest.



- Since 2000, the stillbirth rate declined by the largest margin in Eastern and South-Eastern Asia (declined by **51%**)
- Sub-Saharan Africa had the highest stillbirth rate (21.0), but its percentage decline was just **24%**, among the lowest in the world
- Of the 30 countries with the highest stillbirth rates, **80%** are in sub-Saharan Africa

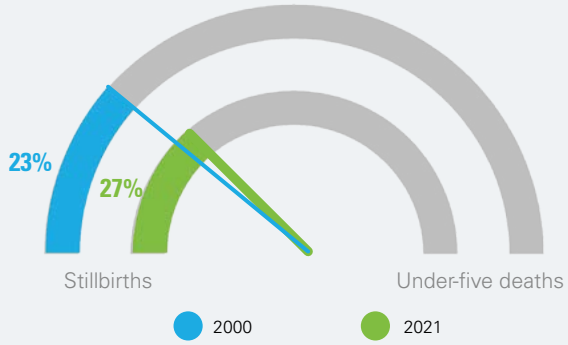
Note: *For Central and Southern Asia, the percentage decline from 2000 to 2021 is 40 per cent for Central Asia and 47 per cent for Southern Asia. **Given Oceania's (exc. Australia and New Zealand) small population and very limited availability of data, uncertainty around the region's estimates is large.

7) How does progress in preventing stillbirths compare to success in preventing under-five deaths?

With timely antenatal care, many stillbirths can be prevented. But because the underlying factors that lead to a stillbirth are not being addressed, stillbirths account for an increasingly larger share of the combined total of stillbirths and under-five deaths. The important gains we have made in saving the lives of children younger than 5 have not been matched when it comes to preventing stillbirths.

2000–2021

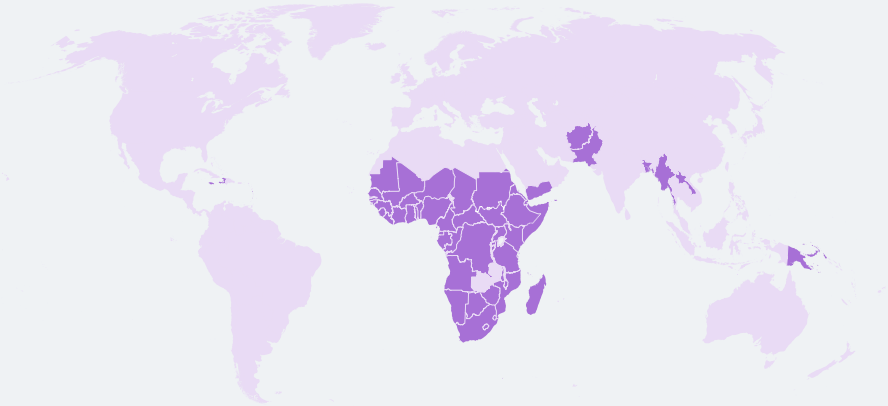
- The stillbirth rate declined by just **35%** – while the under-five mortality rate declined by **50%**
- The share of stillbirths among total stillbirths and under-five deaths increased from **23%** to **27%**



8) Without accelerated efforts to prevent stillbirths, what do projections show will happen between now and 2030?

If trends continue and further efforts are not made, 15.9 million babies will be stillborn between now and 2030. Nearly half of these deaths are expected to occur in sub-Saharan Africa. In this scenario, 56 countries will not achieve the ENAP target of 12 stillbirths or fewer per 1,000 total births by 2030.

If current trends continue:



- **56 out of 195 countries will not achieve the ENAP stillbirth target**
- **15.9 million** babies will be stillborn; nearly half (7.7 million, 48%) will occur in sub-Saharan Africa

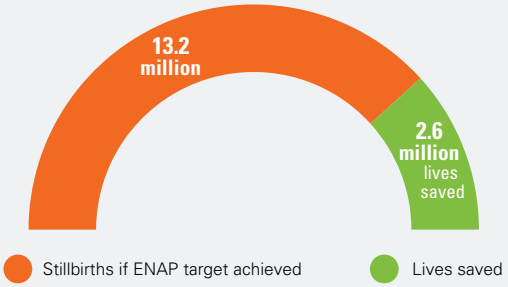
Note: Map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

9) How many lives could be saved if we strengthen our investments?

An estimated 2.6 million lives will be saved if every country meets the ENAP target by 2030. The number of babies that are stillborn between now and 2030 would drop to 13.2 million. This vision can be realized through focused, systematic and urgent efforts to address stillbirths on a global scale.

If all countries achieve the ENAP target by 2030:

- **2.6 million** more babies will live: The number of stillbirths would drop from 15.9 million to **13.2 million**
- About **30** babies could be saved every hour, or **800** babies every day



10) What will it take to drive sustainable change and end preventable stillborn deaths?

Renewed commitment is urgently needed to end preventable stillbirths in every country around the world. Stronger political will, sound policies and targeted investments along the continuum of care for every mother and child are critical, including a focus on action at the local level to drive global progress.

- Enhance the evidence and build knowledge through better measurement of stillbirths
- Support bereaved women and families with compassionate care
- Nationalize and localize stillbirth targets
- Strengthen our health systems to ensure every mother and child receive high-quality care
- Raise our voices to increase awareness of this tragic loss of life and reduce stigma, taboo and misconception
- Achieve equity in every country and region through sustained investment

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INEQUITABLE OUTCOMES

Current scale and scope of stillbirth

In 2021, thousands of stillbirths took place every day in health clinics, hospitals and other places women go into labour, including their own homes. This tragic burden is not borne equally: UN IGME estimates show wide disparities among stillbirth rates in different regions and countries. Stillborn deaths are notably more common in many of the world's low-income countries. If proper care for mothers and babies had been available, the findings on these pages would look far different.

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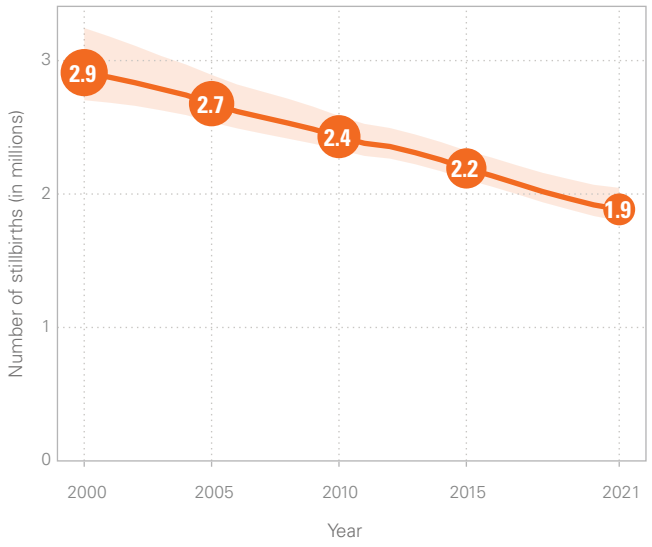
Stillbirth: The global picture

In 2021, an estimated 1.9 (1.8, 2.0)* million babies were stillborn at 28 weeks or more of gestation (see Figure 3). The global stillbirth rate was 13.9 (13.3, 15.1) stillbirths per 1,000 total births. This is the equivalent of one stillbirth every 17 seconds. The UN IGME uses a 28-week-or-more definition of stillbirth (see Box 1), so these already substantial numbers may be underestimates of the real burden, since they exclude stillbirths at earlier gestational ages.

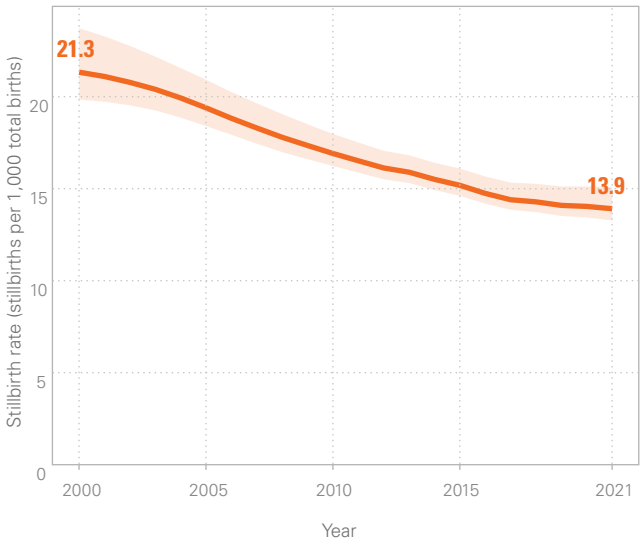
1.9 million babies were stillborn in 2021

Figure 3. Number of stillbirths and global stillbirth rate (2000–2021)

3a) Number of stillbirths



3b) Stillbirth rate



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 Table in the Annex.

Risk by region, country and income group

Stillbirth rates vary widely by region and a country's wealth. At 21.0 stillbirths per 1,000 total births, sub-Saharan Africa had the highest regional average stillbirth rate, followed by Southern Asia at 16.2 stillbirths per 1,000 total births (see Figure 4). In the Europe, Northern America, Australia and New Zealand region, where the rate was 2.9 stillbirths per 1,000 total births, the likelihood that a pregnant woman will suffer a stillbirth (1 in 348) is seven times lower than the risk faced by a woman in sub-Saharan Africa, where 1 in 48 babies is stillborn (see Figure 5).

Looking at rates by income group, pregnant women in the poorest countries (low income) – where the stillbirth rate was 21.6 stillbirths per 1,000 total births – face an eight-fold higher risk of having a stillborn baby than a pregnant woman in the wealthiest countries (high income), whose 2021 stillbirth rate was 2.8 stillbirths per 1,000 total births.

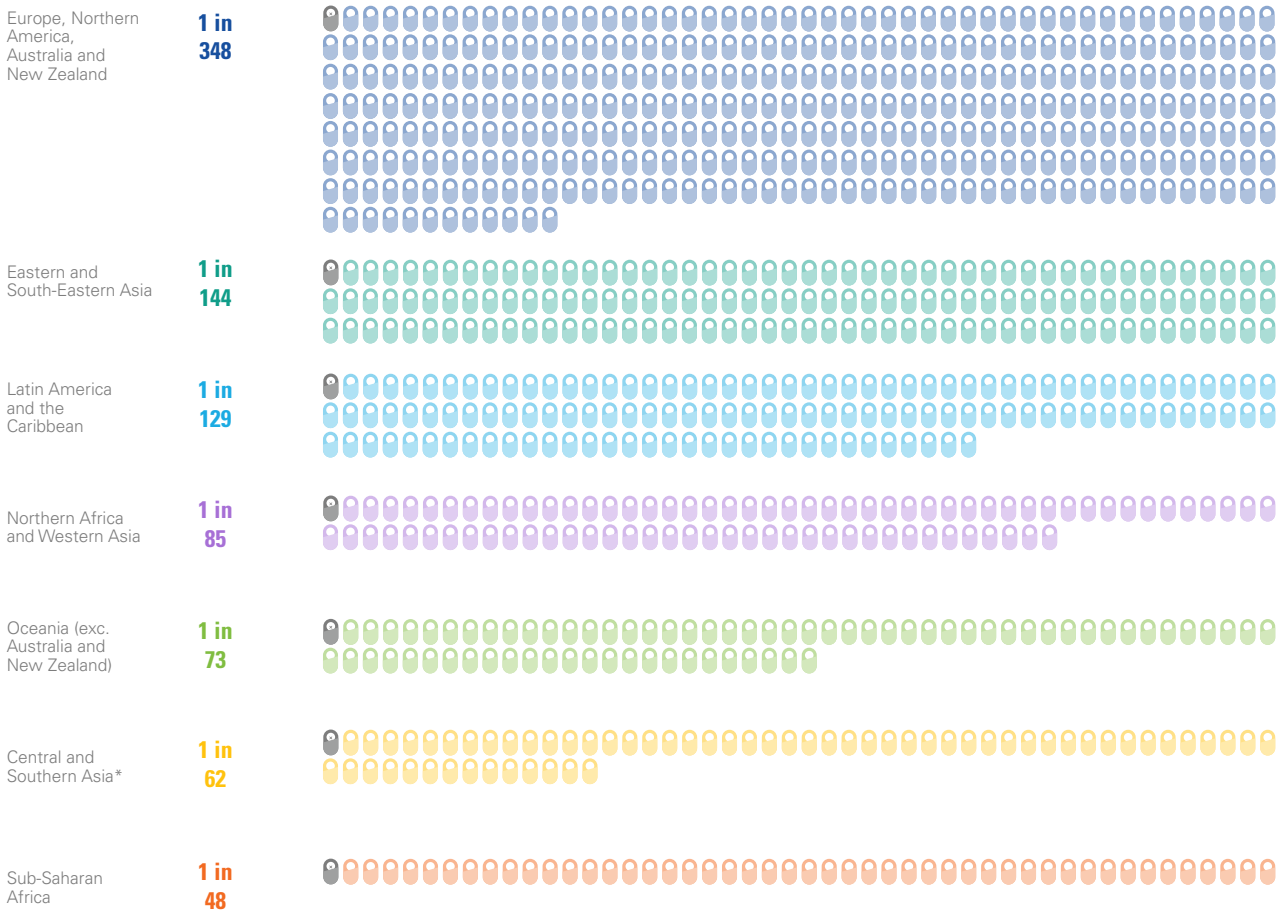
Sub-Saharan Africa and Southern Asia have the highest rates

Figure 4. Stillbirth rates, by Sustainable Development Goal region (2021)

Note: Dots represent individual countries in a region. Solid black lines represent regional averages. *Central and Southern Asia's average stillbirth rate in 2021 was 16.2; Central Asia's stillbirth rate was 7.2 and Southern Asia's was 16.7. National income classifications follow the World Bank classification, 2022. Among the 195 countries with stillbirth estimates, 28 are classified as low income, 54 as lower-middle income, 52 as upper-middle income and 58 as high income. Three countries/territories are not classified.

A woman's risk of stillbirth varies by the part of the world she lives in

Figure 5. Likelihood of stillbirth, by Sustainable Development Goal region



Note: *The likelihood of stillbirth is 1 in 139 in Central Asia and 1 in 60 in Southern Asia.

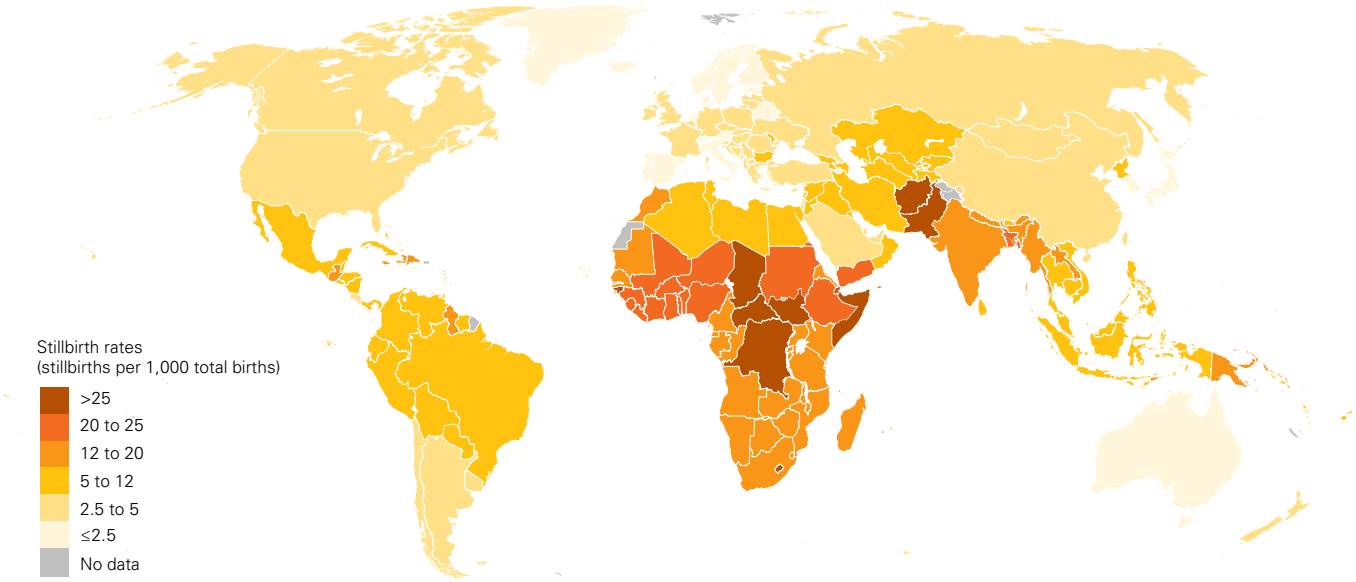
Widely varying stillbirth rates at the country level speak to widely different outcomes for women and their children. In 2021, national stillbirth rates ranged from 31.2 stillbirths per 1,000 total births to 1.6 stillbirths per 1,000 total births (see Map 1). The risk of stillbirth in the country with the highest stillbirth rate was about 20 times higher than in the country with the lowest rate.

Within regions themselves, there is a broad spectrum of national-level stillbirth rates. The greatest differences were estimated between Pakistan (30.9 stillbirths per 1,000 total births) and Maldives (4.8 stillbirths per 1,000 total births) in Central and Southern Asia, and Guinea-Bissau (31.2 stillbirths per 1,000 total births) and Sao Tome and Principe (8.7 stillbirths per 1,000 total births) in sub-Saharan Africa.

Among low-income countries, rates ranged from 31.2 stillbirths per 1,000 total births in Guinea-Bissau to 8.3 stillbirths per 1,000 total births in the Democratic People's Republic of Korea. In lower-middle-income countries, they spanned from Pakistan's high of 30.9 stillbirths per 1,000 total births to Mongolia's low of 4.4 stillbirths per 1,000 total births.

Inequities between countries when it comes to levels of risk

Map 1. Stillbirth rates, by country (2021)



Note: Categories are based on unrounded numbers; value ranges are greater than the lower bound number and less than or equal to the upper bound number. Category 5 to 12 captures the ENAP target of 12 or fewer stillbirths per 1,000 total births. 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.

Burden by region, country and income group

More than three quarters of estimated stillbirths in 2021 occurred in two regions: sub-Saharan Africa (45 per cent of the global total) and Southern Asia (32 per cent of the global total) (see Map 2). Respectively, these regions accounted for 29 per cent and 27 per cent of live births.

When combined, low- and lower-middle-income countries accounted for 89 per cent of all stillbirths and 71 per cent of all live births in 2021 (low-income countries: 29 per cent of all stillbirths and 19 per cent of all live births; lower-middle-income countries: 59 per cent of all stillbirths and 52 per cent of all live births). In the same year, 9 per cent of all stillbirths and 20 per cent of all live births took place in upper-middle-income countries, while high-income countries accounted for 2 per cent of all stillbirths and 9 per cent of all live births. Poorer countries are disproportionately bearing the burden of stillbirths and their share continues to increase.

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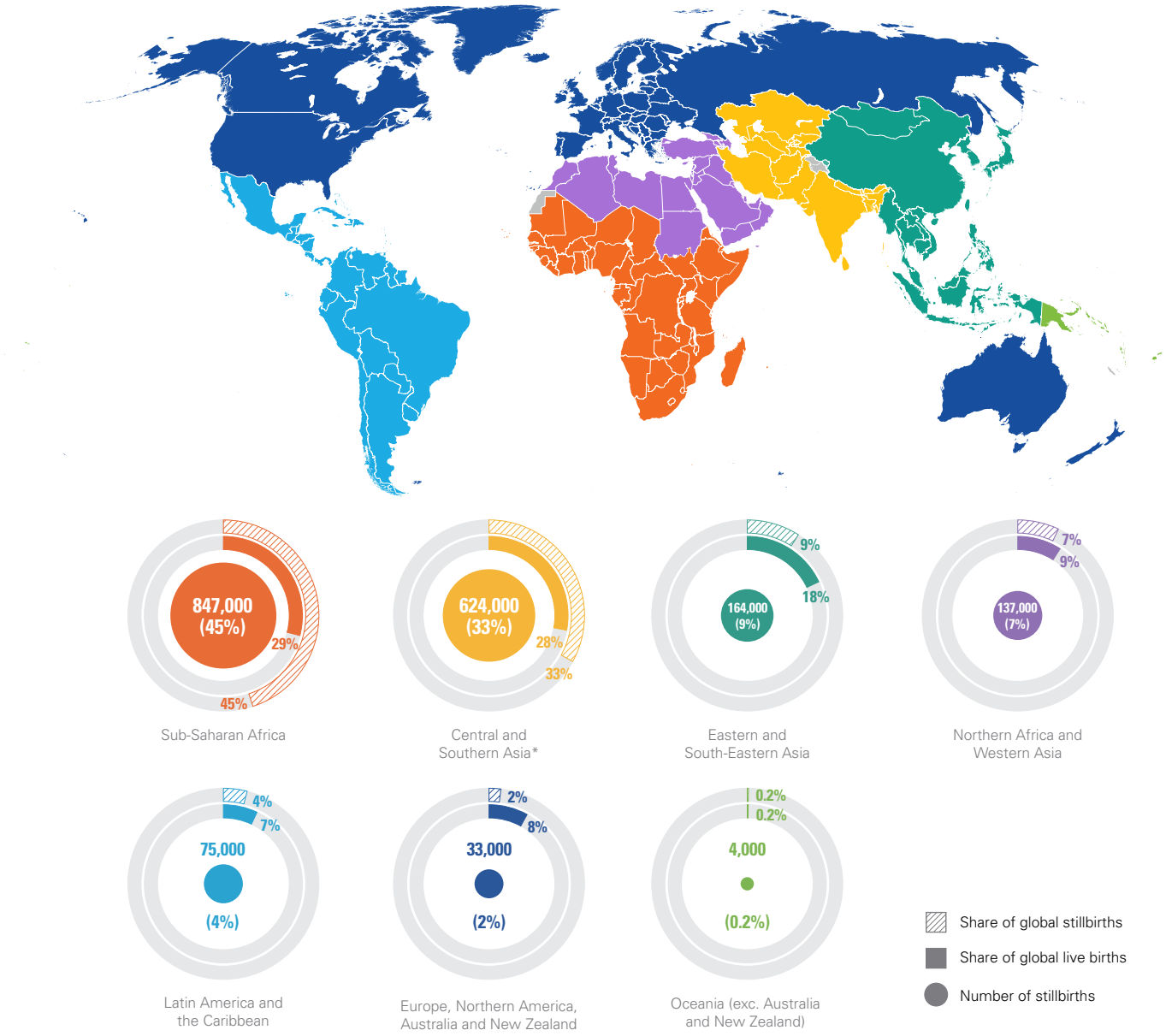
Most stillbirths occur in two regions

Map 2. Number of stillbirths, share of stillbirths and share of live births, by Sustainable Development Goal region (2021)



Note: *Central and Southern Asia's total number of stillbirths in 2021 was 624,000 (33 per cent of the global total) with 28 per cent of total global live births; of that, Central Asia's number of stillbirths was 13,000 (0.7 per cent of the global total), with 1.3 per cent of total global live births, and Southern Asia's number of stillbirths was 611,000 (32 per cent of the global total), with 27 per cent of total global live births. 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.

Six countries – India, Pakistan, Nigeria, the Democratic Republic of the Congo, Ethiopia and Bangladesh (ordered by highest to lowest number of stillbirths) – accounted for about half (49 per cent) the estimated stillbirths that occurred in 2021 and 43 per cent of live births. Over one in three stillbirths (36 per cent) took place in India, Pakistan and Nigeria, which together accounted for 30 per cent of live births.

Box 2. Stillbirths during labour: A critical measure

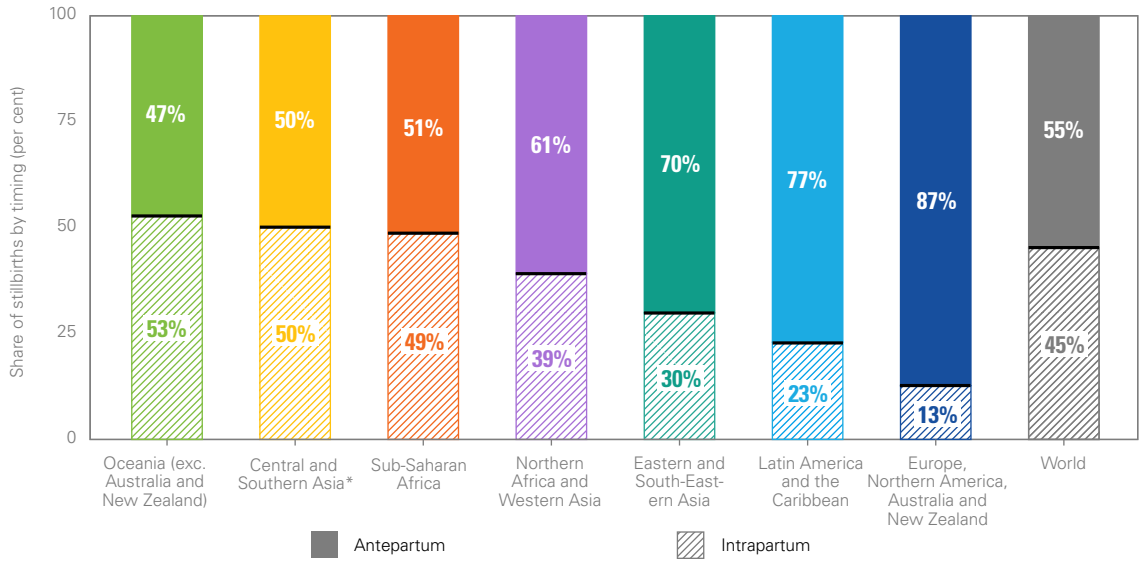
Estimates of the number of babies that die during labour – known as intrapartum stillbirths – require close examination. This is because in most cases, these lives could have been saved through improved availability of labour monitoring and timely intervention in case of complications.

In 2021, there were 853,000 intrapartum stillbirths, which accounted for 45 per cent of all stillbirths that year. An estimated 727,000 (85 per cent) of these babies were born in sub-Saharan Africa and Central and Southern Asia, where intrapartum stillbirths made up around half of all stillbirths (see Figure 6). In contrast, just 13 per cent of stillbirths in Europe, Northern America, Australia and New Zealand – or 4,000 stillbirths – were intrapartum.

Millions of babies can be saved with improved care during labour. But in order to ensure the right resources reach the right populations, the right data must be collected. Many health facilities use fresh appearance of the skin as a surrogate marker for intrapartum stillbirth, but this can be an unreliable measure. Furthermore, data on intrapartum stillbirths must be reported up to the national level, yet in many contexts, this does not take place. These gaps in the knowledge base must be addressed with urgency to ensure that every intrapartum stillbirth is counted and to pave the way for the policies and investments that can end these preventable deaths.

The 45 per cent of stillbirths that occur during labour are largely preventable

Figure 6. Proportion of antepartum and intrapartum stillbirths, by Sustainable Development Goal region (2021)



Note: *The share of intrapartum stillbirths in Central and Southern Asia combined is 50 per cent. In Central Asia, intrapartum stillbirths accounted for 23 per cent of all stillbirths, and in Southern Asia they accounted for 51 per cent of all stillbirths.

BEHIND THE DATA

Stillbirths must be:

- recognized, recorded, collected and reviewed at community level, as close to the event as possible
- reported up from community to district to national level, using standardized definitions and collection mechanisms
- included in national data collection efforts and in maternal and newborn health data

Underprioritized, invisible and uncounted

Reducing the stillbirth rate – and achieving broader goals in maternal and newborn health – hinges on reliable data and systems that track all stillbirths, along with related targets and additional key indicators. However, in many countries, efforts to measure stillbirths are lagging across fronts. Without tools to monitor the rate, number and causes of stillbirths, these tragedies will continue happen with alarming frequency.

Data from the joint Every Newborn Action Plan (ENAP)-Ending Preventable Maternal Mortality (EPMM) tracking tool as of early January 2023 show that among 85 countries, only a third (29 countries) have set a target to reduce the stillbirth rate, whereas more than 90 per cent have set targets to reduce maternal deaths (80 countries) and neonatal deaths (78 countries). And while maternal and perinatal death surveillance and response systems provide key information when a death occurs, a little over half (47 countries) of reporting countries have such a system for stillbirths, compared to 80 per cent (68 countries) in the case of neonatal deaths and more than 90 per cent (77 countries) for maternal deaths.

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What data are required for health systems to accurately measure stillbirth rates?

- For every birth outcome to be correctly classified, WHO recommends that health systems record a **standard minimum perinatal dataset.**
  - This dataset includes **vital status at birth** (collected under details of death), **gestational age** and **birthweight.**
  - Accurate **measurement of these three key variables is an essential step** to classifying a death as a stillbirth.
- Where possible, **a cause of death for each stillbirth should be recorded** using the international form, Medical Certification of Cause of Death (MCCD).
- At minimum, **all countries should collect information on the overall number and timing (antepartum or intrapartum) of stillbirths,** even if collecting detailed information on the cause of death is not possible at the time of the event.
  - At institutional deliveries, labour room records should reflect the timing of a stillbirth.
  - These data should be collated and aggregated to the subnational and national level.

Why are there challenges to collecting data on stillbirths?

- **Many births are not accurately assessed and key data items are not properly recorded.**
- **Data collection tools may not be standardized.**
- In some countries, vital and medical registration systems, health management information systems, or household surveys **do not record stillbirths.**
- **Stigma** or **fear of blame** may prevent stillbirths from being reflected in the data.
- Where stillbirth data are captured, data quality issues such as **use of non-standard definitions** and **underreporting or misclassification of stillbirths** can render the data unusable.
- **Poor knowledge, limited understanding and inadequate technical abilities to report births and fetal deaths** among front-line health care workers compromises the quality of data.
  - Equipment to accurately report vital status at birth and gestational age may be lacking.
  - In both low- and high-income settings, cause of stillbirth is commonly reported as "unknown" or "unspecified".[9]
- **Perinatal death audits are not always carried out following a stillbirth,** leaving the causes unknown and families without answers.

What's missing from the data on stillbirths?

Among the 195 countries for which stillbirth estimates are generated, 22 countries have no stillbirth data, and an additional 38 countries lack quality stillbirth data. Many countries with data issues are also high burden: 32 per cent of those without data are in sub-Saharan Africa and 63 per cent are from low- and lower-middle-income countries. Improved evidence and statistics are particularly critical in these settings, where stillbirth rates are likely to be among the world's highest.

Data availability and quality is uneven among regions: Among high-income countries, only 16 per cent of national stillbirth data are excluded in UN IGME modelling, but in low- or lower-middle-income countries, nearly 70 per cent are excluded due to data quality issues. Only 18 per cent of the national data informing the stillbirth estimates are from low- and lower-middle-income countries. Apart from the Europe, Northern America, Australia and New Zealand region, 86 per cent of countries in Oceania (excluding Australia and New Zealand) and between 30 per cent and 40 per cent of countries in the remaining regions have no quality stillbirth data (see Figure 7). The UN IGME stillbirth estimates for these countries were derived based on covariates and regional information (see Annex for details on estimation methodology). In sub-Saharan Africa, an additional 25 per cent of countries have less than five data points over the past two decades, and only 21 per cent have more than 10 data points.

In the 60 countries with no quality stillbirth data, 28 million live births – accounting for 21 per cent of the world's live births – and 27 per cent of global stillbirths are estimated to have occurred in 2021. This reiterates the urgency to improve stillbirth reporting and improve data quality to drive planning and programming that save lives. Strengthening data collection and improving data quality in health management information systems (HMIS) and household surveys is key to addressing these data challenges.

Data from vital registration systems are available in 107 countries (none of which are low-income countries) and account for 69 per cent of the data meeting the quality criteria for inclusion. In 55 countries, data from HMIS are available. But because 67 per cent of HMIS data are excluded due to quality concerns, only half of these countries can use them to estimate stillbirth rates. While 11 of 13 countries from the upper-middle- and high-income groups have qualifying HMIS data (66 per cent of data included), only 38 per cent (16 of 42) of low- and lower-middle-income countries with HMIS data can use them (21 per cent of data included). Household survey data are available in 74 countries, with 43 per cent of the data included. In upper-middle-income countries, half (51 per cent) of the data points are included, compared to 43 per cent in lower-middle-income countries, and only 31 per cent in low-income countries.

The limited availability of quality data on stillbirths necessitates robust estimation work, as described in this report's Annex. Furthermore, it must be noted that because of these data gaps, there is large uncertainty around stillbirth estimates. Data systems must be strengthened to improve data availability and quality, particularly in low- and middle-income countries.

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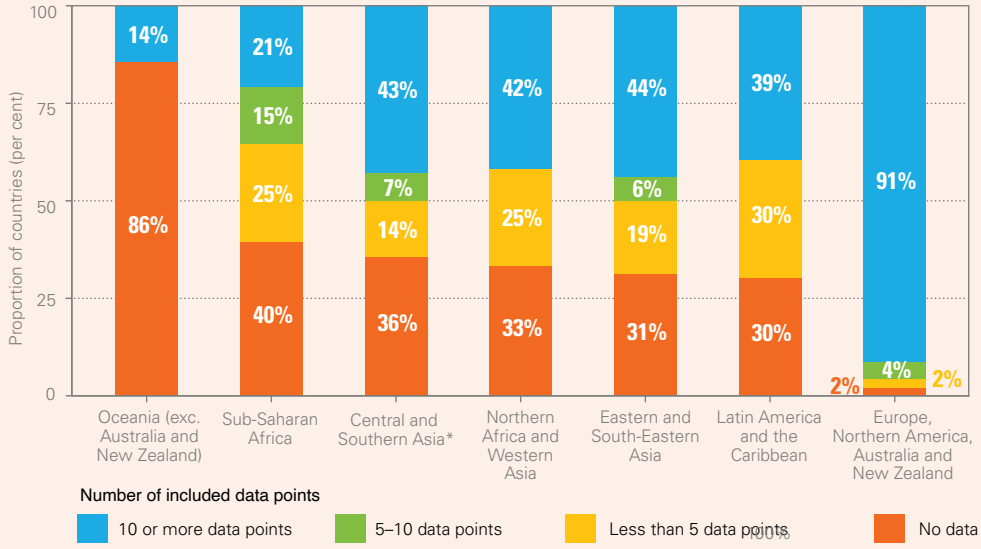
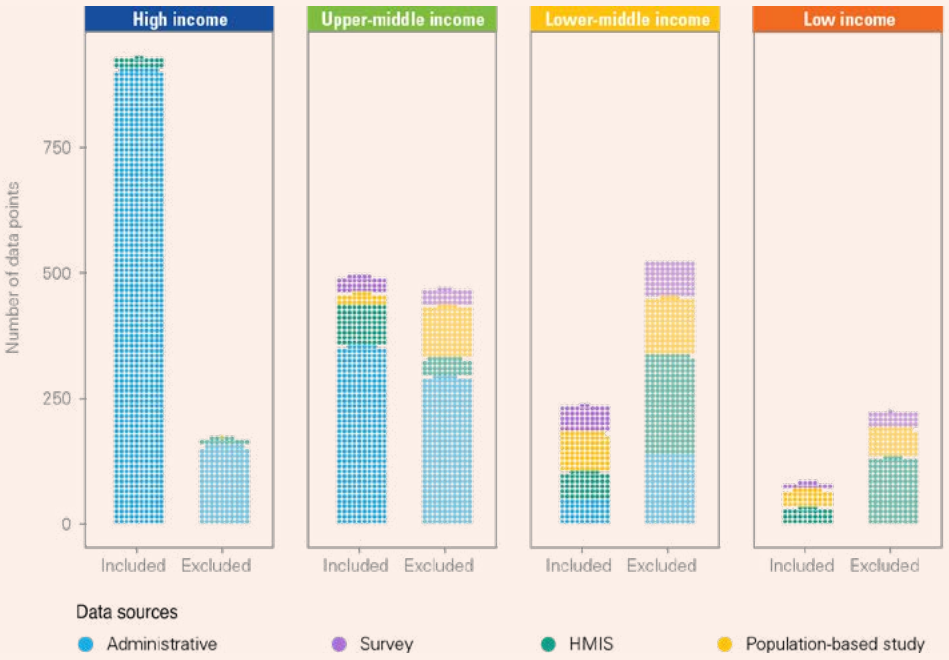
High burden, low data availability

Figure 7. Availability of stillbirth data, by Sustainable Development Goal region and income group

7a) 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



7b) Number of data points included and excluded, by income group



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 and 22 per cent in Southern Asia.

Box 3. Pathways to stillbirth

Poor data and the absence of a unified death classification system prevent globally comparable causes-of-stillbirth estimates. In many cases, cause of death is simply marked as "unknown" or "unspecified". However, a number of causes and risk factors have been identified that, if properly addressed through monitoring and care, would prevent many stillbirths from taking place. These include intrapartum complications, antepartum haemorrhage, infections and other maternal conditions, and fetal growth restriction.

For instance, data from low- and middle-income settings show that maternal infections such as malaria, syphilis and HIV contribute to a range of 8 per cent to 50 per cent of stillbirths.[10] Across all income group settings, the presence of maternal conditions such as obesity, diabetes and hypertension have been linked to 1 in 10 global stillbirths.[11]

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A more comprehensive understanding of the causes and risk factors that can result in a stillbirth is important – particularly in low- and middle-income countries, where 98 per cent of stillbirths in 2021 occurred. In many cases, limited knowledge and misperceptions of the pathways to stillbirth stand in the way of solutions, both in closing the stillbirth disparity gap and in ending preventable stillbirths.

A recently published stillbirth conceptual framework seeks to address this information gap, illustrating expected relationships between variables of interest and how those variables relate to each other, thus fostering understanding of causes and risk factors leading to stillbirth. It demonstrates the link between stillbirth and factors including health system characteristics, socio-economic determinants, environmental impacts, maternal conditions and fertility-related infections.

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In some high-income countries, racial and ethnic disparities have been found in stillbirth rates, with Black mothers in the United States twice as likely to experience a stillbirth than Hispanic and white mothers, and stillbirths more common among non-white migrant women in Australia than Australian-born women.[12] In Europe, higher risks of stillbirth have been associated with low socio-economic status and among migrant women versus their non-migrant counterparts.[13] Improved data are vital to pinpoint the most vulnerable women and provide the necessary support.

Box 4. Patterns of care during pregnancy and delivery

An estimated 45 per cent of stillbirths occur during delivery. More research is needed to better understand the circumstances leading up to these deaths so they can be prevented. For instance, when we examine women's access to quality care during pregnancy and labour by region, we see dramatic differences between low- and high-burden countries.

Among pregnant women in sub-Saharan Africa and Southern Asia, just over half saw a provider at least four times during pregnancy (see Table 1), compared to rates as high as 88 per cent in Eastern and South-Eastern Asia and 91 per cent in Latin America and the Caribbean. Sub-Saharan Africa also shows the lowest percentage of births attended by a skilled provider, and when it comes to deliveries by caesarean section, the percentage of babies born by this often life-saving procedure in the region is many times lower than in other regions. Birth preparedness plans, easy and affordable transportation to health facilities, and adequately staffed and resourced facilities are vital measures that can save babies' lives and prevent stillbirths.

High stillbirth rates, low coverage of quality care

Table 1. Stillbirth rates and key indicators of care during pregnancy and labour, by Sustainable Development Goal region (2021)

Region	**Stillbirth rate** (stillbirths per 1,000 total births)	**Antenatal care 4+ visits** (percentage of women (aged 15–49) attended at least four times during pregnancy by any provider)	**Skilled birth attendance** (percentage of births attended by skilled health personnel)	**C-section rate** (percentage of births by caesarean section)	**Institutional deliveries** (percentage of births delivered in a health facility)
Central and Southern Asia	16.2	55.6%	82.7%	21.9%	82.2%
• Central Asia	7.2	86.1%	99.0%	-	97.6%
• Southern Asia	16.7	54.8%	82.0%	-	81.5%
Eastern and South-Eastern Asia	6.9	88.0%	96.0%	-	91.6%
Europe, Northern America, Australia and New Zealand	2.9	-	98.7%	-	-
Latin America and the Caribbean	7.7	91.1%	94.9%	44.0%	93.8%
Northern Africa and Western Asia	11.7	-	96.5%	-	-
Oceania (exc. Australia and New Zealand)	13.7	54.3%	-	4.5%	61.0%
Sub-Saharan Africa	21.0	53.6%	64.3%	4.9%	60.4%
World	**13.9**	**66.3%**	**83.6%**	**18.4%**	**79.2%**

Note: '-' indicates that estimates are not available due to insufficient population coverage.
Source: Population-weighted averages calculated by UNICEF using *World Population Prospects 2019* weights.

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“I HAD A SON THAT DID NOT CRY”

Stories of unforgettable loss

Brave voices from around the world – mothers, fathers, family members and health care workers – capture the many ways in which the tragedy of stillbirth has changed their lives. Many were left without answers when their baby died. Many encountered shame, stigma and insensitivity at the time of their loss, which impacted them long after the event. Many are left wondering, “What if…?”. Their accounts make clear the urgent need for more research, better education and quality care throughout pregnancy and childbirth.

Sabine

Rwanda

My stillborn baby was a boy of 37 weeks. The way the doctor announced my son had died was shocking, and he could not diagnose the cause of death. Later, they showed me that the umbilical cord had many knots. After it happened, I often wished I could commit suicide.

© Photo courtesy of Sabine Uwizeye

Karen

Australia

The day our hearts broke when we lost our daughter, Ashley, was also the day when they melted when we welcomed our son and her twin, Jordan. Our hope is that more parents collaborate with researchers in a mutually respectful way, to plan, conduct, present and publish research. Let there be nothing about us (and our babies), without us.

Dorte

Denmark

I work as a midwife in a specialized unit for bereaved parents. It provides a shielded and calm space where parents are offered all the time they need with their stillborn child. When we provide care that includes time, space and compassion, parents have the chance to feel and express their love for their baby. For many parents, connecting with the baby after birth is an important part of the grieving process.

Jaimi

Australia

There isn't a day that I don't think what Joshua's life might be like today. After many investigations and tests, no one was able to give us a definitive reason for his death. This was heartbreaking. There should be more research into investigation and prevention of stillbirths, as there has been for infant mortality in the first year of life.

Heather

United States

As a health care practitioner advocating for more awareness of stillbirth prevention among providers, it's lonely – very lonely. As providers, it is hard to feel that the loss may have been prevented. But we are not educating ourselves about the causes of stillbirths. Why when we have so much data, and we can reduce the stillbirth rate, why are we doing nothing? Why do we talk about listeria, cats and hot tubs when statistically, stillbirths are much more common than infant deaths due to any of those factors? None of it makes logical sense.

We need to move away from the idea that cord accidents cause everything, and, instead, do what we can to address the health of the placenta. We are not properly educating ourselves or patients about fetal movement and how important it is to seek care if the baby is not moving right. It is neither costly nor time consuming to provide fetal monitoring education and systematic responses to fetal monitoring concerns. We also need to listen to patients and ensure that they are given the time and care they deserve.

Ijeoma

Nigeria

I had a normal pregnancy. On 7 November 2020, I went into the delivery room to deliver my 37-week-old son. That Saturday morning, I was induced and after four hours of excruciating labour pain, I had a son that did not cry. The doctor said he was going to resuscitate him but that was never to be. I regret that I was not given an opportunity to hold my baby, even if it was for just a few seconds. I have never gotten an answer as to what may have caused his death. From time to time, I ask myself, "What happened? What could have caused his death?"

Jessica

Australia

My daughter did not have to die. I knew what to look for. Her movements had dropped by 90 per cent in one day. I knew something was wrong but was sent home and told not to worry. When she died, I felt like I was the only person in the world who'd ever given birth to a stillborn baby. There was such alienation and isolation. Instead of the rigorous review of health professional conduct that it deserved, our story was met with head tilts and sympathetic nods.

Cristian

Puerto Rico

For 37 weeks, we were told Valentina was thriving. But she wasn't. The doctor recorded the cause of death as "strangulation by the umbilical cord". It was plausible at first to my untrained eye. Except for one profound discrepancy: She was born at 3.7 lbs., instead of the estimated 7–8 lbs. for a full-term baby. At the time of birth, Valentina was eight weeks behind her gestational age. Something shifted in the third trimester that was not identified or treated.

The hospital refused to provide an autopsy, social services or any independent second opinion. In an effort to uncover the truth and hopefully closure, my wife and I ordered an autopsy and released her medical records to three independent obstetrics specialists. The outcome from each report, which has cost us nearly US$10,000 to date, was that Valentina died from intrauterine fetal demise (IUFD). The condition should have been identified through competent prenatal care and treated. Had this happened and a proper course of therapy and action been provided, she would be alive and thriving today.

Loyce

Uganda

In November 2004, my husband and I were eagerly awaiting our newborn. He had withdrawn money from the bank, all preparations for hospital delivery and costs were complete. We had grown attached to the baby, greeting him every morning and praying together before bed.

I am a midwife, so my husband and I were the first to detect there was no heartbeat. From the time we came to the hospital and confirmed the baby had died and until I delivered my son, health workers did not treat me well. Providers referred to me not by name, but as the "mother who has intrauterine fetal death". I was segregated and ignored until my husband insisted for better care. During the induction, I was left alone in the labour ward with my husband and sister. I had questions, but no one to ask. My sister, a student midwife, and my husband helped to deliver my baby. I wished to see my baby but I was denied – my husband took him back to the village and he was buried without me. I have never gotten over that.

I was denied maternity leave because my baby died, even though I had the physical wounds from labour and the psychological wounds of loss. My healing period was prolonged because of the unfair and unjust treatment I received from so many people.

Amber

United States

Aside from his red lips and pale complexion, Everett was exactly what you'd expect a newborn baby to be. After I was discharged and my son was taken to be transported to the funeral home, my husband pushed me down the hallways of the maternity ward. Hearing babies cry, passing other mothers holding their newborn babies…it was absolute torture.

Over the past several decades, we have made great strides in reducing infant mortality rates – but stillbirth rates have remained relatively stable. Why? Why are the deaths of our babies any less important than the deaths of babies who have survived birth? Stillbirth and its impact is generally ignored by society. You can't change something that isn't acknowledged.

Debbie

United States

Much of what happened at the hospital after I learned my baby had no heartbeat is a blur. Except for her birth. Her stillbirth. It has been 11 years and I still find words inadequate to describe the experience. The silence at her delivery still brings tears to my eyes and sends chills down my spine. My doctors did me a huge disservice by convincing me that losing Autumn was as rare as being struck by lightning – which I soon learned wasn't the case, because stillbirths are not rare. I was stunned to learn how little was being done to improve outcomes. To bring stillbirth out of the shadows, we must address the gaps in awareness and in identifying the causes of death. We must collect more consistent and accurate data and research, because without that, we are left in the dark.

Priya

United Kingdom

It was absolutely awful being wheeled through an antenatal unit to have a scan to confirm our loss, knowing that there was a room full of pregnant women just outside. It was gut wrenching to be in a birthing room with women just down the corridor giving birth to healthy crying babies. After Shayen was born, I analysed every part of him. His fingers and toes were so long – just like mine. His nose was exactly like my husband's. It doesn't matter what anyone says to you. When you lose a child, the feeling of failure is something that will never leave you.

We need to do more to understand the reasons why. More importantly, we need to understand why women in the Black, Asian and minority ethnic communities are more at risk of loss. These numbers have been around for years – but what is really being done to address the disparity? We need to better educate these groups about the risks they face because of their ethnicity. If I had known that because of the colour of my skin, I was more likely to lose my baby, would I have treated my pregnancy differently? Absolutely.

© Photo courtesy of Priya Vara

Tahirah

Canada

My daughter was stillborn at 37 weeks and 3 days on 16 December 2019. In the week before she died, the test results at my midwifery appointment were abnormal for me, but I was sent home. I wonder what would have happened if they had done a non-stress test and started an induction instead. As a first-time mother, I also wish I had been informed about all of the risks of pregnancy, including the possibility of stillbirth. I probably would have gone to the hospital as an extra precaution had I known.

Luckily, the hospital staff were well-trained to deal with our loss. They were incredibly supportive and made sure to do molds and prints of her hands and feet. They also arranged for photos to be taken. I am incredibly grateful as those are the only memories I have of her. We had counselling sessions as part of aftercare. The first psychiatrist was not trained to deal with this type of loss and expected me to "be in a better place" only three weeks after giving birth. Afterwards, finding our own counsellor was a bit difficult as I felt the majority of them did not understand what I was going through. It has been a journey but I finally feel okay after almost three years.

Maria Luisa

Mexico

As an obstetrician trained in Switzerland, I knew what to do when my baby died at 37 weeks: Cherish the precious few moments I had with him. Hold him, take photos, cut locks of hair, make footprints, introduce him to his brother. Instead, what happened next led to years of complicated grief and PTSD. I asked to see my baby, and without warning, my husband and I were taken to the morgue where our baby was lying, frozen, in a transparent plastic bag, in a drawer. There was no birth certificate. He was never officially named. His stillbirth was not registered. His death was not counted. No investigations or tests were offered or carried out. The lack of appropriate bereavement care not only affected me as the mother, it also affected all my family and friends and put an end to my clinical career. How could I be advising pregnant women? How could I be reassuring them when I had been unable to keep my own baby alive?

In Mexico and in most LMICs, women are often never shown their baby and they are left in beds surrounded by crying living babies and nursing new mothers. Their loss is not recognized by professionals nor society. But stillbirths and perinatal loss have the same devastating and lasting impact on women worldwide. Grief needs to be acknowledged and respected, without time limit, no matter where you live, how many children you have, or whether the pregnancy was planned or not. Families everywhere deserve dignified, culturally appropriate and sensitive bereavement care.

Manal

Australia

On 19 February 2021, I gave birth to my silent baby. We spent the day and night with her. We took a few photos and cried. On 20 February, we buried our daughter. The pathology results from the hospital came back inconclusive. In the last year, we sent our placenta slides to a doctor in the US. This helped us understand the cause, and know what to do for a future pregnancy. I am so thankful for the research on placental health.

There is so much that pregnant women should know about but instead are left in the dark. I was naive and not empowered with all the important information that I only found after my baby died. None of this has come from providers or doctors – it's from loss mothers. We shouldn't have to wait for our babies to die to receive better care.

Connie

United States, Founder, Project Alive & Kicking

In 2009, my granddaughter, Roberta Rae, was born in deafening silence. We were told it could be genetic, it could be an infection, it could be the cord, it could be a lot of things. The medical establishment begged us to accept that it was a rare event, like "being struck by lightning".

After the loss, I read all the research I could find on umbilical cord accidents and preventable conditions that were stealing our babies under the guise of stillbirth. I also discovered that there were more researchers than I could ever imagine championing our babies.

So why aren't more moms aware of their chances of having a stillbirth? Warning signs are not talked about. This needs to change – we need intervention through prevention. When you look at how many stillbirths occur every year, it is imperative that women learn the facts. Once knowledgeable, they can be proactive for their babies' health. Let moms know how to prepare for their journey. Educate moms to grow their attention and confidence – not to scare or intimidate them.

Melissa

Canada

My son's name is Lachlan Michael Eagle Mueller and I'll never get to hear his voice or hear him say mommy. I'll never hear him cry, smile or laugh. I'll never see him become a big brother. I'll never get to see him open presents on a birthday or Christmas morning. I'll never know his favourite colour. I'll never see him go to school or graduate. I'll never get a mother/son dance. We died in a way that day, too. We are not the same people.

Doctors need to listen to their patients and do the extra tests because we are the ones with everything to lose. Nurses need to be more direct with bereaved parents and let them know this is the only time they get with their baby. Memories can be made – through bathing, taking pictures. I personally missed out on a lot of this and live with these regrets every day. Receiving a pamphlet isn't enough – compassionate and respectful care after a stillbirth must be said out loud to parents.

Neelam

India

I am an obstetrician at a health care facility catering to a large number of patients from neighbouring states of Punjab, Haryana and Himachal Pradesh. We get many referrals for high-risk pregnancies, so stillbirth has become a common phenomenon. We experience them daily, both antepartum and intrapartum. Many of the parents who suffer intrapartum stillbirths do not have any information about the danger signs, so they delay care-seeking as they do not realize the seriousness of what is taking place.

In our context, sociocultural taboos suggest that stillbirth is a punishment for sin. This creates feelings of guilt and neglect among the parents – they don't even think of bereavement. One of our patients refused to look at her baby, asking the concerned obstetrician to take one picture in case she ever wanted to see it. Following this event, the couple was apparently so distressed that they left their jobs and moved abroad to escape the memories. Two and a half years later, she asked the hospital to send the picture of her lost son. She explained that at the time of the loss, though her family was supportive, they also thought that this baby was abnormal and was a bad omen and should not be looked at. These sociocultural norms make the family suppress the normal grieving process.

Ana

United States, Founder, PUSH for Empowered Pregnancy

Like many parents, we didn't get a cause of death. Six years later, thanks to specialized research and examination of our son's placenta, we learned Owen's death was caused by cord compressions that occurred for several days prior. Although our ob-gyn was dismissive of our questions, simply telling us "sometimes healthy babies just die", and the NICU doctor talked us out of an autopsy, we believe there were warning signs prior to the moment our baby died and there were opportunities to save him that were missed, including during resuscitation.

Providers need to stop being afraid of "scaring" mothers. We are not delicate flowers, we should not learn about stillbirth by it happening to us. We need to be informed about stillbirth during pregnancy, so we can take the proper steps to try to keep our babies safe – such as learning about fetal movements and advocating for continued monitoring if we notice altered movements. And we need legislative and systemic change of the health care system to ensure all babies get a fighting chance to survive. We are tired of hearing the same heartbreaking story from families that could've had a different outcome. We can't keep letting the lack of proactive efforts to prevent stillbirths continue to take beloved babies like our son.

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SAVING LIVES TODAY AND TOMORROW

Progress in stillbirth prevention and where we have fallen behind

Since 2000, an estimated 53 million babies reached 28 weeks or more of gestation, and then tragically died due to stillbirth. Fewer stillbirths are taking place today than when the century began, but UN IGME estimates show that only modest progress has been made in reducing both the number of these deaths and the risk of having a stillborn baby. A closer look at the data by region and country reveals that gains are far from universal, and women and families in areas where the risk of stillbirths remains high are increasingly bearing the brunt of stillborn deaths. A number of scenario-based projections capture the millions of lives that are at risk without accelerated action to end preventable stillbirths. The tragic and often unnecessary loss of a baby to stillbirth must be addressed urgently.

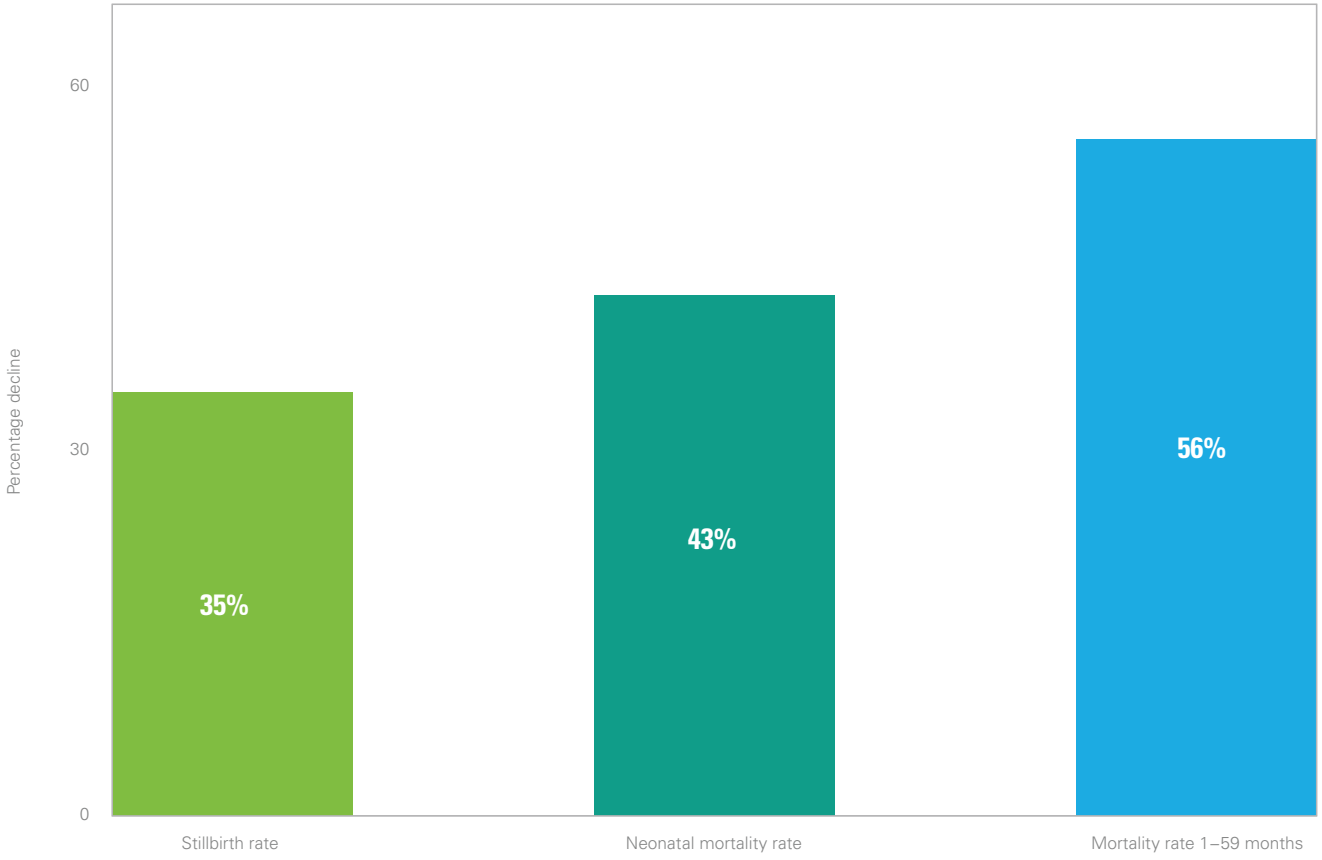
Progress since 2000: The global picture

Between 2000 and 2021, the annual number of babies that were stillborn at 28 weeks or more of gestation declined by over 35 per cent, from 2.9 million to 1.9 million (see Figure 3). The global stillbirth rate decreased from 21.3 stillbirths per 1,000 total births in 2000 to 13.9 in 2021 – a reduction of nearly 35 per cent. It is concerning that rather than progress accelerating or even remaining steady since 2010, it has slowed: Between 2000 and 2010, the stillbirth rate decreased by 21 per cent, compared to 16 per cent between 2011 and 2021.

Progress in reducing the stillbirth rate has been slow compared to what has been achieved in the mortality rate among children under 5 years of age (see Figure 8). The percentage decline in the stillbirth rate was 35 per cent from 2000 to 2021, lower than the 43 per cent reduction in neonatal mortality and 56 per cent reduction in mortality among children aged 1–59 months over the same period. This trend was observed in all regions, but appears most dramatically in sub-Saharan Africa: Progress saving children aged 1–59 months was triple the progress in reducing the stillbirth rate (4.2 per cent versus 1.3 per cent annual rate of reduction) (see Figure 9). This means that around the world, stillbirths are accounting for a larger and larger share of children who die before turning 5 years old (see Figure 10).

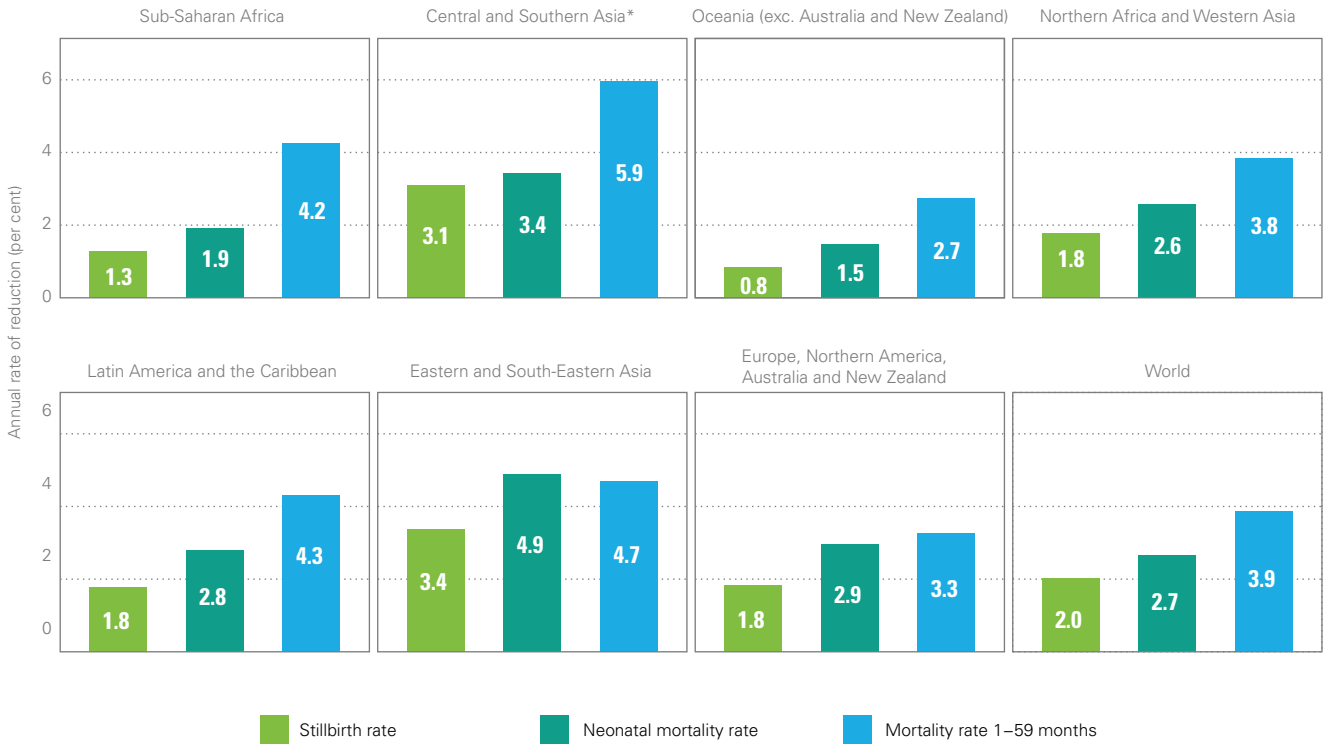
Stillbirth prevention lags when compared to achievements among other age groups

Figure 8. Percentage decline in stillbirth rate and mortality rates among neonates and children aged 1–59 months globally (2000–2021)



The stillbirth rate is declining more slowly than neonatal and under-five mortality rates

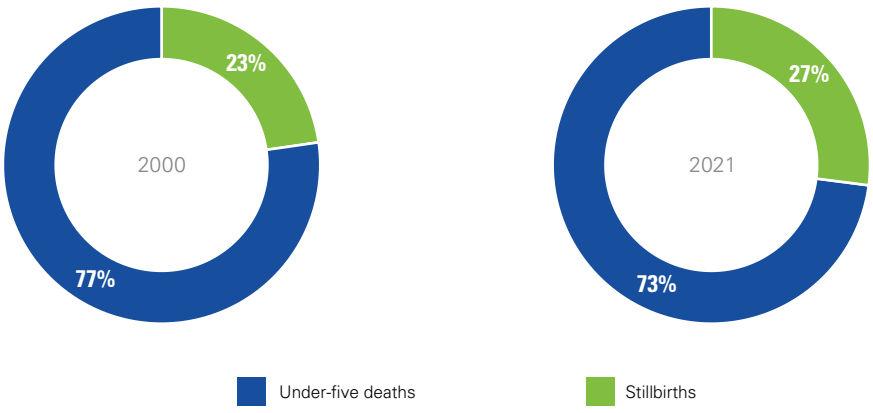
Figure 9. Annual rate of reduction in stillbirth rate and mortality rates among neonates and children aged 1–59 months, by Sustainable Development Goal region (2000–2021)



Note: *The annual rate of reduction in the stillbirth rate in Central Asia was 2.4, and the annual rates of reduction for neonatal mortality and mortality among children aged 1–59 months were 4.9 and 6.6, respectively. For Southern Asia, the annual rate of reduction in the stillbirth rate was 3.0, and the annual rates of reduction for neonatal mortality and mortality among children aged 1–59 months were 3.4 and 5.9, respectively.

Stillbirths account for an increasing percentage of children who die before turning 5 years old

Figure 10. Share of stillbirths among total stillbirths and under-five deaths globally (2000 and 2021)



Trends in stillbirth rates by region and country

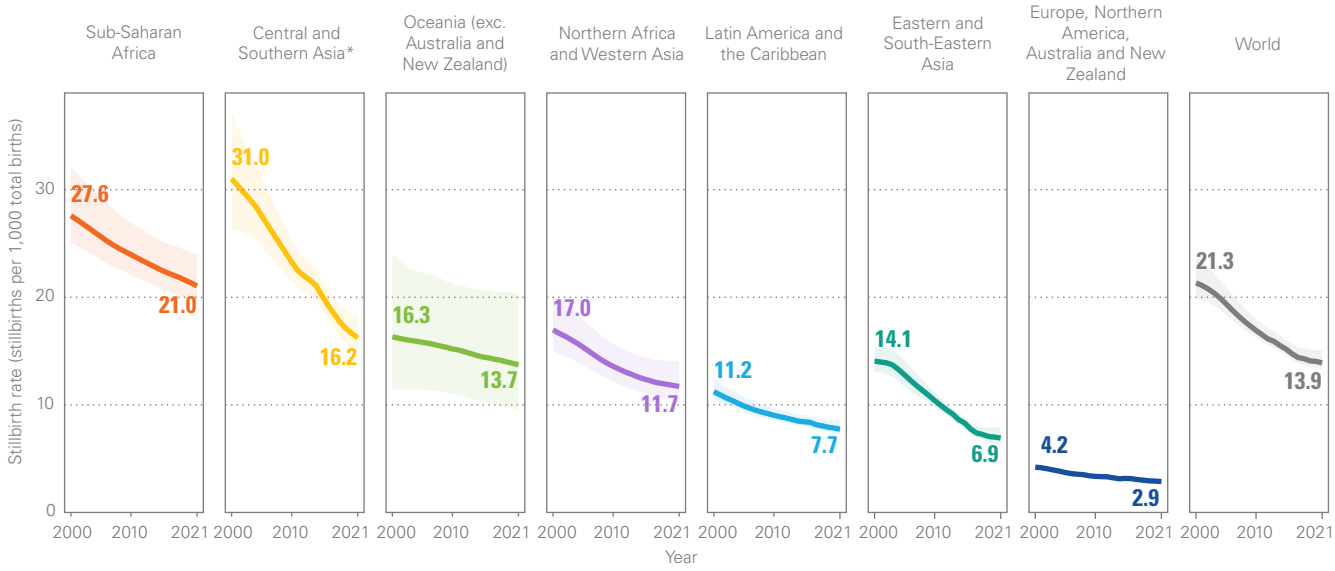
Across **regions**, a woman's risk of losing her baby to stillbirth declined (see Figure 11 and Statistical Table in Annex). The most significant reductions were estimated in Eastern and South-Eastern Asia, where the rate declined by 51 per cent, from a rate of 14.1 stillbirths per 1,000 births in 2000 to 6.9 in 2021, and in Central and Southern Asia, which saw a 48 per cent reduction, from 31.0 stillbirths per 1,000 births in 2000 to 16.2 in 2021. Progress was much slower in sub-Saharan Africa, where the stillbirth rate between 2000 and 2021 declined by 24 per cent, from 27.6 stillbirths per 1,000 births to 21.0.

Regions with already low stillbirth rate levels – Latin America and the Caribbean and Europe, Northern America, Australia and New Zealand – had more modest estimated declines.

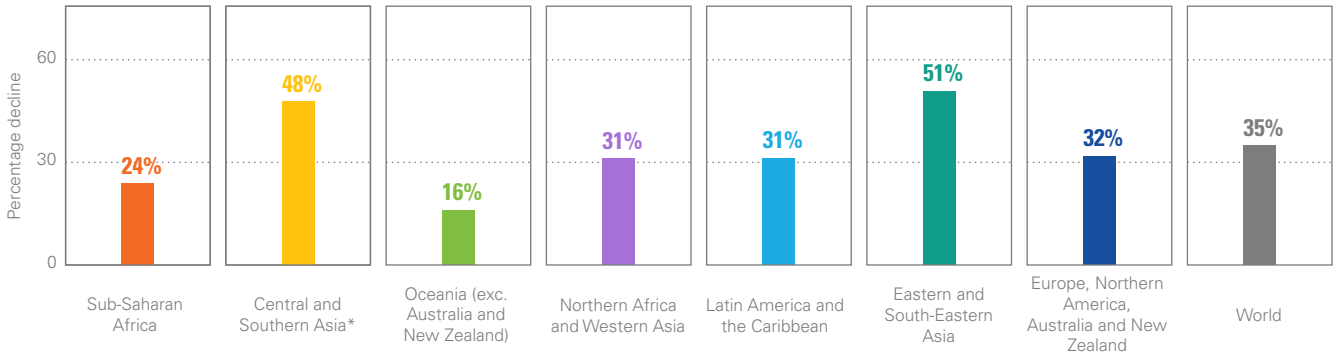
Success in lowering risk has been limited in sub-Saharan Africa

Figure 11. Stillbirth rates and trends, by Sustainable Development Goal region (2000–2021)

11a. Stillbirth rates, by Sustainable Development Goal region (2000–2021)



11b. Percentage decline, by Sustainable Development Goal region (2000–2021)

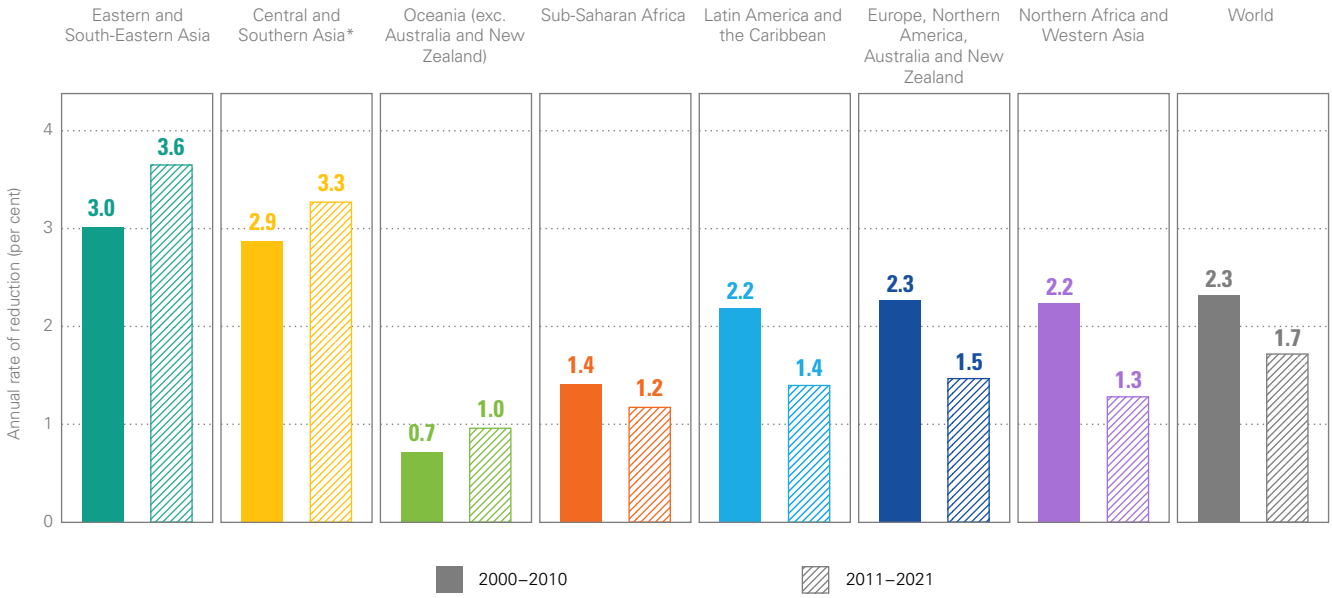


Note: The solid line represents the median and the shaded area represents the 90 per cent uncertainty around the median value.
*In 2000, the combined stillbirth rate for Central and Southern Asia was 31.0; Central Asia's stillbirth rate was 12.0 and Southern Asia's was 31.6. In 2021, the region's combined stillbirth rate was 16.2; individually, Central Asia's stillbirth rate was 7.2 and Southern Asia's was 16.7. The percentage decline in stillbirth rate from 2000 to 2021 was 47.7 per cent for Central and Southern Asia combined, but 39.9 per cent for Central Asia and 47.2 per cent for Southern Asia.

The stillbirth rate in many regions remains too high – and while some regions accelerated progress since 2011, in others it has stalled or slowed. In Eastern and South-Eastern Asia, Central and Southern Asia, and Oceania (excluding Australia and New Zealand), progress has gained momentum since 2010 (see Figure 12). But in many regions, slower annual rates of reduction were observed; this is particularly notable in sub-Saharan Africa and Northern Africa and Western Asia, which together accounted for 52 per cent of global stillbirths.

In more than half of regions, progress has slowed since 2010

Figure 12. Annual rate of reduction in stillbirth rate, by Sustainable Development Goal region (2000–2010 and 2011–2021)



Note: *The annual rate of reduction for Central and Southern Asia from 2000 to 2010 was 2.9; in Central Asia it was 2.9 and in Southern Asia it was 2.8. From 2011 to 2021, the annual rate of reduction in Central and Southern Asia was 3.3; in Central Asia it was 1.9 and in Southern Asia it was 3.2. Regions are ordered from left to right by greatest to least difference of the annual rate of reduction between the two decades.

By making sound and strategic investments, many countries have made encouraging gains in reducing their stillbirth rate (see Box 5). A total of 21 countries – including seven lower-middle-income countries (Mongolia, India, El Salvador, Cambodia, Algeria, Uzbekistan, Bangladesh) – cut the stillbirth rate by more than half (see Map 3). The largest reductions since 2000 were estimated for China and North Macedonia, with percentage declines of about 65 per cent (see Figure 13). But when considering the uncertainty in estimates of percentage decline of the stillbirth rate (i.e., the 90 per cent lower uncertainty bound of the percentage decline greater than 50 per cent), only seven countries reduced stillbirth rates by more than half between 2000 and 2021. Among countries with available empirical data, 56 countries (or 32 per cent) achieved a decrease of less than one quarter. Among them, 24 countries reduced the stillbirth rate by less than 15 per cent – including five low- and lower-middle-income countries. Seven countries with empirical data available did not record a decline in the stillbirth rate between 2000 and 2021.

Box 5. Strategic measures towards fewer stillbirths

Algeria, Bangladesh and **Rwanda** have made impressive strides in reducing the national stillbirth rate. Their achievement proves that sound policies, programmes and investments to prevent stillbirths work.

Algeria

Stillbirth rate	2000	2010	2021
	20.3	14.3	9.8
% decline=52%	*ARR=3.5%*		

Algeria has reduced its stillbirth rate by more than half since 2000. Maternal and child health remains a top priority among national health authorities.

√ Perinatal and neonatology services were standardized through the first national perinatal programme.

√ In 2016, the second five-year national perinatal programme was adopted and implemented; it has helped strengthen the fight against stillbirths related to complications of rhesus isoimmunization.

√ The availability of regular and disaggregated data on stillbirths provided by the National Statistics Office since 1989 has been key, and continues to support the country's Maternal Perinatal Death Surveillance and Response system.

Bangladesh

Stillbirth rate	2000	2010	2021
	41.3	29.1	20.5
% decline=50%	*ARR=3.3%*		

Bangladesh had one of the world's highest stillbirth rates when the century began, but has since cut its rate by half. Many stillbirths were never recorded and the causes of death remained unknown.

√ Prevention and management of stillbirths has been integrated into the country's maternal and newborn health strategies and action plans.

√ Care has improved during pregnancy and delivery, including antenatal care, based on Every Mother Every Newborn and Quality Equity Dignity standards.

√ Health facilities have implemented a series of maternal and newborn initiatives on a quarterly basis, gradually improving service quality.

√ Stillbirth notification and cause analysis have been included as part of the Maternal Perinatal Death Surveillance and Response system.

√ To raise voices and advocate for stillbirth prevention, the Government has also participated in webinars and national and international forums on stillbirths.

Rwanda

Stillbirth rate	2000	2010	2021
	28.3	18.7	16.7
% decline=41%	*ARR=2.5%*		

Rwanda had the greatest success among sub-Saharan African countries in reducing its stillbirth rate, which has declined by 41 per cent since 2000. A range of measures helped the country reach this milestone.

√ Community health care now ensures more expectant mothers have continued follow-up and timely referral if they are high risk, and uses data to track and manage timely care.

√ Health facilities are offering more regular and higher quality antenatal care.

√ Investments were made to improve health care providers' skills and capacities.

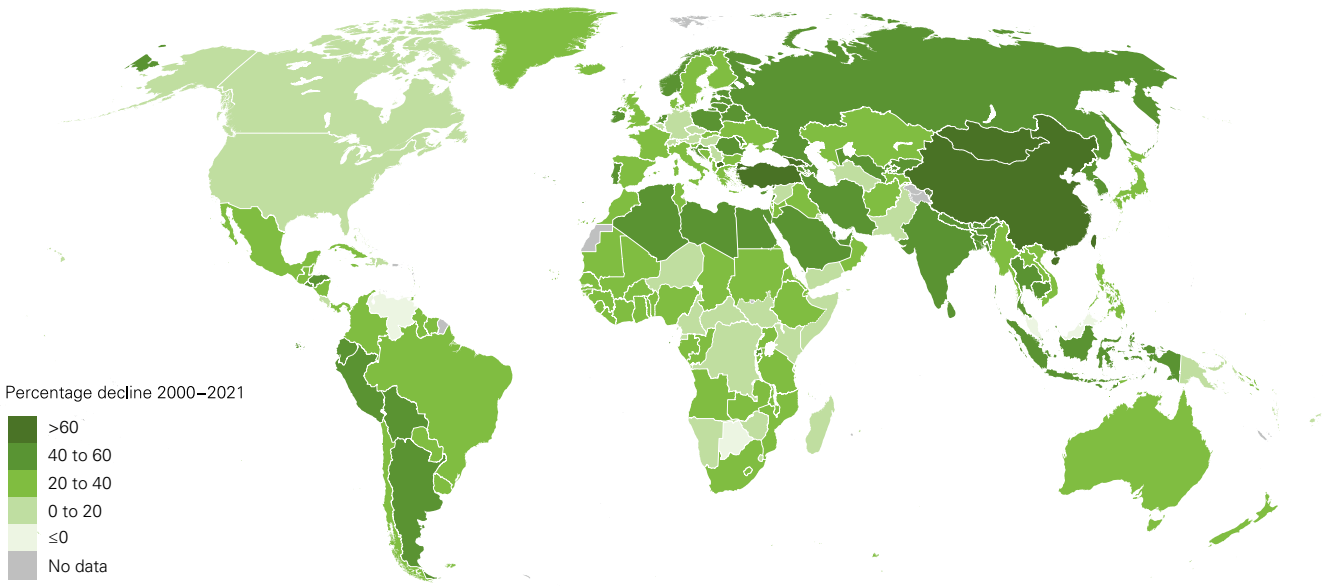
√ Behaviour change communication and awareness-raising campaigns have empowered women to secure the care they need to help prevent stillbirths.

√ More health facilities have opened, bringing antenatal care closer to communities.

√ Maintaining high coverage of community-based health insurance has been prioritized, which reduces financial hardships for pregnant women and bolsters access to and utilization of maternal health care services.

Gains in some countries, challenges in others

Map 3. Percentage decline in stillbirth rate, by country (2000–2021)



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

Figure 13. Top 20 countries with greatest percentage decline in the stillbirth rate (2000–2021)

China	**67 (60, 73)%**	El Salvador	**56 (36, 70)%**
North Macedonia	**65 (57, 71)%**	Azerbaijan	**54 (30, 70)%**
Georgia	**64 (53, 73)%**	Peru	**52 (34, 65)%**
Mongolia	**64 (57, 69)%**	Algeria	**52 (41, 60)%**
Türkiye	**63 (54, 70)%**	Russian Federation	**51 (41, 59)%**
India	**59 (44, 70)%**	Bangladesh	**50 (36, 62)%**
Qatar	**58 (49, 65)%**	Ireland	**49 (40, 57)%**
Estonia	**58 (48, 66)%**	Nepal	**48 (25, 64)%**
Belarus	**58 (45, 68)%**	Lithuania	**47 (27, 62)%**
Netherlands	**57 (52, 62)%**	Armenia	**47 (26, 61)%**

Note: Values in parentheses indicate 90 per cent uncertainty intervals for the percentage declines in the stillbirth rate between 2000 and 2021. Countries listed are selected based on percentage decline point estimates and exclude countries with no quality data on stillbirths as well as countries with less than 10,000 estimated live births in 2021. Additional countries that were top performers in reducing the stillbirth rate between 2000 and 2021 with less than 10,000 live births are Maldives, the Cook Islands (New Zealand) and Bhutan. Cambodia, Uzbekistan and Saudi Arabia have no quality data available. For some countries, estimates are derived from the covariate-driven model.

Trends in the number and share of stillbirths by region and country

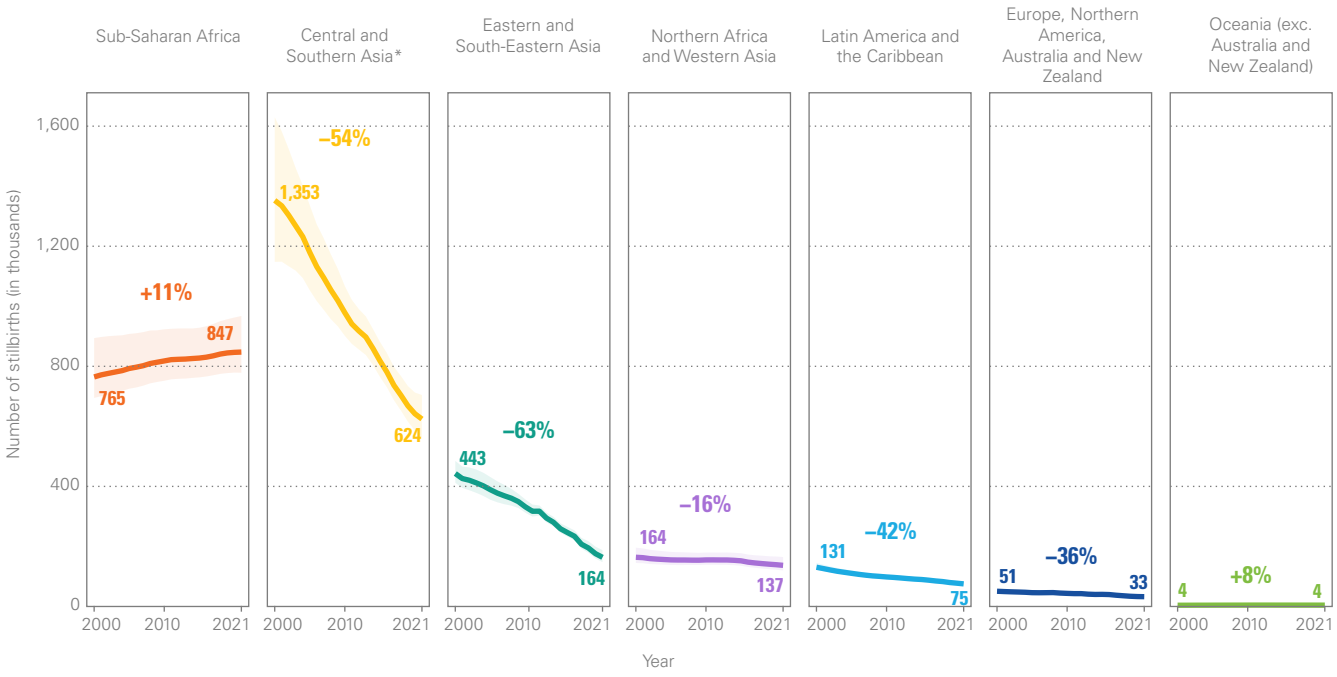
The burden carried by mothers in sub-Saharan Africa is growing: In 2000, the annual number of stillbirths stood at 765,000, and in 2021, this number increased to 847,000 (see Figure 14). This is due to population shifts across a number of sub-Saharan countries, with the number of total births rising more quickly than the stillbirth rate is falling (from 2000 to 2021, total births in the region increased by 45 per cent, while at a global level, total births plateaued). At the same time, a larger number of stillbirths are taking place in low-income countries, whose number reached 551,000 in 2021, up from 496,000 in 2000.

Meanwhile, the number of stillbirths has decreased since 2000 in all regions except for Oceania (exc. Australia and New Zealand). The largest reduction was seen in Central and Southern Asia, from just over 1.3 million stillbirths in 2000 to 624,000 in 2021.

The direction of these numbers means the share of stillbirths is becoming increasingly inequitable. The shift towards sub-Saharan Africa has been dramatic, climbing from 26 per cent of global stillbirths in 2000 to 45 per cent of global stillbirths in 2021 (see Figure 15). The share carried by low-income countries grew from 17 per cent in 2000 to 29 per cent in 2021.

Sub-Saharan Africa saw an increase in the number of stillbirths

Figure 14. Number of stillbirths and percentage change, by Sustainable Development Goal region (2000–2021)

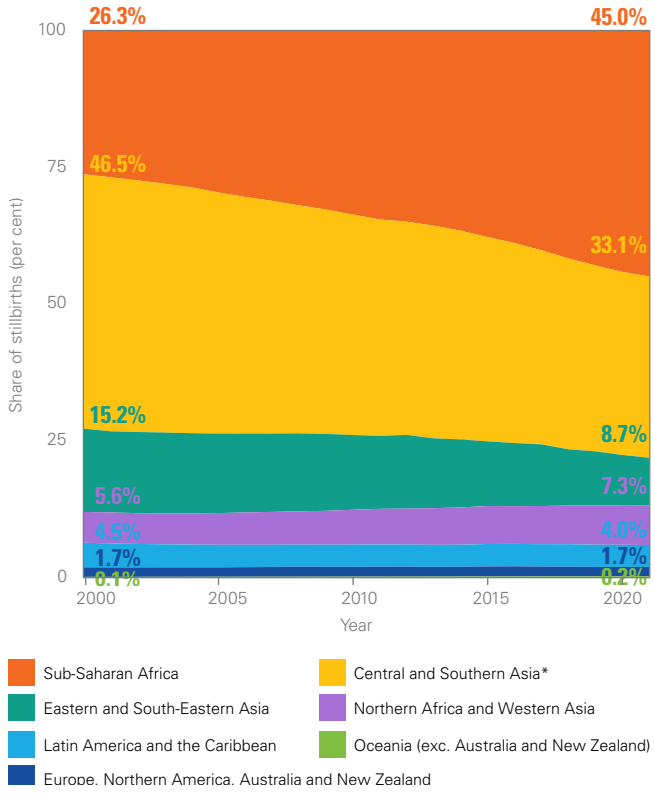


Note: The solid line represents the median and the shaded area represents the 90 per cent uncertainty around the median value.
*In 2000, the number of stillbirths for Central and Southern Asia was 1.35 million; Central Asia's number of stillbirths was 15,000 and Southern Asia's was 1.34 million. In 2021, the region's combined number of stillbirths was 624,000; individually, Central Asia's number of stillbirths was 13,000 and Southern Asia's was 610,000. The percentage decline in number of stillbirths from 2000 to 2021 was 53.8 per cent for Central and Southern Asia combined, but 12.5 per cent for Central Asia and 54.3 per cent for Southern Asia.

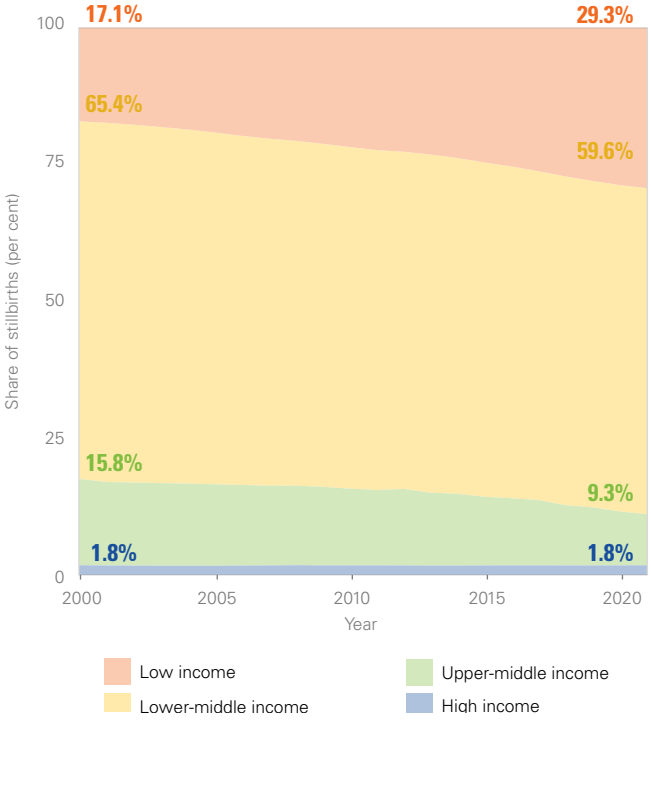
The share of stillbirths is growing in sub-Saharan Africa and in low-income countries

Figure 15. Change in share of stillbirths across regions and national income groups (2000–2021)

15a. Share of stillbirths, by Sustainable Development Goal region (2000–2021)



15b. Share of stillbirths, by national income group (2000–2021)



Note: *Of Central and Southern Asia's 46.5 per cent share of global stillbirths in 2000, Central Asia accounted for 0.5 per cent and Southern Asia for 46.0 per cent; of the SDG region's 33.1 per cent share of global stillbirths in 2021, Central Asia accounted for 0.7 per cent and Southern Asia for 32.4 per cent. National income classifications follow the World Bank classification, 2022. Among the 195 countries with stillbirth estimates, 28 are classified as low income, 54 as lower-middle income, 52 as upper-middle income and 58 as high income. Three countries/territories are not classified. Note that countries follow the same classification through all years in this chart.

While estimates show most countries reduced the number of stillbirths between 2000 and 2021, 46 countries showed a stagnant trend or small increase in the number of stillbirths. More than 60 per cent (28) are in sub-Saharan Africa. This is because population growth – i.e., an increasing number of births – is outpacing declines in the stillbirth rate. When restricted for uncertainty in estimates of percentage decline in stillbirths (i.e., the 90 per cent upper uncertainty bound lower than zero), three countries (Botswana, the Democratic Republic of the Congo and the Niger) had an increase in the number of stillbirths between 2000 and 2021.

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Realizing targets: How is the world doing?

If every country were to meet the ENAP target by 2030, the world would still lose an estimated 13.2 million babies to stillbirth – but, importantly, 2.6 million lives would be saved (see Figure 16). About 6 in 10 of these preventable deaths would involve sub-Saharan African babies. If countries achieve the ENAP target earlier – which is possible, in some countries – even more babies will live. But if current trends are maintained, 15.9 million babies will be stillborn between now and 2030. And if stillbirth rates remain unchanged from today's scenario, the number of stillbirths climbs to 17.5 million.

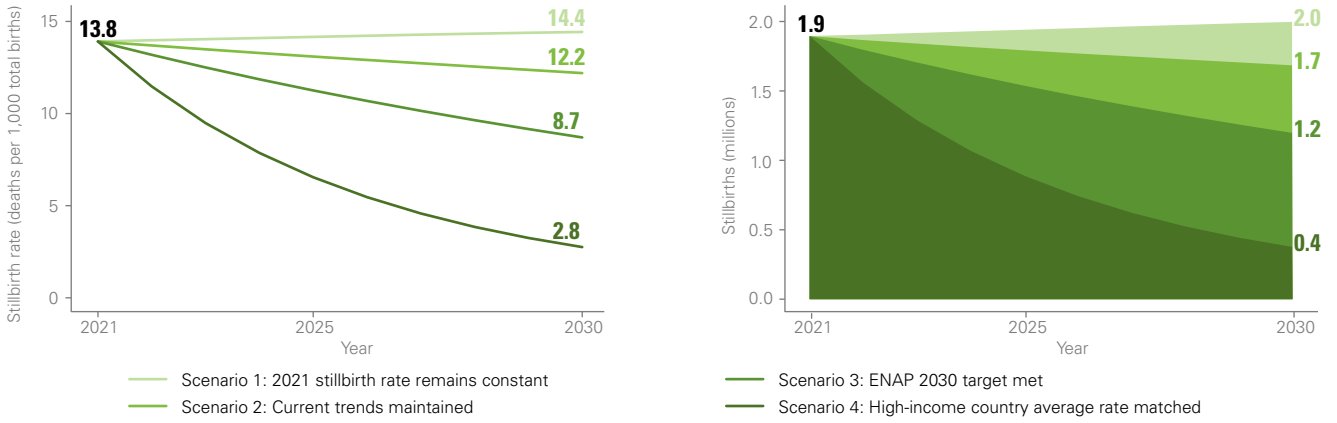
ENAP's shared vision

The Every Newborn Action Plan (ENAP) was endorsed by 194 WHO Member States in 2014. By making this commitment, governments agreed to make investments towards a common goal: Achieving a rate of 12 stillbirths or fewer per 1,000 total births by 2030. Realizing the ENAP target would have a profound impact on millions of women and their families around the world, saving the lives of 2.6 million babies.

Achieving the ENAP target saves millions of lives

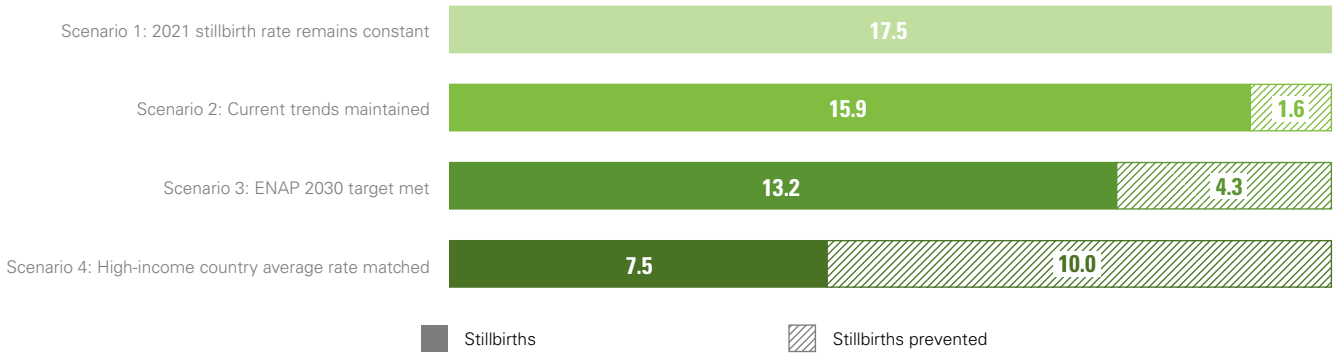
Figure 16. Projected stillbirth outcomes (2021–2030)

16a. Projected global stillbirth rates and number of stillbirths by different scenario (2021–2030)



Note: The increasing number of stillbirths in the '2021 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 eight years, from 2022 to 2030.

16b. Lives saved with accelerated progress compared to the 2021 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: 2021 stillbirth rate remains constant
For each country, the stillbirth rate for 2022 to 2030 remains at the 2021 level; in other words, progress is halted.

Scenario 2: Current trends maintained
For each country, the 2022 to 2030 trend in stillbirth rate is equal to the estimated country-specific declines for 2000 to 2021 (as measured by annual rate of reduction). If a country has an increase in the stillbirth rate from 2000 to 2021, 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 stillbirths per 1,000 total births (the upper bound of the ENAP target) and annual rates of reduction for 2022 to 2030 are calculated based on the country's stillbirth rate in 2021 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 2.8 stillbirths per 1,000 total births – the average stillbirth rate in high-income countries as of 2021.

The ENAP stillbirth target will not be met by 2030 if current trends continue. Among the 195 countries studied, 131 have already achieved the target and a further 8 are on track to meet it (see Map 4). But 56 countries will miss the target unless urgent and rapid changes to health care systems are made. More than half (35) of these countries will not meet the target by 2050, and of these, 12 will not do so by the end of the century. The majority (28) of countries projected not to meet the target before 2050 are in sub-Saharan Africa. Without continued investment, the progress that has been achieved since 2000 will be lost.

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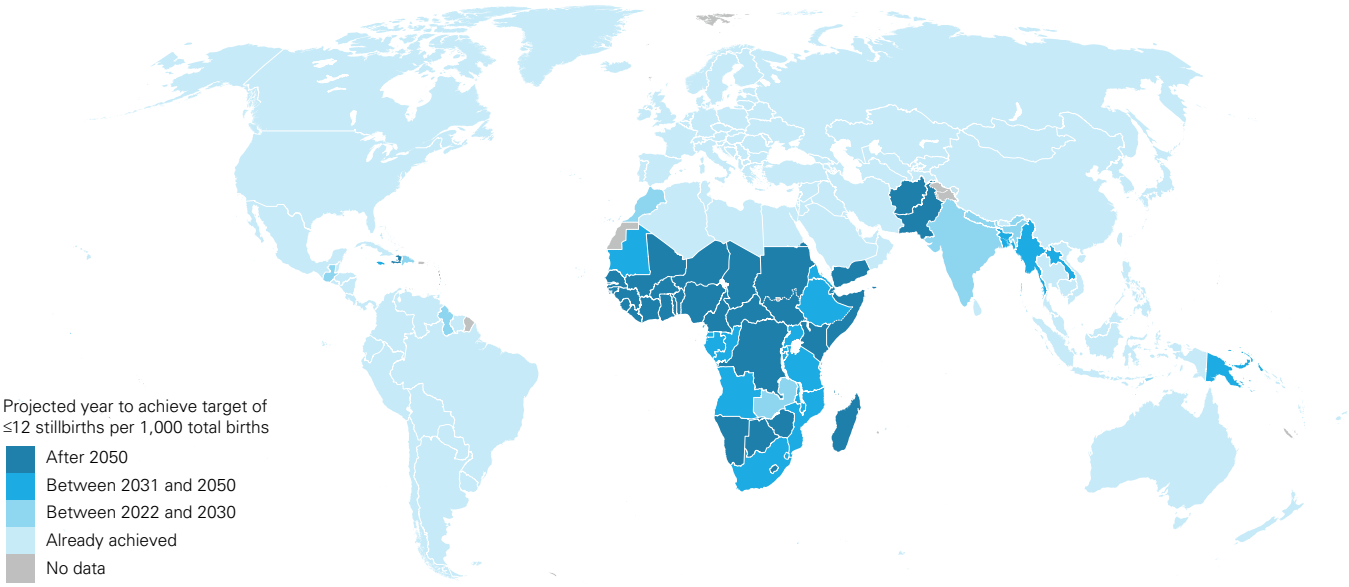
Many countries in sub-Saharan Africa are off track to meet the target

Map 4. Projected year to achieve ENAP stillbirth target if current trends continue, by country



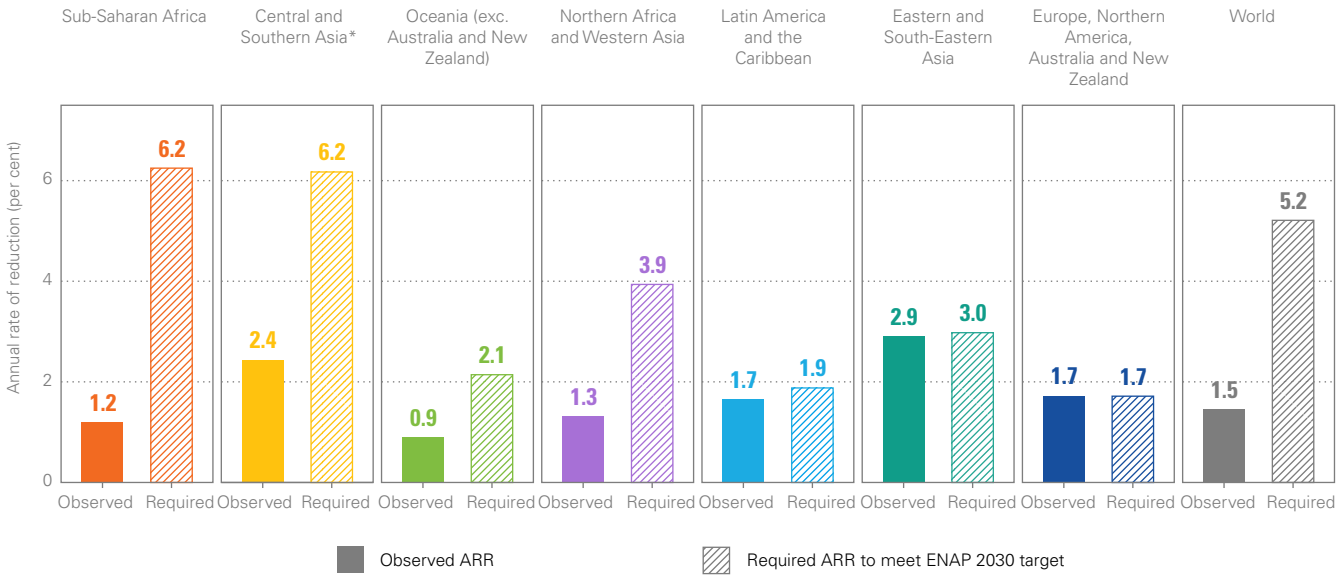
Note: Categories are based on unrounded numbers. Map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

The path to progress and consequences for inaction

To achieve the 2030 stillbirth target, urgent attention must be paid to stillbirth prevention (see Figure 17). More than 45 countries must more than double their annual rate of reduction (see Figure 18) to turn the ENAP vision into reality. Whether countries slow, maintain or accelerate momentum can mean the difference between a safe birth or a tragic loss of life.

Realizing the stillbirth target demands immediate attention

Figure 17. Annual rate of reduction (ARR) in stillbirth rate achieved in 2000–2021 and ARR required in 2022–2030 to meet the ENAP stillbirth target, by Sustainable Development Goal region



Note: *The observed ARR 2000–2021 in the stillbirth rate in Central and Southern Asia was 2.4, and the required ARR to meet the ENAP stillbirth target is 6.2. For Central Asia, the observed ARR was 2.13, and the required ARR is 2.11. For Southern Asia, the observed ARR was 2.5, and the required ARR is 6.3.

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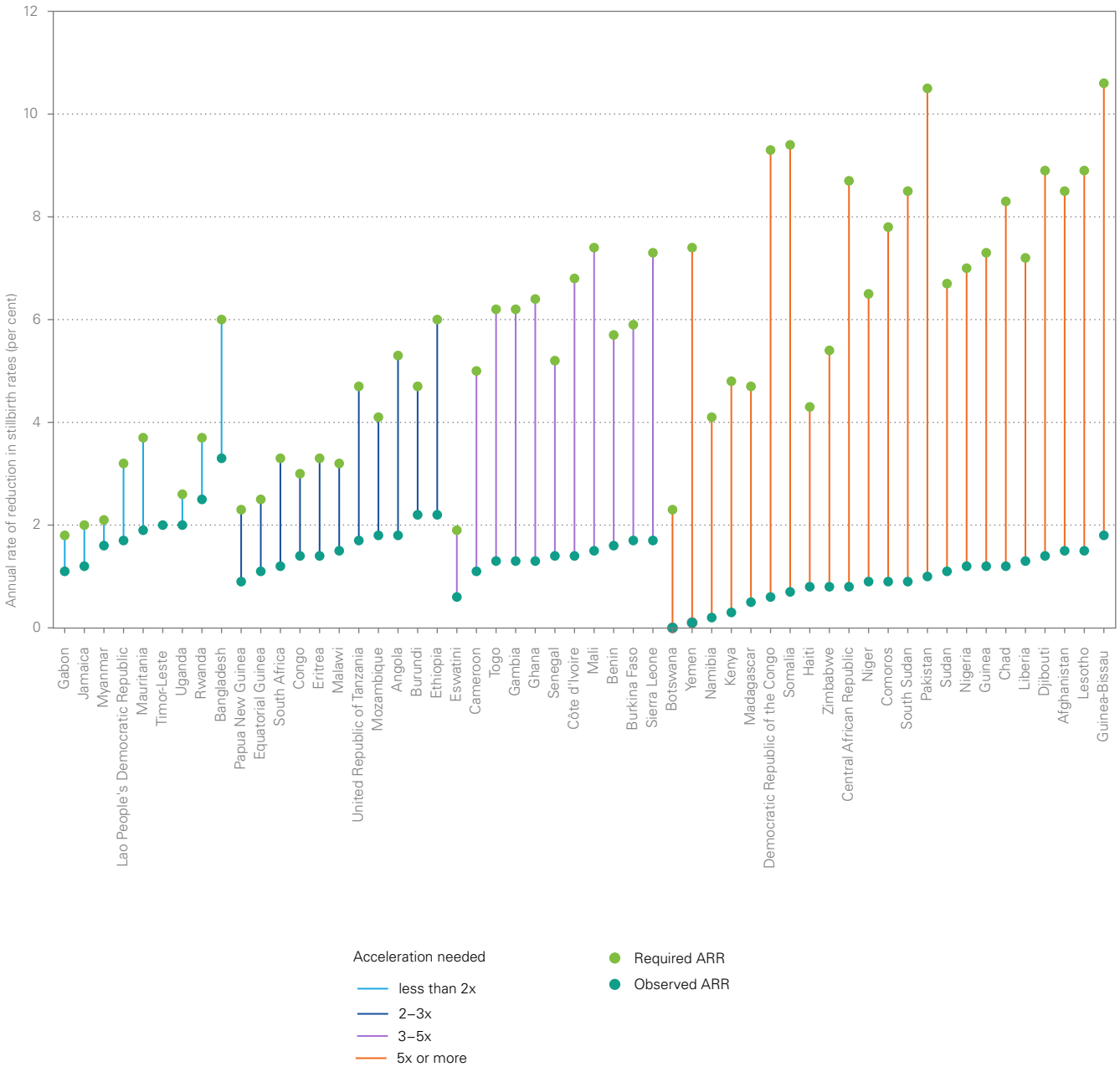
Many countries must accelerate investments

Figure 18. Annual rate of reduction (ARR) achieved in 2000–2021 and ARR required in 2022–2030 to meet the ENAP stillbirth target, in countries at risk of missing the target by 2030

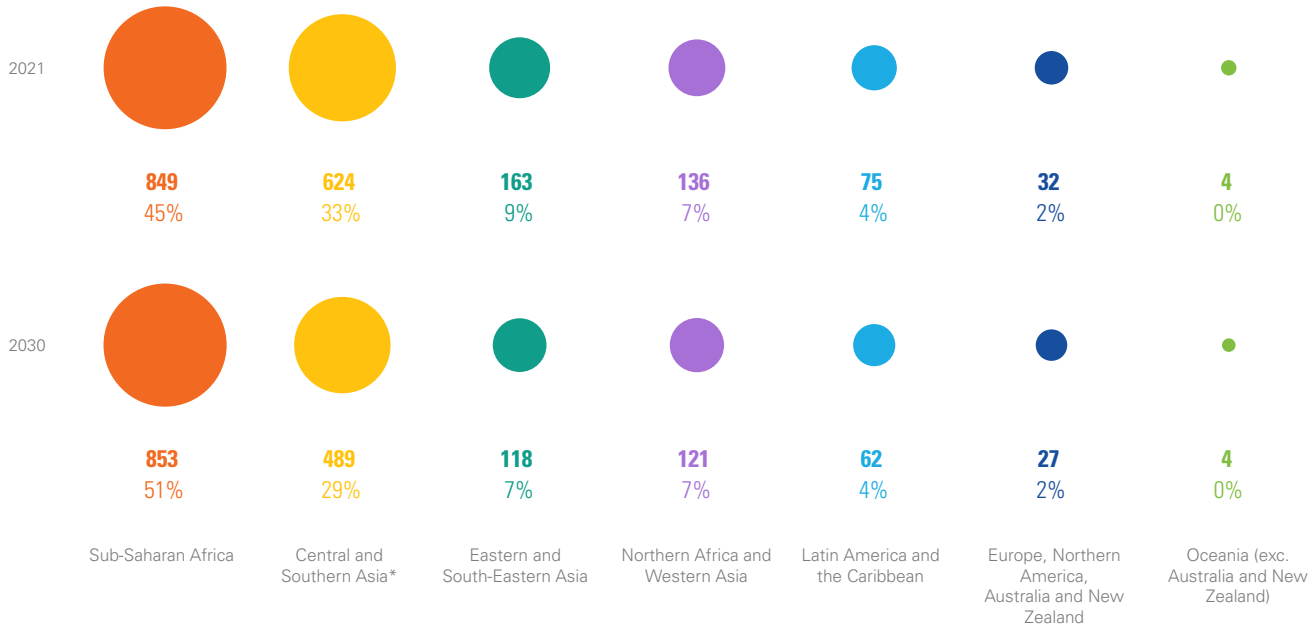


Note: 'Countries at risk of missing the target' refers to those not on track to achieve the ENAP stillbirth target by 2030 if current trends continue.

If the trends observed in 2021 continue, mothers in sub-Saharan Africa will suffer half of all stillbirths in the world between now and 2030, and nearly a third of stillbirths will take place in Central and Southern Asia (see Figure 19). The relative burdens in other regions are limited to a range of nearly 0 per cent (Oceania, exc. Australia and New Zealand) to 8 per cent (Eastern and South-Eastern Asia).

In 2030, sub-Saharan Africa will account for over half of all stillbirths if current trends continue

Figure 19. Number of stillbirths (in thousands) in 2021, projected number in 2030 if current trends continue, and share of global stillbirths, by Sustainable Development Goal region



Note: The first number cited for each region refers to the number of stillbirths (in thousands); the second is the share of global stillbirths by region. *Of Central and Southern Asia's 33.1 per cent share of global stillbirths in 2021, Central Asia accounted for 0.7 per cent and Southern Asia for 32.5 per cent. And in 2030, of its 29.2 per cent share of global stillbirths, Central Asia will account for 0.6 per cent and Southern Asia for 28.7 per cent.

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BOX 6. COVID-19 and stillbirth

The effects of COVID-19 on pregnancy and childbirth are not yet fully understood. What is known today provides a mixed picture: Studies have shown that COVID-19 infections during pregnancy increased the risk of stillbirth,[14] but these effects varied by variants and vaccination status and studies were often not representative at the national level. Furthermore, most of these studies were conducted in high-income settings, where stillbirth rates are lower.

Some research has shown that stillbirths due to COVID-19 were related to severe illness of the mother and placental damage.[15] Though the severity of COVID-19 has declined with newer variants, the Delta variant showed an elevated risk of stillbirth. A large study by the US Centers for Disease Control and Prevention indicated a doubled risk of stillbirths after COVID-19 infection of the mother.[16]

A decrease in prenatal care visits and strained health care infrastructure could further increase stillbirth risks.[17] With the health system under stress, less care may be available, and pregnant women may opt out of antenatal care to avoid exposure or because of limited transportation options, for instance. Analysis of data from South Africa suggests an average 11 per cent increase in stillbirths in 2020–2021 compared to 2019–2020 and reduced use of selected antenatal care services.[18] HMIS data from countries in sub-Saharan Africa showed that antenatal and delivery care and immunization service delivery declined by 2 per cent (from 8 per cent to 6 per cent) from 2017 to the end of 2020, including the COVID-19 period of March to December 2020.[19]

To assess the direct or indirect impacts of COVID-19 on stillbirths, the UN IGME undertook an analysis of empirical data derived from civil registration and vital statistics (CRVS) systems and HMIS. The analysis was based on the observed number of stillbirths at 28 weeks or more of gestation, for 69 countries in 2020 and 47 countries in 2021 (see Map 5). These countries accounted for 46 per cent of total births and 40 per cent of all stillbirths in 2020, and 35 per cent of total births and 35 per cent of all stillbirths in 2021. Of the 40 countries with the largest number of stillbirths in 2020, 15 had 2020 data available for this analysis, and 12 had 2021 data.

A little over half (36) of countries for the 2020 analysis are classified as low- or middle-income countries, compared to about two thirds (31) of countries in the 2021 analysis. The baseline of expected stillbirths was modelled using historical stillbirth data for 2015–2019 to predict expected stillbirths for 2020 and 2021 with 95 per cent confidence intervals. Ratios of observed stillbirths to expected stillbirths were analysed to detect any significant deviations. Deviations were considered statistically significant if the confidence interval for the ratio did not include 1, e.g., positive significant excess would have the median and lower bound of the confidence interval above 1, signalling the true ratio is greater than 1 and there are more stillbirths than would be expected based on recent historical trends.

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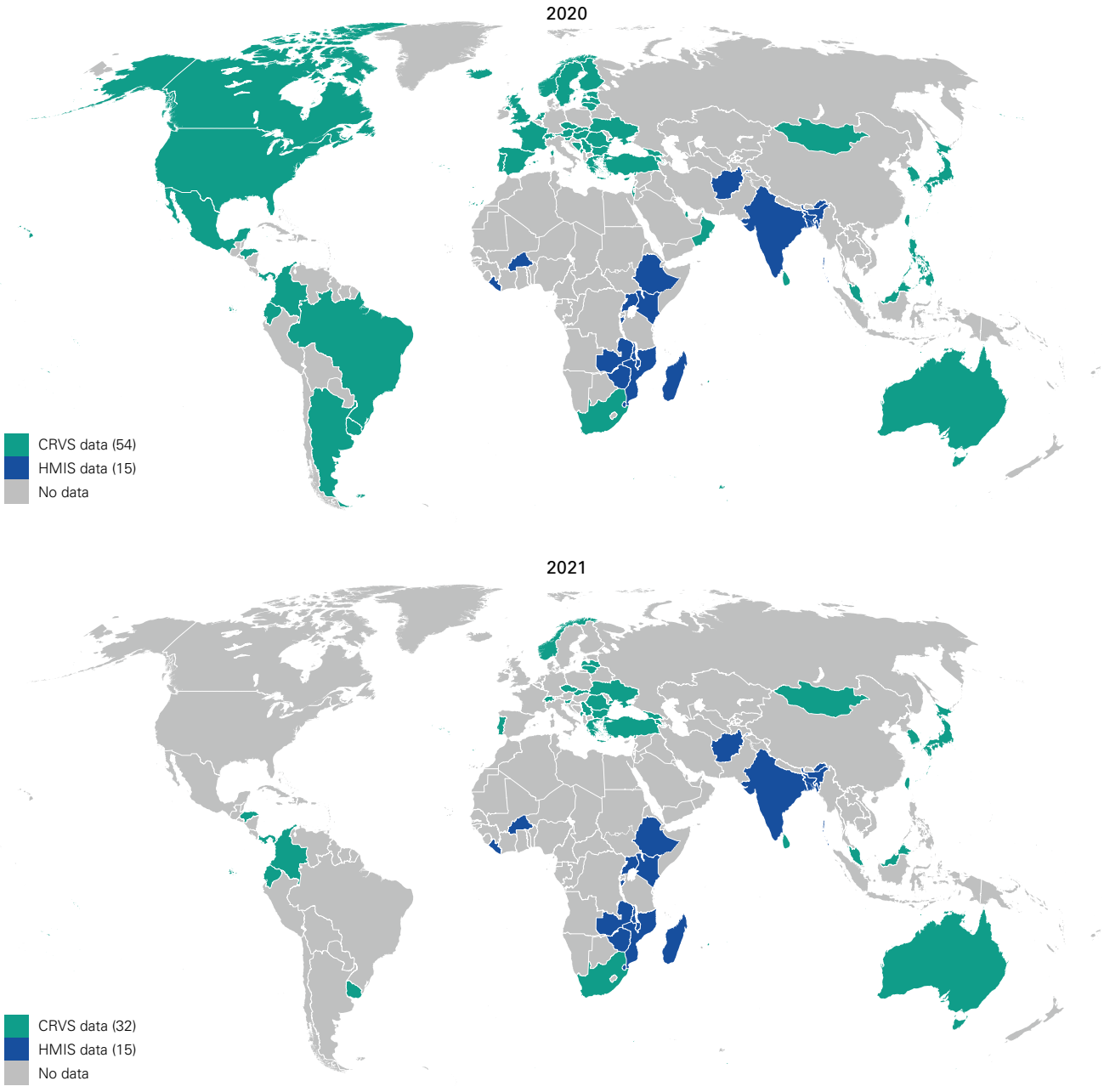
The UN IGME analysed CRVS and HMIS data to assess COVID-19's impact on stillbirth

Map 5. Countries with data included in UN IGME's excess mortality analysis, by data source type for 2020 and 2021



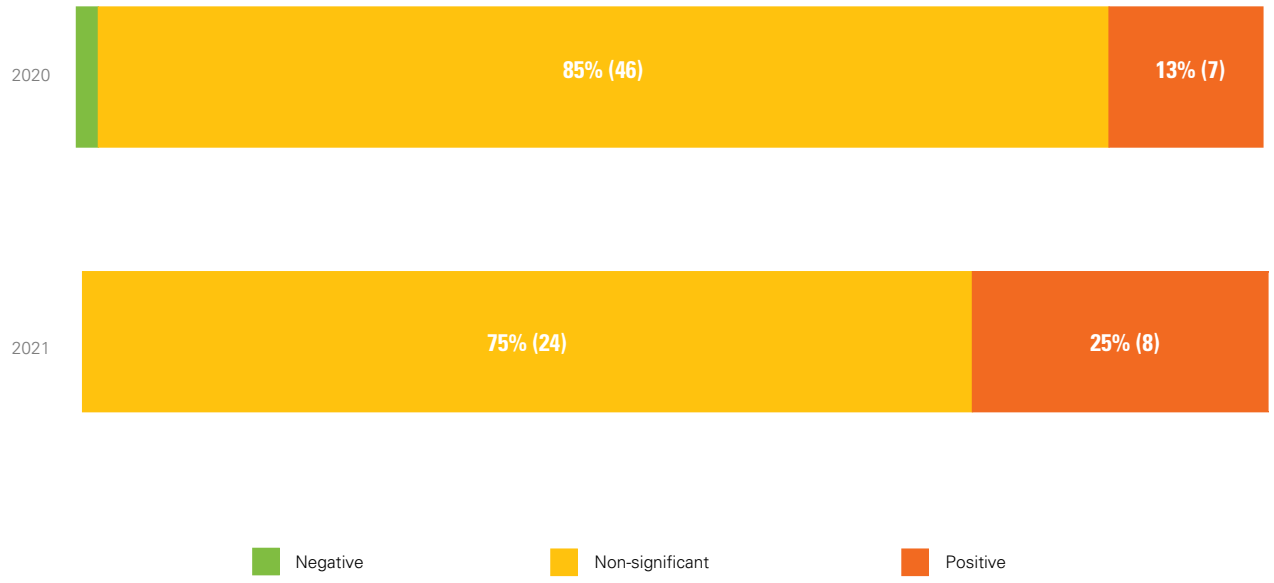
Note: Numbers in parentheses in the legend refer to the number of countries included in each category in UN IGME's analysis. Map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.

BOX 6. COVID-19 and stillbirth *(continued)*

When the uncertainty in the expected number of stillbirths is considered, only 7 (13 per cent) of the countries with CRVS data showed significant, positive excess stillbirths in 2020, with 46 countries showing no significant deviation from the expected number of stillbirths in 2020, and just one country showing significantly fewer stillbirths than would be expected based on historical data (see Figure 20). In 2021, 8 countries (25 per cent) reported more stillbirths than expected, 24 (75 per cent) showed no significant deviation from the expected number of stillbirths and none showed significantly fewer stillbirths than expected. As the CRVS data disproportionally represent high-income settings, the UN IGME also analysed HMIS data from 15 low- and middle-income countries, which largely confirmed the results of the CRVS analysis. Given these findings, the UN IGME analysis did not find sufficient evidence to make adjustments to its stillbirth estimates. The UN IGME will continue to collect data, where available, to monitor the situation of stillbirth around the globe as it relates to the ongoing COVID-19 pandemic.

A majority of countries have not shown deviation from expected number of stillbirths

Figure 20. Proportion of countries with significant excess stillbirths in CRVS data for 2020 and 2021



Source: UN IGME analysis.

Even before the pandemic began, many countries, particularly low- and middle-income countries, lacked quality data on stillbirths (see p. 23, 'Behind the data'). With new challenges to collecting these data in a timely manner brought on by COVID-19, strengthening data systems to properly record stillbirths is now even more crucial. National- and international-level limitations to quality data collection across low- and high-income settings must be addressed, ensuring that disease surveillance is integrated as improved data collection systems are built. One overview of population birth data and pandemic readiness in Europe noted a delay in the availability of population birth data (i.e., including data on stillbirths) but also variability in availability across countries, which was linked to types of data collection systems, among other factors. It further noted that more rapid data production could be achieved by exploiting medical and clinical databases to report on perinatal indicators if they are available, linking sometimes underused routine data to obtain timely population information on COVID-19 and implementing procedures for the rapid international synthesis of data.[20]

As more data and evidence on the pandemic's direct and indirect impacts on pregnancy and childbirth are collected, more will be also understood about the degree to which trends in stillbirths have shifted. In the meantime, it is vital that policymakers act now to ensure mothers and babies are not missing out on the services and interventions needed for a healthy pregnancy and start to life that may have disappeared or declined since the pandemic began.

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TRANSFORMING TRAGEDY INTO CHANGE

Achievable goals to prevent stillbirths

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How many more babies must needlessly die before the world takes definitive action to end preventable stillbirths? What will it take for every community, country and international organization to ensure every pregnant woman and her baby is properly cared for? As long as equity and quality gaps persist in access to health care during pregnancy and labour, prevention of stillbirths is not prioritized, and these deaths remain a taboo topic, babies will continue to die and parents will continue to needlessly lose their children.

Ending preventable stillbirths does not have to be complicated or expensive. It does not require complex interventions. Because the causes of stillbirths are inseparable from those that kill pregnant women and their newborn babies, investments to reduce stillbirths bring a quadruple return by reducing stillbirths, neonatal deaths, maternal deaths and maternal and neonatal morbidity. Maximum gains will come by investing in care around birth, ensuring timely access to skilled attendance at birth for every pregnant woman and improving coverage and quality of antenatal care. Given this powerful and direct link, stillbirth prevention must become a routine part of the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) continuum of care. These changes are feasible and possible – they simply need the spark of strong political will and sustained investments to realize them.

Stillbirths have been left out of conversations about pregnancy and labour for too long. Every clinician, community health care worker and midwife must develop their understanding of what stillbirths are and what can be done to prevent them, and then widely share this knowledge among the populations they serve. Women and bereaved parents must not be blamed or shamed, but listened to. Action must take place locally – at subnational and district levels – to achieve gains for every woman and baby. Even in high-income countries where stillbirth rates are relatively low, much can be done to reduce rates for vulnerable populations and reduce inequity.

Goal: A solid evidence base and better knowledge through better measurement of stillbirths

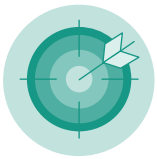
How do we do it?

- Standardize stillbirth definition and measures to align with international standards
- Capture stillbirths across relevant data platforms and audits, including routine HMIS, registers and monthly reporting forms, and perinatal death audits
- Train and support health care workers and data collectors to notify civil and vital registration systems of stillbirths and facilitate registration of these losses
- Provide information on timing and pathways to stillbirth in all settings
- Bolster data ownership and strengthen data use, especially locally at facility or district level
- Report and review stillbirth data 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 track progress towards the ENAP target of 12 stillbirths or fewer per 1,000 total births and to monitor geographical inequities

Box 7. Research to improve the knowledge base on stillbirths

The more that is understood about stillbirths – and the more this information is widely shared and disseminated – the more lives will be saved. In addition to stronger data, more research is essential to ending preventable stillbirths and lifting the harmful silence around these deaths.

- Develop and operationalize stillbirth prevention strategies
- Improve methods for fetal growth monitoring in routine antenatal care
- Improve methods to assess gestational age
- Improve effective fetal monitoring during labour in all settings
- Identify referral and care pathways 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 and overcome stigma around stillbirth
- Develop and test approaches and tools for bereavement care for women and families who experience a stillbirth



Goal: Local and national stillbirth targets in every country

How do we do it?

- Establish stillbirths as a national health priority area and as a priority in development strategies and plans
- Set targets at subnational and national levels to end preventable stillbirths in line with the ENAP target
- Set clear goals to accelerate progress in improving child survival and health, including targets on stillbirth rate
- Commit the political will to invest in ending preventable stillbirths
- Match commitments made to reducing neonatal mortality
- Design local and national development plans, policies and investment to achieve goals

Goal: A world that recognizes that most stillbirths are preventable and where stillbirth is discussed openly without shame or blame

How do we do it?

- Strengthen data availability and quality to provide strong evidence on the burden of and risk factors for stillbirths and the importance of ending preventable stillbirths
- Advocate for stillbirths to be included in all maternal and newborn health reports, policies, investments and research programmes
- Drive awareness-raising campaigns to emphasize the long-lasting impacts of stillbirth and the fact that most stillbirths are preventable
- Examine social taboos, stigmas and misconceptions that silence families who have a stillborn child and develop practices to remove them
- Combat stigma by speaking candidly about stillbirth and its prevention in communities and among health care providers
- Organize open discussions where parents and health workers feel empowered to speak about their experiences freely, including advocating for high-quality, respectful maternity care
- Review every stillbirth as part of perinatal death review with response plans
- Actively involve expecting and bereaved parents in their own care and in their child's death review, where applicable, and nurture stillbirth champions[21]

Goal: Compassionate and respectful support for every bereaved woman and family

How do we do it?

- Listen to women, partners and health care providers
- Create space for each stillbirth to be seen as an individual and unforgettable story of pain and loss
- Provide an acceptable explanation to women and families for the death of their baby, by investigating and identifying contributing factors
- Arm health care workers with the knowledge and tools to talk about stillbirth and the complex grieving process
- Enable the highest quality bereavement support and services for mothers, families and health workers, including information for women to plan for future pregnancies
- Discuss the significant direct, indirect and intangible costs of stillbirths in communities, across health care settings and among different levels of government

Goal: A health care system that provides high-quality care to every mother and child

How do we do it?

- Ensure access to comprehensive family planning services, education and programmes that empower women
- Provide universal health coverage along the continuum of care
- Recognize and act on the fact that the causes of stillbirths are inseparable from those that kill pregnant women and their newborn babies
- Guarantee every mother and newborn the access to quality, respectful care and transportation – especially antenatal and intrapartum care, and care after death
- Invest in the health workforce – especially midwives and community health workers – and ensure health facilities are well staffed and well equipped to deliver quality care during pregnancy and labour
- Integrate delivery of measures known to reduce stillbirths in routine RMNCAH care, such as:
    - Periconceptional folic acid supplementation or fortification
    - Insecticide-treated bed nets or intermittent preventive treatment with antimalarial drugs
    - Syphilis detection and treatment
    - Detection and management of hypertensive disease of pregnancy
    - Detection and management of fetal growth restriction and identification
    - Birth preparedness plans and skilled birth attendance through trained midwives
    - Access to emergency obstetric care
- Foster demand for services and accountability by establishing 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
- Incorporate WHO's recommendations on intrapartum care for a positive pregnancy experience[22]

Box 8. 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

- Ensure birth preparedness plans for every pregnant women, including transport arrangement
- 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 preventive 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 caesarean 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

Goal: Achieve equity in every country and region through sustained investment

How do we do it?

- Globally: Renew political commitments and investments to end preventable stillbirths
- In sub-Saharan Africa:
  - Urgently accelerate efforts and investments to prevent stillbirths
  - Take action today to anticipate the expected increase in number of pregnancies and total births in the region
- In Southern Asia: Renew and refocus attention on high-burden countries
- In countries with low stillbirth rates:
  - Investigate and research the inequities among vulnerable and marginalized populations
  - Engage poor communities and households to ensure every baby has a fair chance to survive

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There are millions of families and health care providers around the world whose lives have been irrevocably changed by the trauma of losing a baby to stillbirth. As for the 53 million babies who have been lost since 2000, they will never have the chance to demand the care that could have saved their lives, or the care to guide their families through the grieving process that followed their death. Though we cannot bring these children back, if we take action today, we can ensure their stories are never forgotten.

"Each day, more than 5,000 babies around the world are stillborn, leaving their families to cope with devastating loss. Yet many of these tragic deaths could be prevented through quality maternal and neonatal health care. We must come together now to ensure that every pregnant woman and baby, including those from marginalized communities, receives the services and treatment they need."

Catherine Russell
Executive Director, UNICEF

"Each stillbirth is a devastating experience causing untold heartbreak for millions of families around the world. Every woman, no matter where she lives, needs high quality care and monitoring during pregnancy and labour to reduce risks for herself and her baby."

Dr. Tedros Adhanom Ghebreyesus
Director-General, WHO

"Behind these numbers are millions of children and families who are denied their basic rights to health. We need political will and leadership for sustained financing for primary health care, which is one of the best investments countries and development partners can make."

Juan Pablo Uribe
Global Director for Health, Nutrition and Population, World Bank, and Director of the Global Financing Facility

"More work is needed to address persistent large differences in child survival across countries and regions, especially in sub-Saharan Africa. Only by improving access to quality health care, especially around the time of childbirth, will we be able to reduce these inequities and end preventable deaths worldwide."

Mr. John Wilmoth
Director, United Nations Department of Economic and Social Affairs, Population Division

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ANNEX

Estimating stillbirth rates

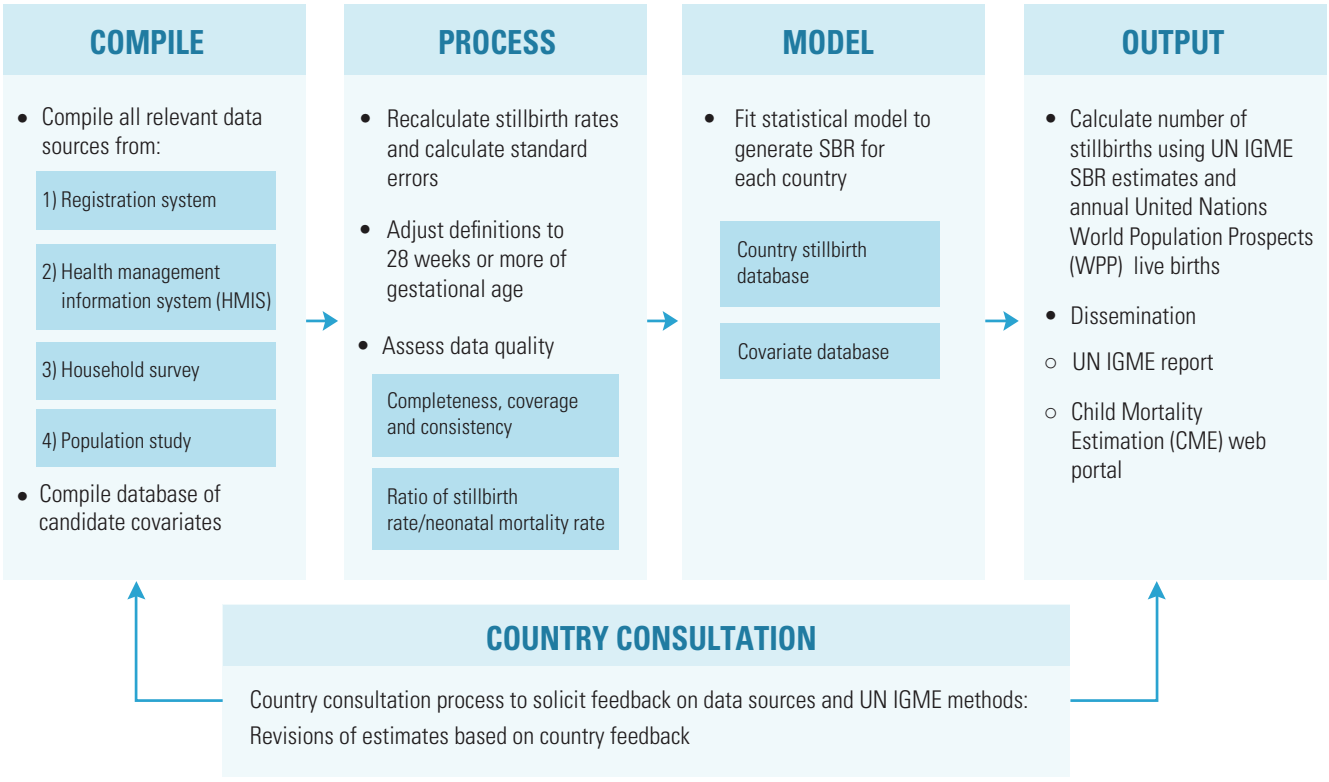
The United Nations Inter-agency Group for Child Mortality Estimation (UN IGME), which is led by UNICEF and includes members of the World Health Organization (WHO), the United Nations Department of Economic and Social Affairs, Population Division, and the World Bank Group, was established in 2004 to advance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

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 one of the core goals of the United Nations' Global Strategy for Women's, Children's and Adolescents' Health (2016–2030) and the Every Newborn Action Plan (ENAP).[23] 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 the estimated stillbirth rates.[24] At the end of country consultations, the estimation model will be run again incorporating any amendments to data arising during the consultation process. For this reason, please note that 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* and in WHO's Global Health Observatory. The UN IGME stillbirth estimates have been revised to take account of new data. Therefore, this round of estimates may not be comparable with those published in the previous UN IGME reports[25] or Global Health Observatory.

Figure A1. UN IGME approach



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

Estimates by the UN IGME may differ from the official statistics by Member States, which may use alternative equally rigorous methods.

Strategy

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

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, the 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 at <www.childmortality.org>.

Stillbirth concept and definition

In the UN IGME estimation work, consistent with International Classification of Diseases (ICD),[26] 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 sign 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 ≥ 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 the single criterion. Gestational age is used in preference to birthweight and length criteria as it is a better predictor of maturity and hence viability and is the most commonly used criteria across data sources including household surveys.

Box A1. 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.

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 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 from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, 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.

Data sources

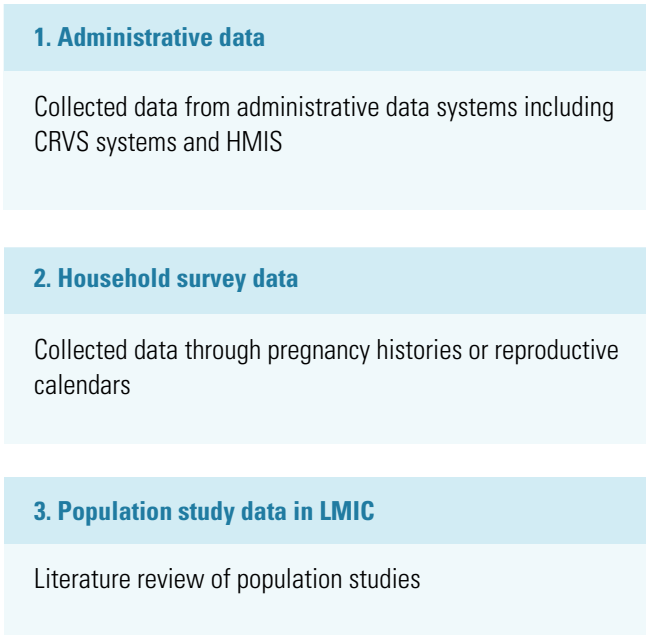
Estimates of stillbirth rates for a country can be derived from various sources, such as administrative data (e.g., vital registration systems, birth or death registries, or health management information systems), household surveys, or from population-based studies obtained from a review of academic 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.[27] 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 used to estimate stillbirth rates is available on the UN IGME web portal (<www.childmortality.org>). In total, the database contains almost 3,200 country-year data points from 173 countries, starting in 2000 and through 2021. Most of these data points (1,937, or 61 per cent) are from administrative systems, including CRVS systems and medical birth and death registries; 577 (18 per cent) are from HMIS systems; 235 (7 per cent) are from household surveys; and 417 (13 per cent) are from population studies. After assessing the data quality, about 1,800 (56 per cent) data points were included in the estimation model.

Figure A2. Data sources for stillbirth data in countries



- **Administrative data**

The majority of administrative data comes from registration systems and health data systems, including health management information systems (HMIS) (see Figure A2, pt. 1). Often data from registration systems record stillbirths and live births using detailed gestational age and/or birthweight. HMIS data are collected in health facilities and in many countries, the District Health Information System-2 (DHIS2) is the most common HMIS data platform.[28] 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; or with a reproductive calendar (see Figure A2, pt. 2).[29] In the pregnancy history (PH), women of reproductive age are asked about all pregnancies in their lifetime. For each pregnancy they are asked to

provide information on the duration of the pregnancy, the outcome of the pregnancy (e.g. miscarriage, stillbirth or live birth) and the date of birth or end of pregnancy. In the reproductive calendar (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 pregnancy histories, 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 reproductive calendars the stillbirth rate is the number of pregnancies that are terminated in the seventh month or later of pregnancy divided by the number of pregnancies that reached at least the seventh month. PH data allow the calculation of stillbirth rates for specific time periods in the past. Where the microdata were available, UN IGME recalculated the stillbirth estimates with standard errors from PH and RC. For PH data, the stillbirth estimates were calculated for 5-year calendar periods and for 5 intervals (e.g., 25 years) before the survey date. The most recent 5-year calendar period was included in the estimation model. The RC data allow the calculation of stillbirth rates for the 5-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 is subnational population-based studies (see Figure A2, pt. 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 estimates[30] was updated through to 29 July 2022. In addition, further reanalysed population-based stillbirth data were obtained from a UNICEF 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 weeks to 28 weeks or more, or by birthweight ranging from 500 grams 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 weeks of gestation or more definition, taking into account missing gestational age or birthweight data where possible (see section "Definitional adjustment of stillbirth data" 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.[31] The framework includes distal determinants such as socio-economic 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 which had the most explanatory power were selected for inclusion in the model. Table A1 lists the selected covariates for the estimation model.

Table A1. Selected covariates indicators and data sources

Indicator	Data source
Antenatal care 4+ visits: Percentage of women (aged 15–49) attended at least four times during pregnancy by any provider	WHO/UNICEF: DHS, MICS and other national household surveys
C-section rate: Percentage of births by caesarean 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 completed years of education received by females aged 25 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 during the first 28 days of life, expressed per 1,000 live births	UN IGME: Modelled based on data from vital registration, household survey and population census
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, International Comparison Program database

Methodology to estimate stillbirth rates

To reconcile differences across data sources and better account for the systematic biases associated with the various types of data inputs, members of the CSEG of UN IGME have 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 to 2021.

- **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; a high proportion of reported stillbirths had unknown gestational age or birthweight; data were internally inconsistent; or coverage of live births in administrative data systems was estimated below 80 per cent. Vital registration data with incomplete coverage of child deaths were also excluded. Consistency across data sources was further assessed by comparing stillbirth estimates to similar data sources within the same country and expected global and regional patterns in mortality.

As part of the assessment of data quality, the plausibility of the ratio of stillbirth rates (measured as per 28 weeks of gestation or more definition) to neonatal mortality rates (NMR) was assessed, by comparing these ratios to the distribution of ratios obtained from high-quality LMIC study data. High-quality LMIC study data is defined as population-based prospectively collected data with recruitment prior to 28 weeks 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 where available. Where data sources had missing NMR data, the estimated NMR by UN IGME[32] 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 was 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 under-reported relative to neonatal deaths for a specific observation, its 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 of gestation or more definitions and adjusted 28-week definitions.

- **Definitional adjustment of stillbirth data**

SBR estimates are constructed based on using a stillbirth at 28-week gestation or more definition. If information based on the 28-week definition was not available, 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 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 weeks of gestation 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 definition. Further, in LMICs it is assumed that the SBR observed using a stillbirth definition of a birthweight of 1,000 grams or more is equal to the SBR observed using the 28 weeks of gestation or more definition, and similarly that the SBR observed with a birthweight of 500 grams or more definition equals the SBR observed with a 22 week of gestational age or more 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

Observed log(SBR) = log(true SBR) + bias + measurement error

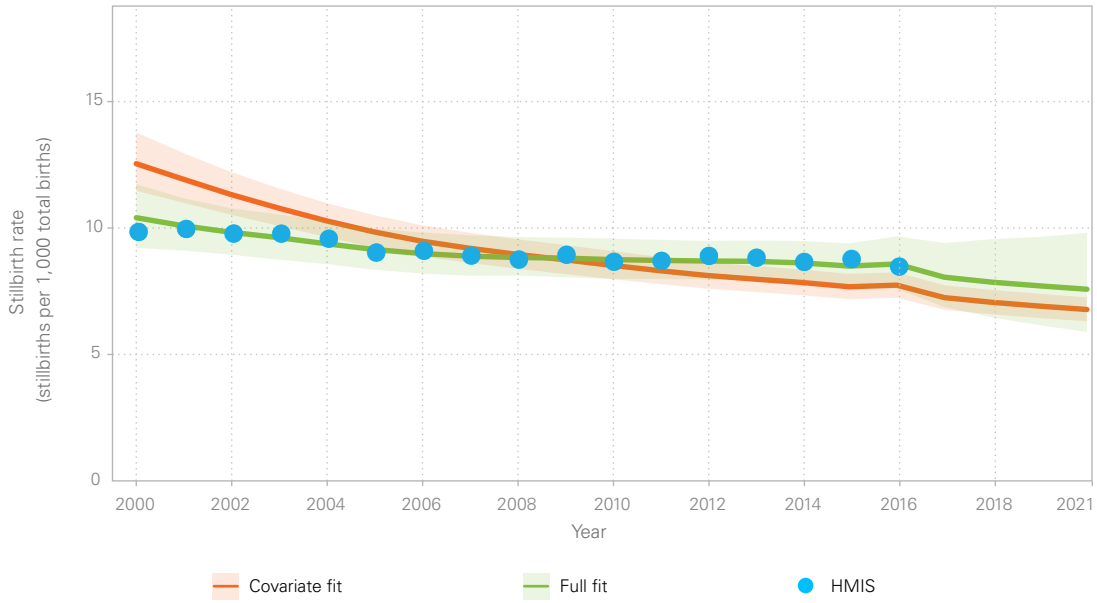
where the true SBR in a country for years 2000 to 2021 = country-intercept + SBR predicted by covariates + country-specific temporal smoothing process (explained further below). The model produces estimates of the SBR for years 2000 to 2021 with uncertainty.

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. Figure A3 illustrates how the trend estimates (blue) are a weighted combination of information from country data and covariates. 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.[33] 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,

Figure A3. Covariates and country data



Note: The above figure shows estimated SBR trends with 90% 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 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

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

Measurement error component

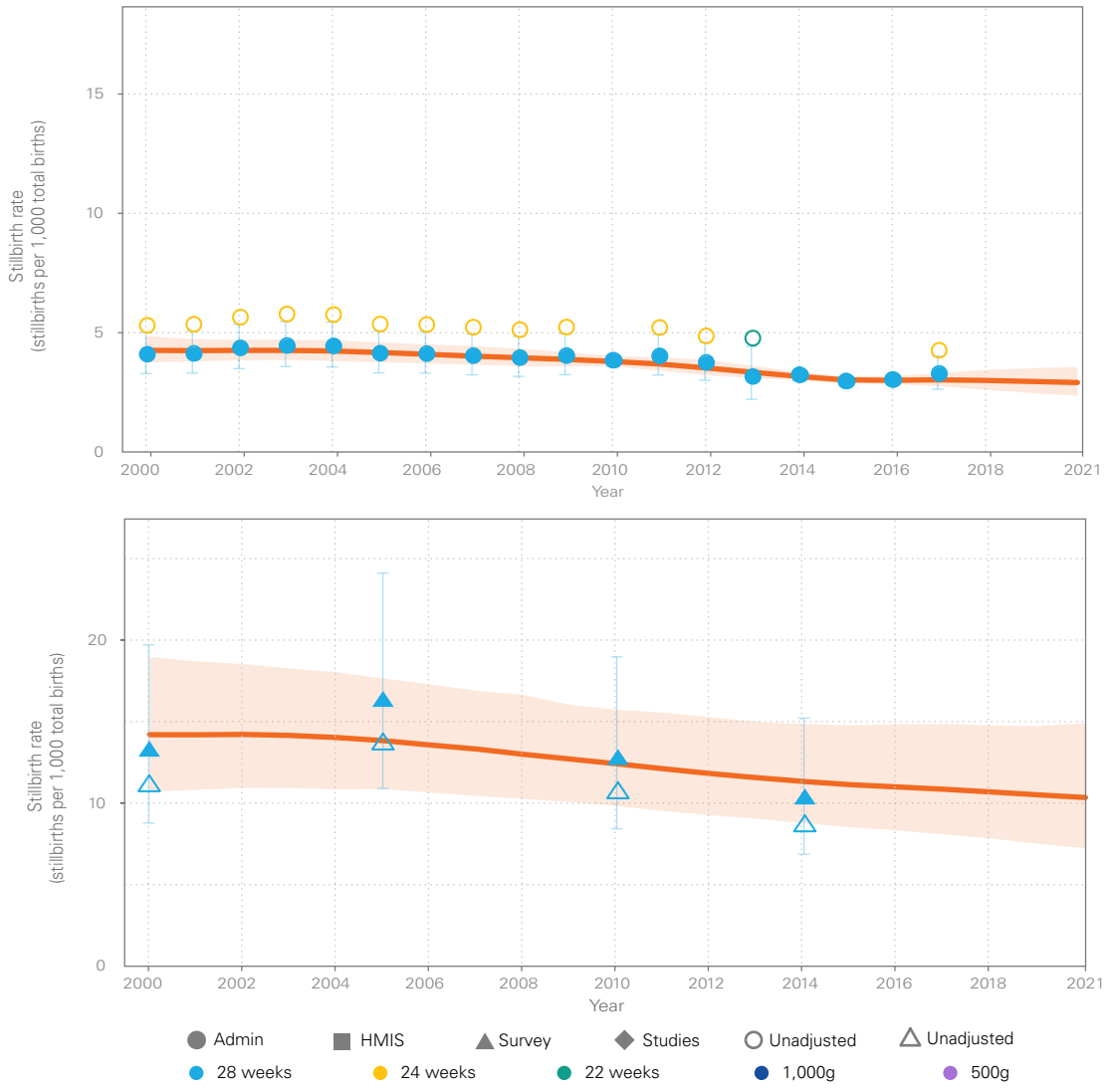
To account for measurement error, varying levels of uncertainty (error variance) affect the weighting of individual observations in the model. Observations with lower error variance carry a higher weight in determining estimates as compared to observations with higher error variance.

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 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 process and potential non-representativeness of the observation. The different data source types are (1) administrative registration, (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 increase. 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.

Figure A4. Estimated uncertainty in country data and trend estimates



Note: The above figures illustrate the bias component and measurement error incorporated into SBR estimates. The top panel shows data with definitional adjustments applied. The hollow orange and green circles show unadjusted SBR country data using a non "28 weeks or more of gestation" definition (e.g., 22- or 24-week definition). To use the observed, non-28 weeks 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.

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 2021. Among the countries with stillbirth data, on average 3.7 years needed to be extrapolated, with about half of the countries having their latest data point before 2020. For more than two thirds of the countries with included data, the most recent data point referred to the last five years (see Figure A5).

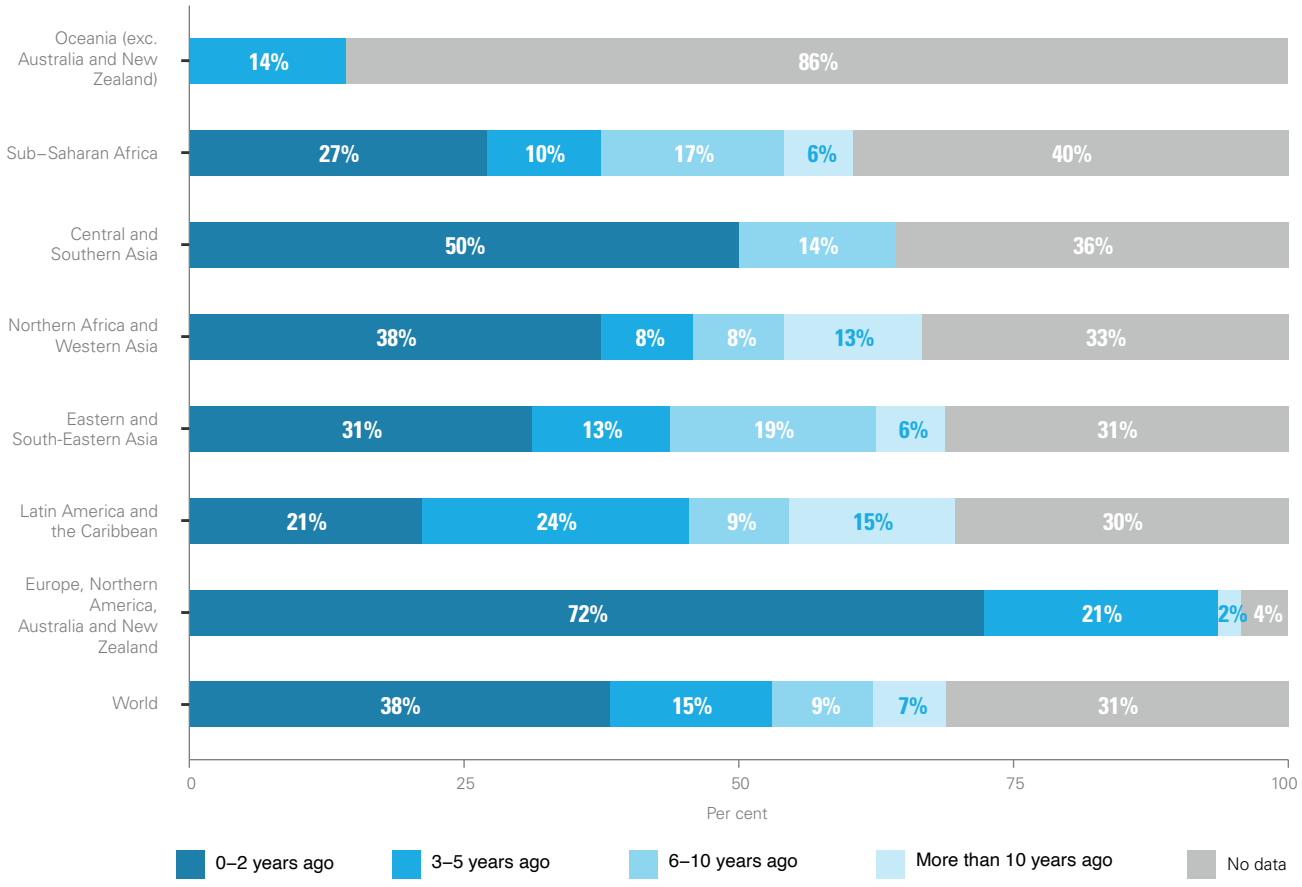
COVID-19

These stillbirth estimates do not include any COVID-19-related adjustment during pandemic years as the available data is insufficient to determine the applicability of any such adjustment. While the data on excess stillbirths available to the UN IGME are too limited to draw definitive conclusions about COVID-19-related changes in stillbirths (see Box 6), the UN IGME will continue to collect data for assessing excess stillbirths in pandemic years. Should new evidence warrant, the UN IGME will revisit this issue and generate adjustments where applicable.

Calculation of stillbirths

The number of stillbirths in each country is calculated using the following formula: Number of stillbirths=live births * SBR/(1-SBR). The annual estimate of the number of live births in each country comes from 'World Population Prospects: The 2022 revision'[34] and is used along with the UN IGME SBR estimates to calculate the estimated numbers of stillbirths.

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



Methods for intrapartum stillbirth estimates

The intrapartum stillbirth rate is a useful marker of quality of intrapartum (childbirth) care. An intrapartum stillbirth is a death that occurs after the onset of labour but before birth. The presence of a fetal heart rate at the onset of labour must be confirmed to diagnose intrapartum stillbirth. In settings where fetal heart rate monitoring is unavailable, assessment of the skin appearance is frequently used to estimate stillbirth timing. As signs of skin maceration begin six to 12 hours after fetal death, fresh appearance of the skin with no signs of maceration is judged as a surrogate measure for intrapartum stillbirth.[35] However, this assessment might be unreliable and can underestimate intrapartum stillbirth, especially when fetal death during labour occurs at home and/or if delays in access to care are more than six to 12 hours long.[36]

The UN IGME's approach to estimating the rate of intrapartum stillbirths is as follows:

- Compile all available country-level stillbirth data derived from administrative sources, household surveys or population-based studies.
- Estimate country-specific trends of the proportion of stillbirths that occur in the intrapartum period, using a smoothing time series model, adjusting for the neonatal mortality rate as a covariate, and accounting for different definitional issues, data source types and coverage of the data available. This process averages empirical data on the stillbirth intrapartum proportion derived from the different sources for a given country. In the case of countries with sparse or no data, regional effects and the neonatal mortality rate inform the level and trend in the intrapartum proportion. The estimated proportion is converted into the intrapartum stillbirth rate by multiplying the overall stillbirth rate for a particular country-year as estimated by the UN IGME.
- Calculate regional and global estimates of the intrapartum stillbirth rate by combining relevant country rates weighted by the number of stillbirths.

For more details of the estimation method, see Chong and Alexander, *arXiv*.[37]

Intrapartum data sources

All available intrapartum subnational or national stillbirth data are derived from administrative sources or facility- or population-based research studies. Data on intrapartum stillbirths were identified through web-based searches of national statistical 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 process. Data were assessed using specified inclusion/exclusion criteria.

Data points from 2000–2021 using any threshold ≥20 weeks or ≥400g for defining stillbirth and classifying timing of death using clinical assessment, skin appearance or verbal autopsy were considered for inclusion.

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 the 'World Population Prospects: The 2022 revision' 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.

In total, about 1,300 data points were collected from 87 countries. Over 1,000 data points were included from 81 countries (see Table A2), covering over 324 million total births, with 2.5 million stillbirths from multiple years.

Covariates

To inform intrapartum stillbirth rates in the case of countries with little or no data, the estimation model included the NMR as a covariate in the estimation model. The decision to include NMR was based on strong observed correlations between the proportion

Table A2. Number of countries included, by Sustainable Development Goal region

Region*	Number of countries	Total births included
Central and Southern Asia	7	2,978,047
Europe, Northern America, Australia and New Zealand	25	106,641,569
Latin America and the Caribbean	12	117,969,015
Sub-Saharan Africa	22	53,818,903
Eastern and South-Eastern Asia	7	35,058,535
Northern Africa and Western Asia	7	7,345,429
Oceania (exc. Australia and New Zealand)	1	2,558

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

of stillbirths that are intrapartum and the NMR in exploratory data analysis. Median estimates of the NMR by country and year produced by the UN IGME were used in the model.

Intrapartum stillbirth estimation approach

For countries with data available on the proportion of stillbirths that are intrapartum, there is large variation in the quality, coverage and definitions behind these data. To reconcile these differences, the proportion of stillbirths that is intrapartum is estimated using a statistical model that accounts for various effects and adjustments, as well as estimating a smooth trend based on the available observations. The method also accounts for the varying types of uncertainty, based on the source of data, and the under-coverage of the number of stillbirths observed in the data. The method is described in more detail below.

Estimation of the proportion of stillbirths that is intrapartum

The proportion of stillbirths that is intrapartum (IPSB) is defined as

IPSB = (number of stillbirths that occur in intrapartum period)/(total number of stillbirths)

For some data sources, the timing of a certain proportion of stillbirths was unknown. In these cases, the raw proportion from the data was calculated only based on stillbirths where timing was known.

We estimate the proportion of stillbirths that are intrapartum for a particular population in a particular year within a particular country as

Observed logit(IPSB) = true logit(IPSB) + bias + measurement error

Where the true IPSB for a population is a regional/country effect, the log of NMR as a covariate, and a country-specific temporal smoothing process (explained further below). The model produces estimates of IPSB for years 2000 to 2021 with uncertainty. Note that a 'population' is defined by the coverage of the relevant data source and as such is either at the national (country) level or at the subnational level. Country-specific estimates of ISPB are then derived by weighting the respective population-level estimates by the number of stillbirths observed in that population. This weighting process also accounts for unobserved stillbirths (more details below).

True component

The model for the true proportion of intrapartum stillbirths contains a global-, regional-, country- and population-level intercept, the country-year-specific NMR (on the log scale) and a population-specific temporal smoothing component. The intercepts

account for average levels of the proportion at various geographic hierarchies. The regional effect is defined based on SDG regional groupings. Note that if the data source comes from a national-level CRVS, there is no separate population effect estimated (because the population is assumed to cover the whole country). The NMR covariate estimates a global relationship between the IPSB and NMR, which allows estimates of the trend of IPSB to be obtained in the absence of data. Population-year estimates can deviate from the NMR-driven trend through the temporal smoothing process, which is modelled using a penalized splines model.

Definitional bias adjustment

The proportion of stillbirths that is intrapartum is constructed using the 28-week gestation definition of stillbirth. However, some data sources use alternative definitions, most notably a 20-week gestation definition, which tends to result in a higher proportion of intrapartum stillbirths than the later definition. As such, the estimation model includes an adjustment factor that accounts for definitional issues in the data. A different adjustment factor is estimated based on whether a country is in a low- or high-income region.

Measurement error component

To account for varying levels of uncertainty around data observations that come from different collection systems, different error terms are estimated based on the data source. In particular, the source type error is assumed to be zero for CRVS data observations and then estimated separately for data originating from health facilities, DHIS/HMIS, and population studies.

Weighting to obtain country-specific estimates

For some countries, data that exist on IPSB may only pertain to a specific subnational context, such as a certain health facility or subnational region. In addition, observations at subnational or national level may not capture the full extent of stillbirths occurring in that country. As such, the estimation of IPSB for each country-year involves a weighting procedure that accounts for the relative share of stillbirths observed from each data source as well as the share of unobserved stillbirths. In particular, the final estimate for a particular country-year is the weighted average of estimates from each population in that country, plus an unobserved component.

The weights for each population are calculated based on the proportion of total stillbirths that are observed in the population. For example, if 10 per cent of all stillbirths are observed in a population, the weight is set to 0.1. For the unobserved component, the weight is equal to 1 minus the sum of all the observed weights. So for example, if all stillbirths are observed, the unobserved weight is 0. The unobserved stillbirths are assumed to have a proportion of intrapartum stillbirths that follows from the estimated country-specific effect and NMR time trend, with additional uncertainty based on the estimated variation across subpopulations and time.

Computation and uncertainty in estimates

The model was fit in a Bayesian framework. Posterior samples were drawn using a Hamiltonian Monte Carlo algorithm implemented through the Stan probabilistic programming language. Best estimates of the proportion of stillbirths that are intrapartum were taken to be the median of the posterior samples, and 90 per cent uncertainty intervals were calculated based on the 5th and 95th quantiles of the posterior samples.

Validation

Many possible modelling approaches were considered, with the framework described above demonstrating the best performance based on a number of validation exercises. Additionally, model sensitivity was tested, with the results being robust to changes in different assumptions, including covariate inclusion, regional groupings, uncertainty in time trends across regions and different data adjustment strategies.

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 A3).

Table A3. Estimated number of intrapartum stillbirths in 2021, by Sustainable Development Goal region

Region	Number of total stillbirths	Number of intrapartum stillbirths			Per cent stillbirths intrapartum
		Total	Lower-bound	Upper-bound	
Central and Southern Asia	624,000	313,000	212,000	413,000	50
Central Asia	*13,000*	*3,000*	*2,000*	*5,000*	*23*
Southern Asia	*611,000*	*310,000*	*209,000*	*410,000*	*51*
Eastern and South-Eastern Asia	164,000	32,000	32,000	71,000	30
Europe, Northern America, Australia and New Zealand	33,000	3,000	3,000	6,000	13
Latin America and the Caribbean	75,000	17,000	14,000	21,000	23
Northern Africa and Western Asia	137,000	53,000	37,000	71,000	39
Oceania (excluding Australia and New Zealand)	4,000	2,000	1,000	3,000	53
Sub-Saharan Africa	847,000	414,000	333,000	492,000	49
World	**1,885,000**	**853,000**	**720,000**	**990,000**	**45**

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Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021		
	2000			2010			2021								
	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	**35.4**	20.8	59.4	**30.8**	19.4	49.9	**25.7**	15.3	43.5	**27.4**	-11.2	52.3	**1.5**	-0.5	3.5
Albania	**7.1**	4.9	10.2	**4.5**	3.9	5.2	**4.3**	3.3	5.7	**38.4**	9.1	58.3	**2.3**	0.5	4.2
Algeria	**20.3**	17.9	23.1	**14.3**	13.0	15.7	**9.8**	8.1	11.9	**51.7**	41.4	60.3	**3.5**	2.5	4.4
Andorra	**3.7**	2.6	5.4	**2.8**	2.1	3.8	**2.3**	1.6	3.3	**38.7**	8.6	58.8	**2.3**	0.4	4.2
Angola	**28.1**	16.9	46.5	**22.6**	14.4	35.4	**19.3**	11.7	31.8	**31.4**	-4.4	54.8	**1.8**	-0.2	3.8
Antigua and Barbuda	**8.9**	5.4	14.7	**6.8**	4.4	10.6	**5.2**	3.1	8.5	**42.2**	11.6	62.5	**2.6**	0.6	4.7
Argentina	**7.8**	7.5	8.2	**4.8**	4.7	5.0	**4.3**	3.7	5.0	**45.0**	37.2	51.7	**2.8**	2.2	3.5
Armenia	**20.2**	14.1	29.0	**14.7**	13.1	16.6	**10.8**	9.6	12.2	**46.5**	26.4	61.1	**3.0**	1.5	4.5
Australia	**3.7**	3.5	3.9	**3.1**	2.9	3.3	**2.4**	2.1	2.7	**35.1**	27.5	41.9	**2.1**	1.5	2.6
Austria	**2.8**	2.5	3.1	**2.5**	2.3	2.7	**2.4**	2.1	2.8	**13.4**	-0.1	24.7	**0.7**	0.0	1.4
Azerbaijan	**18.9**	13.2	27.2	**13.9**	9.8	19.8	**8.7**	5.4	13.9	**54.0**	30.3	70.0	**3.7**	1.7	5.7
Bahamas	**12.1**	10.5	14.1	**13.3**	11.9	14.8	**11.2**	8.8	14.2	**7.9**	-16.5	27.1	**0.4**	-0.7	1.5
Bahrain	**8.2**	6.5	10.4	**5.8**	5.3	6.5	**5.8**	4.6	7.4	**29.5**	5.2	47.2	**1.7**	0.3	3.0
Bangladesh	**41.3**	34.0	50.4	**29.1**	25.4	33.2	**20.5**	16.3	25.9	**50.4**	35.8	61.7	**3.3**	2.1	4.6
Barbados	**8.4**	5.0	13.8	**8.6**	5.5	13.5	**7.6**	4.6	12.5	**9.3**	-37.4	40.6	**0.5**	-1.5	2.5
Belarus	**5.2**	3.9	6.9	**2.5**	2.3	2.7	**2.2**	1.8	2.6	**58.0**	44.5	68.3	**4.1**	2.8	5.5
Belgium	**3.4**	3.1	3.7	**3.1**	2.9	3.3	**2.9**	2.3	3.8	**13.5**	-8.2	30.9	**0.7**	-0.4	1.8
Belize	**10.3**	7.4	14.2	**8.5**	7.4	9.9	**6.9**	5.8	8.2	**33.1**	8.7	51.1	**1.9**	0.4	3.4
Benin	**27.7**	19.4	39.4	**25.0**	22.3	28.1	**20.0**	15.6	25.5	**27.9**	-5.3	49.8	**1.6**	-0.2	3.3
Bhutan	**17.1**	11.2	26.0	**12.3**	9.4	16.3	**9.0**	6.5	12.4	**47.2**	20.8	65.1	**3.0**	1.1	5.0
Bolivia (Plurinational State of)	**15.6**	10.2	24.1	**12.2**	8.9	17.0	**8.8**	5.8	13.2	**43.7**	15.7	63.0	**2.7**	0.8	4.7
Bosnia and Herzegovina	**4.1**	3.4	4.9	**3.2**	2.9	3.6	**2.7**	2.1	3.5	**33.9**	13.8	48.9	**2.0**	0.7	3.2
Botswana	**10.9**	9.9	11.9	**18.4**	14.5	23.3	**14.7**	9.8	22.5	**-35.6**	-95.5	5.4	**-1.5**	-3.2	0.3
Brazil	**10.1**	8.7	11.9	**8.5**	7.7	9.3	**7.0**	6.2	7.8	**31.0**	18.7	41.7	**1.8**	1.0	2.6
Brunei Darussalam	**5.1**	4.3	6.1	**4.3**	3.7	5.0	**4.9**	3.7	6.3	**4.7**	-24.4	27.7	**0.2**	-1.0	1.5
Bulgaria	**7.6**	7.0	8.1	**6.8**	6.4	7.2	**5.4**	5.0	5.9	**28.3**	21.1	34.7	**1.6**	1.1	2.0
Burkina Faso	**29.4**	20.7	41.7	**23.6**	21.1	26.5	**20.4**	19.0	21.8	**30.6**	6.1	48.9	**1.7**	0.3	3.2
Burundi	**29.2**	20.3	42.1	**25.9**	20.9	32.3	**18.2**	17.0	19.6	**37.5**	14.6	54.2	**2.2**	0.8	3.7
Cabo Verde	**14.6**	9.4	22.4	**12.9**	9.0	18.5	**9.1**	6.0	13.9	**37.6**	6.4	58.2	**2.2**	0.3	4.2
Cambodia	**24.7**	14.6	42.4	**16.6**	10.6	26.3	**11.4**	6.9	19.0	**53.8**	28.5	70.2	**3.7**	1.6	5.8
Cameroon	**23.6**	14.5	38.4	**21.4**	13.7	33.5	**18.9**	11.4	31.5	**20.0**	-22.2	47.7	**1.1**	-1.0	3.1
Canada	**3.2**	3.0	3.4	**2.9**	2.8	3.1	**2.8**	2.5	3.1	**13.7**	4.2	22.3	**0.7**	0.2	1.2
Central African Republic	**30.9**	18.6	51.7	**27.7**	17.7	43.6	**26.3**	15.6	44.3	**14.9**	-30.1	44.7	**0.8**	-1.3	2.8
Chad	**32.5**	19.6	53.8	**28.2**	18.0	44.0	**25.3**	15.3	41.6	**22.2**	-17.8	48.7	**1.2**	-0.8	3.2
Chile	**4.2**	3.2	5.5	**3.7**	3.5	3.9	**2.6**	2.3	3.1	**37.4**	18.3	52.0	**2.2**	1.0	3.5
China	**14.9**	13.3	16.8	**10.2**	9.3	11.3	**4.9**	4.0	6.1	**67.2**	59.8	73.3	**5.3**	4.3	6.3
Colombia	**9.3**	6.9	12.5	**8.6**	6.6	11.2	**7.1**	4.8	10.3	**23.0**	-11.8	47.6	**1.2**	-0.5	3.1
Comoros	**29.5**	17.7	49.1	**27.7**	17.5	43.2	**24.2**	14.6	40.3	**18.0**	-26.3	46.9	**0.9**	-1.1	3.0
Congo	**21.2**	12.7	35.4	**17.4**	11.0	27.2	**15.8**	9.5	26.4	**25.8**	-12.1	51.1	**1.4**	-0.5	3.4
Cook Islands (New Zealand)	**9.7**	6.9	13.6	**6.8**	5.0	9.2	**4.7**	3.1	7.2	**51.2**	27.4	67.3	**3.4**	1.5	5.3
Costa Rica	**5.0**	4.1	6.0	**5.1**	4.8	5.4	**4.2**	3.4	5.2	**14.9**	-7.2	32.6	**0.8**	-0.3	1.9
Côte d'Ivoire	**29.7**	17.7	49.9	**26.5**	17.1	41.1	**22.1**	13.2	36.4	**25.8**	-13.1	51.7	**1.4**	-0.6	3.5
Croatia	**5.2**	4.6	5.8	**3.4**	3.1	3.7	**3.0**	2.4	3.8	**41.3**	27.5	52.3	**2.5**	1.5	3.5

Country, regional and global estimates of stillbirths

Country	Number of stillbirths									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Number of births (thousands)[b]	
	2000			2010			2021									Live births	Total births
	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	2021	2021
Afghanistan	**36,521**	23,236	58,150	**36,479**	24,451	55,255	**37,980**	24,564	60,112	**-4.0**	-61.4	32.8	**-0.2**	-2.3	1.9	**1,441**	**1,479**
Albania	**390**	285	530	**159**	142	178	**128**	101	161	**67.2**	51.6	77.8	**5.3**	3.5	7.2	**29**	**29**
Algeria	**12,491**	11,233	13,912	**12,725**	11,758	13,786	**9,429**	8,013	11,116	**24.5**	8.1	38.1	**1.3**	0.4	2.3	**951**	**960**
Andorra	**3**	2	4	**2**	2	3	**1**	1	2	**a**	a	a	**a**	a	a	**1**	**1**
Angola	**22,578**	14,760	35,063	**24,230**	16,441	35,689	**26,351**	17,079	40,562	**-16.7**	-79.3	23.9	**-0.7**	-2.8	1.3	**1,339**	**1,365**
Antigua and Barbuda	**13**	9	20	**9**	6	13	**6**	4	9	**53.8**	33.3	72.0	**3.7**	1.9	6.1	**1**	**1**
Argentina	**5,664**	5,463	5,867	**3,572**	3,455	3,695	**2,719**	2,403	3,091	**52.0**	45.1	57.9	**3.5**	2.9	4.1	**629**	**632**
Armenia	**825**	606	1,127	**616**	557	681	**369**	332	410	**55.3**	38.2	67.8	**3.8**	2.3	5.4	**34**	**34**
Australia	**918**	871	967	**927**	884	971	**714**	649	787	**22.2**	13.0	30.3	**1.2**	0.7	1.7	**298**	**299**
Austria	**219**	202	238	**193**	180	206	**207**	184	233	**5.5**	-8.9	18.1	**0.3**	-0.4	1.0	**85**	**85**
Azerbaijan	**2,712**	1,981	3,701	**2,598**	1,929	3,522	**1,117**	745	1,654	**58.8**	37.3	73.3	**4.2**	2.2	6.3	**127**	**128**
Bahamas	**73**	64	82	**74**	68	81	**53**	43	64	**27.4**	7.9	42.9	**1.5**	0.4	2.7	**5**	**5**
Bahrain	**122**	100	148	**114**	104	124	**102**	83	126	**16.4**	-12.8	37.4	**0.9**	-0.6	2.2	**18**	**18**
Bangladesh	**161,627**	135,725	192,786	**95,219**	84,873	106,952	**63,199**	52,011	77,066	**60.9**	49.0	70.0	**4.5**	3.2	5.7	**3,020**	**3,083**
Barbados	**31**	20	48	**29**	20	42	**23**	15	35	**25.8**	-13.3	51.4	**1.4**	-0.6	3.4	**3**	**3**
Belarus	**515**	407	654	**278**	262	296	**195**	169	224	**62.1**	50.1	71.5	**4.6**	3.3	6.0	**89**	**89**
Belgium	**394**	367	422	**397**	375	418	**342**	276	424	**13.2**	-8.7	30.7	**0.7**	-0.4	1.7	**116**	**117**
Belize	**76**	58	99	**62**	55	71	**50**	43	58	**34.2**	9.8	52.1	**2.0**	0.5	3.5	**7**	**7**
Benin	**8,321**	6,106	11,300	**9,519**	8,607	10,529	**9,713**	7,837	11,962	**-16.7**	-72.1	19.5	**-0.7**	-2.6	1.0	**476**	**486**
Bhutan	**260**	183	372	**172**	136	218	**88**	67	116	**66.2**	48.7	77.7	**5.2**	3.2	7.1	**10**	**10**
Bolivia (Plurinational State of)	**4,046**	2,802	5,876	**3,266**	2,481	4,306	**2,333**	1,633	3,305	**42.3**	13.2	62.3	**2.6**	0.7	4.6	**264**	**266**
Bosnia and Herzegovina	**171**	148	199	**119**	109	130	**74**	60	92	**56.7**	43.4	66.5	**4.0**	2.7	5.2	**28**	**28**
Botswana	**548**	505	593	**1,090**	891	1,338	**912**	641	1,310	**-66.4**	-141.4	-15.7	**-2.4**	-4.2	-0.7	**61**	**62**
Brazil	**35,659**	31,269	40,906	**26,065**	24,100	28,211	**19,411**	17,619	21,333	**45.6**	35.8	54.1	**2.9**	2.1	3.7	**2,761**	**2,780**
Brunei Darussalam	**33**	28	38	**29**	26	33	**30**	24	37	**9.1**	-21.2	29.7	**0.5**	-0.9	1.7	**6**	**6**
Bulgaria	**552**	519	587	**535**	509	563	**317**	295	341	**42.6**	36.7	47.7	**2.6**	2.2	3.1	**58**	**58**
Burkina Faso	**16,257**	11,983	22,166	**16,880**	15,259	18,673	**16,351**	15,405	17,332	**-0.6**	-37.2	26.6	**0.0**	-1.5	1.5	**786**	**802**
Burundi	**8,077**	5,911	11,065	**11,347**	9,427	13,612	**8,130**	7,649	8,647	**-0.7**	-38.6	27.0	**0.0**	-1.6	1.5	**438**	**446**
Cabo Verde	**198**	136	286	**148**	109	201	**92**	64	131	**53.5**	30.0	69.1	**3.6**	1.7	5.6	**10**	**10**
Cambodia	**8,456**	5,392	13,457	**5,747**	3,930	8,510	**3,705**	2,399	5,752	**56.2**	31.8	72.1	**3.9**	1.8	6.1	**321**	**325**
Cameroon	**14,967**	9,855	22,805	**17,408**	11,947	25,531	**18,288**	11,993	28,488	**-22.2**	-88.6	21.0	**-1.0**	-3.0	1.1	**951**	**969**
Canada	**1,045**	994	1,099	**1,093**	1,048	1,139	**1,041**	950	1,141	**0.4**	-10.7	10.3	**0.0**	-0.5	0.5	**374**	**375**
Central African Republic	**5,180**	3,344	8,059	**5,767**	3,971	8,436	**6,337**	4,044	9,871	**-22.3**	-89.6	21.5	**-1.0**	-3.0	1.2	**235**	**241**
Chad	**14,244**	9,236	22,060	**16,835**	11,453	24,732	**19,317**	12,457	29,732	**-35.6**	-107.9	11.9	**-1.5**	-3.5	0.6	**745**	**764**
Chile	**1,041**	829	1,309	**899**	861	939	**609**	531	697	**41.5**	23.6	55.2	**2.6**	1.3	3.8	**229**	**230**
China	**263,935**	238,927	292,474	**185,364**	170,663	201,263	**53,551**	44,792	64,122	**79.7**	75.1	83.5	**7.6**	6.6	8.6	**10,882**	**10,935**
Colombia	**8,121**	6,303	10,409	**6,590**	5,294	8,189	**5,255**	3,802	7,144	**35.3**	5.8	56.2	**2.1**	0.3	3.9	**730**	**735**
Comoros	**588**	378	915	**635**	430	935	**600**	387	932	**-2.0**	-58.9	34.7	**-0.1**	-2.2	2.0	**24**	**25**
Congo	**2,494**	1,612	3,844	**3,044**	2,072	4,491	**2,868**	1,877	4,392	**-15.0**	-75.1	24.9	**-0.7**	-2.7	1.4	**179**	**182**
Cook Islands (New Zealand)	**4**	3	5	**2**	2	3	**1**	1	2	**a**	a	a	**a**	a	a	**-**	**-**
Costa Rica	**392**	337	458	**377**	357	399	**260**	218	308	**33.7**	16.5	47.6	**2.0**	0.9	3.1	**61**	**61**
Côte d'Ivoire	**23,088**	14,856	35,948	**22,399**	15,380	32,764	**21,042**	13,645	32,125	**8.9**	-40.5	41.4	**0.4**	-1.6	2.5	**933**	**954**
Croatia	**235**	215	259	**150**	140	161	**105**	88	127	**55.3**	44.6	63.6	**3.8**	2.8	4.8	**35**	**35**

Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021		
	2000			2010			2021								
	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
Cuba	**11.0**	10.4	11.6	**6.8**	6.5	7.2	**6.9**	5.9	8.2	**36.6**	27.1	45.0	**2.2**	1.5	2.8
Cyprus[c]	**4.4**	3.0	6.4	**2.9**	2.3	3.5	**2.6**	2.1	3.2	**40.7**	14.0	58.8	**2.5**	0.7	4.2
Czechia	**2.8**	2.6	3.1	**2.5**	2.4	2.7	**2.7**	2.5	3.0	**3.7**	-7.3	13.3	**0.2**	-0.3	0.7
Democratic People's Republic of Korea	**15.4**	9.2	25.3	**11.6**	7.4	18.2	**8.3**	5.0	14.0	**45.9**	17.7	64.1	**2.9**	0.9	4.9
Democratic Republic of the Congo	**31.7**	21.0	47.8	**29.5**	22.8	38.2	**27.7**	22.0	34.9	**12.7**	-27.9	40.6	**0.6**	-1.2	2.5
Denmark	**3.2**	2.8	3.6	**2.1**	2.0	2.4	**1.9**	1.4	2.5	**39.7**	23.1	53.2	**2.4**	1.3	3.6
Djibouti	**35.7**	24.8	50.4	**33.6**	29.7	38.2	**26.7**	19.1	37.6	**25.1**	-14.3	50.1	**1.4**	-0.6	3.3
Dominica	**11.3**	6.8	18.4	**13.3**	8.5	20.3	**15.5**	9.6	25.7	**-37.1**	-113.3	10.4	**-1.5**	-3.6	0.5
Dominican Republic	**15.1**	9.1	25.0	**14.3**	9.1	22.3	**12.7**	7.5	21.4	**15.9**	-29.3	45.3	**0.8**	-1.2	2.9
Ecuador	**15.6**	11.9	20.5	**11.1**	9.0	13.7	**8.9**	5.9	13.2	**43.3**	16.8	61.5	**2.7**	0.9	4.5
Egypt	**17.1**	10.1	28.8	**12.6**	8.0	19.8	**9.2**	5.4	15.5	**46.2**	16.8	65.5	**3.0**	0.9	5.1
El Salvador	**20.3**	15.7	25.7	**12.3**	9.1	16.5	**8.9**	5.8	13.7	**56.4**	35.6	70.3	**3.9**	2.1	5.8
Equatorial Guinea	**18.7**	10.9	32.1	**15.9**	10.0	25.7	**15.0**	8.9	25.6	**19.8**	-23.2	46.9	**1.1**	-1.0	3.0
Eritrea	**21.5**	12.9	35.3	**18.7**	11.9	29.3	**16.1**	9.7	26.7	**24.8**	-15.8	51.1	**1.4**	-0.7	3.4
Estonia	**4.6**	4.0	5.3	**3.0**	2.7	3.4	**1.9**	1.6	2.4	**58.0**	47.6	66.3	**4.1**	3.1	5.2
Eswatini	**16.2**	11.6	22.9	**15.0**	11.2	20.1	**14.2**	9.3	21.8	**12.4**	-31.7	41.3	**0.6**	-1.3	2.5
Ethiopia	**32.6**	20.7	51.1	**27.9**	19.9	39.8	**20.6**	15.1	28.1	**36.9**	6.0	57.4	**2.2**	0.3	4.1
Fiji	**10.3**	7.7	13.7	**9.9**	8.9	10.9	**9.1**	6.9	12.0	**11.2**	-24.0	36.4	**0.6**	-1.0	2.2
Finland	**2.7**	2.4	3.0	**2.1**	1.9	2.3	**1.9**	1.6	2.3	**27.3**	14.3	38.5	**1.5**	0.7	2.3
France	**4.9**	4.4	5.5	**3.2**	2.8	3.6	**3.1**	2.8	3.4	**37.9**	30.0	44.9	**2.3**	1.7	2.8
Gabon	**17.6**	10.3	29.3	**16.5**	10.4	25.9	**14.1**	8.3	23.6	**20.1**	-23.0	47.7	**1.1**	-1.0	3.1
Gambia	**27.4**	17.7	42.8	**24.3**	17.2	34.7	**21.0**	13.6	33.1	**23.2**	-17.7	49.5	**1.3**	-0.8	3.2
Georgia	**15.9**	11.9	21.4	**8.9**	7.8	10.2	**5.7**	5.0	6.5	**64.4**	53.3	72.7	**4.9**	3.6	6.2
Germany	**3.0**	2.7	3.3	**2.3**	2.2	2.4	**2.8**	2.2	3.5	**6.5**	-16.7	25.3	**0.3**	-0.7	1.4
Ghana	**28.2**	21.1	37.8	**25.3**	20.6	31.2	**21.4**	15.4	29.8	**24.2**	-8.9	47.3	**1.3**	-0.4	3.1
Greece	**4.5**	4.2	4.9	**3.3**	3.1	3.5	**3.1**	2.8	3.4	**32.0**	25.0	38.5	**1.8**	1.4	2.3
Grenada	**8.6**	5.2	14.2	**8.7**	5.6	13.8	**9.1**	5.5	15.1	**-5.2**	-59.5	30.9	**-0.2**	-2.2	1.8
Guatemala	**19.9**	15.7	24.8	**15.9**	13.6	18.7	**13.3**	10.6	16.8	**32.8**	11.8	48.6	**1.9**	0.6	3.2
Guinea	**29.6**	18.0	50.2	**25.6**	16.3	40.5	**23.2**	14.0	38.9	**21.6**	-19.4	48.2	**1.2**	-0.8	3.1
Guinea-Bissau	**45.9**	32.4	65.6	**39.0**	29.3	52.4	**31.2**	20.5	47.3	**32.1**	-0.9	54.4	**1.8**	0.0	3.7
Guyana	**18.6**	12.4	27.9	**16.5**	11.7	23.2	**13.1**	8.3	20.7	**29.5**	-7.5	54.1	**1.7**	-0.3	3.7
Haiti	**21.0**	12.5	35.7	**20.0**	12.7	31.7	**17.7**	10.6	29.6	**15.5**	-27.1	44.3	**0.8**	-1.1	2.8
Honduras	**14.4**	10.8	19.3	**11.0**	9.2	13.1	**8.2**	6.4	10.6	**43.0**	21.8	58.7	**2.7**	1.2	4.2
Hungary	**4.2**	3.9	4.6	**3.6**	3.3	3.8	**3.6**	3.1	4.1	**15.2**	3.5	25.4	**0.8**	0.2	1.4
Iceland	**2.7**	2.1	3.4	**2.0**	1.7	2.4	**1.8**	1.4	2.4	**34.0**	10.4	51.3	**2.0**	0.5	3.4
India[d]	**29.8**	22.2	40.3	**20.9**	17.9	24.3	**12.2**	9.9	15.1	**58.9**	43.8	69.8	**4.2**	2.7	5.7
Indonesia	**15.3**	11.6	20.2	**12.0**	9.9	14.6	**9.1**	6.4	12.9	**40.7**	14.9	58.6	**2.5**	0.8	4.2
Iran (Islamic Republic of)	**12.4**	7.4	21.0	**9.4**	5.8	15.1	**7.2**	4.2	12.4	**42.0**	11.4	62.3	**2.6**	0.6	4.6
Iraq	**17.3**	10.5	29.3	**15.1**	9.8	23.8	**11.7**	7.1	19.5	**32.5**	-3.2	56.2	**1.9**	-0.1	3.9
Ireland	**5.0**	4.5	5.4	**3.7**	3.4	3.9	**2.5**	2.1	3.0	**49.2**	39.8	57.4	**3.2**	2.4	4.1
Israel	**4.3**	3.8	4.7	**2.7**	2.6	2.9	**2.7**	2.4	3.1	**35.5**	26.1	43.6	**2.1**	1.4	2.7
Italy	**2.8**	2.4	3.2	**2.3**	2.2	2.5	**2.2**	1.8	2.8	**20.3**	0.7	35.7	**1.1**	0.0	2.1
Jamaica	**18.3**	14.7	22.8	**16.3**	14.1	18.9	**14.4**	11.3	18.3	**21.5**	-2.5	40.2	**1.2**	-0.1	2.4

Country, regional and global estimates of stillbirths

Country	Number of stillbirths									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Number of births (thousands)[b]	
	2000			2010			2021									Live births	Total births
	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	2021	2021
Cuba	**1,556**	1,486	1,628	**889**	852	930	**703**	614	804	**54.8**	48.0	60.8	**3.8**	3.1	4.5	**100**	**101**
Cyprus[c]	**53**	38	73	**39**	33	47	**33**	28	40	**37.7**	7.5	55.9	**2.3**	0.4	3.9	**13**	**13**
Czechia	**259**	240	280	**297**	280	315	**285**	265	307	**-10.0**	-22.4	1.1	**-0.5**	-1.0	0.1	**104**	**104**
Democratic People's Republic of Korea	**6,354**	4,115	9,820	**3,678**	2,512	5,412	**2,878**	1,882	4,465	**54.7**	30.7	70.1	**3.8**	1.7	5.8	**344**	**347**
Democratic Republic of the Congo	**71,724**	50,389	102,846	**89,897**	71,920	112,842	**114,852**	94,459	139,754	**-60.1**	-137.3	-7.5	**-2.2**	-4.1	-0.3	**4,035**	**4,150**
Denmark	**212**	192	235	**135**	125	146	**121**	96	152	**42.9**	27.4	55.9	**2.7**	1.5	3.9	**63**	**63**
Djibouti	**909**	664	1,232	**833**	747	932	**674**	506	902	**25.9**	-14.7	51.4	**1.4**	-0.7	3.4	**25**	**25**
Dominica	**14**	9	21	**13**	9	19	**15**	10	24	**-7.1**	-70.0	29.4	**-0.3**	-2.5	1.7	**1**	**1**
Dominican Republic	**3,262**	2,129	4,990	**3,122**	2,132	4,585	**2,640**	1,710	4,071	**19.1**	-25.2	47.7	**1.0**	-1.1	3.1	**205**	**208**
Ecuador	**5,094**	4,053	6,396	**3,686**	3,085	4,397	**2,670**	1,899	3,739	**47.6**	22.8	64.6	**3.1**	1.2	4.9	**299**	**302**
Egypt	**33,488**	21,585	52,312	**30,243**	20,730	44,382	**22,876**	14,704	35,588	**31.7**	-6.3	56.4	**1.8**	-0.3	4.0	**2,465**	**2,488**
El Salvador	**3,419**	2,765	4,193	**1,481**	1,154	1,898	**906**	630	1,311	**73.5**	60.7	82.0	**6.3**	4.5	8.2	**101**	**102**
Equatorial Guinea	**534**	339	843	**677**	453	1,018	**758**	487	1,191	**-41.9**	-119.8	6.9	**-1.7**	-3.7	0.3	**50**	**51**
Eritrea	**1,988**	1,289	3,057	**2,027**	1,383	2,981	**1,704**	1,110	2,627	**14.3**	-33.0	44.9	**0.7**	-1.4	2.8	**104**	**106**
Estonia	**60**	53	68	**48**	44	53	**26**	22	32	**56.7**	45.3	65.0	**4.0**	2.9	5.0	**14**	**14**
Eswatini	**549**	411	735	**507**	396	650	**416**	290	597	**24.2**	-14.7	49.4	**1.3**	-0.7	3.2	**29**	**29**
Ethiopia	**100,516**	67,605	148,649	**93,689**	69,783	127,210	**81,798**	62,876	107,145	**18.6**	-22.6	45.9	**1.0**	-1.0	2.9	**3,896**	**3,978**
Fiji	**212**	166	270	**206**	189	224	**165**	131	209	**22.2**	-9.6	44.2	**1.2**	-0.4	2.8	**18**	**18**
Finland	**152**	139	167	**125**	116	135	**91**	80	105	**40.1**	29.2	49.3	**2.4**	1.6	3.2	**47**	**47**
France	**3,814**	3,495	4,151	**2,522**	2,258	2,820	**2,083**	1,908	2,264	**45.4**	38.5	51.6	**2.9**	2.3	3.5	**677**	**679**
Gabon	**764**	483	1,188	**946**	636	1,384	**908**	584	1,417	**-18.8**	-84.1	22.9	**-0.8**	-2.9	1.2	**64**	**64**
Gambia	**1,749**	1,195	2,584	**1,986**	1,475	2,681	**1,887**	1,300	2,783	**-7.9**	-67.1	29.8	**-0.4**	-2.4	1.7	**88**	**90**
Georgia	**840**	654	1,082	**522**	467	585	**288**	258	320	**65.7**	55.0	73.9	**5.1**	3.8	6.4	**50**	**51**
Germany	**2,250**	2,072	2,446	**1,557**	1,481	1,638	**2,115**	1,717	2,612	**6.0**	-17.4	24.9	**0.3**	-0.8	1.4	**763**	**765**
Ghana	**20,496**	15,955	26,307	**21,960**	18,358	26,220	**19,787**	14,827	26,362	**3.5**	-39.9	33.5	**0.2**	-1.6	1.9	**905**	**924**
Greece	**505**	474	540	**364**	345	384	**245**	227	264	**51.5**	46.4	56.1	**3.4**	3.0	3.9	**79**	**79**
Grenada	**17**	11	26	**18**	12	27	**18**	12	28	**-5.9**	-63.6	30.0	**-0.3**	-2.3	1.7	**2**	**2**
Guatemala	**8,228**	6,751	9,952	**6,491**	5,649	7,467	**5,030**	4,157	6,107	**38.9**	19.4	53.4	**2.3**	1.0	3.6	**372**	**377**
Guinea	**10,656**	6,930	16,829	**10,633**	7,221	15,752	**11,089**	7,204	17,368	**-4.1**	-60.5	32.1	**-0.2**	-2.3	1.8	**466**	**477**
Guinea-Bissau	**2,526**	1,873	3,455	**2,445**	1,909	3,145	**2,064**	1,441	2,971	**18.3**	-23.3	45.9	**1.0**	-1.0	2.9	**64**	**66**
Guyana	**373**	265	531	**274**	205	369	**217**	147	320	**41.8**	10.8	62.4	**2.6**	0.5	4.7	**16**	**17**
Haiti	**5,710**	3,668	9,000	**5,530**	3,765	8,269	**4,859**	3,167	7,493	**14.9**	-29.1	44.4	**0.8**	-1.2	2.8	**269**	**274**
Honduras	**3,304**	2,585	4,233	**2,390**	2,050	2,784	**1,797**	1,450	2,229	**45.6**	25.1	60.8	**2.9**	1.4	4.5	**217**	**218**
Hungary	**412**	386	441	**324**	306	344	**330**	296	368	**19.9**	8.9	29.5	**1.1**	0.4	1.7	**92**	**92**
Iceland	**12**	9	14	**10**	8	12	**8**	7	10	**33.3**	0.0	50.0	**1.9**	0.0	3.3	**5**	**5**
India[d]	**878,690**	678,607	1,142,528	**567,367**	497,118	643,777	**286,482**	239,563	342,026	**67.4**	55.1	76.2	**5.3**	3.8	6.8	**23,114**	**23,400**
Indonesia	**72,698**	57,489	91,876	**59,993**	50,748	70,657	**41,163**	30,691	55,347	**43.4**	18.4	60.6	**2.7**	1.0	4.4	**4,496**	**4,538**
Iran (Islamic Republic of)	**13,483**	8,627	21,053	**12,694**	8,395	18,826	**8,746**	5,498	13,819	**35.1**	0.6	58.0	**2.1**	0.0	4.1	**1,204**	**1,213**
Iraq	**15,704**	10,307	24,596	**16,396**	11,355	24,266	**14,091**	9,278	21,976	**10.3**	-38.1	42.2	**0.5**	-1.5	2.6	**1,192**	**1,206**
Ireland	**269**	249	291	**278**	262	295	**148**	126	173	**45.0**	34.7	53.9	**2.8**	2.0	3.7	**59**	**59**
Israel	**567**	518	620	**441**	419	466	**480**	433	530	**15.3**	3.0	26.2	**0.8**	0.1	1.4	**174**	**175**
Italy	**1,515**	1,347	1,700	**1,323**	1,260	1,388	**915**	761	1,100	**39.6**	24.7	51.3	**2.4**	1.4	3.4	**410**	**411**
Jamaica	**933**	776	1,127	**696**	615	788	**483**	396	591	**48.2**	32.1	60.8	**3.1**	1.8	4.5	**33**	**34**

Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021		
	2000			2010			2021								
	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
Japan	**2.5**	2.4	2.7	**2.0**	2.0	2.1	**1.6**	1.5	1.7	**37.9**	34.0	41.6	**2.3**	2.0	2.6
Jordan	**12.2**	9.4	15.9	**10.2**	7.7	13.5	**9.0**	5.9	13.9	**26.4**	-8.0	49.9	**1.5**	-0.4	3.3
Kazakhstan	**11.0**	7.9	15.3	**7.5**	6.9	8.1	**8.1**	7.3	9.0	**26.3**	1.0	44.1	**1.5**	0.0	2.8
Kenya	**19.6**	13.3	28.8	**18.0**	14.6	22.2	**18.5**	17.4	19.9	**5.3**	-31.5	31.9	**0.3**	-1.3	1.8
Kiribati	**17.7**	10.5	29.4	**16.3**	10.1	25.9	**14.1**	8.4	23.8	**20.1**	-22.0	47.7	**1.1**	-0.9	3.1
Kuwait	**6.6**	4.0	11.0	**5.7**	3.6	9.1	**5.4**	3.2	8.9	**18.4**	-24.5	47.0	**1.0**	-1.0	3.0
Kyrgyzstan	**11.0**	7.9	15.2	**9.0**	8.6	9.4	**6.4**	5.4	7.7	**41.4**	19.9	57.0	**2.5**	1.1	4.0
Lao People's Democratic Republic	**23.2**	14.3	37.5	**19.8**	13.1	29.6	**16.1**	10.1	25.6	**30.7**	-6.0	54.5	**1.7**	-0.3	3.8
Latvia	**6.0**	5.3	6.7	**4.2**	3.8	4.6	**3.4**	3.0	3.9	**42.9**	33.0	51.0	**2.7**	1.9	3.4
Lebanon	**10.8**	6.5	18.1	**7.3**	4.6	11.5	**5.9**	3.5	10.0	**45.1**	16.9	64.2	**2.9**	0.9	4.9
Lesotho	**36.6**	27.5	47.5	**30.4**	23.5	39.5	**26.7**	18.1	39.2	**27.1**	-5.0	49.7	**1.5**	-0.2	3.3
Liberia	**30.2**	18.6	49.1	**24.7**	15.7	38.5	**22.9**	13.7	37.8	**24.3**	-15.3	50.4	**1.3**	-0.7	3.3
Libya	**11.5**	6.9	19.3	**8.5**	5.4	13.6	**6.8**	4.0	11.6	**40.6**	9.0	61.5	**2.5**	0.5	4.5
Lithuania	**4.9**	3.4	7.0	**3.4**	3.0	3.9	**2.6**	2.2	2.9	**47.3**	26.8	61.9	**3.0**	1.5	4.6
Luxembourg	**3.5**	2.9	4.3	**3.4**	2.9	3.9	**3.6**	2.8	4.6	**-2.0**	-32.8	21.7	**-0.1**	-1.3	1.2
Madagascar	**20.5**	14.5	29.0	**18.5**	14.3	24.1	**18.4**	13.7	24.7	**10.4**	-27.5	37.2	**0.5**	-1.2	2.2
Malawi	**22.0**	16.9	28.9	**19.8**	16.7	23.4	**16.1**	13.2	19.4	**26.9**	3.8	44.9	**1.5**	0.2	2.8
Malaysia	**4.7**	3.5	6.4	**4.5**	4.3	4.7	**5.0**	4.8	5.3	**-6.4**	-37.6	17.9	**-0.3**	-1.5	0.9
Maldives	**14.9**	11.0	20.4	**7.5**	6.6	8.5	**4.8**	3.9	5.9	**67.7**	56.1	76.4	**5.4**	3.9	6.9
Mali	**32.1**	19.6	52.5	**26.9**	17.5	42.0	**23.4**	14.4	38.3	**27.3**	-10.6	51.9	**1.5**	-0.5	3.5
Malta	**3.8**	3.1	4.8	**3.6**	3.1	4.3	**2.9**	2.4	3.7	**23.2**	0.1	41.0	**1.3**	0.0	2.5
Marshall Islands	**13.6**	8.2	22.9	**13.1**	8.3	20.5	**11.3**	6.7	18.7	**17.0**	-25.4	45.3	**0.9**	-1.1	2.9
Mauritania	**24.8**	15.8	38.8	**19.8**	14.3	27.6	**16.7**	12.0	23.2	**32.5**	-1.8	55.5	**1.9**	-0.1	3.9
Mauritius	**12.6**	11.5	13.8	**8.9**	8.2	9.7	**10.3**	9.3	11.6	**18.0**	7.5	27.3	**0.9**	0.4	1.5
Mexico	**9.6**	6.5	14.4	**7.3**	5.8	9.2	**6.6**	4.9	9.0	**31.0**	-2.5	54.5	**1.8**	-0.1	3.7
Micronesia (Federated States of)	**14.5**	8.6	24.3	**13.4**	8.5	21.2	**11.2**	6.6	18.5	**23.1**	-17.5	49.6	**1.2**	-0.8	3.3
Monaco	**2.8**	1.7	4.6	**2.2**	1.4	3.5	**1.6**	0.9	2.7	**44.7**	13.3	65.0	**2.8**	0.7	5.0
Mongolia	**12.1**	10.6	13.8	**6.7**	6.2	7.2	**4.4**	3.9	5.0	**63.8**	57.5	69.0	**4.8**	4.1	5.6
Montenegro	**5.1**	4.4	6.0	**4.5**	3.9	5.1	**3.4**	2.8	4.1	**34.4**	19.1	46.7	**2.0**	1.0	3.0
Morocco	**20.6**	15.9	26.8	**16.6**	13.3	20.9	**13.2**	9.3	18.9	**35.7**	8.8	54.9	**2.1**	0.4	3.8
Mozambique	**25.3**	19.6	32.8	**20.3**	15.6	26.6	**17.3**	13.4	22.6	**31.5**	9.0	48.6	**1.8**	0.5	3.2
Myanmar	**20.4**	12.1	35.3	**17.3**	10.7	27.9	**14.5**	8.6	24.4	**28.9**	-8.4	53.3	**1.6**	-0.4	3.6
Namibia	**17.9**	13.1	24.4	**16.4**	15.3	17.5	**17.3**	15.3	19.5	**3.5**	-27.0	26.9	**0.2**	-1.1	1.5
Nauru	**14.1**	8.3	23.7	**13.5**	8.5	21.6	**11.6**	6.9	19.5	**17.3**	-27.3	45.9	**0.9**	-1.2	2.9
Nepal	**30.3**	23.3	39.4	**23.1**	18.1	29.5	**15.7**	10.8	23.0	**48.2**	25.4	64.1	**3.1**	1.4	4.9
Netherlands	**5.2**	4.9	5.5	**3.0**	2.8	3.2	**2.2**	2.0	2.5	**57.0**	51.8	61.8	**4.0**	3.5	4.6
New Zealand	**3.7**	3.2	4.1	**3.2**	2.9	3.4	**2.6**	2.1	3.2	**28.6**	12.7	41.8	**1.6**	0.6	2.6
Nicaragua[e]	**15.2**	11.1	21.0	**12.7**	9.9	16.2	**9.8**	6.5	15.0	**35.5**	3.0	57.3	**2.1**	0.1	4.0
Niger	**25.9**	17.5	38.1	**21.5**	16.8	28.0	**21.4**	14.2	32.3	**17.2**	-26.4	45.5	**0.9**	-1.1	2.9
Nigeria	**28.6**	17.3	47.2	**24.4**	15.6	37.7	**22.5**	13.7	36.7	**21.5**	-19.7	48.4	**1.2**	-0.9	3.1
Niue (New Zealand)	**12.8**	7.7	21.5	**12.3**	7.8	19.2	**10.0**	6.0	16.7	**22.0**	-19.0	48.9	**1.2**	-0.8	3.2
North Macedonia	**10.8**	9.9	11.9	**6.1**	5.3	7.0	**3.8**	3.0	4.8	**64.8**	56.7	71.5	**5.0**	4.0	6.0
Norway	**3.7**	3.4	4.1	**2.9**	2.7	3.1	**2.1**	1.9	2.4	**43.3**	35.4	50.2	**2.7**	2.1	3.3

Country, regional and global estimates of stillbirths

Country	Number of stillbirths									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Number of births (thousands)[b]	
	2000			2010			2021									Live births	Total births
	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	2021	2021
Japan	**3,099**	2,981	3,221	**2,236**	2,158	2,317	**1,292**	1,232	1,355	**58.3**	55.7	60.8	**4.2**	3.9	4.5	**819**	**820**
Jordan	**1,862**	1,492	2,333	**2,043**	1,610	2,597	**2,221**	1,546	3,212	**-19.3**	-75.9	19.1	**-0.8**	-2.7	1.0	**245**	**247**
Kazakhstan	**2,700**	2,046	3,538	**2,773**	2,597	2,961	**3,384**	3,096	3,697	**-25.3**	-68.8	5.3	**-1.1**	-2.5	0.3	**413**	**417**
Kenya	**24,599**	17,723	34,289	**26,985**	22,605	32,249	**27,720**	26,205	29,407	**-12.7**	-57.4	19.6	**-0.6**	-2.2	1.0	**1,468**	**1,496**
Kiribati	**49**	32	76	**55**	37	82	**50**	32	78	**-2.0**	-57.1	33.3	**-0.1**	-2.2	1.9	**4**	**4**
Kuwait	**278**	179	428	**354**	240	525	**242**	156	371	**12.9**	-33.2	43.6	**0.7**	-1.4	2.7	**44**	**45**
Kyrgyzstan	**1,182**	895	1,565	**1,382**	1,328	1,437	**1,018**	877	1,185	**13.9**	-18.1	37.0	**0.7**	-0.8	2.2	**158**	**159**
Lao People's Democratic Republic	**4,266**	2,816	6,490	**3,459**	2,456	4,885	**2,666**	1,809	3,981	**37.5**	3.6	59.4	**2.2**	0.2	4.3	**163**	**166**
Latvia	**125**	113	138	**85**	78	92	**58**	52	66	**53.6**	45.5	60.2	**3.7**	2.9	4.4	**17**	**17**
Lebanon	**969**	630	1,500	**646**	437	953	**505**	323	773	**47.9**	20.9	66.2	**3.1**	1.1	5.2	**84**	**85**
Lesotho	**2,211**	1,746	2,788	**1,806**	1,453	2,260	**1,632**	1,165	2,282	**26.2**	-7.5	49.6	**1.4**	-0.3	3.3	**60**	**61**
Liberia	**3,934**	2,577	6,017	**3,874**	2,637	5,710	**3,806**	2,450	5,826	**3.3**	-49.0	37.5	**0.2**	-1.9	2.2	**163**	**166**
Libya	**1,268**	825	1,969	**1,314**	888	1,951	**827**	525	1,293	**34.8**	-0.2	57.9	**2.0**	0.0	4.1	**120**	**121**
Lithuania	**176**	130	238	**108**	98	120	**69**	61	78	**60.8**	45.4	71.6	**4.5**	2.9	6.0	**27**	**27**
Luxembourg	**20**	17	23	**20**	17	22	**24**	20	29	**-20.0**	-57.9	8.3	**-0.9**	-2.2	0.4	**7**	**7**
Madagascar	**13,716**	10,219	18,475	**14,768**	11,828	18,452	**16,743**	13,082	21,551	**-22.1**	-75.0	15.1	**-0.9**	-2.7	0.8	**895**	**912**
Malawi	**11,458**	9,157	14,459	**12,120**	10,467	13,998	**10,668**	9,020	12,585	**6.9**	-23.1	30.3	**0.3**	-1.0	1.7	**654**	**664**
Malaysia	**2,505**	1,943	3,249	**2,193**	2,115	2,273	**2,590**	2,487	2,699	**-3.4**	-33.7	20.4	**-0.2**	-1.4	1.1	**511**	**514**
Maldives	**88**	68	114	**58**	52	64	**36**	30	42	**59.1**	44.9	70.6	**4.3**	2.8	5.8	**7**	**7**
Mali	**17,603**	11,507	27,080	**20,039**	13,757	29,462	**21,858**	14,421	33,471	**-24.2**	-91.1	18.9	**-1.0**	-3.1	1.0	**913**	**935**
Malta	**17**	14	21	**14**	13	16	**14**	11	17	**17.6**	-6.3	38.9	**0.9**	-0.3	2.3	**5**	**5**
Marshall Islands	**27**	17	41	**22**	15	32	**9**	6	15	**66.7**	45.5	76.9	**5.2**	2.9	7.0	**1**	**1**
Mauritania	**2,587**	1,761	3,821	**2,538**	1,917	3,375	**2,604**	1,985	3,452	**-0.7**	-53.1	34.3	**0.0**	-2.0	2.0	**153**	**156**
Mauritius	**261**	242	283	**139**	129	149	**140**	128	155	**46.4**	39.4	52.5	**3.0**	2.4	3.5	**13**	**14**
Mexico	**22,920**	16,401	32,531	**16,669**	13,749	20,329	**12,531**	9,653	16,198	**45.3**	18.6	64.1	**2.9**	1.0	4.9	**1,882**	**1,895**
Micronesia (Federated States of)	**52**	34	81	**35**	24	52	**27**	17	41	**48.1**	21.9	66.7	**3.1**	1.2	5.2	**2**	**2**
Monaco	**1**	1	2	**1**	1	1	**1**	-	1	**a**	a	a	**a**	a	a	**-**	**-**
Mongolia	**616**	550	688	**424**	400	451	**316**	282	354	**48.7**	39.7	56.1	**3.2**	2.4	3.9	**72**	**72**
Montenegro	**51**	44	58	**35**	32	39	**24**	20	28	**52.9**	42.6	62.3	**3.6**	2.6	4.6	**7**	**7**
Morocco	**13,662**	10,969	17,150	**11,770**	9,755	14,294	**8,722**	6,474	11,792	**36.2**	8.9	55.4	**2.1**	0.4	3.8	**651**	**660**
Mozambique	**20,205**	16,283	25,197	**20,118**	16,098	25,335	**20,723**	16,631	25,921	**-2.6**	-36.9	23.6	**-0.1**	-1.5	1.3	**1,174**	**1,195**
Myanmar	**21,826**	13,939	34,905	**16,874**	11,353	25,214	**13,579**	8,749	21,216	**37.8**	4.4	59.5	**2.3**	0.2	4.3	**920**	**934**
Namibia	**1,040**	801	1,357	**1,066**	1,007	1,127	**1,222**	1,098	1,355	**-17.5**	-55.4	11.5	**-0.8**	-2.1	0.6	**69**	**71**
Nauru	**4**	3	7	**5**	3	7	**4**	3	6	**0.0**	-50.0	40.0	**0.0**	-1.9	2.4	**-**	**-**
Nepal	**23,599**	18,871	29,565	**14,574**	11,818	17,947	**9,739**	7,126	13,439	**58.7**	40.2	71.6	**4.2**	2.4	6.0	**610**	**620**
Netherlands	**1,066**	1,015	1,123	**547**	521	576	**402**	361	446	**62.3**	57.7	66.5	**4.6**	4.1	5.2	**180**	**181**
New Zealand	**208**	187	231	**202**	189	216	**167**	139	198	**19.7**	2.0	34.7	**1.0**	0.1	2.0	**64**	**64**
Nicaragua[e]	**2,199**	1,668	2,901	**1,815**	1,478	2,229	**1,396**	980	1,983	**36.5**	4.0	58.2	**2.2**	0.2	4.1	**141**	**142**
Niger	**16,278**	11,645	22,550	**17,784**	14,363	22,289	**25,078**	17,618	35,666	**-54.1**	-137.5	-0.2	**-2.1**	-4.1	0.0	**1,144**	**1,169**
Nigeria	**157,610**	101,861	241,650	**169,433**	116,029	246,887	**182,307**	118,937	280,262	**-15.7**	-78.1	24.7	**-0.7**	-2.7	1.4	**7,923**	**8,106**
Niue (New Zealand)	**-**	-	1	**-**	-	1	**-**	-	-	**a**	a	a	**a**	a	a	**-**	**-**
North Macedonia	**295**	274	319	**151**	134	169	**77**	63	94	**73.9**	67.9	79.0	**6.4**	5.4	7.4	**20**	**20**
Norway	**219**	202	238	**175**	164	188	**113**	102	125	**48.4**	41.3	54.8	**3.2**	2.5	3.8	**54**	**54**

Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021		
	2000			2010			2021								
	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
Oman	**7.5**	5.6	10.0	**6.2**	5.7	6.8	**5.6**	5.0	6.3	**24.9**	2.6	41.8	**1.4**	0.1	2.6
Pakistan	**38.5**	29.5	50.6	**36.3**	31.4	42.0	**30.9**	24.6	38.8	**19.6**	-8.2	40.3	**1.0**	-0.4	2.5
Palau	**10.4**	6.1	17.4	**9.1**	5.7	14.6	**7.5**	4.4	12.5	**28.0**	-10.2	52.7	**1.6**	-0.5	3.6
Panama	**11.6**	6.9	19.5	**9.6**	6.1	15.3	**7.5**	4.6	12.4	**35.2**	0.6	57.1	**2.1**	0.0	4.0
Papua New Guinea	**17.8**	10.6	29.7	**16.4**	10.3	26.0	**14.8**	8.7	24.8	**17.1**	-27.6	45.9	**0.9**	-1.2	2.9
Paraguay	**16.5**	12.5	21.5	**13.5**	10.0	18.3	**10.0**	6.4	15.4	**39.3**	10.4	59.3	**2.4**	0.5	4.3
Peru	**13.8**	10.7	17.9	**8.9**	7.7	10.3	**6.6**	5.1	8.6	**52.0**	34.5	64.5	**3.5**	2.0	4.9
Philippines	**14.1**	11.1	17.8	**12.4**	10.3	15.3	**10.2**	7.1	14.5	**27.7**	-2.3	48.8	**1.5**	-0.1	3.2
Poland	**4.3**	4.1	4.6	**3.0**	2.8	3.1	**2.6**	2.4	2.7	**40.0**	35.5	44.3	**2.4**	2.1	2.8
Portugal	**4.0**	3.7	4.3	**2.6**	2.5	2.8	**2.2**	1.9	2.6	**44.6**	36.6	51.6	**2.8**	2.2	3.5
Qatar	**6.6**	5.8	7.5	**6.5**	5.9	7.1	**2.7**	2.3	3.3	**58.1**	49.4	65.3	**4.1**	3.2	5.0
Republic of Korea	**3.1**	2.2	4.3	**2.1**	2.0	2.2	**1.7**	1.6	1.9	**44.1**	25.8	57.7	**2.8**	1.4	4.1
Republic of Moldova	**12.0**	8.2	17.7	**8.4**	5.8	12.2	**7.0**	4.3	11.1	**41.9**	12.8	61.3	**2.6**	0.7	4.5
Romania	**5.9**	5.6	6.3	**4.1**	3.9	4.3	**3.4**	3.2	3.6	**42.8**	38.4	47.0	**2.7**	2.3	3.0
Russian Federation	**6.7**	6.4	7.0	**4.6**	4.4	4.8	**3.3**	2.7	4.1	**50.7**	40.9	58.9	**3.4**	2.5	4.2
Rwanda	**28.3**	20.0	40.3	**18.7**	16.8	20.8	**16.7**	12.6	22.0	**40.8**	13.7	60.0	**2.5**	0.7	4.4
Saint Kitts and Nevis	**11.2**	6.6	18.4	**8.9**	5.7	13.8	**7.8**	4.7	12.9	**30.0**	-8.0	54.1	**1.7**	-0.4	3.7
Saint Lucia	**13.6**	11.4	16.2	**12.4**	10.6	14.5	**11.2**	8.6	14.5	**17.2**	-8.4	36.6	**0.9**	-0.4	2.2
Saint Vincent and the Grenadines	**10.4**	8.5	12.7	**13.6**	11.8	15.5	**11.9**	8.8	16.0	**-15.1**	-56.0	15.5	**-0.7**	-2.1	0.8
Samoa	**9.4**	5.6	15.6	**8.7**	5.5	13.6	**7.6**	4.5	12.8	**18.9**	-24.0	47.0	**1.0**	-1.0	3.0
San Marino	**3.0**	1.9	4.9	**2.0**	1.4	3.1	**1.7**	1.0	2.7	**44.3**	13.7	63.9	**2.8**	0.7	4.9
Sao Tome and Principe	**15.6**	9.3	25.6	**13.1**	8.4	20.3	**8.7**	5.4	14.4	**43.9**	13.6	63.4	**2.8**	0.7	4.8
Saudi Arabia	**8.6**	5.1	14.4	**6.1**	3.9	9.6	**4.2**	2.5	7.1	**50.4**	23.3	67.8	**3.3**	1.3	5.4
Senegal	**25.8**	19.8	33.2	**22.6**	19.5	26.1	**19.1**	16.4	22.3	**25.9**	4.5	42.4	**1.4**	0.2	2.6
Serbia	**5.2**	4.8	5.6	**4.9**	4.6	5.3	**4.8**	4.4	5.3	**7.8**	-2.0	16.7	**0.4**	-0.1	0.9
Seychelles	**8.7**	6.9	11.0	**9.2**	7.8	11.0	**9.3**	6.7	13.3	**-7.2**	-52.2	23.6	**-0.3**	-2.0	1.3
Sierra Leone	**33.1**	20.1	55.9	**27.5**	17.3	43.8	**23.1**	13.8	38.7	**30.2**	-7.3	55.4	**1.7**	-0.3	3.8
Singapore	**2.9**	2.6	3.3	**2.4**	2.2	2.6	**1.9**	1.6	2.2	**36.9**	24.7	47.2	**2.2**	1.4	3.0
Slovakia	**4.0**	3.6	4.4	**3.3**	3.1	3.6	**3.1**	2.8	3.4	**22.2**	12.0	31.1	**1.2**	0.6	1.8
Slovenia	**3.6**	3.1	4.1	**2.8**	2.5	3.2	**2.5**	2.2	3.0	**29.1**	14.9	40.9	**1.6**	0.8	2.5
Solomon Islands	**12.3**	7.3	20.7	**11.3**	7.0	18.0	**9.2**	5.5	15.7	**25.4**	-14.4	51.1	**1.4**	-0.6	3.4
Somalia	**32.7**	19.7	54.4	**31.8**	20.3	49.8	**28.0**	17.2	46.6	**14.3**	-30.3	43.1	**0.7**	-1.3	2.7
South Africa	**21.0**	15.8	27.6	**17.4**	14.9	20.4	**16.2**	13.9	18.9	**23.0**	-0.9	40.6	**1.2**	0.0	2.5
South Sudan	**31.3**	18.8	52.8	**27.3**	17.6	42.1	**25.8**	15.7	42.3	**17.5**	-25.4	45.5	**0.9**	-1.1	2.9
Spain	**3.3**	3.1	3.4	**2.7**	2.6	2.8	**2.2**	1.9	2.4	**33.6**	25.9	40.2	**2.0**	1.4	2.5
Sri Lanka	**10.5**	7.7	14.4	**7.5**	6.4	8.8	**6.0**	5.6	6.5	**43.0**	25.5	56.6	**2.7**	1.4	4.0
State of Palestine	**13.6**	8.2	23.0	**11.7**	7.4	18.6	**9.4**	5.6	15.7	**30.9**	-6.0	54.7	**1.8**	-0.3	3.8
Sudan	**27.9**	17.7	43.6	**25.1**	17.5	36.0	**22.0**	13.7	35.1	**21.0**	-19.8	48.0	**1.1**	-0.9	3.1
Suriname	**14.1**	8.4	23.7	**12.9**	8.2	20.2	**10.9**	6.6	18.0	**22.5**	-18.6	49.7	**1.2**	-0.8	3.3
Sweden	**3.7**	3.4	4.1	**3.0**	2.7	3.2	**2.4**	2.1	2.9	**34.6**	23.7	43.8	**2.0**	1.3	2.7
Switzerland	**2.7**	2.4	3.1	**2.3**	2.0	2.5	**2.4**	2.2	2.7	**12.1**	-0.2	23.2	**0.6**	0.0	1.3
Syrian Arab Republic	**11.6**	6.9	19.2	**10.5**	6.7	16.5	**10.7**	6.3	18.0	**7.5**	-41.7	39.1	**0.4**	-1.7	2.4
Tajikistan	**13.8**	8.3	23.1	**11.4**	7.3	17.8	**9.1**	5.4	15.0	**33.8**	-1.1	56.5	**2.0**	-0.1	4.0

Country, regional and global estimates of stillbirths

Country	Number of stillbirths									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Number of births (thousands)[b]	
	2000			2010			2021									Live births	Total births
	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	2021	2021
Oman	**442**	347	560	**404**	376	435	**474**	428	523	**-7.2**	-39.6	17.0	**-0.3**	-1.6	0.9	**83**	**84**
Pakistan	**220,198**	175,200	279,777	**235,364**	207,814	267,729	**203,374**	166,902	248,163	**7.6**	-25.6	32.2	**0.4**	-1.1	1.9	**6,375**	**6,578**
Palau	**3**	2	4	**2**	2	4	**2**	1	3	**33.3**	0.0	57.1	**1.9**	0.0	4.0	**-**	**-**
Panama	**829**	537	1,294	**744**	511	1,106	**582**	383	893	**29.8**	-8.2	53.6	**1.7**	-0.4	3.7	**77**	**78**
Papua New Guinea	**3,405**	2,173	5,297	**3,840**	2,586	5,662	**3,811**	2,434	5,942	**-11.9**	-73.4	27.6	**-0.5**	-2.6	1.5	**254**	**258**
Paraguay	**2,341**	1,851	2,941	**1,787**	1,383	2,313	**1,400**	968	2,023	**40.2**	11.2	60.1	**2.4**	0.6	4.4	**138**	**140**
Peru	**8,880**	7,110	11,090	**5,566**	4,902	6,299	**3,962**	3,172	4,956	**55.4**	38.8	67.1	**3.8**	2.3	5.3	**594**	**597**
Philippines	**32,024**	26,190	39,230	**30,462**	25,801	36,383	**25,531**	18,832	34,578	**20.3**	-13.3	43.7	**1.1**	-0.6	2.7	**2,485**	**2,511**
Poland	**1,641**	1,562	1,725	**1,252**	1,201	1,304	**941**	892	992	**42.7**	38.4	46.8	**2.6**	2.3	3.0	**363**	**364**
Portugal	**482**	452	513	**268**	252	284	**180**	160	203	**62.7**	57.2	67.4	**4.7**	4.0	5.3	**80**	**81**
Qatar	**80**	72	90	**118**	110	128	**73**	63	85	**8.8**	-10.0	24.7	**0.4**	-0.5	1.4	**27**	**27**
Republic of Korea	**1,832**	1,392	2,408	**940**	901	981	**505**	473	538	**72.4**	63.5	79.2	**6.1**	4.8	7.5	**289**	**290**
Republic of Moldova	**605**	438	842	**449**	326	620	**268**	178	403	**55.7**	33.3	70.5	**3.9**	1.9	5.8	**38**	**38**
Romania	**1,346**	1,284	1,410	**930**	891	971	**665**	626	706	**50.6**	46.7	54.2	**3.4**	3.0	3.7	**195**	**196**
Russian Federation	**8,761**	8,485	9,057	**8,432**	8,193	8,678	**4,616**	3,858	5,521	**47.3**	36.8	56.0	**3.1**	2.2	3.9	**1,397**	**1,402**
Rwanda	**9,716**	7,198	13,171	**6,851**	6,252	7,491	**6,876**	5,396	8,713	**29.2**	-4.0	52.6	**1.6**	-0.2	3.6	**404**	**411**
Saint Kitts and Nevis	**9**	6	14	**6**	4	9	**5**	3	7	**44.4**	25.0	70.0	**2.8**	1.4	5.7	**1**	**1**
Saint Lucia	**41**	35	47	**27**	24	31	**23**	19	29	**43.9**	24.3	56.1	**2.8**	1.3	3.9	**2**	**2**
Saint Vincent and the Grenadines	**23**	20	28	**25**	23	29	**16**	13	21	**30.4**	5.0	50.0	**1.7**	0.2	3.3	**1**	**1**
Samoa	**55**	35	84	**52**	36	76	**46**	29	71	**16.4**	-29.2	45.3	**0.9**	-1.2	2.9	**6**	**6**
San Marino	**1**	1	1	**1**	-	1	**-**	-	1	**a**	a	a	**a**	a	a	**-**	**-**
Sao Tome and Principe	**91**	59	139	**90**	61	131	**56**	37	85	**38.5**	4.8	60.1	**2.3**	0.2	4.4	**6**	**6**
Saudi Arabia	**5,138**	3,329	8,007	**3,949**	2,695	5,787	**2,680**	1,741	4,114	**47.8**	19.1	66.3	**3.1**	1.0	5.2	**629**	**632**
Senegal	**10,089**	8,079	12,578	**10,965**	9,681	12,404	**10,713**	9,359	12,230	**-6.2**	-37.8	18.0	**-0.3**	-1.5	0.9	**550**	**561**
Serbia	**397**	370	424	**352**	332	372	**327**	304	352	**17.6**	8.9	25.6	**0.9**	0.4	1.4	**68**	**68**
Seychelles	**13**	11	16	**15**	13	17	**15**	12	21	**-15.4**	-72.7	14.3	**-0.7**	-2.6	0.7	**2**	**2**
Sierra Leone	**7,005**	4,531	11,118	**7,075**	4,799	10,550	**6,254**	4,023	9,804	**10.7**	-38.9	43.7	**0.5**	-1.6	2.7	**264**	**270**
Singapore	**161**	146	177	**112**	104	122	**79**	68	91	**50.9**	41.7	59.1	**3.4**	2.6	4.3	**42**	**42**
Slovakia	**219**	201	237	**201**	188	214	**168**	154	184	**23.3**	12.9	31.8	**1.3**	0.7	1.8	**54**	**55**
Slovenia	**65**	58	74	**65**	59	71	**49**	43	55	**24.6**	10.5	38.0	**1.3**	0.5	2.3	**19**	**19**
Solomon Islands	**190**	122	296	**208**	140	309	**196**	126	309	**-3.2**	-59.0	32.7	**-0.1**	-2.2	1.9	**21**	**21**
Somalia	**14,671**	9,418	22,858	**18,939**	12,927	28,070	**21,450**	14,135	33,371	**-46.2**	-125.2	4.4	**-1.8**	-3.9	0.2	**744**	**765**
South Africa	**20,795**	16,313	26,316	**20,443**	17,877	23,269	**19,337**	16,965	22,086	**7.0**	-22.5	28.7	**0.3**	-1.0	1.6	**1,177**	**1,196**
South Sudan	**10,103**	6,512	15,883	**10,772**	7,397	15,638	**8,312**	5,417	12,614	**17.7**	-26.6	46.4	**0.9**	-1.1	3.0	**313**	**322**
Spain	**1,302**	1,243	1,365	**1,320**	1,267	1,374	**776**	705	856	**40.4**	33.5	46.4	**2.5**	1.9	3.0	**358**	**358**
Sri Lanka	**3,646**	2,800	4,760	**2,732**	2,399	3,127	**1,849**	1,731	1,971	**49.3**	33.6	61.5	**3.2**	1.9	4.5	**306**	**308**
State of Palestine	**1,669**	1,078	2,605	**1,600**	1,088	2,373	**1,377**	895	2,129	**17.5**	-27.3	46.2	**0.9**	-1.1	3.0	**145**	**147**
Sudan	**28,755**	19,375	42,797	**32,756**	24,049	44,804	**34,499**	23,095	51,636	**-20.0**	-84.0	21.9	**-0.9**	-2.9	1.2	**1,534**	**1,569**
Suriname	**166**	107	259	**145**	99	213	**123**	79	189	**25.9**	-14.3	52.1	**1.4**	-0.6	3.5	**11**	**11**
Sweden	**339**	315	363	**339**	316	365	**278**	242	319	**18.0**	4.2	29.5	**0.9**	0.2	1.7	**113**	**114**
Switzerland	**213**	192	237	**180**	165	195	**211**	194	229	**0.9**	-12.7	13.8	**0.0**	-0.6	0.7	**87**	**87**
Syrian Arab Republic	**5,848**	3,785	8,992	**6,786**	4,607	9,988	**4,615**	2,973	7,176	**21.1**	-21.5	48.4	**1.1**	-0.9	3.1	**427**	**431**
Tajikistan	**2,791**	1,812	4,296	**2,734**	1,866	3,997	**2,403**	1,552	3,674	**13.9**	-32.1	43.7	**0.7**	-1.3	2.7	**261**	**263**

Country, regional and global estimates of stillbirths

Country	Stillbirth rate (SBR) (stillbirths per 1,000 total births)									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021		
	2000			2010			2021								
	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
Thailand	**9.7**	5.7	16.3	**7.2**	4.6	11.2	**5.5**	3.3	9.1	**43.6**	13.4	62.9	**2.7**	0.7	4.7
Timor-Leste	**21.7**	13.0	36.4	**15.8**	10.0	24.9	**14.4**	8.6	23.8	**33.6**	-2.3	57.4	**2.0**	-0.1	4.1
Togo	**27.4**	16.7	44.9	**24.1**	15.5	37.1	**20.9**	12.7	34.3	**23.8**	-16.3	49.8	**1.3**	-0.7	3.3
Tonga	**8.5**	5.0	14.0	**7.2**	4.5	11.3	**6.5**	3.9	10.6	**23.5**	-16.8	50.2	**1.3**	-0.7	3.3
Trinidad and Tobago	**12.0**	8.6	16.9	**10.4**	9.4	11.5	**8.7**	6.2	12.3	**27.2**	-10.0	51.9	**1.5**	-0.5	3.5
Tunisia	**15.0**	10.2	22.1	**11.7**	9.7	14.3	**10.5**	7.5	14.5	**30.1**	-6.5	54.4	**1.7**	-0.3	3.7
Türkiye	**11.4**	8.7	14.9	**5.9**	5.4	6.3	**4.2**	4.0	4.4	**63.0**	53.5	70.4	**4.7**	3.6	5.8
Turkmenistan	**11.2**	6.7	18.6	**9.6**	6.1	15.0	**9.5**	5.7	15.8	**15.7**	-28.0	44.6	**0.8**	-1.2	2.8
Tuvalu	**15.2**	9.1	25.3	**12.2**	7.9	19.1	**9.3**	5.6	15.5	**39.1**	7.6	60.0	**2.4**	0.4	4.4
Uganda	**22.9**	17.1	30.6	**20.8**	17.7	24.4	**15.1**	14.1	16.3	**34.1**	15.1	48.7	**2.0**	0.8	3.2
Ukraine	**7.1**	5.2	9.5	**5.2**	4.7	5.7	**4.9**	4.4	5.5	**30.1**	8.6	46.3	**1.7**	0.4	3.0
United Arab Emirates	**8.5**	7.6	9.5	**6.5**	5.6	7.5	**4.7**	3.9	5.6	**44.8**	33.9	54.1	**2.8**	2.0	3.7
United Kingdom	**4.4**	3.9	5.1	**3.8**	3.6	4.0	**2.7**	2.4	3.0	**39.0**	29.3	47.3	**2.4**	1.7	3.0
United Republic of Tanzania	**25.9**	20.5	33.0	**21.5**	18.0	25.8	**18.3**	13.2	25.6	**29.4**	1.5	49.3	**1.7**	0.1	3.2
United States	**3.3**	3.2	3.4	**3.0**	2.9	3.1	**2.7**	2.5	3.0	**17.5**	10.0	24.3	**0.9**	0.5	1.3
Uruguay	**7.4**	6.8	8.0	**4.8**	4.4	5.2	**4.8**	3.9	5.9	**34.8**	21.4	46.2	**2.0**	1.1	3.0
Uzbekistan[f]	**12.1**	7.4	20.0	**8.8**	5.7	13.9	**5.9**	3.6	9.7	**51.5**	25.9	68.5	**3.4**	1.4	5.5
Vanuatu	**11.9**	7.0	20.1	**11.8**	7.4	19.1	**10.6**	6.3	17.8	**10.9**	-35.9	41.5	**0.5**	-1.5	2.6
Venezuela (Bolivarian Republic of)	**9.6**	5.8	16.1	**9.2**	5.8	14.6	**10.7**	6.5	18.0	**-10.8**	-70.2	27.5	**-0.5**	-2.5	1.5
Viet Nam	**11.1**	7.2	17.0	**9.2**	6.7	12.8	**8.0**	5.2	12.6	**27.8**	-11.3	53.0	**1.6**	-0.5	3.6
Yemen	**23.7**	15.8	35.2	**20.8**	16.4	26.9	**23.4**	16.3	33.6	**1.3**	-50.4	34.8	**0.1**	-1.9	2.0
Zambia	**21.9**	15.6	31.2	**17.4**	15.0	20.3	**14.2**	13.3	15.3	**35.1**	13.0	51.8	**2.1**	0.7	3.5
Zimbabwe	**23.1**	16.0	33.7	**24.4**	20.4	29.2	**19.5**	18.0	20.9	**15.7**	-15.0	38.9	**0.8**	-0.7	2.3

Country, regional and global estimates of stillbirths

Country	Number of stillbirths														Number of births (thousands)[b]	
	2000			2010			2021			Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Live births	Total births
	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	2021	2021
Thailand	**8,310**	5,331	12,815	**5,885**	4,003	8,586	**3,531**	2,286	5,446	**57.5**	34.6	72.2	**4.1**	2.0	6.1	**644**	**648**
Timor-Leste	**766**	490	1,201	**550**	374	811	**481**	313	735	**37.2**	2.4	60.1	**2.2**	0.1	4.4	**33**	**33**
Togo	**5,453**	3,559	8,342	**6,066**	4,165	8,829	**5,872**	3,836	8,976	**-7.7**	-66.0	29.9	**-0.4**	-2.4	1.7	**275**	**281**
Tonga	**25**	16	39	**22**	15	31	**16**	10	24	**36.0**	0.0	58.6	**2.1**	0.0	4.2	**2**	**2**
Trinidad and Tobago	**247**	185	331	**220**	202	240	**157**	116	211	**36.4**	3.3	58.2	**2.2**	0.2	4.1	**18**	**18**
Tunisia	**2,572**	1,851	3,567	**2,359**	1,996	2,784	**2,097**	1,594	2,752	**18.5**	-25.0	47.2	**1.0**	-1.1	3.0	**197**	**199**
Türkiye	**15,878**	12,607	19,851	**7,643**	7,130	8,190	**5,280**	5,088	5,473	**66.7**	58.1	73.5	**5.2**	4.1	6.3	**1,245**	**1,250**
Turkmenistan	**1,231**	799	1,897	**1,290**	884	1,896	**1,309**	842	2,010	**-6.3**	-62.1	30.6	**-0.3**	-2.3	1.7	**137**	**138**
Tuvalu	**4**	2	6	**3**	2	4	**2**	2	4	**50.0**	0.0	60.0	**3.3**	0.0	4.4	**-**	**-**
Uganda	**27,383**	21,331	35,026	**29,628**	25,856	34,113	**25,855**	24,419	27,523	**5.6**	-22.1	27.0	**0.3**	-1.0	1.5	**1,687**	**1,713**
Ukraine	**2,728**	2,107	3,510	**2,597**	2,394	2,809	**1,669**	1,527	1,825	**38.8**	19.9	53.1	**2.3**	1.1	3.6	**336**	**338**
United Arab Emirates	**458**	417	502	**753**	665	853	**454**	388	531	**0.9**	-19.1	17.4	**0.0**	-0.8	0.9	**97**	**97**
United Kingdom	**3,013**	2,681	3,382	**3,073**	2,954	3,195	**1,836**	1,684	2,006	**39.1**	29.3	47.3	**2.4**	1.7	3.1	**677**	**679**
United Republic of Tanzania	**38,625**	31,535	47,536	**39,358**	33,745	45,943	**42,873**	32,427	57,087	**-11.0**	-56.2	20.7	**-0.5**	-2.1	1.1	**2,303**	**2,346**
United States	**13,537**	13,117	13,962	**12,031**	11,696	12,365	**10,196**	9,397	11,044	**24.7**	17.8	30.9	**1.3**	0.9	1.8	**3,723**	**3,733**
Uruguay	**385**	360	412	**232**	216	249	**173**	145	206	**55.1**	45.9	63.0	**3.8**	2.9	4.7	**36**	**36**
Uzbekistan[f]	**6,782**	4,436	10,546	**5,782**	4,004	8,445	**4,740**	3,101	7,204	**30.1**	-7.1	54.9	**1.7**	-0.3	3.8	**803**	**808**
Vanuatu	**77**	49	120	**97**	65	145	**101**	65	157	**-31.2**	-101.5	14.3	**-1.3**	-3.3	0.7	**9**	**9**
Venezuela (Bolivarian Republic of)	**5,689**	3,688	8,810	**5,552**	3,801	8,260	**4,882**	3,187	7,548	**14.2**	-32.5	44.1	**0.7**	-1.3	2.8	**452**	**457**
Viet Nam	**16,026**	11,171	23,041	**13,783**	10,450	18,089	**11,822**	8,170	17,371	**26.2**	-14.2	52.2	**1.4**	-0.6	3.5	**1,463**	**1,474**
Yemen	**18,257**	12,871	25,722	**18,857**	15,413	23,298	**24,195**	17,757	33,161	**-32.5**	-103.9	13.4	**-1.3**	-3.4	0.7	**1,009**	**1,033**
Zambia	**10,181**	7,617	13,747	**10,205**	8,963	11,592	**9,703**	9,130	10,302	**4.7**	-28.6	29.7	**0.2**	-1.2	1.7	**672**	**682**
Zimbabwe	**10,038**	7,313	13,923	**11,955**	10,283	13,979	**9,711**	9,097	10,297	**3.3**	-32.8	30.4	**0.2**	-1.3	1.7	**489**	**499**

Country, regional and global estimates of stillbirths

Estimates of stillbirths by Sustainable Development Goal region

	Stillbirth rate (SBR) (stillbirths per 1,000 total births)									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021		
	2000			2010			2021								
Region	**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	**27.6**	25.1	32.1	**24.0**	22.1	27.0	**21.0**	19.4	24.0	**23.7**	14.3	32.7	**1.3**	0.7	1.9
Northern Africa and Western Asia	**17.0**	15.0	20.2	**13.6**	12.2	15.7	**11.7**	10.3	14.1	**31.0**	19.2	41.1	**1.8**	1.0	2.5
Northern Africa	**20.3**	16.8	25.7	**16.1**	13.7	19.5	**13.1**	10.7	16.7	**35.5**	19.0	48.8	**2.1**	1.0	3.2
Western Asia	**14.1**	12.3	16.9	**11.1**	9.9	13.0	**10.3**	8.8	12.5	**26.9**	11.8	39.4	**1.5**	0.6	2.4
Central and Southern Asia	**31.0**	26.4	37.1	**23.3**	21.5	25.3	**16.2**	14.7	18.3	**47.7**	36.1	57.3	**3.1**	2.1	4.1
Central Asia	**12.0**	9.7	15.5	**9.0**	7.6	11.0	**7.2**	6.1	8.9	**39.9**	26.0	51.8	**2.4**	1.4	3.5
Southern Asia	**31.6**	26.9	37.8	**23.8**	22.0	26.0	**16.7**	15.0	18.8	**47.2**	35.3	57.1	**3.0**	2.1	4.0
Eastern and South-Eastern Asia	**14.1**	13.1	15.4	**10.4**	9.8	11.2	**6.9**	6.2	7.9	**50.8**	43.4	56.6	**3.4**	2.7	4.0
Eastern Asia	**13.8**	12.6	15.3	**9.6**	8.9	10.4	**4.7**	4.0	5.6	**66.1**	58.9	71.9	**5.1**	4.2	6.0
South-Eastern Asia	**14.5**	12.8	17.0	**11.8**	10.7	13.3	**9.4**	8.1	11.2	**35.0**	21.6	45.8	**2.1**	1.2	2.9
Latin America and the Caribbean	**11.2**	10.4	12.5	**9.0**	8.6	9.7	**7.7**	7.2	8.5	**31.1**	23.7	37.7	**1.8**	1.3	2.3
Oceania	**9.4**	7.2	12.8	**8.6**	6.7	11.3	**7.7**	5.7	10.9	**17.4**	-11.6	38.7	**0.9**	-0.5	2.3
Australia and New Zealand	**3.7**	3.5	3.9	**3.1**	3.0	3.2	**2.4**	2.2	2.6	**34.0**	27.1	40.0	**2.0**	1.5	2.4
Oceania (exc. Australia and New Zealand)	**16.3**	11.5	23.9	**15.2**	11.0	21.3	**13.7**	9.5	20.3	**16.0**	-20.9	41.6	**0.8**	-0.9	2.6
Europe and Northern America	**4.2**	4.1	4.3	**3.4**	3.3	3.4	**2.9**	2.8	3.0	**31.6**	28.3	34.7	**1.8**	1.6	2.0
Europe	**4.8**	4.7	4.9	**3.6**	3.5	3.6	**3.0**	2.9	3.1	**37.6**	33.9	41.0	**2.2**	2.0	2.5
Northern America	**3.3**	3.2	3.4	**3.0**	2.9	3.0	**2.7**	2.5	2.9	**17.2**	10.3	23.5	**0.9**	0.5	1.3
Europe, Northern America, Australia and New Zealand	**4.2**	4.1	4.3	**3.4**	3.3	3.4	**2.9**	2.8	3.0	**31.8**	28.5	34.7	**1.8**	1.6	2.0
Landlocked developing countries	**26.9**	24.0	31.6	**22.7**	20.7	25.7	**18.4**	16.9	20.7	**31.6**	22.1	40.9	**1.8**	1.2	2.5
Small Island Developing States	**17.4**	15.2	21.1	**15.9**	13.9	18.9	**14.3**	12.3	17.6	**17.8**	3.0	30.5	**0.9**	0.1	1.7
World	**21.3**	**19.8**	**23.7**	**16.9**	**16.2**	**18.0**	**13.9**	**13.3**	**15.1**	**34.8**	**27.9**	**41.2**	**2.0**	**1.6**	**2.5**

Estimates of stillbirths by UNICEF region

	Stillbirth rate (SBR) (stillbirths per 1,000 total births)									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021		
	2000			2010			2021								
Region	**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	**27.6**	25.2	32.0	**24.0**	22.2	26.9	**21.1**	19.5	24.0	**23.6**	14.4	32.5	**1.3**	0.7	1.9
West and Central Africa	**29.0**	24.9	35.9	**25.3**	22.1	30.1	**23.0**	20.1	27.9	**20.7**	5.5	34.0	**1.1**	0.3	2.0
Eastern and Southern Africa	**26.2**	23.6	30.4	**22.6**	21.0	25.2	**18.9**	17.6	21.0	**27.6**	18.4	37.0	**1.5**	1.0	2.2
Middle East and North Africa	**15.9**	14.0	19.2	**12.5**	11.2	14.6	**10.6**	9.3	12.7	**33.6**	22.2	43.7	**2.0**	1.2	2.7
South Asia	**32.1**	27.3	38.5	**24.3**	22.4	26.5	**17.0**	15.3	19.2	**47.0**	34.9	57.0	**3.0**	2.0	4.0
East Asia and Pacific	**14.0**	13.0	15.3	**10.4**	9.8	11.1	**6.9**	6.3	7.9	**50.3**	43.0	56.0	**3.3**	2.7	3.9
Latin America and Caribbean	**11.2**	10.4	12.5	**9.0**	8.6	9.7	**7.7**	7.2	8.5	**31.1**	23.7	37.7	**1.8**	1.3	2.3
North America	**3.3**	3.2	3.4	**3.0**	2.9	3.0	**2.7**	2.5	2.9	**17.2**	10.3	23.5	**0.9**	0.5	1.3
Europe and Central Asia	**6.9**	6.4	7.5	**4.8**	4.6	5.1	**4.0**	3.8	4.3	**41.9**	36.8	46.7	**2.6**	2.2	3.0
Eastern Europe and Central Asia	**9.7**	8.9	10.9	**6.4**	6.0	7.0	**5.1**	4.7	5.7	**47.4**	40.9	53.1	**3.1**	2.5	3.6
Western Europe	**3.9**	3.7	4.0	**2.9**	2.9	3.0	**2.6**	2.5	2.8	**31.7**	27.7	35.2	**1.8**	1.5	2.1
World	**21.3**	**19.8**	**23.7**	**16.9**	**16.2**	**18.0**	**13.9**	**13.3**	**15.1**	**34.8**	**27.9**	**41.2**	**2.0**	**1.6**	**2.5**

Country, regional and global estimates of stillbirths

Estimates of stillbirths by Sustainable Development Goal region (continued)

Region	Number of stillbirths (thousands)[g]									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
	2000			2010			2021										
	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	2021	2021
Sub-Saharan Africa	**765**	695	894	**818**	752	923	**847**	779	968	**-10.8**	-24.8	2.6	**-0.5**	-1.1	0.1	**39,416**	**48.9**
Northern Africa and Western Asia	**164**	145	196	**155**	139	180	**137**	120	165	**16.4**	1.9	28.8	**0.9**	0.1	1.6	**11,562**	**38.9**
Northern Africa	**92**	76	117	**91**	77	111	**78**	64	100	**14.9**	-7.1	32.8	**0.8**	-0.3	1.9	**5,919**	**44.0**
Western Asia	**72**	63	86	**64**	57	75	**59**	50	71	**18.3**	1.2	32.5	**1.0**	0.1	1.9	**5,643**	**32.4**
Central and Southern Asia	**1,353**	1,148	1,630	**979**	902	1,067	**624**	564	705	**53.8**	43.4	62.6	**3.7**	2.7	4.7	**37,858**	**50.1**
Central Asia	**15**	12	19	**14**	12	17	**13**	11	16	**12.5**	-8.0	30.1	**0.6**	-0.4	1.7	**1,772**	**23.4**
Southern Asia	**1,338**	1,133	1,614	**965**	888	1,054	**611**	550	691	**54.3**	43.7	63.1	**3.7**	2.7	4.7	**36,086**	**50.7**
Eastern and South-Eastern Asia	**443**	412	485	**332**	312	357	**164**	148	188	**63.0**	57.4	67.4	**4.7**	4.1	5.3	**23,490**	**30.2**
Eastern Asia	**276**	251	305	**193**	178	209	**59**	50	69	**78.8**	74.3	82.4	**7.4**	6.5	8.3	**12,405**	**12.5**
South-Eastern Asia	**167**	147	196	**139**	126	157	**105**	91	126	**37.0**	23.9	47.6	**2.2**	1.3	3.1	**11,086**	**39.3**
Latin America and the Caribbean	**131**	121	145	**98**	93	106	**75**	70	83	**42.4**	36.2	48.0	**2.6**	2.1	3.1	**9,660**	**23.0**
Oceania	**5**	4	7	**6**	4	8	**5**	4	7	**-1.5**	-37.6	24.9	**-0.1**	-1.5	1.4	**681**	**45.2**
Australia and New Zealand	**1**	1	1	**1**	1	1	**1**	1	1	**21.8**	13.6	29.0	**1.2**	0.7	1.6	**362**	**5.7**
Oceania (exc. Australia and New Zealand)	**4**	3	6	**5**	3	6	**4**	3	7	**-7.9**	-56.0	25.4	**-0.4**	-2.1	1.4	**318**	**53.0**
Europe and Northern America	**50**	49	51	**43**	42	43	**32**	31	33	**36.0**	32.9	38.9	**2.1**	1.9	2.3	**10,954**	**12.9**
Europe	**35**	34	36	**29**	29	30	**21**	20	22	**41.5**	37.9	44.6	**2.5**	2.3	2.8	**6,857**	**10.2**
Northern America	**15**	14	15	**13**	13	13	**11**	10	12	**22.9**	16.5	28.8	**1.2**	0.9	1.6	**4,097**	**17.0**
Europe, Northern America, Australia and New Zealand	**51**	50	52	**44**	43	44	**33**	31	34	**35.7**	32.6	38.5	**2.1**	1.9	2.3	**11,316**	**12.8**
Landlocked developing countries	**351**	313	415	**345**	315	392	**322**	295	365	**8.2**	-4.8	21.1	**0.4**	-0.2	1.1	**17,212**	**47.7**
Small Island Developing States	**21**	19	26	**20**	17	24	**17**	15	21	**18.5**	3.6	31.3	**1.0**	0.2	1.8	**1,197**	**45.8**
World	**2,910**	**2,703**	**3,244**	**2,430**	**2,331**	**2,585**	**1,885**	**1,798**	**2,046**	**35.2**	**28.3**	**41.7**	**2.1**	**1.6**	**2.6**	**133,619**	**45.2**

Estimates of stillbirths by UNICEF region (continued)

Region	Number of stillbirths (thousands)[g]									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
	2000			2010			2021										
	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	2021	2021
Sub-Saharan Africa	**793**	723	925	**851**	784	957	**882**	813	1,005	**-11.2**	-24.8	2.1	**-0.5**	-1.1	0.1	**40,950**	**49.3**
West and Central Africa	**414**	353	515	**458**	400	549	**504**	438	614	**-21.8**	-45.6	-0.7	**-0.9**	-1.8	0	**21,377**	**52**
Eastern and Southern Africa	**380**	341	442	**392**	363	437	**378**	350	421	**0.4**	-12.6	13.7	**0**	-0.6	0.7	**19,573**	**45.3**
Middle East and North Africa	**128**	112	155	**124**	110	144	**104**	91	126	**18.8**	4.6	31.2	**1**	0.2	1.8	**9,763**	**32.1**
South Asia	**1,325**	1,121	1,600	**952**	875	1,040	**603**	541	681	**54.5**	43.8	63.3	**3.7**	2.7	4.8	**34,882**	**51**
East Asia and Pacific	**448**	417	491	**337**	318	363	**169**	153	193	**62.3**	56.7	66.7	**4.6**	4	5.2	**24,171**	**30.7**
Latin America and Caribbean	**131**	121	145	**98**	93	106	**75**	70	83	**42.4**	36.2	48	**2.6**	2.1	3.1	**9,660**	**23**
North America	**15**	14	15	**13**	13	13	**11**	10	12	**22.9**	16.5	28.8	**1.2**	0.9	1.6	**4,097**	**17**
Europe and Central Asia	**70**	66	77	**55**	53	58	**40**	38	44	**42.2**	37.1	47	**2.6**	2.2	3	**10,098**	**16.6**
Eastern Europe and Central Asia	**51**	47	58	**40**	37	43	**28**	26	32	**44.4**	37.5	50.4	**2.8**	2.2	3.3	**5,528**	**19.9**
Western Europe	**19**	18	20	**15**	15	16	**12**	12	13	**36.6**	32.9	39.8	**2.2**	1.9	2.4	**4,570**	**8.1**
World	**2,910**	**2,703**	**3,244**	**2,430**	**2,331**	**2,585**	**1,885**	**1,798**	**2,046**	**35.2**	**28.3**	**41.7**	**2.1**	**1.6**	**2.6**	**133,619**	**45.2**

Country, regional and global estimates of stillbirths

Estimates of stillbirths by World Health Organization region

	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			**2010**			**2021**			**Percentage decline** (per cent) **2000–2021**			**Annual rate of reduction (ARR)** (per cent) **2000–2021**		
Region	**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	**27.3**	24.9	31.7	**23.6**	21.7	26.5	**20.6**	19.0	23.5	**24.5**	15.1	33.5	**1.3**	0.8	1.9
Americas	**9.1**	8.5	9.9	**7.3**	6.9	7.8	**6.3**	5.9	6.8	**30.9**	24.4	36.9	**1.8**	1.3	2.2
Eastern Mediterranean	**26.8**	23.6	31.7	**23.7**	21.8	26.4	**20.6**	18.4	23.7	**23.3**	8.7	35.8	**1.3**	0.4	2.1
Europe	**6.8**	6.4	7.5	**4.8**	4.6	5.1	**4.0**	3.8	4.3	**42.0**	36.8	46.7	**2.6**	2.2	3.0
South-East Asia	**28.3**	23.6	34.5	**19.9**	18.1	21.9	**12.5**	11.0	14.2	**55.9**	44.4	65.0	**3.9**	2.8	5.0
Western Pacific	**13.6**	12.5	14.8	**9.9**	9.2	10.6	**6.0**	5.4	6.9	**55.7**	48.4	61.3	**3.9**	3.1	4.5
World	**21.3**	**19.8**	**23.7**	**16.9**	**16.2**	**18.0**	**13.9**	**13.3**	**15.1**	**34.8**	**27.9**	**41.2**	**2.0**	**1.6**	**2.5**

Estimates of stillbirths by World Bank region

	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			2010			**2021**			**Percentage decline** (per cent) **2000–2021**			**Annual rate of reduction (ARR)** (per cent) **2000–2021**		
Region	**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 Pacific	**14.0**	13.0	15.3	**10.4**	9.8	11.1	**6.9**	6.3	7.9	**50.3**	43.0	56.0	**3.3**	2.7	3.9
Europe and Central Asia	**6.9**	6.4	7.5	**4.8**	4.6	5.1	**4.0**	3.8	4.3	**41.9**	36.8	46.7	**2.6**	2.2	3.0
Latin America and the Caribbean	**11.2**	10.4	12.5	**9.0**	8.6	9.7	**7.7**	7.2	8.5	**31.1**	23.7	37.7	**1.8**	1.3	2.3
Middle East and North Africa	**16.0**	14.0	19.2	**12.6**	11.2	14.7	**10.6**	9.3	12.7	**33.6**	22.2	43.6	**2.0**	1.2	2.7
North America	**3.3**	3.2	3.4	**3.0**	2.9	3.0	**2.7**	2.5	2.9	**17.2**	10.3	23.5	**0.9**	0.5	1.3
South Asia	**32.1**	27.3	38.5	**24.3**	22.4	26.5	**17.0**	15.3	19.2	**47.0**	34.9	57.0	**3.0**	2.0	4.0
Sub-Saharan Africa	**27.6**	25.2	32.0	**24.0**	22.2	26.9	**21.1**	19.5	24.0	**23.6**	14.4	32.5	**1.3**	0.7	1.9
Low income	**28.2**	25.7	32.7	**24.7**	23.0	27.4	**21.6**	20.2	23.9	**23.3**	14.2	32.7	**1.3**	0.7	1.9
Lower-middle income	**27.0**	24.1	31.2	**20.8**	19.5	22.5	**15.8**	14.6	17.7	**41.4**	32.0	49.7	**2.5**	1.8	3.3
Upper-middle income	**13.2**	12.4	14.2	**9.6**	9.1	10.1	**6.5**	6.2	7.1	**50.3**	45.1	54.6	**3.3**	2.9	3.8
High income	**3.9**	3.7	4.1	**3.2**	3.1	3.3	**2.8**	2.7	2.9	**28.9**	24.8	32.8	**1.6**	1.4	1.9
World	**21.3**	**19.8**	**23.7**	**16.9**	**16.2**	**18.0**	**13.9**	**13.3**	**15.1**	**34.8**	**27.9**	**41.2**	**2.0**	**1.6**	**2.5**

Country, regional and global estimates of stillbirths

Estimates of stillbirths by World Health Organization region (continued)

	Number of stillbirths (thousands)[g]																
	2000			2010			2021			Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
Region	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	2021	2021
Africa	**762**	693	888	**811**	746	914	**835**	766	954	**-9.6**	-23.5	3.8	**-0.4**	-1.0	0.2	**39,598**	**48.6**
Americas	**145**	136	160	**111**	106	119	**87**	81	94	**40.5**	34.7	45.6	**2.5**	2.0	2.9	**13,756**	**22.3**
Eastern Mediterranean	**415**	364	493	**433**	398	483	**391**	349	452	**5.7**	-12.7	21.4	**0.3**	-0.6	1.1	**18,611**	**48.1**
Europe	**71**	66	77	**55**	53	59	**41**	39	44	**42.0**	36.8	46.8	**2.6**	2.2	3.0	**10,272**	**16.5**
South-East Asia	**1,178**	978	1,446	**767**	695	848	**423**	374	484	**64.1**	54.5	71.7	**4.9**	3.8	6.0	**33,504**	**47.7**
Western Pacific	**338**	312	370	**250**	235	269	**107**	96	123	**68.2**	63.0	72.4	**5.5**	4.7	6.1	**17,733**	**29.2**
World	**2,910**	**2,703**	**3,244**	**2,430**	**2,331**	**2,585**	**1,885**	**1,798**	**2,046**	**35.2**	**28.3**	**41.7**	**2.1**	**1.6**	**2.6**	**133,619**	**45.2**

Estimates of stillbirths by World Bank region (continued)

	Number of stillbirths (thousands)[g]																
	2000			2010			2021			Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
Region	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	2021	2021
East Asia and Pacific	**448**	417	491	**337**	318	363	**169**	153	193	**62.3**	56.7	66.7	**4.6**	4.0	5.2	**24,170**	**30.7**
Europe and Central Asia	**70**	66	77	**55**	52	58	**40**	38	44	**42.2**	37.1	47.1	**2.6**	2.2	3.0	**10,093**	**16.6**
Latin America and the Caribbean	**131**	121	145	**98**	93	106	**75**	70	83	**42.4**	36.2	48.0	**2.6**	2.1	3.1	**9,660**	**23.0**
Middle East and North Africa	**129**	113	156	**124**	111	145	**105**	92	126	**18.9**	4.8	31.2	**1.0**	0.2	1.8	**9,792**	**32.1**
North America	**15**	14	15	**13**	13	13	**11**	10	12	**22.9**	16.5	28.8	**1.2**	0.9	1.6	**4,097**	**17.0**
South Asia	**1,325**	1,121	1,600	**952**	875	1,040	**603**	541	681	**54.5**	43.8	63.3	**3.7**	2.7	4.8	**34,882**	**51.0**
Sub-Saharan Africa	**792**	722	924	**850**	783	956	**881**	812	1,004	**-11.2**	-24.8	2.1	**-0.5**	-1.1	0.1	**40,926**	**49.3**
Low income	**496**	451	578	**528**	490	588	**551**	514	611	**-11.0**	-24.5	3.0	**-0.5**	-1.0	0.1	**24,913**	**51.1**
Lower-middle income	**1,899**	1,692	2,203	**1,514**	1,418	1,641	**1,121**	1,034	1,258	**41.0**	31.3	49.5	**2.5**	1.8	3.3	**69,752**	**47.6**
Upper-middle income	**458**	431	492	**340**	324	360	**176**	165	191	**61.6**	57.6	65.0	**4.6**	4.1	5.0	**26,645**	**18.7**
High income	**51**	49	54	**42**	41	44	**33**	32	35	**35.5**	31.8	39.1	**2.1**	1.8	2.4	**11,858**	**12.5**
World	**2,910**	**2,703**	**3,244**	**2,430**	**2,331**	**2,585**	**1,885**	**1,798**	**2,046**	**35.2**	**28.3**	**41.7**	**2.1**	**1.6**	**2.6**	**133,619**	**45.2**

Country, regional and global estimates of stillbirths

Estimates of stillbirths by United Nations Population Division region

	Stillbirth rate (SBR) (stillbirths per 1,000 total births)														
	2000			**2010**			**2021**			**Percentage decline** (per cent) **2000–2021**			**Annual rate of reduction (ARR)** (per cent) **2000–2021**		
Region	**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	**27.6**	25.1	32.1	**24.0**	22.1	27.0	**21.0**	19.4	24.0	**23.7**	14.3	32.7	**1.3**	0.7	1.9
Africa	**26.5**	24.4	30.6	**22.8**	21.2	25.5	**20.0**	18.6	22.6	**24.6**	16.0	32.9	**1.3**	0.8	1.9
Asia	**23.3**	20.8	26.7	**17.2**	16.3	18.4	**12.5**	11.6	13.7	**46.4**	37.6	54.0	**3.0**	2.2	3.7
Europe	**4.8**	4.7	4.9	**3.6**	3.5	3.6	**3.0**	2.9	3.1	**37.6**	33.9	41.0	**2.2**	2.0	2.5
Latin America and the Caribbean	**11.2**	10.4	12.5	**9.0**	8.6	9.7	**7.7**	7.2	8.5	**31.1**	23.7	37.7	**1.8**	1.3	2.3
Northern America	**3.3**	3.2	3.4	**3.0**	2.9	3.0	**2.7**	2.5	2.9	**17.2**	10.3	23.5	**0.9**	0.5	1.3
Oceania	**9.4**	7.2	12.8	**8.6**	6.7	11.3	**7.7**	5.7	10.9	**17.4**	-11.6	38.7	**0.9**	-0.5	2.3
World	**21.3**	**19.8**	**23.7**	**16.9**	**16.2**	**18.0**	**13.9**	**13.3**	**15.1**	**34.8**	**27.9**	**41.2**	**2.0**	**1.6**	**2.5**

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 labour 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.

a Percentage decline and annual rate of reduction were not calculated where stillbirths were too small to calculate meaningful rates of change.

b 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.

c Live birth numbers from the 'World Population Prospects: The 2022 revision' (WPP) are used to calculate the number of stillbirths. WPP numbers for Cyprus refer to the whole country. However, the underlying data sent by the Health Monitoring Unit of the Cyprus Ministry of Health capture only the government-controlled area, whereas according to Eurostat, the number of live births in 2021 was 10,150 (<https://ec.europa.eu/eurostat/databrowser/view/TPS00204>).

d The UN IGME estimates are not the official statistics of India, and the Government of India does not endorse the 2022 round of UN IGME stillbirth estimates. The official data source for mortality and fertility indicators in India, including stillbirths, is the Sample Registration System (SRS), a nationally representative data collection system that records both stillbirths and live births. The most recent national official estimates of the stillbirth rate in India are from the India SRS, with a rate of 3 stillbirths per 1,000 total births in 2020. Following a request from the Government of India and per the objectives of the UN IGME, the UN IGME will continue to assess all data sources in India relevant to stillbirth rate estimation and to evaluate and revise the estimation methodology as necessary.

e The UN IGME estimates are not necessarily the official statistics of Nicaragua. Following a request from the Government of Nicaragua and per the objectives of the UN IGME, the UN IGME will continue to assess all data sources in the country relevant to child mortality estimation and to evaluate and revise the estimation methodology as necessary.

f The most recent official national estimates of the stillbirth rate and the number of stillbirths for Uzbekistan from the vital registration system are 7.7 stillbirths per 1,000 total births and 6,977 stillbirths in 2021.

g Numbers of stillbirths are rounded to thousands in the regions. A zero indicates that the number of stillbirths is below 500. Unrounded numbers 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 (continued)

	Number of stillbirths (thousands)[g]									Percentage decline (per cent) 2000–2021			Annual rate of reduction (ARR) (per cent) 2000–2021			Number of live births (thousands)	Share of intrapartum stillbirths (per cent)
	2000			2010			2021										
Region	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	2021	2021
Sub-Saharan Africa	**765**	695	894	**818**	752	923	**847**	779	968	**-10.8**	-24.8	2.6	**-0.5**	-1.1	0.1	**39,414**	**48.9**
Africa	**857**	785	991	**909**	843	1,017	**926**	857	1,050	**-8.1**	-20.7	4.1	**-0.4**	-0.9	0.2	**45,334**	**48.4**
Asia	**1,867**	1,663	2,151	**1,374**	1,296	1,471	**847**	785	934	**54.7**	47.1	61.2	**3.8**	3.0	4.5	**66,991**	**45.1**
Europe	**35**	34	36	**29**	29	30	**21**	20	22	**41.5**	37.9	44.6	**2.5**	2.3	2.8	**6,857**	**10.2**
Latin America and the Caribbean	**131**	121	145	**98**	93	106	**75**	70	83	**42.4**	36.2	48.0	**2.6**	2.1	3.1	**9,660**	**23**
Northern America	**15**	14	15	**13**	13	13	**11**	10	12	**22.9**	16.5	28.8	**1.2**	0.9	1.6	**4,097**	**17**
Oceania	**5**	4	7	**6**	4	8	**5**	4	7	**-1.5**	-37.6	24.9	**-0.1**	-1.5	1.4	**681**	**45.2**
World	**2,910**	**2,703**	**3,244**	**2,430**	**2,331**	**2,585**	**1,885**	**1,798**	**2,046**	**35.2**	**28.3**	**41.7**	**2.1**	**1.6**	**2.6**	**133,619**	**45.2**

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