Office for National Statistics

Statistical bulletin

Child and infant mortality in England and Wales: 2022

Stillbirths, infant and childhood deaths occurring annually in England and Wales, and associated risk factors.

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To be announced

Notice

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Following the Health and Social Care Statistical Outputs consultation commissioned by the Health and Social Care Statistics Leadership Forum, we are improving some of our statistical products, so they are more coherent and efficient. Additionally, we are ensuring that our resources are deployed in producing statistics for maximum possible benefit.

Full details of changes to this product, and our other health and social care products, are available in the Health and Social Care Statistical Outputs Consultation Response. We welcome user feedback on our releases. Please use the contact details on individual publication web pages to share feedback.

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1 . Main points

In England and Wales in 2022:

- 2,349 infant deaths (aged under 1 year) and 1,019 child deaths (aged 1 to 15 years) occurred; these figures are higher than in 2021 (2,323 and 852, respectively).
- There were 3.9 infant deaths per 1,000 live births, and 10 child deaths per 100,000 population; higher than in 2021 (3.7 and 8, respectively).
- The neonatal mortality rate (aged under 28 days) was 2.9 deaths per 1,000 live births; the mortality rate was generally lower for neonates of longer gestations.
- The highest rates of infant mortality were among infants of Black ethnicity, with a birthweight under 2,500 grammes, or with a mother aged under 20 years.
- The main cause of death among children aged 28 days to 15 years continued to be congenital malformations, deformations and chromosomal abnormalities.
- The mortality rate for infants living in the 10% most deprived areas in England was almost three times higher than for infants living in the 10% least deprived areas; a wider difference than seen during any of the previous 12 years.

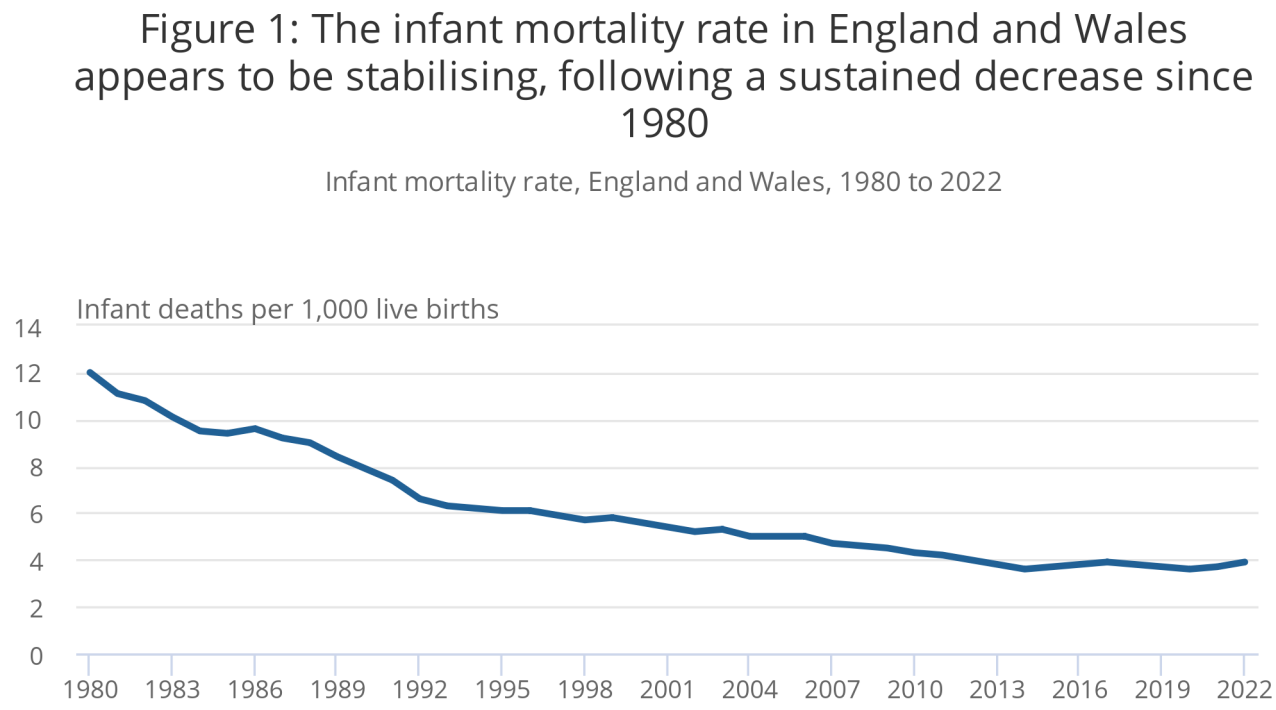
2 . Trends in child and infant mortality

In 2022, there were 1,019 child deaths (aged 1 to 15 years) and 2,349 infant deaths (aged under 1 year) in England and Wales. This equates to a child mortality rate of 10 deaths per 100,000 population, and an infant mortality rate of 3.9 deaths per 1,000 live births (see Table 1 of our accompanying dataset). The child and infant mortality rate followed a declining trend since records began in the 1980s but has become more stable in recent years.

The overall decline in infant mortality rates since 1980 (Figure 1) likely reflects general improvements in healthcare and more specific improvements in antenatal and neonatal care.

Figure 1: The infant mortality rate in England and Wales appears to be stabilising, following a sustained decrease since 1980

Infant mortality rate, England and Wales, 1980 to 2022



Source: Child and infant mortality in England and Wales: 2022, from the Office for National Statistics

In England, the West Midlands region continued to have the highest infant mortality rate (5.6 deaths per 1,000 live births), while the South West had the lowest (2.8 deaths per 1,000 live births; see Table 3 of our accompanying dataset).

There were 102 infant deaths in 2022 in Wales, and an infant mortality rate of 3.6 deaths per 1,000 live births.

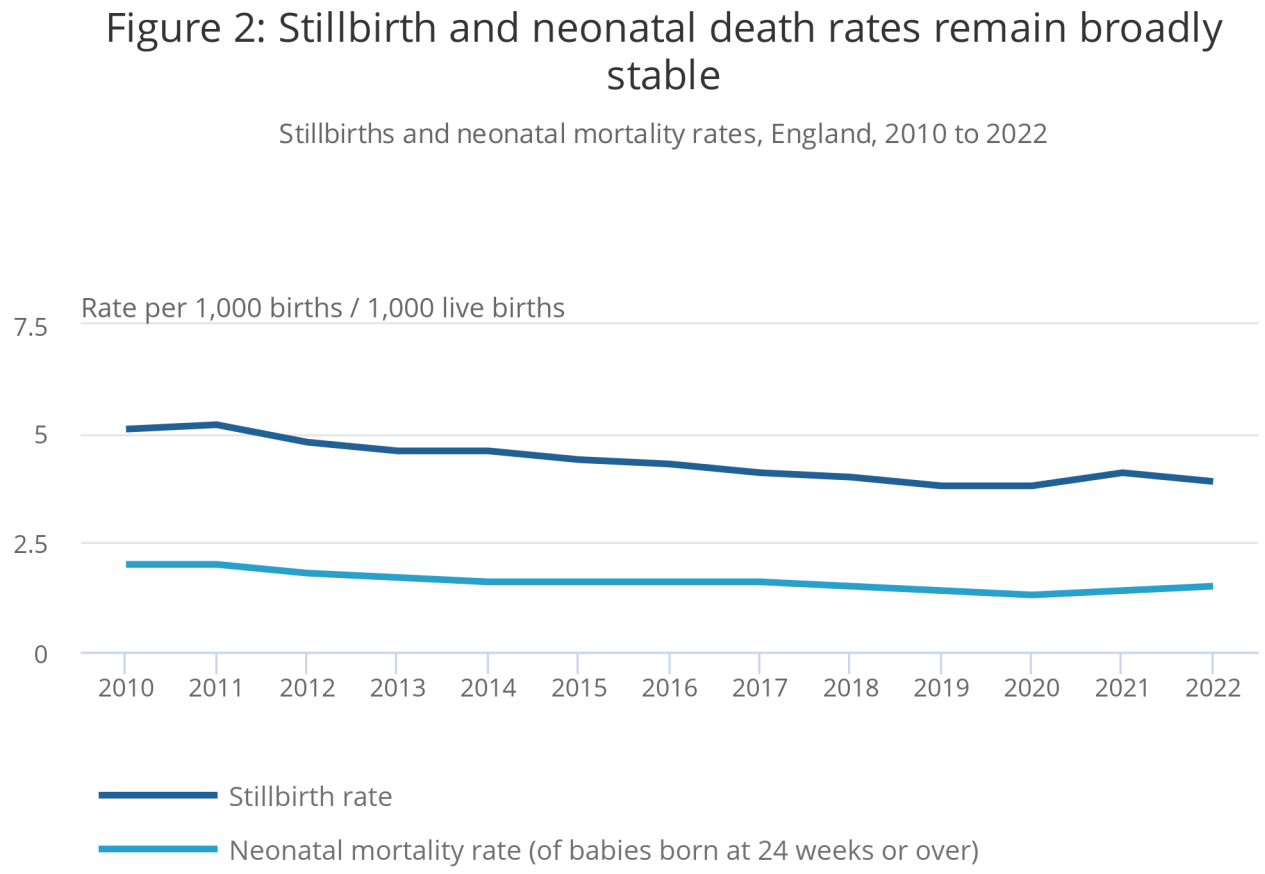
Infant mortality rates within English regions and Wales are more variable than the rate for England and Wales combined, because there are fewer births and deaths recorded in each area. As a result, they are less reliable at describing trends than the combined England and Wales rate.

3 . Stillbirths and neonatal deaths in England

In 2022, the neonatal mortality rate in England was 1.5 deaths per 1,000 live births (see Figure 2 and Table 22 of our accompanying dataset). In 2022, there were 3.9 stillbirths per 1,000 births in England (see Figure 2 and Table 21 of our accompanying dataset).

Figure 2: Stillbirth and neonatal death rates remain broadly stable

Stillbirths and neonatal mortality rates, England, 2010 to 2022



Source: Child and infant mortality in England and Wales: 2022, from the Office for National Statistics

Notes:

1. Stillbirth data in this chart refer to stillborn babies born at 24 weeks and over.
2. Neonatal death data in this chart refer to babies who were born alive at 24 weeks and over, and died within 28 days of birth.

In Wales, the stillbirth rate was 4.4 deaths per 1,000 births. The neonatal mortality rates were 2.7 per 1,000 live births for infants of all gestations, and 1.6 per 1,000 live births for infants born at 24 weeks or over (see Table 26 of our accompanying dataset).

4 . Neonatal and infant mortality risk factors

Gestational age

In 2022, the overall neonatal mortality rate in England and Wales was 2.9 deaths per 1,000 live births, increasing from 2.7 deaths per 1,000 births in 2021. The neonatal mortality rate is higher among infants of shorter gestational ages, as premature birth increases the risk of serious health complications.

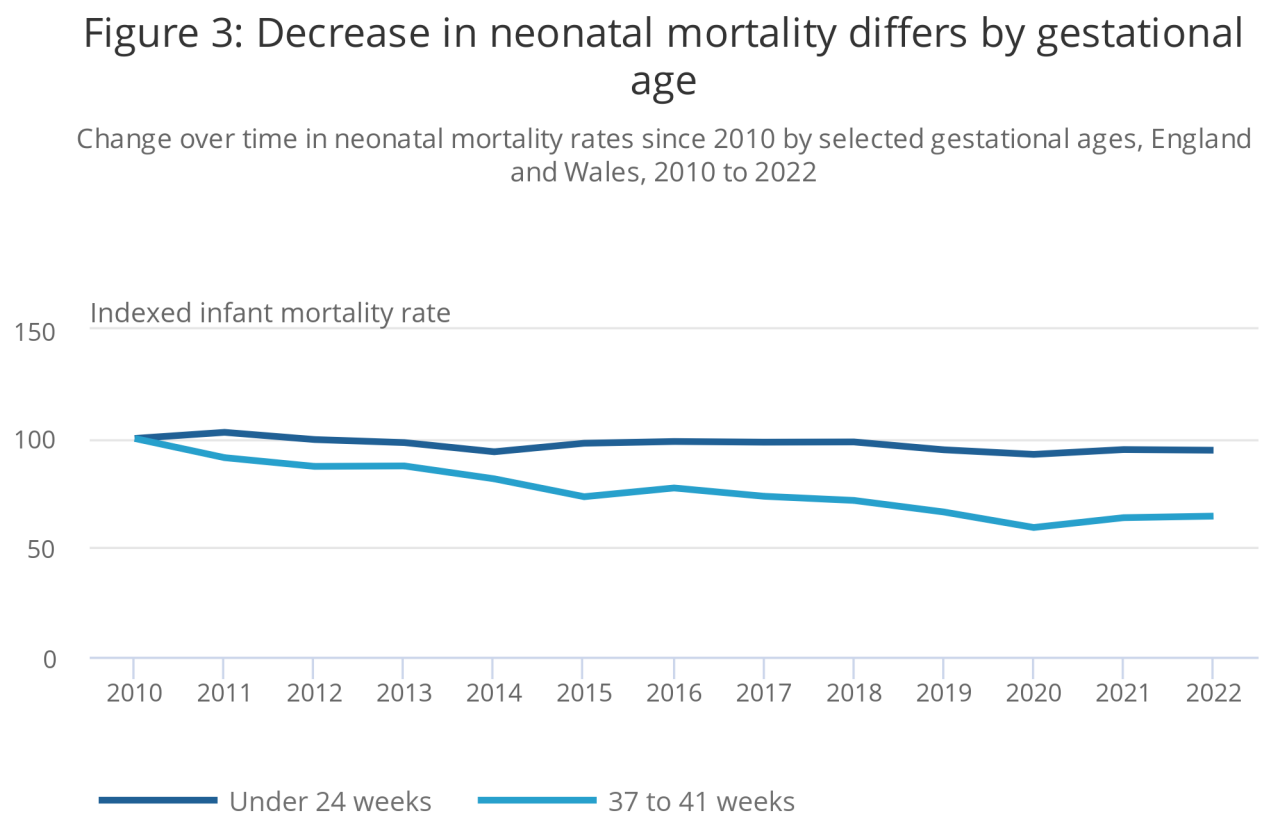
The neonatal mortality rate among infants born before 24 weeks' gestation was 778.6 deaths per 1,000 live births in 2022, decreasing to 0.5 deaths per 1,000 live births for infants born between 37 and 41 completed weeks of gestation.

Although representing only 0.1% of births, infants born before 24 weeks' gestation accounted for 29.5% of neonatal deaths in 2022.

The improvement in overall neonatal mortality rate since 2010 has not been consistent between gestational age groups. For infants born between 37 and 41 completed weeks of gestation, the neonatal mortality rate has fallen by approximately one-third (35.6%), while the neonatal mortality rate for infants born before 24 weeks' gestation has only fallen by 5.4% (Figure 3).

Figure 3: Decrease in neonatal mortality differs by gestational age

Change over time in neonatal mortality rates since 2010 by selected gestational ages, England and Wales, 2010 to 2022



Source: Child and infant mortality in England and Wales: 2022, from the Office for National Statistics

Cause of death

Congenital malformations, deformations and chromosomal abnormalities continued to be the leading cause of death in 2022 among children aged 28 days to 15 years (17.7%), followed by neoplasms (14.7%) (see Table 8 of our accompanying dataset).

Coronavirus (COVID-19) appeared on 44 (2.7%) death certificates of children aged 28 days to 15 years, a small reduction from 2.9% in 2021. Of these 44 death certificates, 26 cited COVID-19 as the underlying cause of death.

Immaturity-related conditions accounted for 51.2% of neonatal deaths, with congenital anomalies and antepartum infections together accounting for another 41.6%.

Some mortality statistics on deaths due to and involving COVID-19 may differ because of being based on the number of deaths registered in a reference period, rather than when they occurred. See, for example, our Single year of age and average age of death of people whose death was due to or involved COVID-19 dataset.

Birthweight

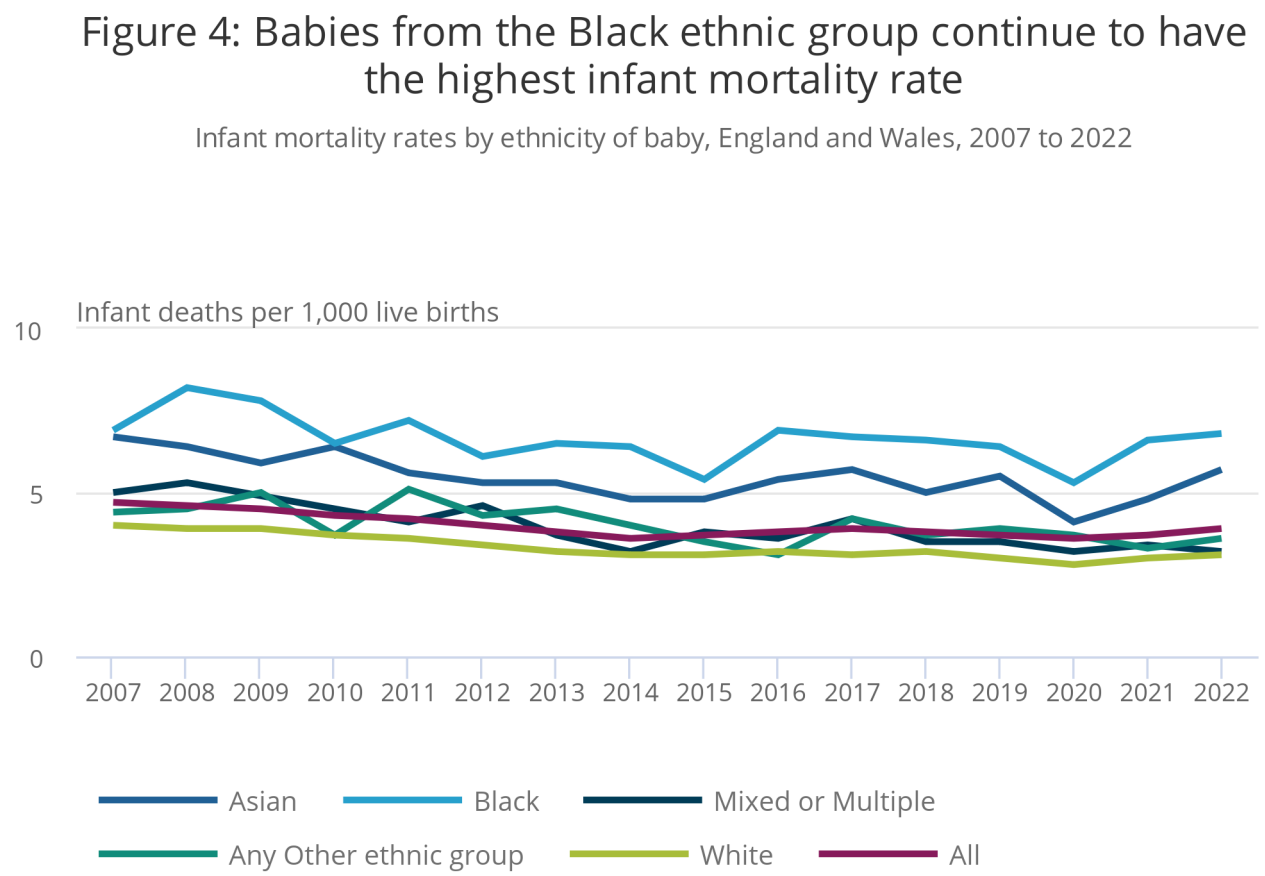
Low birthweight infants, weighing less than 2,500 grammes, had an infant mortality rate of 29.9 deaths per 1,000 live births in 2022, a decrease from 30.2 deaths per 1,000 live births in 2021. Normal birthweight infants, weighing 2,500 grammes or over, had an infant mortality rate of 0.8 deaths per 1,000 live births. This is consistent with the 2021 rate (see Table 9 of our accompanying dataset).

Ethnicity

Infants from the Black ethnic group continued to have the highest rate of infant mortality in 2022, followed by the Asian ethnic group (see Table 18 of our accompanying dataset). For both groups, the infant mortality rates have increased in comparison with 2020 and 2021 (Figure 4). However, small numbers of births and deaths in some ethnic groups can cause larger fluctuations over time.

Figure 4: Babies from the Black ethnic group continue to have the highest infant mortality rate

Infant mortality rates by ethnicity of baby, England and Wales, 2007 to 2022



Source: Child and infant mortality in England and Wales: 2022, from the Office for National Statistics

Maternal age

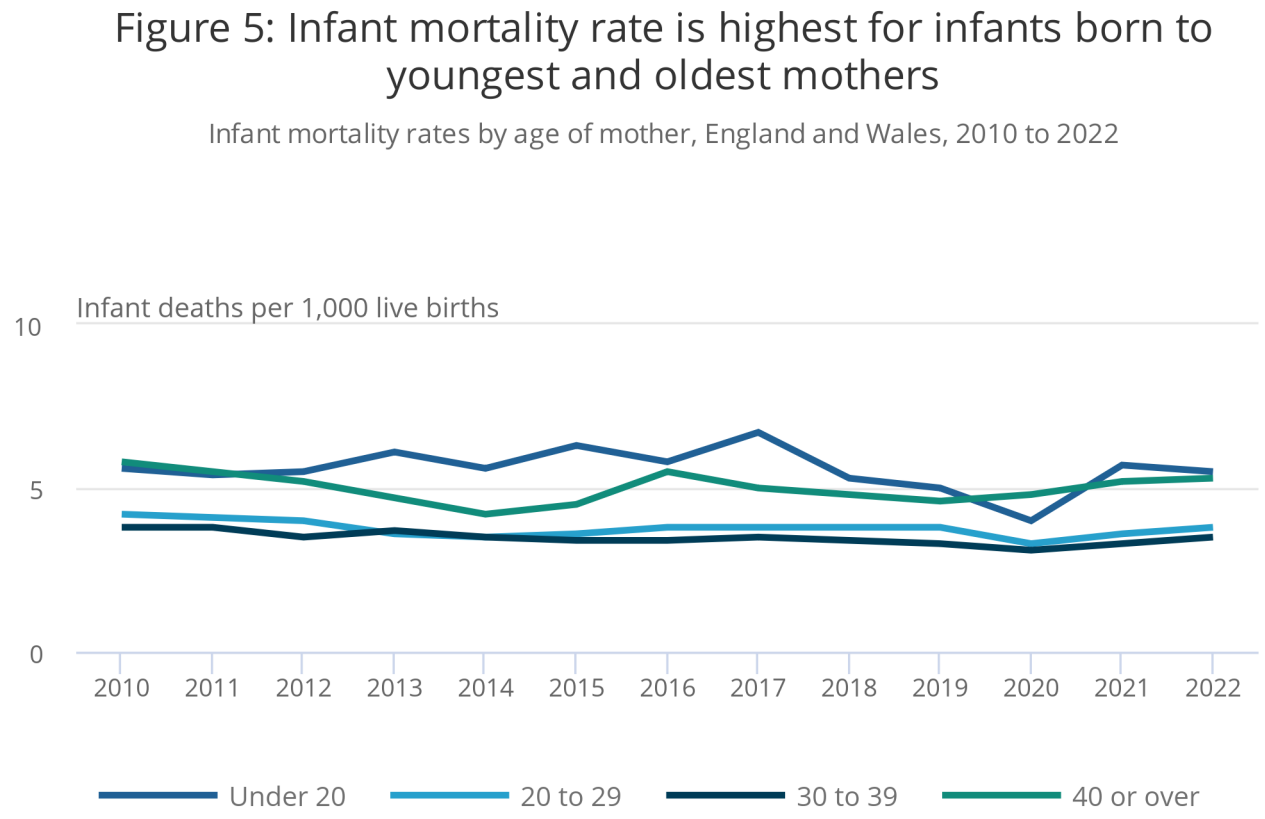
Infants born to mothers aged under 20 years, or mothers aged 40 years and over consistently have a higher mortality risk than infants born to mothers in their twenties or thirties (Figure 5).

There were 5.5 infant deaths per 1,000 live births to mothers aged under 20 years, and 5.3 infant deaths per 1,000 live births to mothers aged 40 years and over, in 2022.

Where mothers are aged between 20 and 39 years, this risk is consistently lower, and in 2022, infants born to mothers aged between 30 and 39 years had the lowest risk of infant mortality, at 3.5 deaths per 1,000 live births (see Table 10 of our accompanying dataset).

Figure 5: Infant mortality rate is highest for infants born to youngest and oldest mothers

Infant mortality rates by age of mother, England and Wales, 2010 to 2022



Source: Child and infant mortality in England and Wales: 2022, from the Office for National Statistics

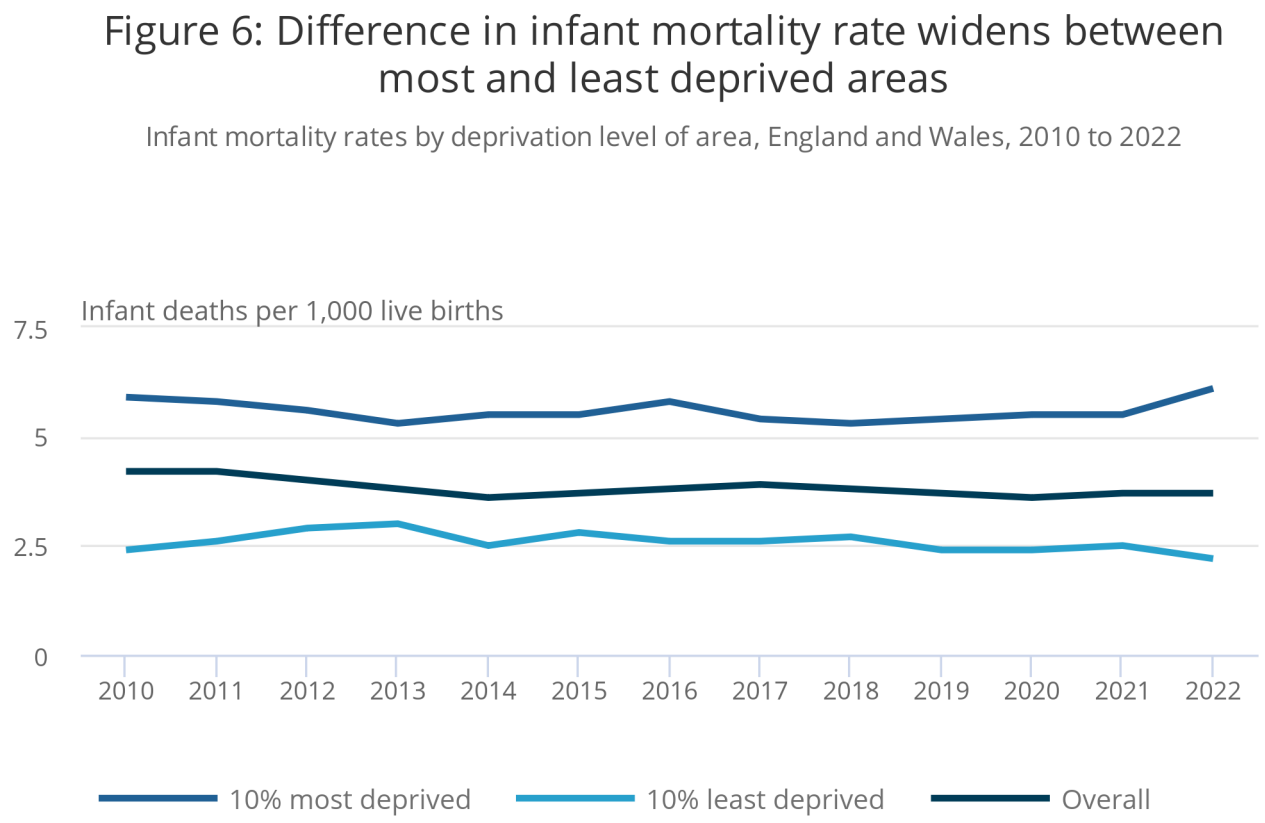
Deprivation

Higher levels of deprivation continued to be associated with higher infant mortality rates in 2022. At 6.1 deaths per 1,000 live births, infants from the 10% most deprived Lower-layer Super Output Areas (LSOAs) in England had higher infant mortality rates compared with infants from the 10% least deprived LSOAs, with 2.2 deaths per 1,000 live births (Figure 6) (see Table 21 of our accompanying dataset).

Additionally, infants in England and Wales whose parents' highest socio-economic classification was "routine occupations", had higher mortality rates compared with infants with a parent from higher managerial, administrative and professional occupations. See Table 12 of our accompanying dataset, and Section 7 of our National Statistics Socio-economic classification (NS-SEC) methodology for class definitions.

Figure 6: Difference in infant mortality rate widens between most and least deprived areas

Infant mortality rates by deprivation level of area, England and Wales, 2010 to 2022



Source: Child and infant mortality in England and Wales: 2022, from the Office for National Statistics

Equivalent trends in Wales are more difficult to assess because of fewer infant deaths and resultant fluctuation.

Other known risk factors

There are a range of other risk factors associated with infant mortality that we are unable to assess from the data we currently have available. For more information, see the Child Health in 2030 in England report from the Royal College of Paediatrics and Child Health (RCPCH) (PDF, 1.05MB). Examples of these include maternal health factors such as smoking, alcohol consumption and obesity.

5 . Child and infant mortality data

Child mortality (death cohort) tables in England and Wales
Dataset | Released 31 May 2024
Live births, stillbirths and linked infant deaths occurring annually in England and Wales, and associated risk factors.

Infant mortality (birth cohort) tables in England and Wales
Dataset | Released 31 May 2024
Annual statistics on births and infant deaths based on infants born in a calendar year that died before their first birthday linked to their corresponding birth notification and their corresponding death registration.

6 . Glossary

Child

Aged 1 to 15 years.

Child mortality rate

The number of child deaths, per 100,000 live births.

Early neonatal

The death of an infant aged under 7 days.

Infant

The death of those aged under 1 year.

Infant mortality rate

The number of infant deaths, per 1,000 live births.

Neonatal

The death of an infant aged under 28 days.

Perinatal

A baby who was recorded as either a stillbirth or early neonatal death.

Postneonatal

The death of an infant aged 28 days to 1 year.

Stillbirth

A baby born after 24 or more weeks' completed gestation and which did not, at any time, breathe or show signs of life.

7 . Measuring the data

Child and infant mortality data are based on deaths occurring in 2022. In normal circumstances, deaths of all ages are typically registered within five days. In the case of infant deaths, this delay can be much longer if the death requires coroner investigation. Consequently, our annual death cohort for infant deaths occurring in 2022 includes infant deaths registered before 3 October 2023.

Coronavirus (COVID-19) and child and infant mortality statistics

Birth registrations and infant death registrations may have been delayed during the COVID-19 pandemic. This may have reduced the likelihood of infant death registrations being received in time to be included in this release, making them less likely to be linked with a birth registration and notification.

Linking infant deaths to their birth registration and birth notification improves our understanding of the main characteristics of the baby and the baby's parents. Before 2020, over 95% of infant deaths were successfully linked to their birth registration and birth notification. In 2020, the linkage rate fell to 90.5%, recovering to 94.9% in 2021, and to 97.7% in 2022. More information can be found in our User guide to child and infant mortality statistics .

8 . Strengths and limitations

Quality

More information on the strengths, limitations and accuracy of the data is available in our Child and infant mortality statistics Quality and Methodology Information (QMI).

Our User guide to child and infant mortality statistics provides further information on data quality, legislation, and procedures relating to mortality and cause of death coding. It also includes a full glossary of terms.

Accredited official statistics

These accredited official statistics were independently reviewed by the Office for Statistics Regulation in 2012. They comply with the standards of trustworthiness, quality and value in the Code of Practice for Statistics (opens in a new tab) and should be labelled "Accredited official statistics".

For more on accredited official statistics, read the Office for Statistics Regulation guidance.

9 . Related links

Registrar General Annual Report 2022
Report | Released 26 October 2023
Data for Northern Ireland on stillbirths and infant deaths, based on registrations, from the Northern Ireland Statistics and Research Agency (NISRA).

Vital Events Reference Tables 2022
Tables | Released 20 July 2023
Data for Scotland on stillbirths and infant deaths based on registrations, from the National Records of Scotland (NRS).

Vital statistics in the UK: births, deaths and marriages
Dataset | Released 24 February 2023
Annual UK and constituent country figures for births, deaths, marriages, divorces, civil partnerships and civil partnership dissolutions.

Births in England and Wales: 2022 (refreshed populations)
Bulletin | Released 23 February 2024
Annual summary statistics of live births, stillbirths and fertility rates.

Deaths registered in England Wales: 2022
Bulletin | Released 15 December 2023
Registered deaths by age, sex, selected underlying causes of death and the leading causes of death. Contains death rates and death registrations by area of residence and single year of age.

Unexplained deaths in infancy, England and Wales: 2021
Bulletin | Released 29 November 2023
Annual data on sudden infant deaths in England and Wales and infant deaths for which the cause remained unascertained after a full investigation.

10 . Cite this statistical bulletin

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