

Statistical bulletin

Child and infant mortality in England and Wales: 2018

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



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1. Main points

- In 2018, the infant mortality rate decreased to 3.8 deaths per 1,000 live births in England and Wales, compared with 3.9 in 2017; this is above the lowest ever rate of 3.6 recorded in 2014.
- There were 2,488 infant deaths (aged under 1 year) that occurred in England and Wales in 2018; as a result of falling birth rates in recent years this is the lowest number since records began in 1980.
- The infant mortality rate has decreased the most for mothers aged 40 years or over, from 5.8 deaths per 1,000 live births in 2010 to 4.8 deaths per 1,000 live births in 2018.
- In 2018, the neonatal mortality rate remained the same as in 2017, at 2.8 deaths per 1,000 live births in England and Wales.
- The recent increase in the proportion of live births under 24 weeks completed gestation has contributed to a recent increase in the neonatal mortality rate, from 2.5 deaths per 1,000 live births in 2014 to 2.8 deaths in 2017.

Statistician's comment

"Today's figures show a small but welcome decrease in the infant mortality rate in England and Wales in 2018. This follows consecutive rises between 2014 and 2017. But the neonatal mortality rate remained at the same level.

"The earlier a baby is born, in terms of completed weeks of pregnancy, the higher the risk of infant death. One factor affecting the neonatal mortality rate is the number of babies born before 24 weeks gestation. Our latest analysis shows this number has increased in recent years. Taking a closer look at these trends is increasingly relevant for policy-makers and health practitioners in order to monitor progress against the government ambition to halve 2010's stillbirth and neonatal mortality rates by 2025."

Gemma Quayle, Vital Statistics Outputs Branch, Office for National Statistics Follow Vital Statistics Outputs Branch on Twitter <u>@NickStripe_ONS</u>

2. Overall trend for infant mortality rates

A total of 2,488 infant deaths occurred in England and Wales in 2018. As expected, given the <u>falling birth rate in</u> <u>England and Wales</u>, this is the lowest number on record. The infant mortality rate also decreased from 3.9 deaths per 1,000 live births in 2017 to 3.8 deaths per 1,000 live births in 2018 (Figure 1). Although this decrease is not statistically significant, it is welcome following <u>three consecutive increases between 2014 and 2017</u>, as reported last year.

The overall decline in infant mortality rates in recent decades is likely to reflect general improvements in healthcare and more specific improvements in midwifery and neonatal intensive care.

Figure 1: Overall decline in infant mortality rate since 1980

Infant mortality rate for England and Wales, 1980 to 2018

Figure 1: Overall decline in infant mortality rate since 1980

Infant mortality rate for England and Wales, 1980 to 2018



Source: Office for National Statistics - Child and Infant Mortality in England and Wales

Notes:

- 1. Deaths occurring in a calendar year.
- 2. Infant deaths of those aged under 1 year.
- 3. Rates Infant deaths per 1,000 live births.

3. Halving stillbirth and neonatal mortality rates by 2025

There are <u>government strategies</u> and <u>campaigns</u> in England to halve stillbirth and neonatal mortality rates by 2025 compared with 2010. Health is a devolved matter meaning it is the responsibility of the individual countries of the UK, which is why this ambition is only for England.

In 2018, the stillbirth rate in England reached its lowest level on record, at 4.0 stillbirths per 1,000 births, a decrease from 5.1 stillbirths in 2010. Achieving the ambition would mean reducing the stillbirth rate to 2.6 stillbirths per 1,000 births by 2025. If the total number of births were to remain constant until 2025, this would require the number of stillbirths to fall from 2,520 in 2018 to 1,633 in 2025, a decrease of 887 (Figure 2).

The neonatal mortality rate in England in 2018 was 2.8 deaths per 1,000 live births. This is lower than the rate of 2.9 in 2010, but higher than the all-time low of 2.5 in 2014. Achieving the ambition would mean reducing the neonatal mortality rate to 1.5 deaths per 1,000 live births by 2025. If the number of live births were to remain constant until 2025, this would require the number of neonatal deaths to fall from 1,742 in 2018 to 938 in 2025, a decrease of 804 (Figure 2).

Progress against this ambition is tracked using neonatal mortality rates based on the year the death was registered, which are the first available figures for any given year. The figures presented in this release are based on the year the death occurred (death cohort) or the year the birth occurred (birth cohort). We recommend these as the best figures for monitoring changes in trends as they include more late registrations and give a more accurate picture of what actually happened in any given year. However, <u>registration and occurrence-based</u> figures for any given year are very similar.

Figure 2: Stillbirth rates continue to decline but neonatal mortality rate does not change in 2018

Progress against the ambition to halve stillbirths and neonatal mortality in England, 2010 to 2018

Notes:

- 1. Deaths occurring in a calendar year.
- 2. Neonatal deaths of those aged under 28 days.
- 3. Rates Stillbirths per 1,000 total births. Neonatal per 1,000 live births.
- 4. Stillbirth a child which has issued forth from its mother after the 24th week of pregnancy, and which did not at any time after becoming completely expelled from its mother breathe or show other signs of life.
- 5. The number of fewer stillbirths and neonatal deaths required to meet the ambition is only true if the number of live births does not change between 2018 and 2025.

Download the data

For comparison, the stillbirth rate in Wales in 2018 was slightly higher, at 4.4 stillbirths per 1,000 births, and the neonatal mortality rate was slightly lower, at 2.5 deaths per 1,000 live births.

4 . Neonatal causes of death

Understanding causes of death can help to inform <u>strategies for reducing neonatal deaths</u> in line with the government's ambition.

The Office for National Statistics (ONS) has developed a hierarchical classification, which allows neonatal deaths to be assigned to a category, based on the likely timing of damage leading to death. These cause groups were revised in 2014 and only figures since then are comparable with the new 2018 figures.

Almost half of neonatal deaths in England and Wales are caused by immaturity-related conditions (such as respiratory and cardiovascular disorders). Congenital anomalies (such as heart and neural tube defects) account for approximately 30% of the total, followed by antepartum infections, which account for approximately 10% (Figure 3). Other neonatal deaths result from causes during or shortly after labour (intrapartum), or in the postnatal period.

In England, there were 1.4 neonatal deaths per 1,000 live births caused by immaturity-related conditions alone in 2018. This is just below the overall neonatal mortality rate for all causes that is required to achieve the ambition.

Figure 3: Immaturity-related conditions remain the most common cause of neonatal deaths since 2014

Percentage of neonatal deaths caused by immaturity-related conditions, congenital anomalies and antepartum infections, England and Wales, 2014 to 2018

Figure 3: Immaturity-related conditions remain the most common cause of neonatal deaths since 2014

Percentage of neonatal deaths caused by immaturity-related conditions, congenital anomalies and antepartum infections, England and Wales, 2014 to 2018



Source: Office for National Statistics - Child and Infant Mortality in England and Wales

Notes:

- 1. Deaths occurring in a calendar year.
- 2. Neonatal deaths of those aged under 28 days.

5 . Neonatal deaths and gestation length

The analysis in this section is based on all babies born in the 2017 calendar year where the baby died before their first birthday (either in 2017 or 2018). This is referred to as the birth cohort. This dataset includes pregnancy gestation length.

Since our records began in 2006, the neonatal mortality rate decreased from 3.4 to 2.5 deaths per 1,000 live births in 2014. The rate then increased to 2.7 deaths per 1,000 live births in 2016 and remained at this level in 2017 (Figure 4). This is in contrast with the pattern in stillbirth rates in England and Wales, which decreased from 4.7 to 4.2 stillbirths per 1,000 births between 2014 and 2017.

One factor contributing to the trend in the neonatal mortality rate has been a small increase in the number of babies born alive at under 24 weeks gestation, despite a decrease in the overall number of births. Since 2010, the proportion of all live births born under 24 weeks gestation increased from 0.10% to 0.13%.

A large proportion of these extremely premature babies only survive a short time. Two-thirds of babies born in 2017 at under 24 weeks gestation died on the same day that they were born. And over 80% born under 24 weeks did not survive the neonatal period. This proportion has remained similar since 2010.

To assess how far the increase in live births under 24 weeks has affected neonatal mortality, Figure 4 compares the overall neonatal mortality rate with rates that only include babies born at 24 weeks or over. For this gestational age group, the neonatal mortality rate has not increased since 2014, indicating that the recent increase in the overall rate can be attributed to the under 24 weeks group. However, even for the 24 weeks or over group, the neonatal mortality rate has remained stable, rather than continuing to fall, as it had done before 2014.

Figure 4: Increase in the overall neonatal mortality rate since 2014

Neonatal mortality rate, England and Wales, 2006 to 2017

Figure 4: Increase in the overall neonatal mortality rate since 2014

Neonatal mortality rate, England and Wales, 2006 to 2017



Source: Office for National Statistics - Child and Infant Mortality in England and Wales

Notes:

- 1. Deaths occurring in a calendar year.
- 2. Neonatal deaths of those aged under 28 days.
- 3. Rates Neonatal deaths per 1,000 live births.

Users may be aware that <u>Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across</u> <u>the UK (MBRRACE-UK)</u> presents figures on infant mortality that exclude births before 24 weeks gestational age, and therefore, the trend presented in this bulletin for 24 weeks and over only is more comparable with their figures. However, the figures will still not fully align because of other methodological differences. Full information on the differences between the Office for National Statistics (ONS) and MBRRACE-UK data can be found in Section 10 of this release.

Another way of looking at this trend is by exploring the proportion of neonatal deaths that are accounted for by babies born under or over 24 weeks gestation (Figure 5). This provides further indication that the recent increase in the overall neonatal mortality rate is being driven by an increase in the number of live births of babies born under 24 weeks gestation.

One potential explanation for these trends is that <u>more very pre-term babies are being classified by health</u> <u>practitioners as live births</u>, whereas in the past they may have been classified as a stillbirth (if 24 weeks or over) or a late fetal loss (if under 24 weeks). <u>MBRRACE-UK</u> is currently developing <u>guidance for doctors and midwives</u> <u>for assessing signs of life for births under 24 weeks</u>, where active survival-focused care may not be appropriate.

Figure 5: The proportion of neonatal deaths to babies born at under 24 weeks completed gestation has increased since 2014

Percentage of neonatal deaths by gestational age groups for England and Wales, 2006 to 2017

Figure 5: The proportion of neonatal deaths to babies born at under 24 weeks completed gestation has increased since 2014

Percentage of neonatal deaths by gestational age groups for England and Wales, 2006 to 2017



Source: Office for National Statistics - Child and Infant Mortality in England and Wales

Notes:

- 1. Deaths of babies born in a calendar year.
- 2. Neonatal deaths of those aged under 28 days.
- 3. Percentages for under 24 weeks and 24 weeks or over will not sum to 100 because there are some neonatal deaths where the gestational age is not known.

Length of life

The age of babies who died within the neonatal period can be broken down further by how long the baby lived. If there has been any change in clinical practice affecting whether a birth is recorded as a live birth or as a stillbirth (or late fetal loss before 24 weeks), this is likely to affect babies who survived the shortest time.

The number of neonatal deaths where the baby lived under 1 hour tends to fluctuate from year to year. Since our records began in 2006, generally a quarter of neonatal deaths of babies born under 24 weeks each year involve babies who lived less than 1 hour (ranging between 22% and 29%). This compares with around 6 to 8% of neonatal deaths where babies were born at 24 weeks or over.

6. Inequalities

Index of Multiple Deprivation

The Index of Multiple Deprivation (IMD) is an overall measure of deprivation based on factors such as income, employment, health, education, crime, the living environment and access to housing within an area. There are different measurements for <u>England</u> and <u>Wales</u>, which are not directly comparable.

Infant mortality rates are significantly higher in the 10% most deprived areas compared with the 10% least deprived. The gap in the infant mortality rate between the most and least deprived areas in England has narrowed slightly since 2010 (Figure 6).

Figure 6: Slight narrowing in the infant mortality rate between most and least deprived areas in England since 2010

Infant mortality rate by Index of Multiple Deprivation, England, 2010 to 2018

Figure 6: Slight narrowing in the infant mortality rate between most and least deprived areas in England since 2010

Infant mortality rate by Index of Multiple Deprivation, England, 2010 to 2018



Source: Office for National Statistics - Child and Infant Mortality in England and Wales

Notes:

- 1. Infant deaths of those aged under 1 year.
- 2. Index of Multiple Deprivation (IMD) decile range from 1 to 10, with 1 being the most deprived and 10 being the least deprived.
- 3. For the years 2010 to 2013, the <u>English indices of deprivation 2010</u> have been used. For the years 2014 to 2017, the <u>English indices of deprivation 2015</u> have been used, whilst the <u>English indices of deprivation</u> 2019 have been used for 2018. These are very similar but not directly comparable.

In Wales, the infant mortality rate was also highest in the 10% most deprived areas, at 5.7 deaths per 1,000 live births in 2018, whereas it was lowest in the less deprived areas. It is difficult to detect a clear trend since 2010 because the number of infant deaths in Wales is relatively small. Rates are therefore subject to random fluctuations and are consequently less robust.

Parents' occupation

The <u>National Statistics Socio-Economic Classification (NS-SEC)</u> provides an indication of socio-economic position based on occupation.

The infant mortality rate for routine and manual occupation NS-SEC groups was highest at 4.6 deaths per 1,000 live births in 2018. It was lowest in the higher managerial, administrative and professional occupation group at 2.9 deaths per 1,000 live births. The gap in the infant mortality rate between these two groups has not narrowed or widened since 2011, despite some fluctuations (Figure 7).

Figure 7: Increase in infant mortality rates for higher managerial, administrative and professional occupations NS-SEC groups since 2015

Infant mortality rate by grouped National Statistics Socio-Economic Classification (NS-SEC) classes for England and Wales, 2011 to 2018

Figure 7: Increase in infant mortality rates for higher managerial, administrative and professional occupations NS-SEC groups since 2015

Infant mortality rate by grouped National Statistics Socio-Economic Classification (NS-SEC) classes for England and Wales, 2011 to 2018



Source: Office for National Statistics - Child and Infant Mortality in England and Wales

Notes:

- 1. We have used a combined method for reporting NS-SEC for birth statistics (using the most advantaged NS-SEC of either parent and creating a household-level classification rather than just using the father's classification).
- In 2011, NS-SEC was rebased on the new Standard Occupational Classification (SOC2010). Compared with the SOC2000 NS-SEC a number of changes have resulted (<u>Rose and Pevalin, 2010</u>), consequently figures for 2011 onwards are not directly comparable with previous years.
- 3. More information about NS-SEC and the three-class grouping can be found <u>here</u>.

Variations in infant mortality by socio-economic classification may be the result of the link between increasing levels of deprivation, risk factors and poorer maternal health, which can ultimately affect infant mortality. Studies have shown that mothers from routine and manual occupations are <u>more likely to smoke before or during</u> <u>pregnancy</u> and are <u>less likely to breastfeed</u>, which can result in poorer immunity and poorer digestive health for the baby.

Ethnicity

The following analysis is based on the 2017 birth cohort. This dataset includes ethnicity as defined by the mother or assessed by the midwife.

The infant mortality rate was highest among babies with a Pakistani ethnicity, at 7.3 deaths per 1,000 live births in 2017, a decrease from 9.4 deaths since records began in 2006. In contrast, the infant mortality rate was lowest among babies born in the White Other ethnic group, at 2.6 deaths per 1,000 live births in 2017, a decrease from 3.2 deaths per 1,000 live births in 2006 (Figure 8).

Since 2006, infant mortality rates have decreased for babies born in all ethnic groups with the exception of Bangladeshi and Indian ethnic groups.

Figure 8: Babies born in the White Other ethnic group continue to have the lowest infant mortality rate

Infant mortality rates by ethnicity in England and Wales, 2017

Figure 8: Babies born in the White Other ethnic group continue to have the lowest infant mortality rate





Source: Office for National Statistics – Child and Infant Mortality in England and Wales

Notes:

- 1. Infant deaths of those aged under 1 year.
- 2. All others Chinese, Other Asian, Other black, Other and all mixed groups.
- 3. Ethnic groups have been ordered by the total number of live births except for the All Other ethnic group, from largest to smallest.

Infant mortality rates for different ethnic groups can also be assessed by cause of death. This analysis is based on a three-year average to increase the reliability of the rates. For most ethnic groups, immaturity-related conditions were the main contributor to the overall infant mortality rate, followed by congenital anomalies. This corresponds to the most common causes of infant deaths among all babies. However, this pattern is reversed for Pakistani and Bangladeshi ethnic groups where more infant deaths were caused by congenital anomalies (Figure 9).

A 2016 report by Public Health England investigated <u>trends in infant mortality in the West Midlands</u> and specifically discussed the risks of congenital anomalies for babies born with a Pakistani ethnicity within consanguineous marriages.

Figure 9: Congenital anomalies most common cause of infant deaths for Pakistani and Bangladeshi ethnic groups

Infant mortality rates by ethnicity and cause for babies born between 2015 and 2017 (three-year average), England and Wales

Figure 9: Congenital anomalies most common cause of infant deaths for Pakistani and Bangladeshi ethnic groups

Infant mortality rates by ethnicity and cause for babies born between 2015 and 2017 (three-year average), England and Wales



Source: Office for National Statistics - Child and Infant Mortality in England and Wales

Notes:

- 1. Infant deaths of those aged under 1 year.
- 2. All others Chinese, Other Asian, Other black, Other and all mixed groups.
- 3. Ethnic groups have been ordered by size of the total infant mortality rate except for the All Other ethnic group, from largest to smallest.

7. Risk factors

Maternal age

Maternal age is a known risk factor for infant mortality. In 2018, the infant mortality rate in England and Wales was highest for mothers aged under 20 years at 5.3 deaths per 1,000 live births, a decrease from 5.6 deaths in 2010. As the number of live births in this age group has dropped by over 50% from 40,591 in 2010 to 18,976 in 2018, this is likely to have had a positive impact on the overall infant mortality rate.

Mothers aged 40 years or over are also considered a high-risk group for infant mortality, with the second-highest infant mortality rate in 2018 (Figure 10). Despite the infant mortality rate being relatively high within this age group, it has decreased the most since 2010, from 5.8 to 4.8 deaths per 1,000 live births. The number of live births has increased by approximately 4% from 27,731 in 2010 to 28,865 in 2018 in this age group. This small increase in births is likely to have a minimal impact on the overall infant mortality rate, especially given this age group has seen the largest decrease in the mortality rate.

In comparison, the infant mortality rate was lowest for mothers aged 30 to 34 years, at 3.1 deaths per 1,000 live births in 2018. This rate has decreased from 3.8 deaths since 2010, a statistically significant decrease.

Figure 10: Decline in infant mortality rate for mothers of all ages since 2010

Infant mortality rate by age of mother in England and Wales, 2010 and 2018

Figure 10: Decline in infant mortality rate for mothers of all ages since 2010

Infant mortality rate by age of mother in England and Wales, 2010 and 2018



7.5 Rate - infant deaths per 1,000 live births

Source: Office for National Statistics - Child and Infant Mortality in England and Wales

Notes:

1. Infant – deaths of those aged under 1 year.

Birthweight

Between 2014 and 2017, the infant mortality rate for low birthweight babies (under 2,500 grams) increased every year. However, the rate saw a non-statistically significant decrease, from 34.7 deaths per 1,000 live births in 2017 to 32.5 deaths per 1,000 live births in 2018.

In contrast, the infant mortality rate for normal birthweight babies (2,500 grams or over) has remained more stable since 2010 (Figure 11).

Figure 11: Recent decline in infant mortality rate for low birthweight babies (under 2,500 grams)

Infant mortality rate by birthweight, England and Wales, 2010 to 2018

Figure 11: Recent decline in infant mortality rate for low birthweight babies (under 2,500 grams)

Infant mortality rate by birthweight, England and Wales, 2010 to 2018



Source: Office for National Statistics - Child and Infant Mortality in England and Wales

Other known risk factors

There are a range of <u>other risk factors (PDF, 1.5MB)</u> associated with infant mortality rates that we are unable to assess from the data we currently have available. Examples of these include maternal health factors such as smoking, alcohol consumption and obesity.

8. Child and infant mortality data

Child mortality (death cohort) tables in England and Wales

Dataset | Released 20 February 2020

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 20 February 2020

Births and infant deaths based on babies born in a calendar year that died before their first birthday linked to their corresponding birth notification and their corresponding death registration.

9. Glossary

Stillbirth

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

Early neonatal

The death of an infant aged under 7 days.

Perinatal

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

Neonatal

The death of an infant aged under 28 days.

Postneonatal

The death of an infant aged between 28 days and 1 year.

Infant

The death of those aged under 1 year.

Childhood

The death of those aged between 1 and 15 years.

10 . Measuring the data

Differences between ONS and MBRRACE-UK figures

Office for National Statistics (ONS) figures on perinatal mortality are based on all births and deaths registered via the General Register Office regardless of gestational age, and all stillbirths registered at 24 weeks or more gestation in line with the <u>Stillbirth (Definition) Act 1992</u>.

Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK (MBRRACE-UK) figures on stillbirth and neonatal mortality rates exclude births below 24+0 weeks gestational age and also exclude births that resulted in a death following termination of pregnancy. MBRRACE-UK exclude these births and deaths for the following reasons.

- 1. Using this definition is consistent with the gestational age cut-off for stillbirths. MBRRACE-UK's main focus is reporting on extended perinatal deaths (stillbirth and neonatal death), so it seems logical to use the same gestational age threshold used to legally define stillbirths in the UK for early neonatal deaths, that is, 24+0 weeks.
- 2. As babies born showing no signs of life before 24+0 weeks (late fetal losses) are not legally required to be registered in the UK, MBRRACE-UK cannot validate ascertainment using registration data that the ONS share with them.
- Historically there has been wide variation in whether NHS trusts and health boards report births before 24+0 weeks as a late fetal loss (that will not be reflected in ONS birth or death registration figures) or as live births resulting in neonatal deaths (registered as both a birth and a death). This variation in registration practice resulted in MBRRACE-UK's decision to focus on births at 24 weeks gestational age or above, which has been the case since their first <u>Perinatal Surveillance Report reporting deaths in 2013 (PDF, 22.9</u> <u>MB</u>) (see Chapter 5).
- 4. MBRRACE-UK mortality rates exclude stillbirths and neonatal deaths following termination of pregnancy to minimise the impact, because of policy differences in the provision and timing of antenatal screening and population differences in the uptake of Termination of Pregnancy due to Fetal Anomaly (TOPFAs) between organisations.

11 . Strengths and limitations

National Statistics status for Child and infant mortality

National Statistics status means that our statistics meet the highest standards of trustworthiness, quality and public value, and it is our responsibility to maintain compliance with these standards.

Date of most recent <u>full assessment (PDF, 152KB)</u>: May 2012.

Most recent <u>compliance check (PDF, 152KB)</u>, which confirms National Statistics status: May 2012. Improvements since last review:

- ran a user consultation in 2017 to improve presentation and to meet our user needs, details of which are available in the <u>response</u> to the consultation
- updated our analysis on the impact of registration delays on mortality statistics
- updated our policy for protecting confidentiality in tables of births and deaths statistics

Child mortality Quality and Methodology Information

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the <u>Child and infant mortality QMI</u>.

Our <u>User guide to child and infant mortality statistics</u> provides further information on data quality, legislation and procedures relating to mortality and includes a glossary of terms.

Linkage of births and deaths

Linking infant deaths to their corresponding birth registration improves our understanding of the main characteristics of the baby and the baby's parents. These include the baby's birthweight, mother's age, mother's country of birth, parents' socioeconomic classification and the number of previous children.

In 2018, 97.5% of infant deaths in England and Wales were successfully linked to their birth registration record. The linkage rate has remained consistent since the linking exercise began. The main reasons for an infant death not being linked are either: a birth registration record cannot be found, or the birth was registered outside England and Wales.

Coding the underlying cause of death

Deaths are cause coded using the World Health Organization's (WHO) International Classification of Diseases (ICD). Deaths are coded to <u>ICD-10</u> using <u>IRIS</u> software (version 2013). Cause of death reported here represents the final underlying cause of death for ages 28 days and over. This takes account of additional information received from medical practitioners or coroners after the death has been registered.

In England and Wales, stillbirths and neonatal deaths are registered using a special death certificate, which enables reporting of relevant diseases or conditions in both the infant and the mother. The Office for National Statistics (ONS) has developed a hierarchical classification system in ICD-10 to produce broad cause groups that enable direct comparison of neonatal and postneonatal deaths. More information on neonatal cause of death certificates can be found in the <u>User guide to child and infant mortality statistics</u>.

12. Related links

Stillbirths and Infant Deaths Section of the <u>Registrar General Annual Report</u> Bulletin | Released 6 November 2019 Data for Northern Ireland on stillbirths and infant deaths, based on registrations.

Vital Events Reference Tables 2017

Tables | Released 2018 Data for Scotland on stillbirths and infant deaths based on registrations.

Vital statistics in the UK: births, deaths and marriages

Dataset | Released 22 November 2019 The number of infant deaths and rates (based on deaths registered in a calendar year) for the UK and constituent countries.

Births in England and Wales Bulletin | Released 1 August 2019 Live births, stillbirths and the intensity of childbearing, measured by the total fertility rate.

Birth characteristics in England and Wales

Bulletin | Released 6 December 2019 Annual live births by sex, ethnicity and month, maternities by place of birth and with multiple births, and stillbirths by age of parents and calendar quarter.

Deaths registered in England and Wales

Bulletin | Released 6 August 2019 Registered deaths by age, sex, selected underlying causes of death and the leading causes of death.

Unexplained deaths in infancy, England and Wales

Bulletin | Released 19 August 2019

Includes both sudden infant deaths and deaths for which the cause remained unknown or unascertained.