

Statistical bulletin

Unexplained deaths in infancy, England and Wales: 2019

Annual data on sudden infant deaths in England and Wales and infant deaths for which the cause remained unascertained after a full investigation, with associated risk factors.

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1 . Main points

- There were 170 unexplained infant deaths accounting for 7.1% of all infant deaths in England and Wales in 2019.
- The unexplained infant mortality rate had been decreasing since records began in 2004 but has levelled out since 2014 and was 0.27 deaths per 1,000 live births in 2019.
- In 2019, [sudden infant deaths](#) accounted for 59.4% of unexplained deaths.
- Unexplained infant deaths are more likely to occur in males, during the [postneonatal](#) period, and in low birthweight babies.
- Mothers aged under 20 are over five times more likely to experience unexplained infant deaths than mothers aged over 40.
- The unexplained infant mortality rate for babies of mothers born in the UK is more than double the rate for babies of mothers born outside of the UK.

There is a strong possibility that the coronavirus pandemic has caused delays to coroner proceedings and so some deaths that occurred in 2019 may not be included in the provisional 2019 data. For more information, please see section 8: [Strengths and limitations](#).

2 . Trends in unexplained infant deaths in England and Wales

In 2019, there were 170 unexplained infant deaths, a notable decrease on the previous year (213 deaths). This could be because the coronavirus (COVID-19) pandemic has caused more registration delays than usual; final data will be published next year.

All infant deaths have also declined since 2004 from 3,218 deaths to 2,390 infant deaths in 2019. Unexplained infant deaths accounted for 7.1% of all infant deaths in 2019.

The unexplained infant mortality rate is a better measure for monitoring change over time than the actual number of unexplained deaths. This is because rates account for the number of live births each year.

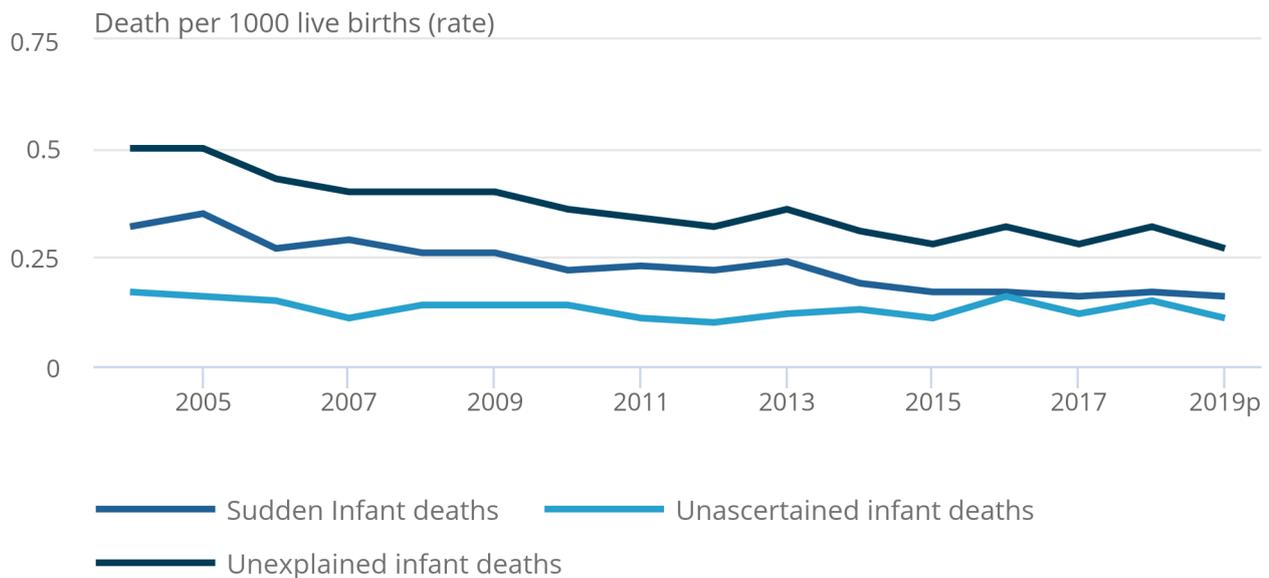
The unexplained infant mortality rate decreased from 0.50 deaths per 1,000 live births in 2004 to 0.30 deaths per 1,000 live births in 2014. The rate has flattened since 2014 and was 0.27 unexplained infant deaths per 1,000 live births in 2019.

Figure 1: The unexplained infant mortality rate has flattened in recent years

All unexplained infant mortality rate, England and Wales, 2004 to 2019p

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All unexplained infant mortality rate, England and Wales, 2004 to 2019p



Source: Office for National Statistics – Deaths in England and Wales

Due to the small number of unexplained infant deaths recorded each year, the data tends to fluctuate over time and therefore year on year changes in rates should be interpreted with caution.

Unexplained infant deaths include [sudden infant deaths](#) and [unascertained deaths](#) in infants. In 2019, sudden infant deaths accounted for 59.4% of unexplained deaths and has been a driver for the decrease in unexplained infant deaths.

Since 2004, the sudden infant death mortality rate has halved to 0.16 deaths per 1,000 live births in 2019. There are a number of reasons that could be driving the decrease, such as availability of NHS guidance for tackling known risk factors, for more information see our [Unexplained deaths in infancy, England and Wales: 2018 bulletin](#).

3 . Birth characteristics

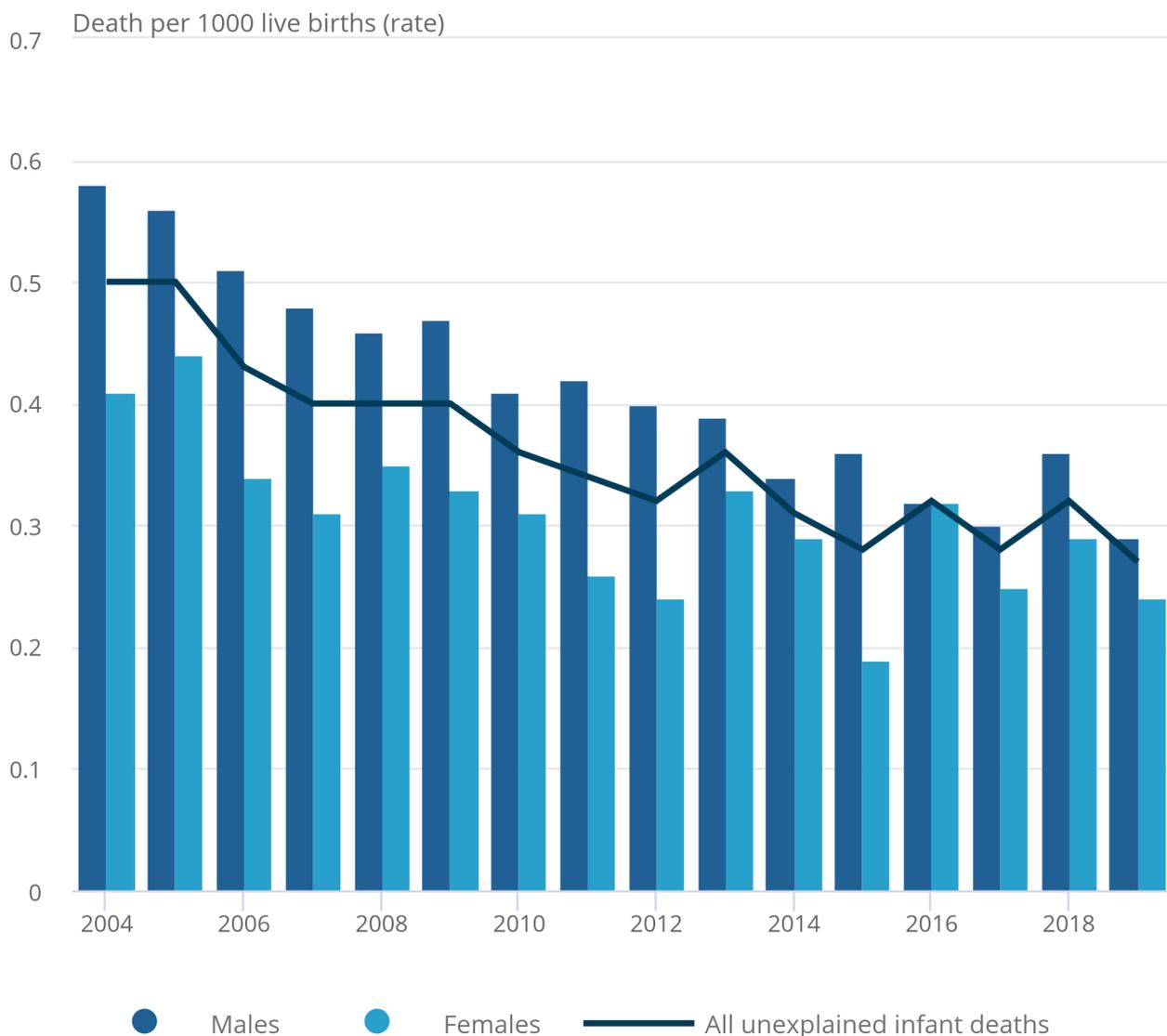
Male infants have consistently had a higher risk of unexplained infant death than females, though the gap has decreased. In 2004, males had 0.58 unexplained deaths per 1,000 live births compared with 0.41 for females. In 2019, males had 0.29 unexplained deaths per 1,000 live births compared with 0.24 for females.

Figure 2: Male infants have a greater risk of an unexplained death than females

All unexplained infant deaths by sex, England and Wales, 2004 to 2019p

Figure 2: Male infants have a greater risk of an unexplained death than females

All unexplained infant deaths by sex, England and Wales, 2004 to 2019p



Source: Office for National Statistics – Deaths in England and Wales

Around 8 in 10 unexplained infant deaths occur in the [postneonatal period](#). Whereas, for all infant deaths, the majority (around 7 in 10) occur during the [neonatal period](#). You can find out more about all infant deaths trends in our [Child and infant mortality in England and Wales: 2019 bulletin](#).

Since 2004, the rate of unexplained infant deaths has been around four times higher among low birthweight babies (less than 2,500g) than babies with a normal birthweight (2,500g and over).

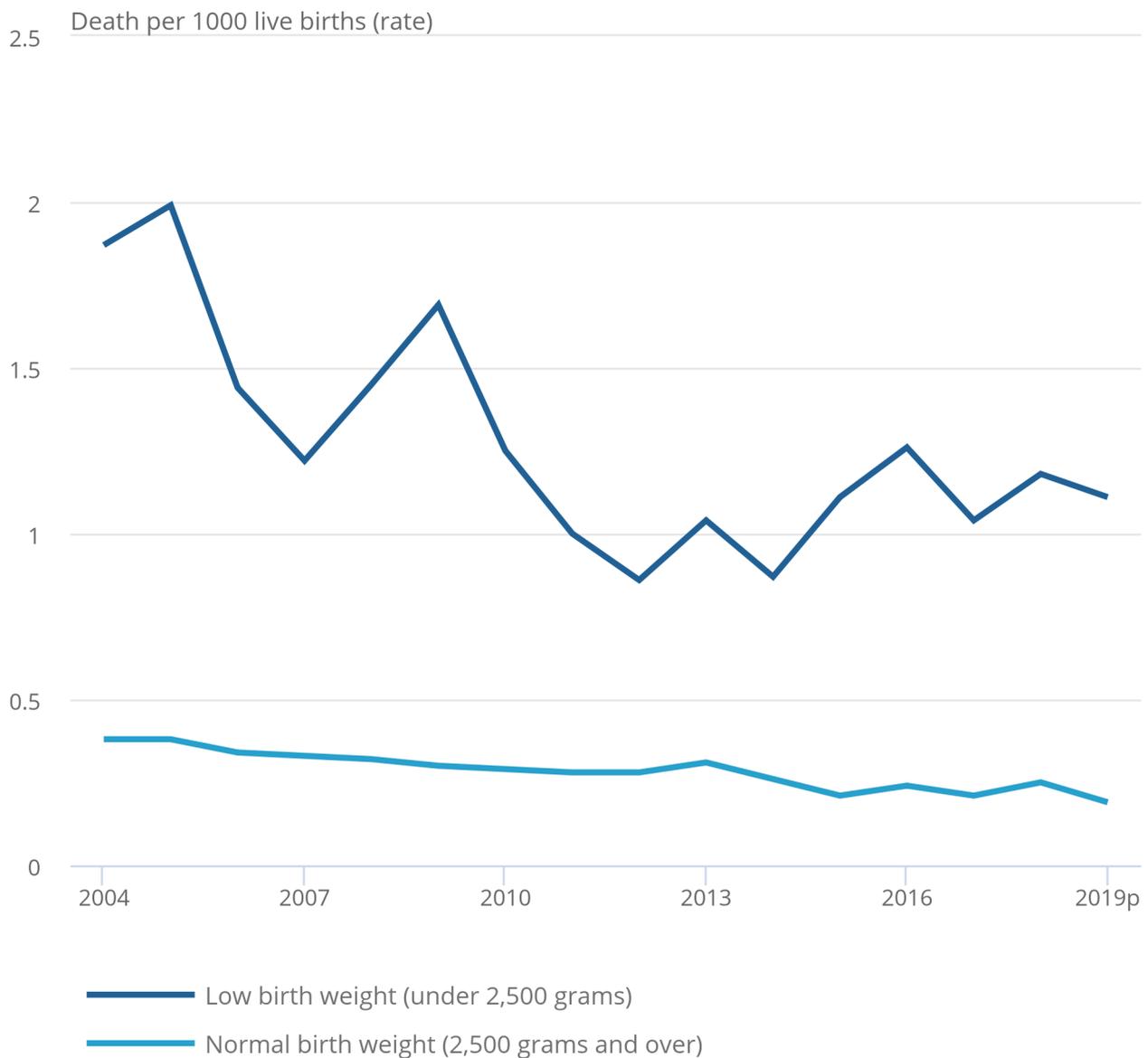
The low birthweight rate for unexplained infant deaths has decreased since 2004, reflecting the trend seen for all infant deaths.

Figure 3: Low birthweight babies continue to have a higher unexplained infant mortality rate

All unexplained infant deaths by birthweight, England and Wales, 2004 to 2019p

Figure 3: Low birthweight babies continue to have a higher unexplained infant mortality rate

All unexplained infant deaths by birthweight, England and Wales, 2004 to 2019p



Source: Office for National Statistics – Deaths in England and Wales

4 . Mother's characteristics

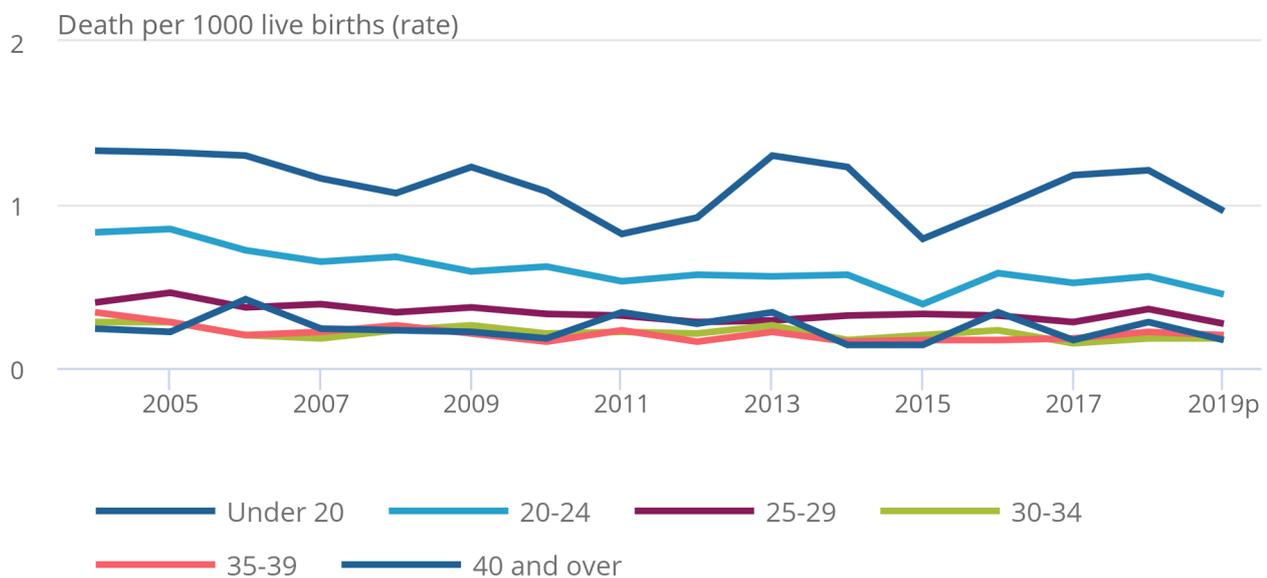
Maternal age is a risk factor for infant mortality generally and this holds true for unexplained deaths. In 2019, the unexplained infant mortality rate was highest for mothers aged under 20 years, at 0.96 deaths per 1,000 live births. This is over five times higher than for mothers aged 40 years and over.

Figure 4: Babies of mothers under 20 have a higher risk of unexplained infant mortality

All unexplained infant deaths by age of mother, England and Wales, 2004 to 2019p

Figure 4: Babies of mothers under 20 have a higher risk of unexplained infant mortality

All unexplained infant deaths by age of mother, England and Wales, 2004 to 2019p



Source: Office for National Statistics – Deaths in England and Wales

For almost every year since 2004, the unexplained infant mortality rate for babies of mothers born in the UK has been more than double the rate for babies of mothers born outside of the UK (0.32 compared with 0.14 deaths per 1,000 live births in 2019).

5 . Unexplained infant mortality data

[Main tables: Unexplained deaths in infancy, England and Wales](#)

Dataset | Released 25 August 2021

Annual data covering 2013 to 2019 on sudden infant deaths in England and Wales and deaths for which the cause remained unascertained after a full investigation.

[Unexpected deaths in infancy in England and Wales](#)

Dataset | Released 25 August 2021

Annual data on unexpected deaths (certified by a coroner) and infant deaths by selected causes in England and Wales for the period 2004 to 2019.

[Unexplained deaths in infancy, England and Wales](#)

Dataset | Released 2006 to 2012

Historical reports on unexplained infant deaths in England and Wales from the Office for National Statistics' (ONS's) National Archives, which includes sudden infant deaths and deaths for which the cause remained unknown or unascertained.

6 . Glossary

2019p

2019 provisional unexplained infant mortality data.

Neonatal

The deaths of an infant aged under 28 days.

Postneonatal

The deaths of an infant aged between 28 days and one year.

Infant

The death of those aged under one year.

Sudden infant deaths

Coded to the International Classification of Diseases tenth revision (ICD-10) code R95 "sudden infant death syndrome (SIDS)", which includes any mention of "sudden infant death", "cot death", "SIDS", "crib death", or another similar term anywhere on the death certificate.

Unascertained deaths

Coded to the ICD-10 code R99 "other ill-defined and unspecified causes of mortality", which includes cases where the only mention on the death certificate is unascertained death.

Unexplained infant deaths

Unexplained infant death includes both sudden infant death (ICD-10 code R95) and unascertained (ICD-10 code R99) deaths. Figures are based on death occurrences.

7 . Measuring the data

The unexplained infant mortality release is compiled from information supplied when births and deaths are certified and registered as part of civil registration.

Figures in the [unexplained deaths in infancy tables](#) are based on [occurrences data](#) available from 2004 up to 28 June 2021. These figures will not match those published in the [Child and Infant mortality in England and Wales: 2019](#) bulletin because of the time at which the extract was taken.

Unexplained infant deaths are referred to a coroner who may order a post-mortem or full inquest to ascertain the reasons for the death. The time taken to investigate the circumstances of the death often result in a delay in the coroner registering the death. Therefore, we publish provisional figures to allow for late death registrations. Figures for 2018 have been finalised and figures for 2019 are provisional. The 2019 figures will be finalised in the next annual release.

Important information for interpreting unexplained deaths in infancy statistics:

- Figures represent infant deaths (deaths of those aged under one year) that occurred in England and Wales in the calendar year shown; these include infant deaths whose mother's usual residence was outside England and Wales.
- Unexplained infant deaths include sudden infant deaths ("cot deaths") coded to International Classification of Diseases Tenth Revision (ICD-10) code R95, and unascertained deaths (ICD-10 code R99); the latter are infant deaths where no medical cause was recorded. Further information can be found in the [User guide to mortality statistics methodology](#).
- Infant deaths are linked to their corresponding birth registration to enable analysis of risk factors and demographic characteristics such as birthweight and maternal age.

8 . Strengths and limitations

Quality

Our [User guide to child and infant mortality statistics methodology](#) provides further information on data quality, legislation and procedures. Our [Unexplained deaths in infancy, England and Wales Quality and Methodology Information \(QMI\)](#) provides relevant information about the strengths and limitations of the data, methods used and data uses and users.

Coronavirus and infant mortality statistics

Coronavirus will not be a contributing factor to infant deaths in this release, as the data relates to deaths for the year ending 31 December 2019.

Since 2016, there has been a progressive increase in registration delay for unexplained infant deaths. The pandemic is likely to have exacerbated existing registration delays because of delays in coroner's proceeding during this time. Consequently, some deaths that occurred in 2019 may not be captured in this release. Next year, we will have a more accurate picture of late death registrations during 2020, for deaths that occurred in 2019.

National Statistics status for infant mortality

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

You can view our most recent [Assessment of compliance with the Code of Practice for Official Statistics \(PDF, 152KB\)](#), which was completed in May 2012. This document confirms National Statistics status.

Improvements since last review:

- conducted a user consultation in 2017 to improve presentation and to meet our user needs, details of which are available in the response to the consultation, the [Infant mortality outputs review](#)
- analysis on the [impact of registration delays on mortality statistics](#)
- updated our [policy for protecting confidentiality in tables of births and deaths statistics](#)

9 . Related links

[Vital Events Reference Tables for Scotland](#)

Publication | Most recent update 17 August 2021

Data for Scotland from the National Records of Scotland on stillbirths and infant deaths based on registrations.

[Deaths registered in England and Wales: 2020](#)

Bulletin | Released 6 July 2021

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.

[Child and infant mortality in England and Wales: 2019](#)

Bulletin | Released 24 February 2021

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

[Stillbirths and Infant Deaths Section of the 2019 Registrar General Annual Report](#)

Publication | Released 16 December 2020

Data for Northern Ireland from the Northern Ireland Statistics and Research Agency (NISRA) on stillbirths and infant deaths based on registrations.

[Births in England and Wales: 2019](#)

Bulletin | Released 22 July 2020

Live births, stillbirths and the intensity of childbearing, measured by the total fertility rate.

[Health Statistics Quarterly, No. 39, Autumn 2008](#)

Report | Released 28 August 2008

Data covering trends in UK health, and containing commentary on health findings, topical articles illustrated with colour charts and diagrams, statistical graphs and tables up to 2008.