Child Death Review Data Release: Year ending 31 March 2023

Published November 2023

1. Introduction

The National Child Mortality Database (NCMD) was launched on 1 April 2019 and collates data collected by Child Death Overview Panels (CDOPs) in England from reviews of all children who die at any time after birth and before their 18th birthday. There is a statutory requirement for CDOPs to collect these data and to provide it to NCMD, as outlined in the Child Death Review statutory and operational guidance. The guidance requires all Child Death Review (CDR) Partners to gather information from every agency that has had contact with the child, during their life and after their death, including health and social care services, law enforcement, and education services. This is done using a set of statutory CDR forms and the information is then submitted to NCMD.

The data in this report summarise the number of child deaths up to 31 March 2023 and the number of reviews of children whose death was reviewed by a CDOP before 31 March 2023.

It should be read in conjunction with the <u>data tables</u>, where more detail is available.

2. Child death notifications

There were 3,743 child (0 – 17 years) deaths in England in the year ending 31 March 2023, an estimated rate of 31.8 deaths per 100,000 children. The number of deaths increased by 8% on the previous year and was the highest number of deaths in a year since NCMD started data collection in 2019 (Figure 1). Infant (children under 1 year) deaths increased by 4% on the previous year and deaths of children aged between 1 and 17 years increased by 16%.

There were 391 deaths during December 2022, the highest in any single month since 2019.

4,000
3,500
2,500
2,000
1,500
1,000

0
2020
2021
2022
2023
Year ending 31 March

Figure 1. Number of child death notifications, by year ending 31 March

The child death rate in each region of England ranged from 24.2 to 41.1 per 100,000 population of 0-17 year olds (Figure 2), an increase on the previous year for most regions.

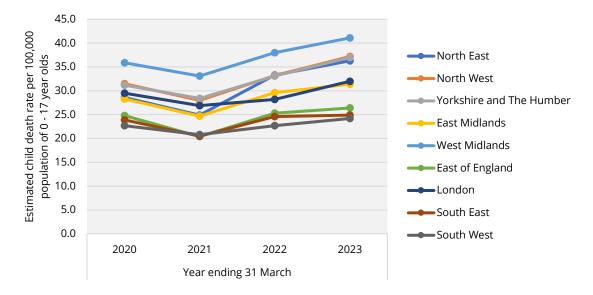


Figure 2. Estimated child death rate per 100,000 population, by region

Data source: NCMD, ONS mid-year population estimates, ONS Census (2021)

The child death rate in the year ending 31 March 2023 was highest for children of black or black British ethnicity (56.6 per 100,000 population) and Asian or Asian British ethnicity (50.8 per 100,000 population) (Figure 3). The rates for both of these ethnic

groups continued to increase in comparison to previous years, whilst the death rate for children of white ethnicity decreased from the previous year and remained lower than all other ethnic groups.

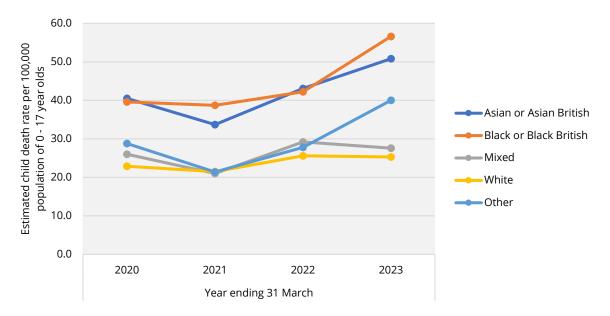
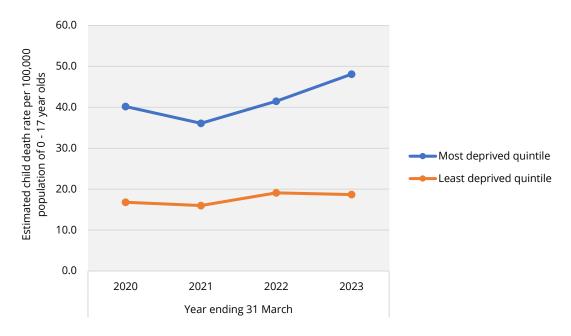


Figure 3. Estimated child death rate per 100,000 population, by ethnicity

Data source: NCMD, ONS Census (2021)

The child death rate for children resident in the most deprived neighbourhoods of England was 48.1 per 100,000 population, more than twice that of children resident in the least deprived neighbourhoods (18.7 per 100,000 population) (Figure 4). Whilst the death rate in the least deprived neighbourhoods decreased slightly from the previous year, the death rate for the most deprived areas continued to rise, demonstrating widening inequalities.

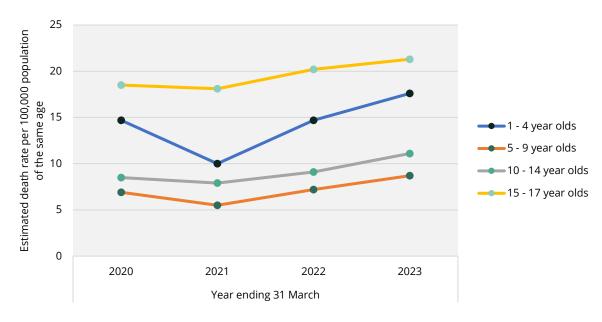
Figure 4. Estimated child death rate per 100,000 population, by most/least deprived quintiles



Data source: NCMD, ONS mid-year population estimates, ONS Census (2021), Index of Multiple Deprivation (2019)

For children aged between 1 and 17 years, the highest death rate continued to be for children aged between 15-17 years (21.3 per 100,000 population), followed by 1-4 year olds (17.6 per 100,000 population) (Figure 5). Death rates for all age groups increased in comparison to the previous year.

Figure 5. Estimated death rates for children aged between 1 and 17 years per 100,000 population, by age group



Data source: NCMD, ONS mid-year population estimates, ONS Census (2021)

Infant deaths

Deaths of infants (babies under 1 year of age) accounted for 59% of all child deaths in the year ending 31 March 2023.

The infant death rate was 3.8 per 1,000 live births, an increase from 3.6 in the previous year (Figure 6). However, the estimated death rate for infants born at 24 weeks or over was 2.7 deaths per 1,000 live births of the same gestational age, the same rate as the previous year.

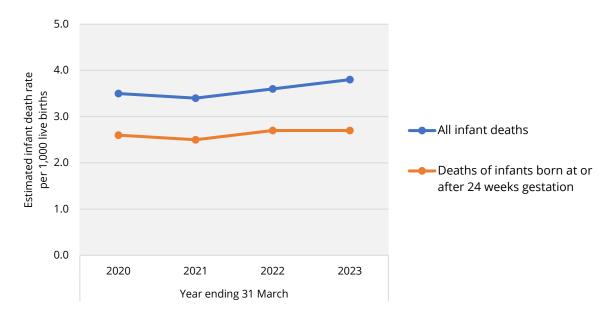


Figure 6. Estimated infant death rate per 1,000 live births

Data source: NCMD, ONS Live births

N.B. The proportion of infants born at or after 24 weeks gestation for year ending 31 March 2023 was assumed to be the same as previous years, and this estimate was used to calculate the infant death rate in the latest year.

Patterns of infant deaths were similar to those reported for all child deaths. The estimated infant death rate continued to be highest for infants of black or black British ethnicity (8.7 per 1,000 live births), approximately three times the rate of infants of white ethnicity (3.0 per 1,000 live births) (Figure 7). The death rate of infants of Asian or Asian British ethnicity (6.2 per 1,000 live births) also continued to be higher than white infants. Infant death rates for those of black or Asian ethnicity increased in comparison to the previous year, however, the rate of deaths for infants of white ethnicity decreased.

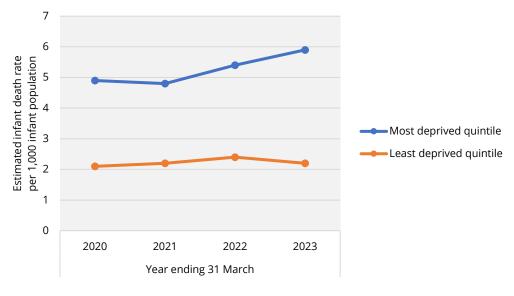
10.0 9.0 8.0 Estimated infant death rate 7.0 per 1,000 live births -Asian or Asian British 6.0 Black or Black British 5.0 Mixed 4.0 White 3.0 Other 2.0 1.0 0.0 2021 2022 2023 2020 Year ending 31 March

Figure 7. Estimated infant death rate per 1,000 live births, by ethnicity

Data source: NCMD, ONS Live births

The death rate of infants who were resident in the most deprived neighbourhoods of England was 5.9 per 1,000 infant population, more than twice that of infants resident in the least deprived neighbourhoods (2.2 per 1,000 infant population) (Figure 8). Similar to all child deaths, inequalities in infant deaths widened, with the infant death rate for the most deprived having increased, despite the rate for the least deprived having decreased from the previous year.

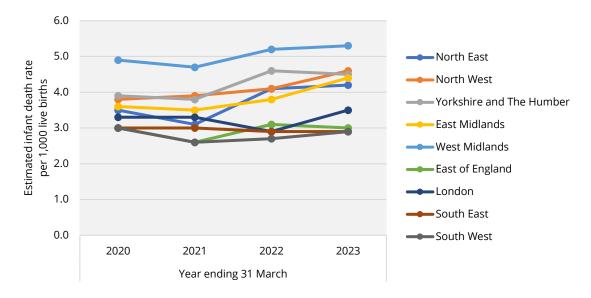
Figure 8. Estimated infant death rate per 1,000 infant population, by most/least deprived quintiles



Data source: NCMD, <u>ONS Live births</u>, <u>Index of Multiple Deprivation (2019)</u>
N.B. Infant population (0 year olds) used as a proxy measure for live births

The infant death rate in each region of England ranged from 2.9 to 5.3 per 1,000 live births (Figure 9).

Figure 9. Estimated infant death rate per 1,000 live births, by region



Data source: NCMD, ONS Live births

Neonatal deaths

Neonatal deaths (deaths of babies under 28 days of age) accounted for 41% of all child deaths in the year ending 31 March 2023.

The estimated neonatal death rate was 2.7 per 1,000 live births, an increase from 2.4 in the previous year (Figure 10). However, the estimated neonatal death rate for babies born at 24 weeks or over was 1.6 deaths per 1,000 live births of the same gestational age, a decrease from 1.7 in the previous year. The <u>neonatal mortality rate ambition</u>, derived from ONS data, is 1.0 deaths per 1,000 live births of babies born at 24 weeks or over, by 2025.

3 2.5 Estimated neonatal death rate per 1,000 live births 2 All neonatal deaths 1.5 1 Deaths of babies born at or after 24 weeks gestation 0.5 0 2020 2021 2022 2023

Figure 10. Estimated neonatal death rate per 1,000 live births

Data source: NCMD, ONS Live births

N.B. The proportion of babies born at or after 24 weeks gestation for year ending 31 March 2023 was assumed to be the same as previous years, and this estimate was used to calculate the neonatal death rate in the latest year.

Year ending 31 March

79% of neonatal deaths were of babies born at a premature gestational age (before 37 weeks) (Figure 11). This proportion was an increase from those seen in previous years, likely due to a rise in deaths notified to CDOPs of babies born under 24 weeks gestation (39% vs 33% in the previous year).

This increase in deaths of babies under 24 weeks is difficult to interpret but is likely impacted by multiple factors such as <u>more consistent recognition of signs of life</u> by clinical teams, babies receiving survival focussed care, appropriate completion of MCCDs (medical certificate of cause of death), and better reporting to CDOPs.

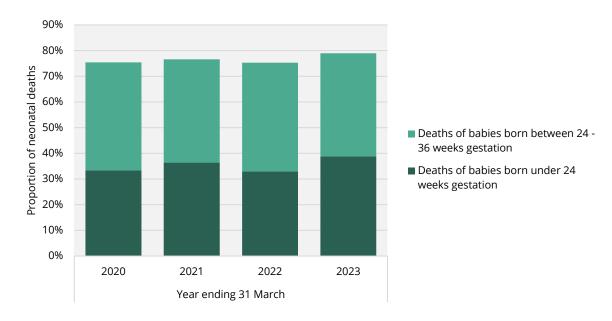


Figure 11. Proportion of neonatal deaths by gestational age at birth

Further information on child death notifications can be found within Tables 1-11, including a breakdown of infant and child death rates by Integrated Care Boards.

3. Child death reviews by CDOPs

3,271 child deaths were reviewed by CDOPs in England between 1 April 2022 and 31 March 2023 (some of these deaths may have occurred in earlier years), a 19% increase on the previous year and the highest number since 2019 (Figure 12).

The proportion of reviews that identified modifiable factors continued to rise with 39% of deaths reviewed in the year ending 31 March 2023 identifying modifiable factors. The proportion of reviews with modifiable factors varied per region from 27% to 52% (Table 12).

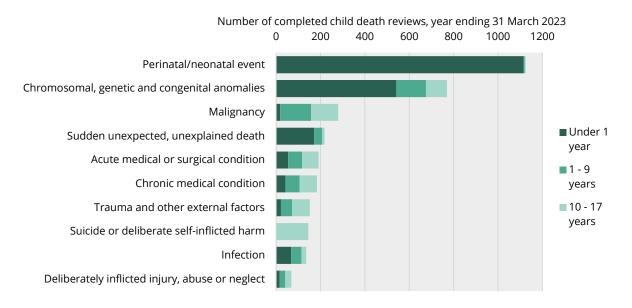
Number of completed child death reviews ■ Reviews with no modifiable factors ■ Reviews with modifiable factors Year of CDOP review ending 31 March

Figure 12. Number of child death reviews by CDOPs, by year of review and modifiable factors

The most common primary category (i.e., the likely cause) of death for reviews in 2022-23 was *Perinatal/neonatal event*, which was recorded for 34% of all child death reviews, followed by *Chromosomal, genetic and congenital anomalies* (24%), *Malignancy* (9%) and *Sudden unexpected and unexplained death* (7%) (Figure 13). These patterns were similar to previous years.

The most common primary category of death was *Perinatal/neonatal event* for children aged under 1, *Malignancy* for children aged between 1 and 9 years, and *Suicide or deliberate self-inflicted harm* for children aged between 10 and 17 years. Figure 13 shows the number of reviews by primary category of death and age group.

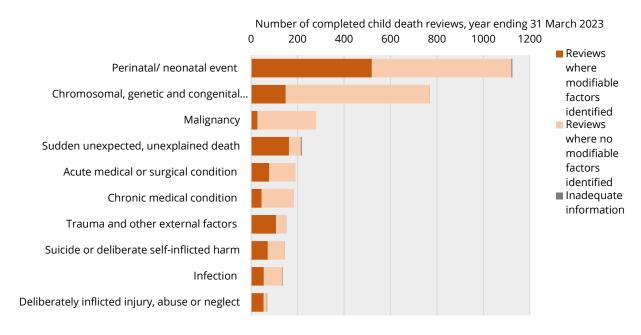
Figure 13. Number of child death reviews by CDOPs by primary category of death and age group, year ending 31 March 2023



The CDOP is responsible for identifying any modifiable factors in relation to the child's death. Modifiable factors are defined as factors which, by means of nationally or locally achievable interventions, could be modified to reduce the risk of future child deaths. Deaths categorised as *Deliberately inflicted injury, abuse or neglect* had the highest proportion of reviews with modifiable factors (81%), followed by *Sudden unexpected and unexplained death* (76%), *Trauma or other external factors* (71%) and *Suicide or deliberate self-inflicted harm* (50%) (Figure 14).

Following recent improvements to how contributory and modifiable factors are recorded in the statutory analysis form, we expect to be able to include further detail on the specific factors reported in future data releases.

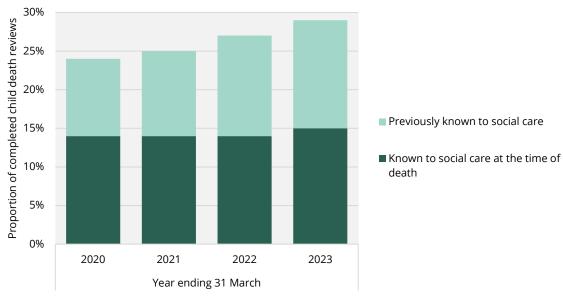
Figure 14. Number of reviews completed by CDOPs by primary category of death and whether modifiable factors were identified, year ending 31 March 2023



For reviews completed in the year ending 31 March 2023, 15% of children were known to social care at the time of their death, a similar proportion to previous years (14%) (Figure 15). A further 14% were reported as previously known to social care, which has increased each year from 10% in the year ending 31 March 2020.

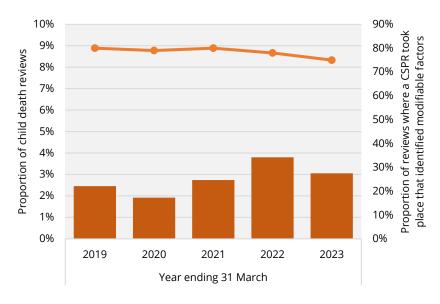
Of the 496 reviews where the child was known to social care at the time of their death, 42% identified modifiable factors. This was a similar proportion to previous years, and remains higher than reviews of children who were never known to social care (35%).

Figure 15. The proportion of child death reviews by CDOPs, by year of review and whether the child was known to social care



For reviews completed by CDOPs in 2022-23, 3% of the deaths were subject to a local or national <u>Child Safeguarding Practice Review</u> (CSPR) (Figure 16), which is a similar proportion to the previous year (4%). Of the 96 reviews where a CSPR took place, 75% of CDOP reviews recorded modifiable factors, a decrease from the previous year (78%).

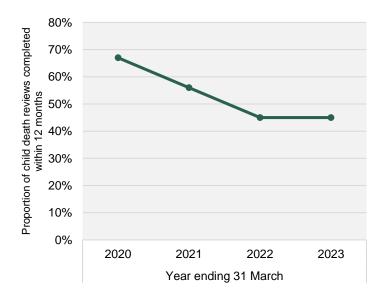
Figure 16. The proportion of child death reviews by CDOPs, by year of review and whether there was a Child Safeguarding Practice Review



Data source: NCMD

45% of reviews in the year ending 31 March 2023 were completed by the CDOP within 12 months of the death, a similar proportion to the previous year, but a fall from 2020 where 67% of reviews were completed within 12 months (Figure 17). The median time taken to complete reviews in 2022-23 was 392 days (around 13 months).

Figure 17. Proportion of child death reviews completed by CDOPs within 12 months of the death



Data source: NCMD

4. Technical information

All reference tables including further breakdown of data can be found <u>here</u>.

A child for these purposes is defined as a child aged 0 up to their 18th birthday, excluding stillbirths and planned terminations of pregnancy carried out within the law.

All CDOPs continue to submit data to NCMD on an ongoing basis. NCMD is dependent on accurate data entry by the CDOPs, and specifically, category of death is presented within the data release as it was submitted by the CDOP. The data included within this release represent child deaths that were submitted to NCMD that were going to be, or had been, reviewed by a CDOP in England. In a small number of reviews, this may include deaths of children usually resident outside of England.

The estimated neonatal and infant death rates reported have been calculated using <u>ONS data for live births</u>, and the rate is presented per 1,000 live births.

The estimated child (0-17 years) death rate and death rate of children aged 1-17 years have been calculated using population data of children the same age in England, from the <u>ONS mid-year population estimates</u> (for years ending 31 March 2020 and 2021), or

Census 2021 data (for years ending 31 March 2022 and 2023). The rate is presented per 100,000 children of the same age. Following the 2021 Census, ONS plan to release rebased mid-year population estimates for previous years. This rebased data were not available at the time of analysis, and therefore population estimates used in the years ending 31 March 2020 and 2021 are still based upon previous census information. Following release of the rebased estimates from ONS, this CDR data release will be updated using the most accurate population data available in future years. This may have a small impact on the trend reported.

ONS publish live births data and population estimates using calendar years. As this CDR data release uses financial years, live births and population estimates that correspond to the largest proportion of the financial year were used, for example, 2019 live births and mid-year population estimates were used to calculate rates for deaths occurring in the year ending 31 March 2020, and so on.

<u>Census 2021 data</u> (population of 0-17 year olds in England) was used to calculate rates of child death by ethnicity (Table 6) for all years for the child death rate and death rate of children aged 1-17 years. This was because this population data by ethnicity was not available for previous years.

The data sources are reported under each table and figure.

Table 4 uses the population of infants (0 year olds) as a proxy measure for live births, as the data for live births by deprivation and region was not available. This may have a small impact on the rates presented.

Where the most recent live births data for 2022 was not available in the level of detail required at the time of analysis, this was derived using the proportional split from previous years, and assumes this to be stable over the years. This affects Tables 3, 6, and 8. Future releases will be updated to include the most recent data available.

In some instances, the number of deaths presented is low, and therefore the confidence intervals will be wider. Therefore, all rates should be interpreted alongside actual number of deaths.

For further information on NCMD data processing please see our Privacy Notice.

5. Acknowledgements

The National Child Mortality Database (NCMD) programme is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing, and National Voices. Its aim is to promote quality improvement in patient outcomes. HQIP holds the contract

to commission, manage and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP), comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. NCAPOP is funded by NHS England, the Welsh Government and, with some individual projects, other devolved administrations and crown dependencies (www.hqip.org.uk/national-programmes).

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