Birmingham and Solihull Integrated Care System
Caring about healthier lives

NHS
Birmingham and Solihull

# 2023 Annual Report of the Birmingham and Solihull Child Death Review Team and Child Death Overview Panel

## Terminology

| | |
|---|---|
| CDOP | Child Death Overview Panel |
| CDRT | Child Death Review Team |
| CDRM | Child Death Review Meeting |
| PMRT | Perinatal Mortality Review Tool |
| SUDIC | Sudden and Unexpected Death in Infancy or Childhood |
| JAR | Joint Agency Response |
| NCMD | National Child Mortality Database |
| HSIB | Healthcare Safety Investigation Branch |
| BSol | Birmingham and Solihull |

## Layout of Annual Report

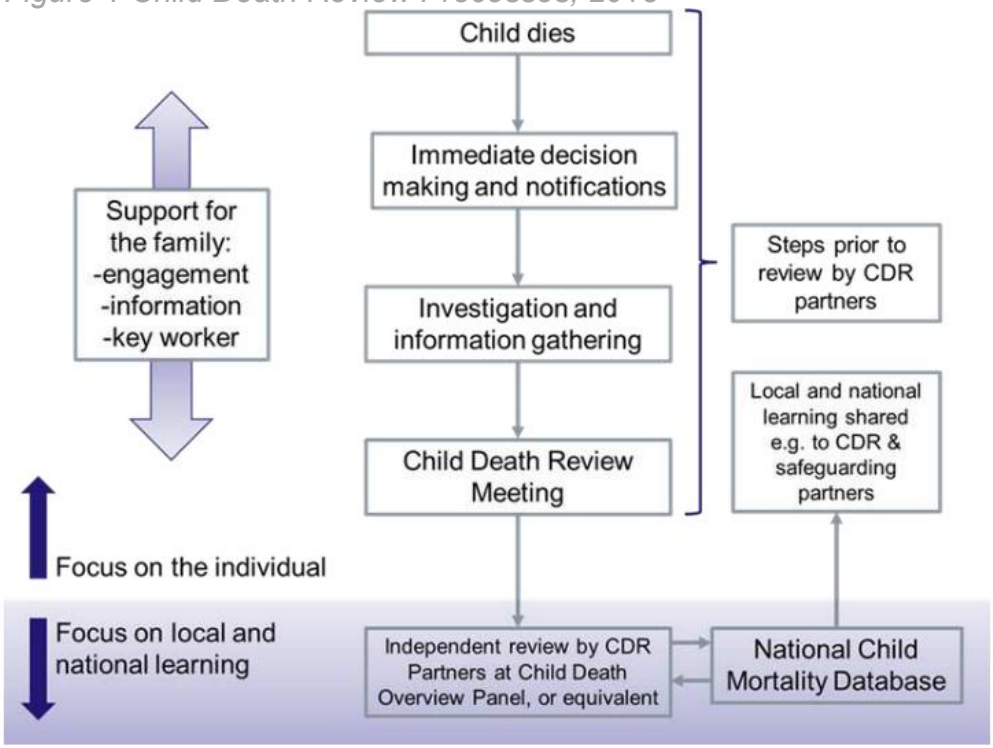


## 1.0 Introduction

Working Together to Safeguard Children (2018)[1] outlines the governance arrangements of the statutory duty to review deaths of children resident in the City Council's area or resident elsewhere but Looked After by the City Council. The Child Death Review Partners during 2022-23 were NHS Birmingham and Solihull Integrated Care Board.

The Statutory and Operational Child Death Review guidance [2] set out the responsibilities of the Child Death partners and details explicit operational guidance. The Flow Chart in the guidance (Figure 1) illustrates the full process of a child death review. It identifies the responsibility of the local review by professionals involved in the care of the child (Child Death Review Meeting) and the review of an independent multi-agency panel (Child Death Overview Panel - CDOP) organised by the Child Death review Partners. These processes were implemented during the CDOP year 2019-20.

*Figure 1 Child Death Review Processes, 2018*




## 1.1 Time period

The CDOP year follows the financial year reporting period. This annual report covers the period from 01 April 2022 to 31 March 2023.

## 2.0 The Birmingham and Solihull Child Death Review Team

The multi-professional Child Death Review Team (CDRT) is part of the Safeguarding Team at NHS Birmingham and Solihull Integrated Care Board (ICB). Birmingham and Solihull CDOP is managed by the CDRT. The offices for the CDRT are at the Wesleyan Building in Birmingham. The meetings were a mixture of virtual and face to face; the Neonatal Panel meetings were all virtual and the General/SUDIC meetings were face to face meetings where possible (a few were hybrid where individuals could only attend virtually).

The CDRT are directly responsible for the co-ordination of the Joint Agency Response (JAR) to unexpected child deaths (SUDIC – Sudden and Unexpected Death in Infancy or Childhood) for both Birmingham and Solihull resident children. The CDRT oversees CDR services provided by NHS Trusts.

Terms of reference for the CDRT are available here:
https://www.birminghamsolihull.icb.nhs.uk/application/files/3616/6791/8309/Terms_of_Reference_for_BSol_Child_Death_Review_Team_2021.pdf

## 2.1 CDRT staff

| | |
|---|---|
| Dr Joanna Garstang | Designated Doctor for Child Death |
| Dr Helen Chaplin | Designated Doctor for Safeguarding – Lead for Neonatal Deaths |
| Sarah Ashburn | Designated Nurse Safeguarding Children (Lead for Child Death) |
| Sue Cope | Designated Nurse Safeguarding Children (Lead for Child Death) |
| Melisha McKenzie | CDRT Co-Ordinator |
| Joanne Fox | CDRT Administrator |
| Helen Foster | CDRT Administrator |

### *CDOP membership*

| | |
|---|---|
| Di Rhoden | BSOL ICB Head of Safeguarding, Chair |
| Dr Joanna Garstang | Designated Doctor for Child Death |
| Dr Helen Chaplin | Designated Doctor for Safeguarding – Lead for Neonatal Deaths |
| Sarah Ashburn | Designated Nurse Safeguarding Children (Lead for Child Death) |
| Sue Cope | Designated Nurse Safeguarding Children (Lead for Child Death) |
| Melisha McKenzie | CDRT Co-Ordinator |
| Dr Yasmin Hussain | Named GP for Safeguarding, BSol ICB |
| Dr Anjana Ranjit | Named GP for Safeguarding, BSol ICB |
| Dr Michael Plunkett | Named Doctor for Safeguarding, General Paediatrician, University Hospital Birmingham |

*Birmingham:*

| | |
|---|---|
| Dr Marion Gibbon | Assistant Director of Public Health |
| DI Joseph Davenport | Ladywood Public Protection Unit, West Midlands Police |
| Paul Nash | Head of Service, Independent Review, Birmingham Children's Trust |
| Emma-Louise Hodgson | Safeguarding Service Team Manager (interim), Birmingham City Council |
| Katie Meah | Senior Reviewer – LeDeR, BSOL ICB |

*Solihull:*

| | |
|---|---|
| Denise Milnes | Interim Head of Children's Public Health, Solihull Metropolitan Borough Council |
| Hasina Miah | Independent Reviewing Officer, Children's Services, Solihull Metropolitan Borough Council |
| Natasha Chamberlain | Senior Education Improvement Adviser, Solihull Metropolitan Borough Council |
| DI Jim Edmunds | Child Public Protection Unit – Solihull and Coventry, West Midlands Police |

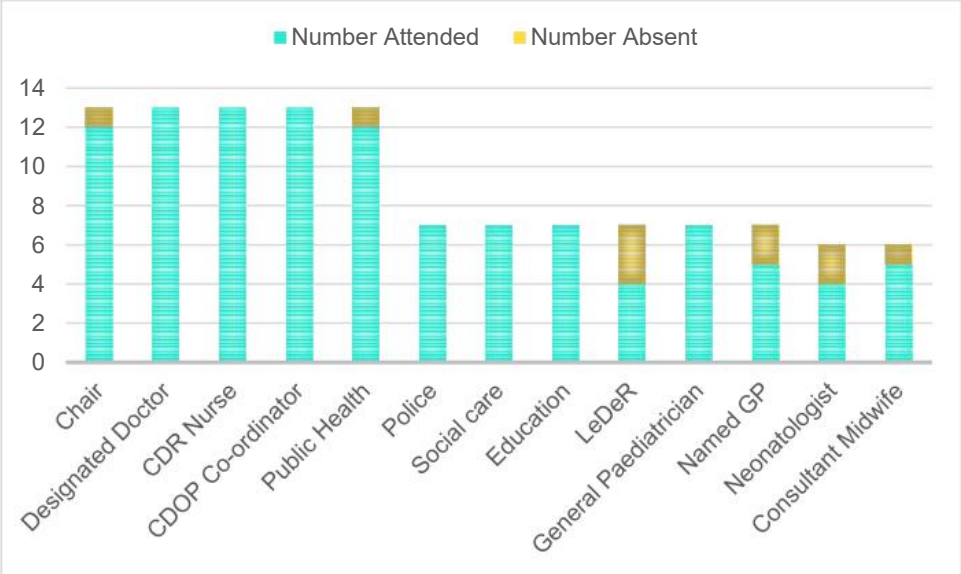
*Neonatal Meetings:*

| | |
|---|---|
| Dr Vikki Fradd | Consultant Neonatologist, University Hospitals Birmingham |
| Karen McGuigan | Matron for Maternity Governance, University Hospitals Birmingham |
| Dr Lucy Green | Consultant Neonatologist, Birmingham Women's and Children's Hospital |
| Jasmine Cajee | Consultant Midwife, Birmingham Women's and Children's Hospital |

## 2.2 Proportion of meetings attended by CDOP members

There were 6 Neonatal panels, 6 General/SUDIC(Birmingham) and 1 General/SUDIC (Solihull) panels. Not all panel members are required for every meeting. The chart below shows what proportion of meetings the panel members were present at or absent from, out of the total number they were asked to attend. On one meeting the Chair could not attend but the Designated Doctor was able to chair the meeting instead. All meetings were quorate.

*Figure 2 Number of panel members present at each meeting*




## 3.0 Local Child Death Review Meetings (CDRM)

The statutory guidance requires that all child deaths should be reviewed at a local CDRM. With the exception of deaths requiring a Joint Agency Response (JAR), which are directly managed by the CDRT, it is the responsibility of the health care trust caring for the child at the time of death to hold the CDRM.

Birmingham Community Healthcare Trust holds CDRM for children who die under their palliative care team; Acorns hospice contributes to these reviews.

University Hospitals Birmingham holds CDRM for children dying in the hospital, and for neonatal deaths.

City and Sandwell Hospitals hold CDRM for children dying in the hospital, and for neonatal deaths.

Birmingham Women and Children's Hospitals hold CDRM for neonatal deaths. For non-neonatal deaths they have an established mortality review programme for deaths at Birmingham Children's Hospital but this only considers provision of care during recent treatment within the hospital; these meetings are not compliant with the Working Together to Safeguard Children (2018) Statutory Guidance. This lack of compliance has been escalated within the ICB. BWCH are planning to start holding CDRM and will be supported by the CDRT in this, however there has been little progress to date. The lack of CDRM at BWCH remains a major concern and is on the risk register.

For neonatal deaths where the baby was transferred antenatally or postnatally, a joint PMRT between both Hospital Trusts has been established.

All trusts have found challenges in having primary care and other agencies join CDRM. The CDRT are reminding trusts of this requirement and supporting them to invite the appropriate professionals.

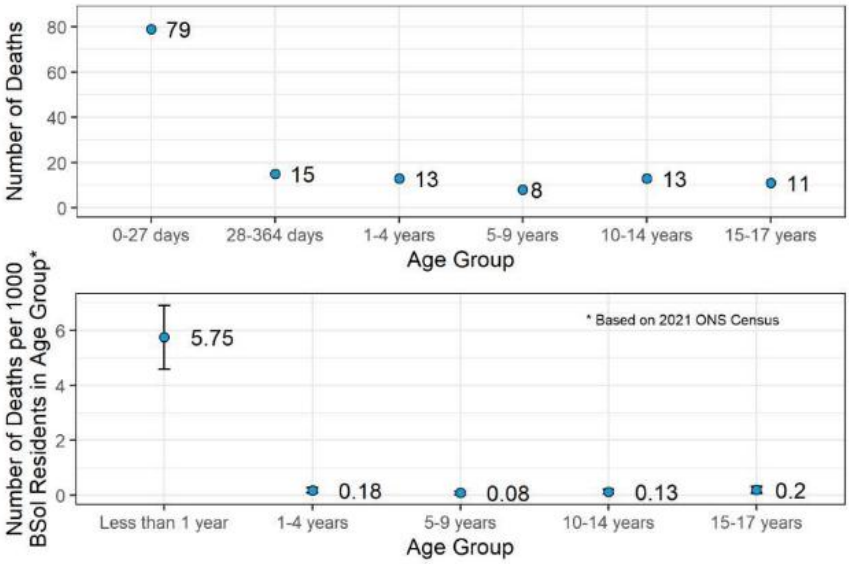
## 4.0 The Demographic and Geographical Breakdown

Data from the 2021 ONS census was used to determine the size of different demographic groups in BSol to enable mortality rates to be estimated for each of these groups. The demographics studied include the child's age, sex, ethnicity, socioeconomic deprivation, geographical location. Once the rates are calculated for each group, a standardised proportion p-test is used to determine if the observed inequalities are statistically significant.

## 4.1 Age

The majority of the CDOP deaths were from babies aged 0-27 days. As a result, babies less than one year of age have a much larger mortality rate than older children at 5.75 per 1000 BSol residents aged less than one.

*Figure 3 – (Top) number of deaths in each age group. (Bottom) Estimated mortality rate for each age group estimated using 2021 ONS census data.*

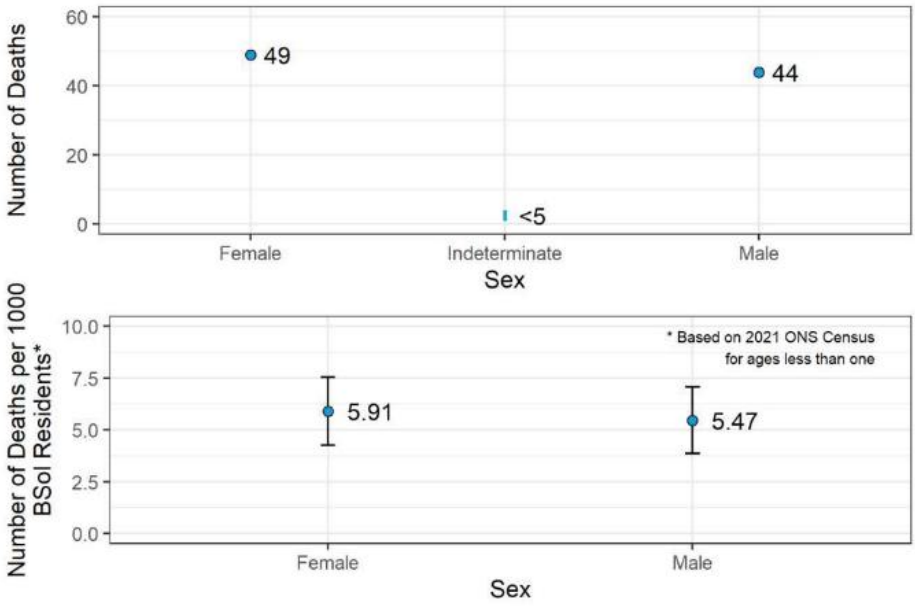



## 4.2 Sex

### *4.2.1 Infants*

As discussed previously, and shown in Figure 4 below, there were more female baby deaths (49) reviews than male (44). Since the number of female and male babies aged less than one in BSol is roughly the same, this means that the estimated mortality rate was also slightly higher for female babies (5.9 per 1000 usual residents aged less than one year old) than for male babies (5.5 per 1000 usual residents aged less than one year old). However, this difference was not found to be statistically significant. For the cases with indeterminate sex, it was not possible to calculate an estimated mortality rate since this group is not included in the ONS census data.

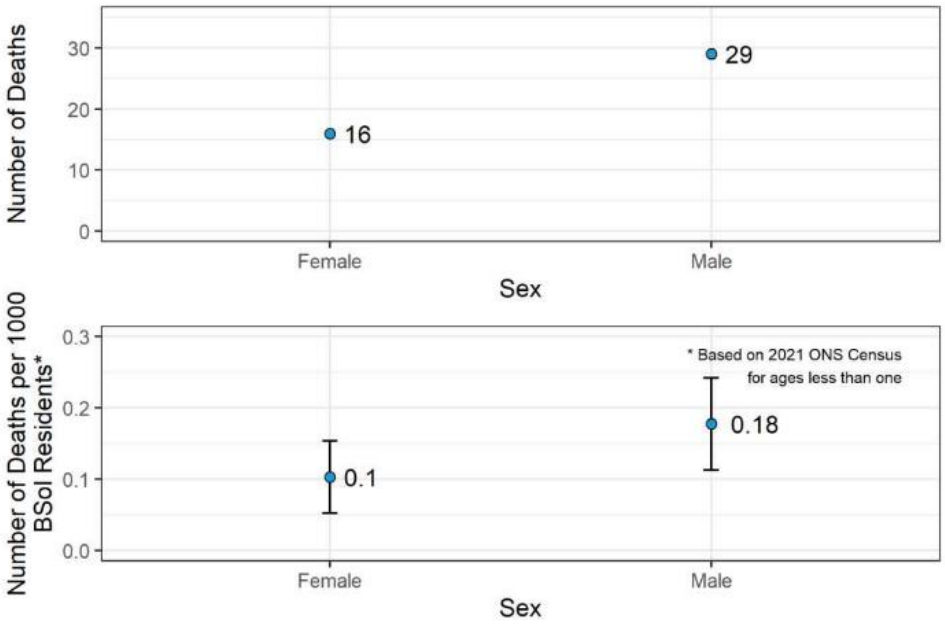
*Figure 4 – (Top) number of infant deaths by sex. (Bottom) Estimated infant mortality rate for each sex using 2021 ONS census data.*




### *4.2.2 Children*

For children aged one to seventeen years the opposite trend was seen. As shown in Figure 5 below, there were more male child deaths (29) reviews than female deaths (16). This resulted in male children having a higher estimated mortality rate (0.18 per 1000 usual residents aged less than one year old). This was found to be significantly higher (p=0.04) than the mortality rate for female children (0.1 per 1000 usual residents aged less than one year old).

*Figure 5 – (Top) number of child (aged 1-17) deaths by sex. (Bottom) Estimated child mortality rate for each sex using 2021 ONS census data.*

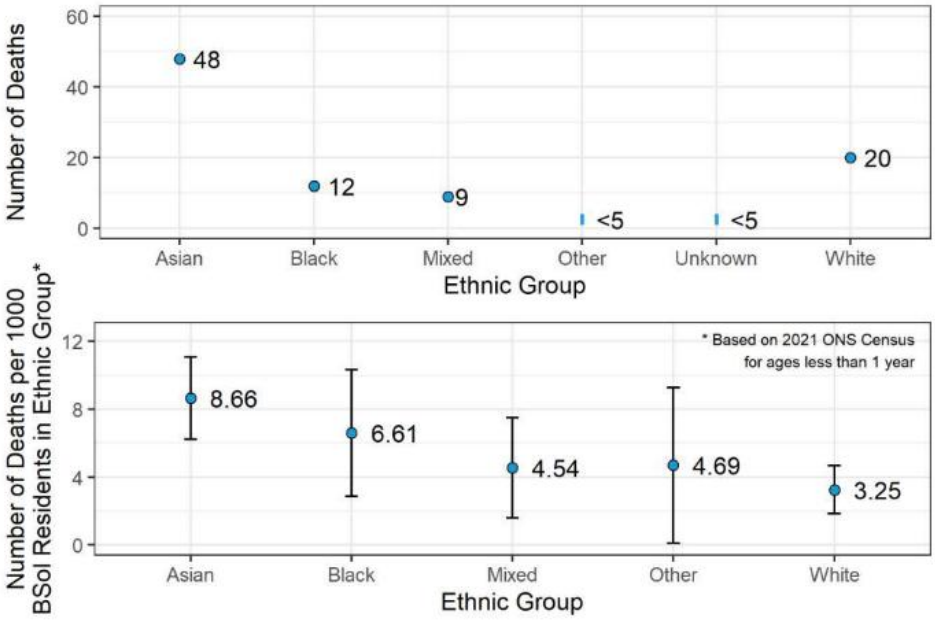


## 4.3 Ethnicity

### *4.3.1 Infants*

As shown in Figure 6 below, the infant mortality rate was estimated to be the highest for Asian and Black mothers at 8.7 and 6.6 deaths per 1000 usual residents less than one year old respectively. These are significantly higher than the rate for White mothers of 3.3 per 1000 usual residents less than one year old ($p<0.001$ and $p=0.02$ respectively).

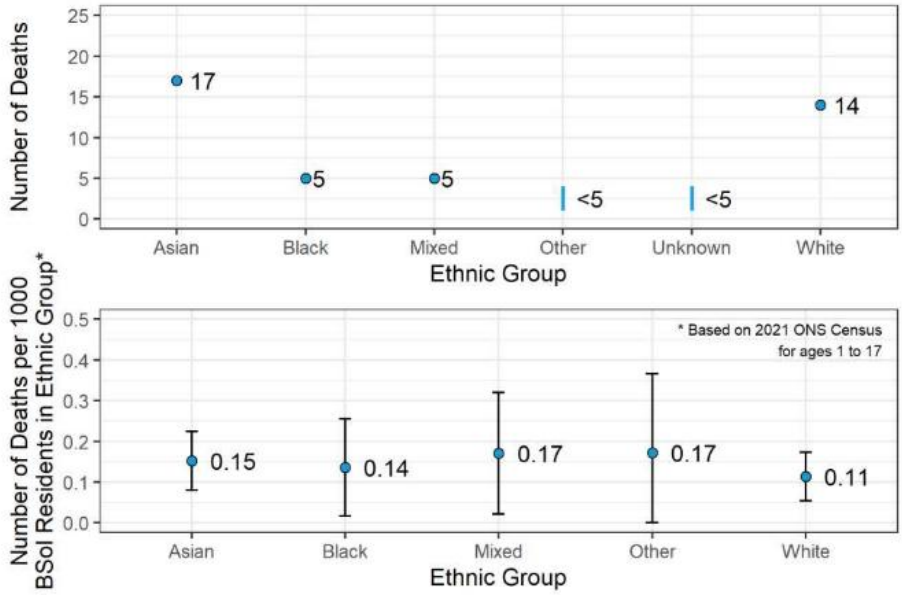
*Figure 6 – (Top) number of infant deaths by ethnic group. (Bottom) Estimated infant mortality rate for each ethnic group using 2021 ONS census data.*




### *4.3.2 Children*

As seen in Figure 7 below, child mortality rates were highest for mothers of Mixed and Other ethnicity, both with a rate of 0.17 per 1000 usual residents aged one to seventeen. The lowest child mortality rate was for White mothers at 0.11 per 1000 usual residents aged one to seventeen. However, the differences between these rates were not found to be statistically significant in this data.

*Figure 7 – (Top) number of child (aged 1-17) deaths by ethnic group. (Bottom) Estimated child mortality rate for each ethnic group using 2021 ONS census data.*




### *4.3.3*

For the cases where the ethnicity was not known, it was not possible to calculate an estimated mortality rate since this group is not included in the ONS census data.

## 4.4 Deprivation

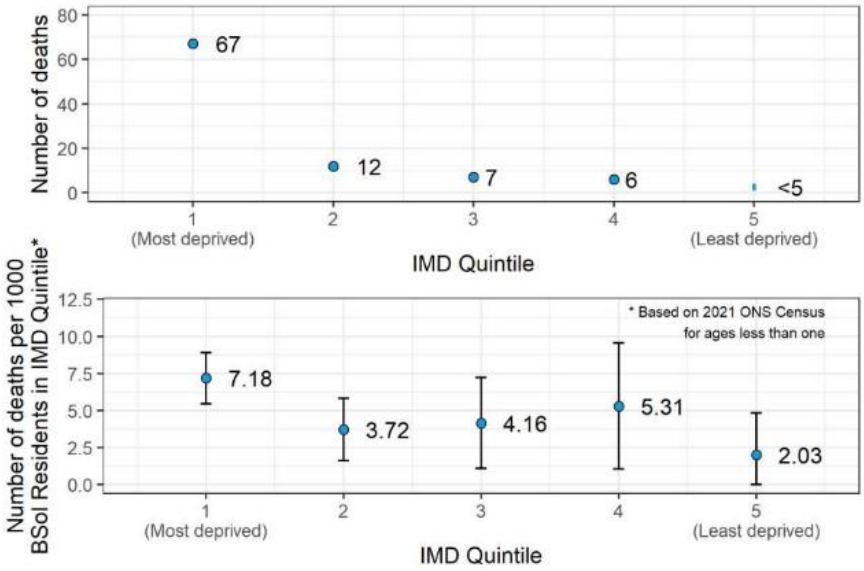
Due to the small number of deaths in areas of low deprivation, it was decided to combine the cases from areas in the 60% least deprived areas to be used as the reference rate in p-testing.

### *4.4.1 Infants*

As seen from Figure 8 below, most of the infant deaths occurred in most deprived areas. This is, in part, due to the large percentage of Birmingham and Solihull neighbourhoods falling into this most-deprived category.

However, again 2021 Census data can be used to estimate the infant mortality rate in each IMD quintile. Figure 8 shows that infants in the most deprived quintile had the highest mortality rate at 7.2 per 1000 usual residents aged less than one. This is significantly higher ($p=0.02$) than for those living in the 60% least deprived quintiles at 4.0 per 1000 usual residents aged less than one.

*Figure 8 – (Top) number of infant (aged less than one) deaths by IMD Quintile. (Bottom) Estimated infant mortality rate for each IMD Quintile using 2021 ONS census data.*

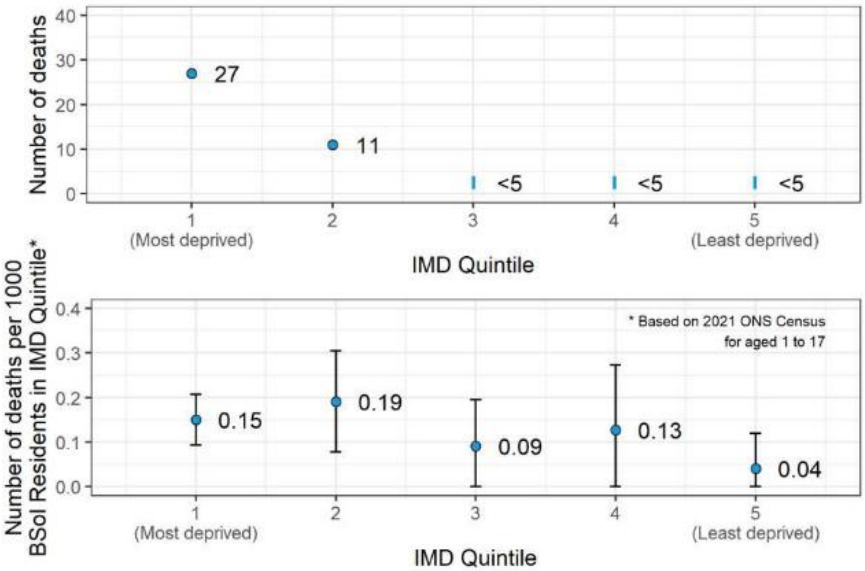



### *4.4.2 Children*

Similarly for children older than one year, the number of deaths was much higher for those living in the most deprived quintile, as shown in Figure 9. However, the difference is smaller than for infants.

Estimating the mortality rate using 2021 census data, the difference between the most deprived and least deprived areas is again smaller than for the case of infants. The most deprived and second most deprived quintiles had child mortality rates of 0.15 and 0.19 per 1000 usual residents aged 1 to 17 compared a combined rate of 0.09 per 1000 usual residents for the remaining three quintiles. However, this difference was less statistically significant (p=0.09 and p=0.05 for quintiles 1 and 2 respectively).

*Figure 9 – (Top) number of child (aged 1-17) deaths by IMD Quintile. (Bottom) Estimated child mortality rate for each IMD Quintile using 2021 ONS census data.*



## 4.5 Geography

The infant and child mortality rates were also estimated for each of the BSol's 12 parliamentary constituencies. In this case, we compare the rate for each constituency to the BSol average to determine if the difference is statistically significant.

### *4.5.1 Infants*

For the whole of BSol, the average infant mortality rate was 5.8 per 1000 usual residents less than one year old. As seen from Figure 10 below, Hodge Hill and Ladywood both had infant mortality rates of 9.4 per 1000 usual residents less than one year old. This is significantly higher than the BSol average (p=0.05).

The calculated infant mortality rates are also visualised as a heat map across BSol, as shown in Figure 11.

*Figure 10 – (Top) number of infant (aged less than one) deaths by BSol parliamentary constituency. (Bottom) Estimated infant mortality rate for each BSol parliamentary constituency using 2021 ONS census data.*

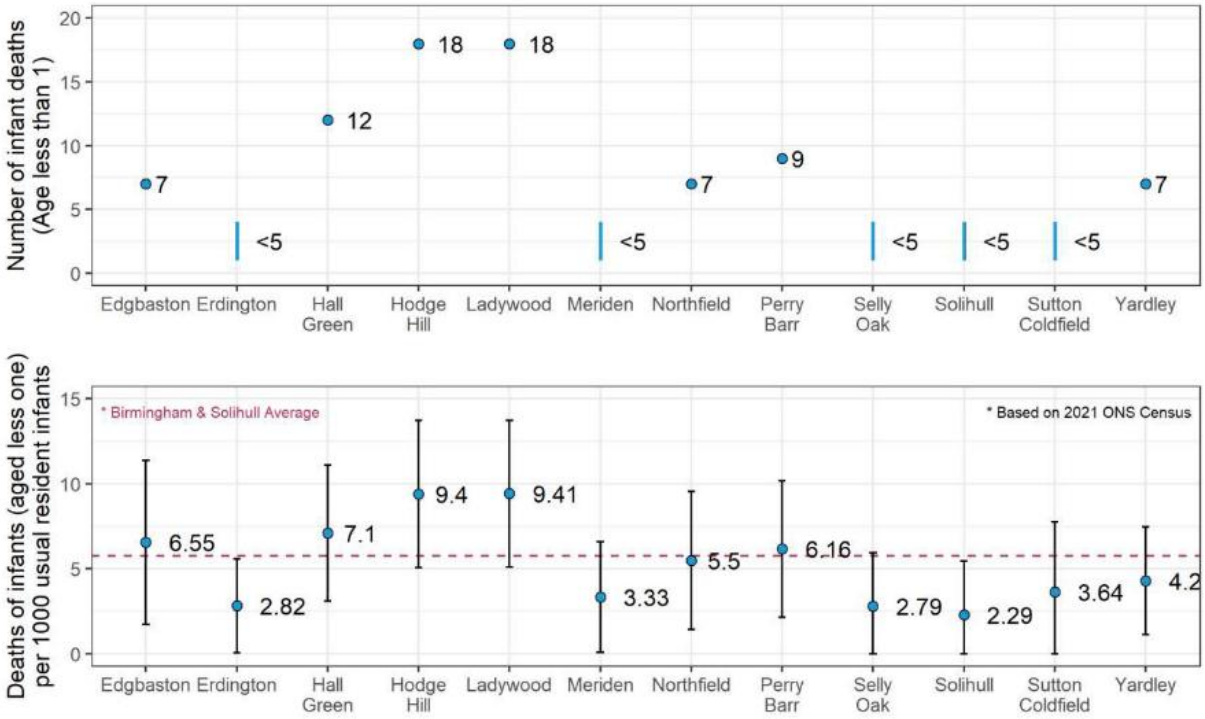
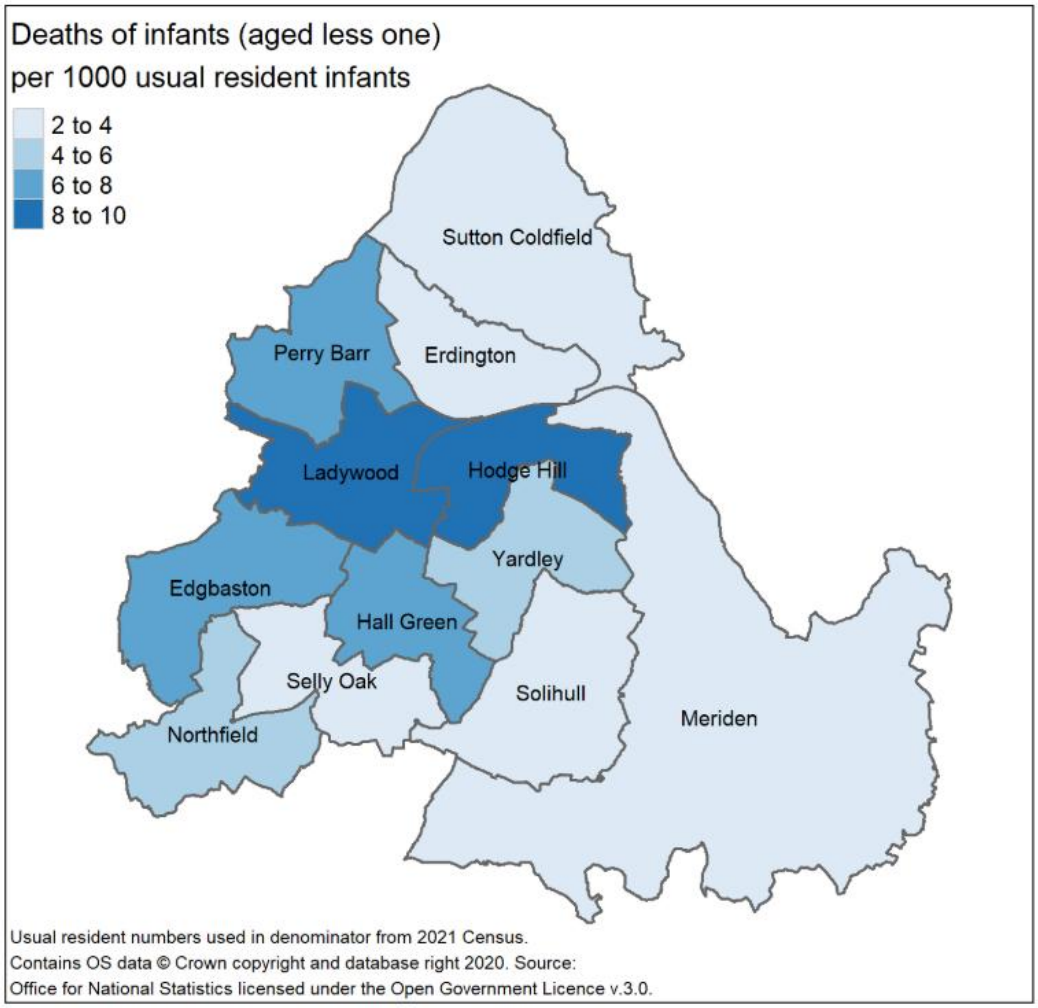


*Figure 11 – Heat map of the estimated infant mortality rate for each BSol parliamentary constituency using 2021 ONS census data.*




### *4.5.2 Children*

For the whole of BSol, the average infant mortality rate was 0.14 per 1000 usual residents aged one to seventeen. As shown in Figure 12 below, except for Selly Oak which had no reviews of child deaths in the period, Yardley was the only constituency to significantly deviate from the BSol average with a child mortality rate of 0.33 per 1000 usual residents aged one to seventeen ($p = 0.01$).

The calculated child mortality rates are also visualised as a heat map across BSol, as shown in Figure 13.

*Figure 12 – (Top) number of child (aged 1-17) deaths by BSol parliamentary constituency. (Bottom) Estimated child mortality rate for each BSol parliamentary constituency using 2021 ONS census data.*

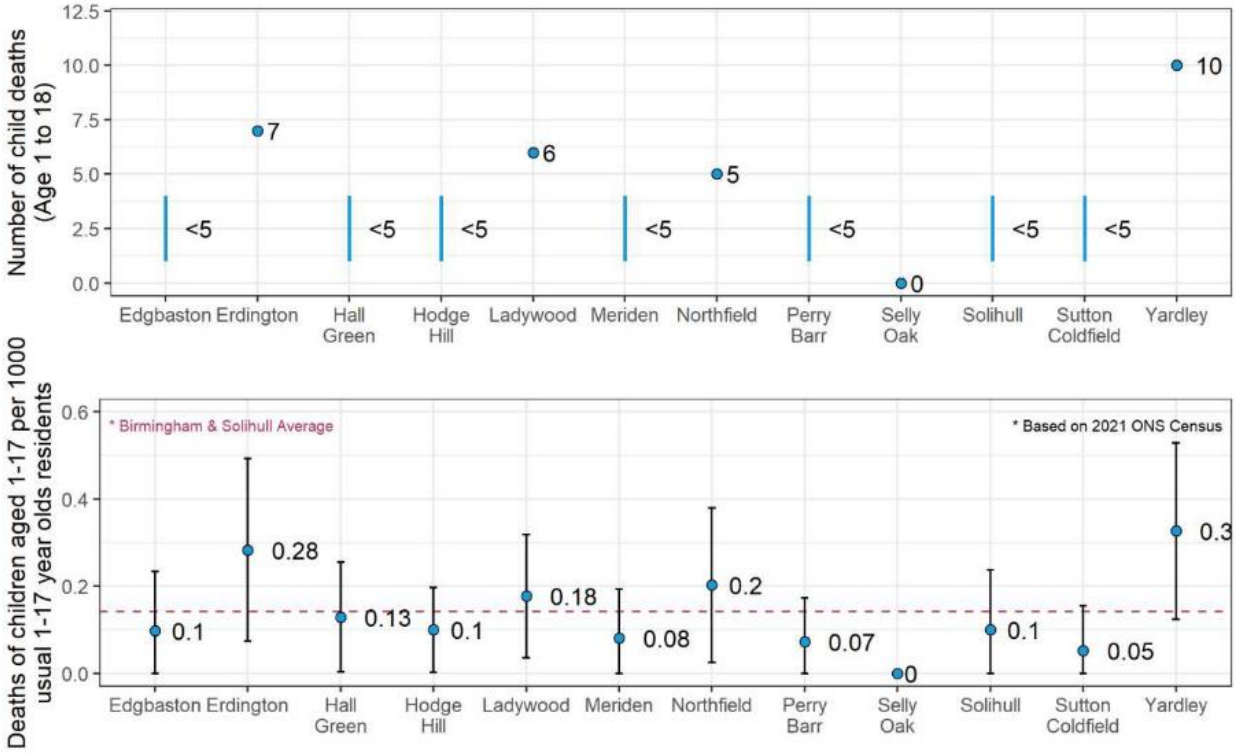
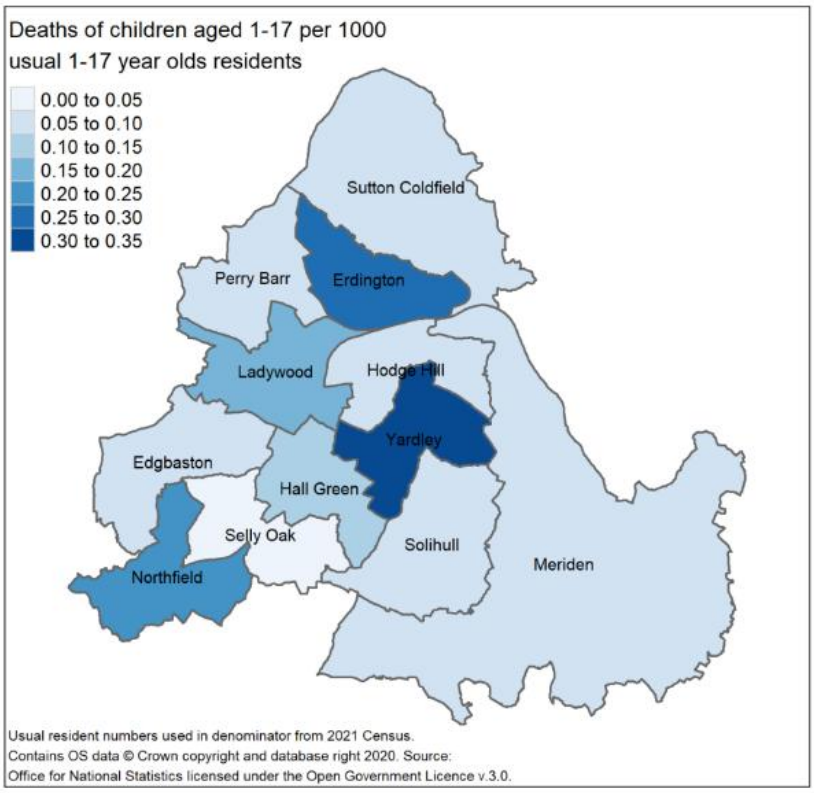



*Figure 13 – Heat map of the estimated child mortality rate for each BSol parliamentary constituency using 2021 ONS census data.*



## 5.0 Joint Agency Response (JAR)

The CDRT provides oversight and administrative support for any death which requires a JAR. The JAR should be started if a child's death:

- is or could be due to external causes;
- is sudden and there is no immediately apparent cause (incl. SUDIC);
- occurs in custody, or where the child was detained under the Mental Health Act;
- where the initial circumstances raise any suspicions that the death may not have been natural;
- in the case of a stillbirth where no healthcare professional was in attendance

There is a consultant Paediatrician from either Birmingham Community Healthcare NHS Trust or University Hospitals Birmingham NHS Trust on call 24 hours per day to support the JAR and ensure that joint home visits with the police can take place as soon as possible. This on-call duty is alongside existing clinical commitments so although the Paediatrician is always available for advice they may not be immediately available for home visits. During working hours, the lead nurse on-call from the CDRT will accompany the Paediatrician.

Each SUDIC case has an allocated lead nurse from the CDRT who co-ordinates the response with the SUDIC Paediatrician. This includes but is not limited to supporting parents/carers, attending the initial and final multi-agency meetings, safeguarding, referring cases for Local Safeguarding Child Practice Reviews where indicated, liaising with governance teams and updating providers. The CDRT nurses also lead on deaths caused by homicide cases, Road Traffic Collisions and those that occur abroad.

All agencies follow the 2016 Kennedy Guidelines[3] for investigation of SUDIC. A local Birmingham multi-agency guideline was agreed between West Midlands Police, the Birmingham Coroner and BSol CCG in May 2021.

### 5.1 JAR audit

### Joint Agency Response (JAR) Audit 2022-23

The JAR is audited annually to provide assurance that the response is compliant with national standards. A summary of the audit is presented here. It takes a minimum of 4 months (and often much longer) to complete a JAR due to the length of time needed for post-mortem reports to be completed, therefore few cases from 2022-23 will have completed the JAR process yet.

### 5.2 Audit of JAR deaths occurring year 2022-23

This audit of the Joint Agency Response (JAR) is for Birmingham and Solihull (BSol) child deaths between 1st April 2022 and 31st March 2023 inclusive.

There were 45 child deaths subject to a JAR; of these 36 children were resident in Birmingham and 9 children were resident in Solihull. This was an increase in child deaths compared to the previous two years; the total number of JARs in 2021-22 was 28 and in 2020-21 was 27. Twelve of the JARs were in the month of December 2022 which included a major incident. To add context to this 20 JARs occurred within the same 3 month period.

This had a huge impact on the workload and emotional well-being of not only the BSol CDRT but also the wider multi-agency work force and healthcare providers within the region. It is acknowledged that the multi-agency work force and regional healthcare providers would have also responded to JARs outside of the BSOL area. The CDRT thanks all involved for their hard work and support.

Figure 14a) shows the gender, 14b) the ethnicity and 14c) the age bracket of the child deaths requiring a JAR.

*Figure 14a - Gender of children requiring a JAR*

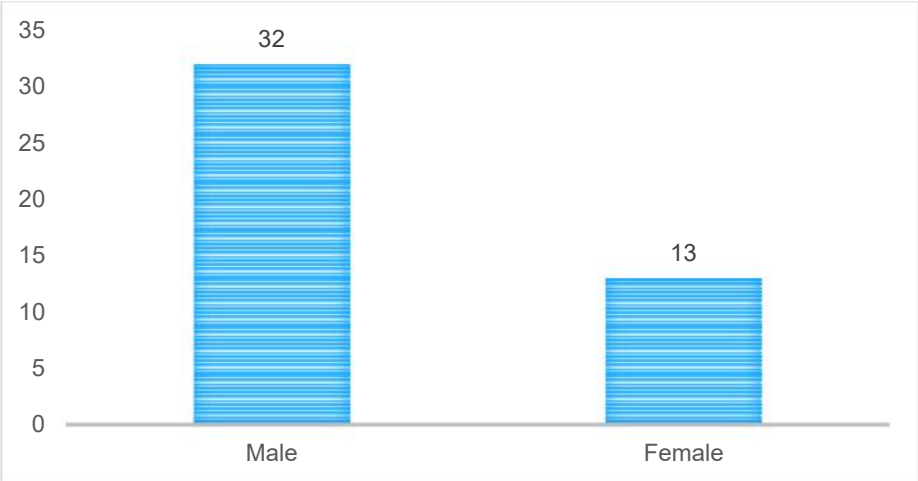



*Figure 14b – Ethnicity of children requiring a JAR*

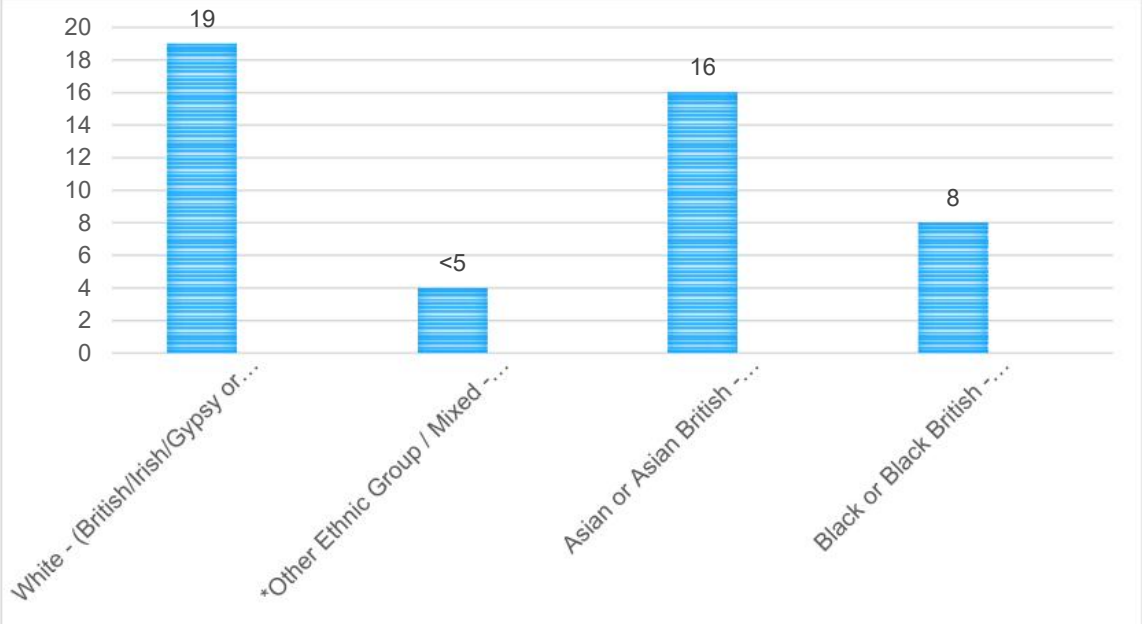
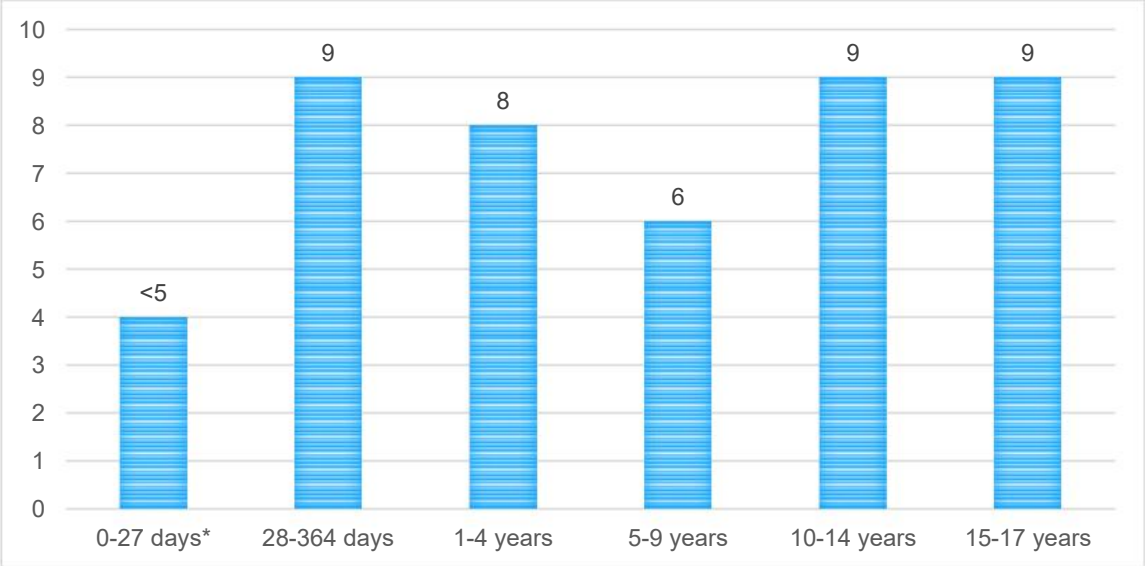


*Figure 14c – Age of children requiring a JAR*




Emergency Department attendance

36 of 45 children were taken to the ED. The remainder included deaths which occurred as inpatients and some taken directly to the mortuary.

Joint Agency Response home visit

21 joint agency home visits with Health professionals and West Midlands Police (WMP) took place. 12 home visits were conducted by WMP only due to potential criminal investigations. 11 home visits were not required as the deaths occurred in a public place, care home or Hospital.

SUDIC (Sudden unexpected/unexplained death in childhood) Paediatrician Report

30 JARs required a written report from the SUDIC Paediatrician for the Coroner; this was completed in all cases.

SUDIC Paediatricians provided a written report for the Coroner for 30 children, the remainder did not require reports as the deaths were homicide, trauma or a Medical Certificate for Cause of Death (MCCD) was issued without a post-mortem examination.

Timeframe of initial JAR meeting from date of death

The range of the initial JAR meetings was 0-9 days with a median of 3.5 days. These meetings can be deferred for school age children in the school holidays if there are no safeguarding concerns so key school staff can attend.

Attendance at initial JAR meeting

Attendance at initial JAR meetings was good by all core agencies. Health attended all of the meetings. WMP and Childrens services attended 39/40 and Coroner's investigators attended 29/40.

Local Child Safeguarding Practice Review (LCSPR) referral

9 of the child deaths were referred to the Serious Cases Review Subgroup of the Safeguarding Partnership. All referred cases had a Rapid Review and a LCSPR was undertaken in 8 cases.

Children's Services involvement

11 children were previously known to Children's services prior to their death, but not currently receiving support. 5 children were either on Child in Need plan or receiving Early Help Support at the time of their death. A smaller number were on a Child Protection plan at the time of their death. 23 children had not had any involvement with Children's services prior to their death. Following the initial JAR meeting 7 Section 47 enquiries were opened for 7 families , and a small number had Section 17 enquiries initiated.

## 5.3 Audit of JAR deaths reviewed at CDOP year 2022-23

27 child deaths requiring JAR were reviewed and closed at CDOP during year 2022-23.

19 of these child deaths were male and 8 child deaths were female.
Figure 15a) shows the CDOP year the child death occurred; 15b) the CDOP category of the child death and 15c) if modifiable factors were identified.

*Figure 15a - JAR deaths reviewed 2022-23: CDOP year of death*

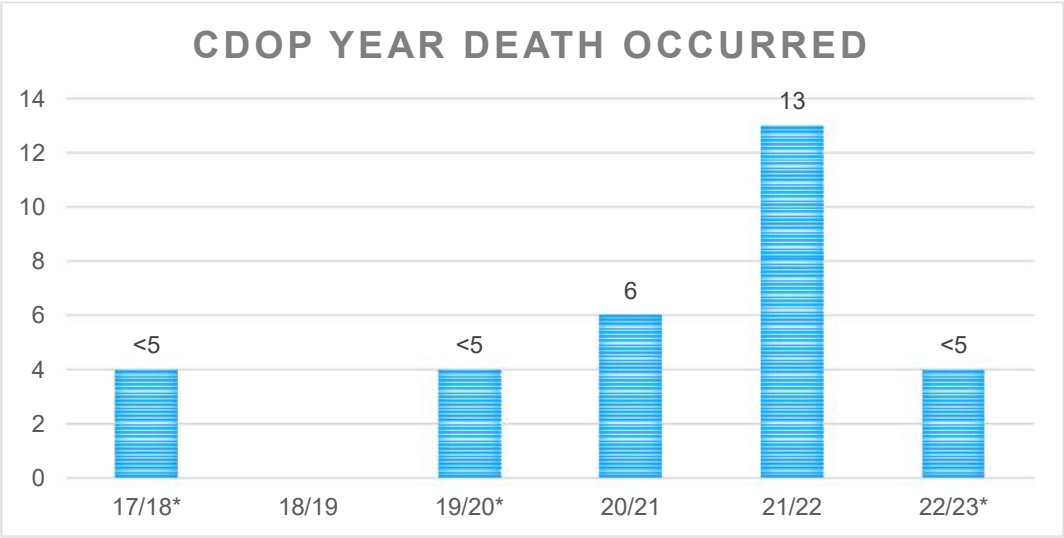
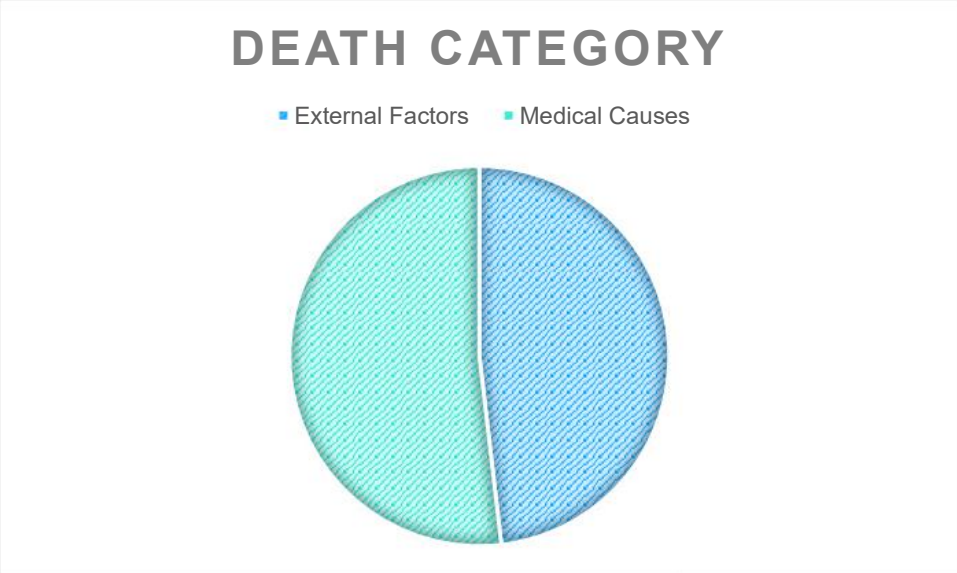
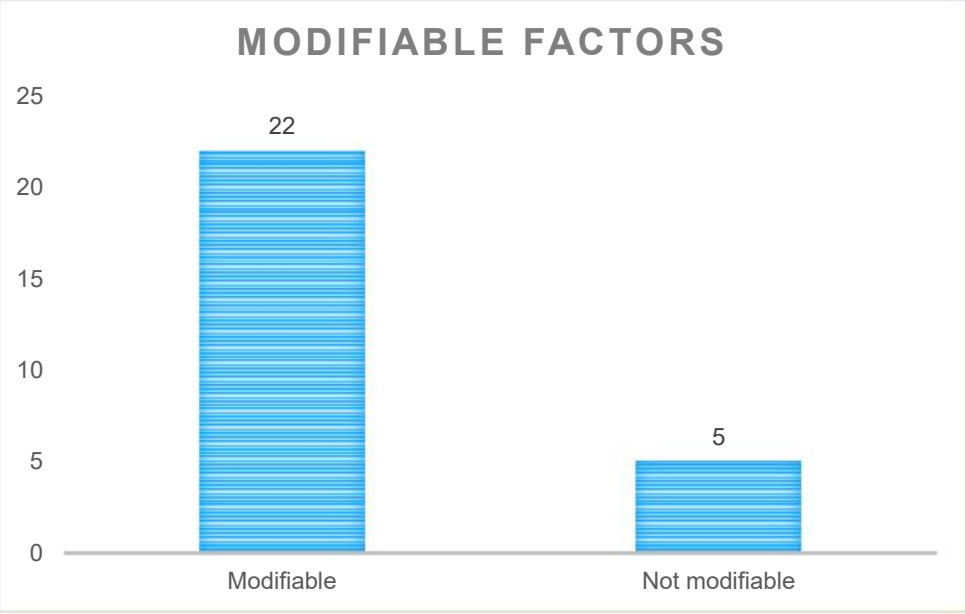


*Figure 15b - JAR deaths reviewed 2022-23: category of death*




| | |
|---|---|
| 1. Deliberately inflicted injury, abuse or neglect | External Factors |
| 2. Suicide or deliberate self-inflicted harm | |
| 3. Trauma and other external factors | |
| 4. Malignancy | Medical Causes |
| 5. Acute medical or surgical condition | |
| 6. Chronic medical condition | |
| 7. Chromosomal, genetic and congenital anomalies | |
| 8. Perinatal/neonatal event | |
| 9. Infection | |
| 10. Sudden unexpected, unexplained death | |

*Figure 15c - JAR deaths reviewed 2022-23: modifiable factors*



Modifiable factors

CDOP identified modifiable factors relating to children's intrinsic vulnerabilities including substance misuse, self-harm, risk taking/challenging behaviour, and lack of support for gender identity concerns.

Modifiable factors in the social environment included parental recognition and management of physical and mental illness, parental separation, young carers, knife crime, chaotic home circumstances and social isolation.

Modifiable factors in the physical environment related to unsafe driving, poor home accommodation and lack of safety equipment.

There were many cases with modifiable factors relating to service provision. These included poor communication between health professionals, poor communication with families including not using interpreters, lack of face-to-face consultations due to COVID and inadequate discharge planning. Specific safeguarding service issues included not following Was Not Brought (WNB) policies, not considering the Voice of the Child, lack of domestic abuse awareness, lack of multi-agency working and failure to follow escalation policies.

Final Case Discussions (FCD)

The purpose of the FCD is to analyse all information received, discuss on-going support for the family (and professionals if necessary) and identify any learning or recommendations for agencies/providers/services. These are held to conclude the JAR investigation, as such they are effected by the time scales for serious incident investigations, results of post-mortems and the conclusion of any criminal trials/LSCPR reports. FCDs were held in 18 cases.

The range of the length of time until the FCD meetings were 2 days (combined initial and final case discussion) to 19 months, with a median of 7.5 months. 9 cases did not require a FCD due to complex criminal investigations, combined initial and final JAR meetings, or the FCD had been completed prior to case transfer from Solihull, Coventry and Warwickshire CDOP.

Final home visit

At the end of the JAR investigation families are offered a final home visit by the Lead SUDIC Nurse and SUDIC Paediatrician. This is an opportunity to discuss the post mortem report, the outcome of the JAR investigation, any identified learning or recommendations and ongoing support.

24 families were offered a final home visit following the conclusion of the JAR; 11 families accepted and 13 declined. A few families could not be offered a final visit as they were in prison. The SUDIC nurses remain in contact with families throughout the JAR investigation.

Local Child Safeguarding Practice Review (LCSPR)

A LSCPR was held for 6 of the 27 reviewed cases.

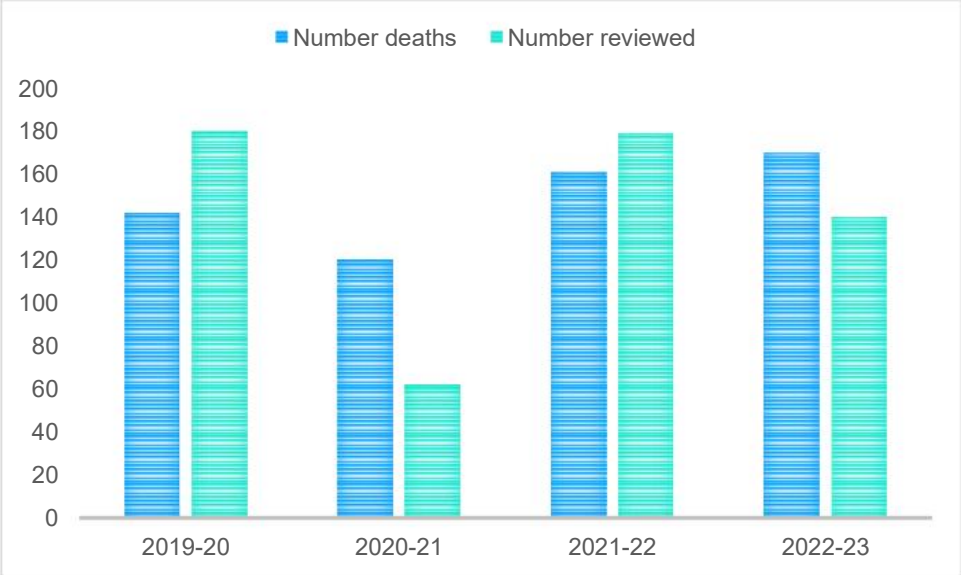
Children's Services

17 of the 27 children were previously known or known at the time of death to Children's Services and the remaining 10 were not known at all.

## 6.0 All Deaths Reviewed by BSol CDOP

140 deaths were reviewed by Birmingham CDOP, compared to 179 in 2021-22, 62 in 2020-21 and 180 in 2019-20. COVID was the reason for the reduction in reviews in 2020-21, with several CDOP meetings cancelled and delays in getting the information required from acute hospitals. These have been caught up over the last two years. The reduced number of reviews in 2022-23 is likely to reflect the lower child death rate during COVID. There were 170 deaths in 2022-23, 161 deaths in 2021-22, and 120 in 2020-21. This is illustrated in Figure 16.

*Figure 16 Number of deaths vs number reviewed at CDOP 2019-20 until 2022-23*




The majority of deaths are in infants under the age of 1 year. The breakdown of ages is shown in Figure 17a with data for 2019-20 and 2020-21 shown for comparison. Figure 17b shows the gender (where this was determinable).

*Figure 17a Age of children reviewed at CDOP 2022-23 with 2021-22 for comparison*

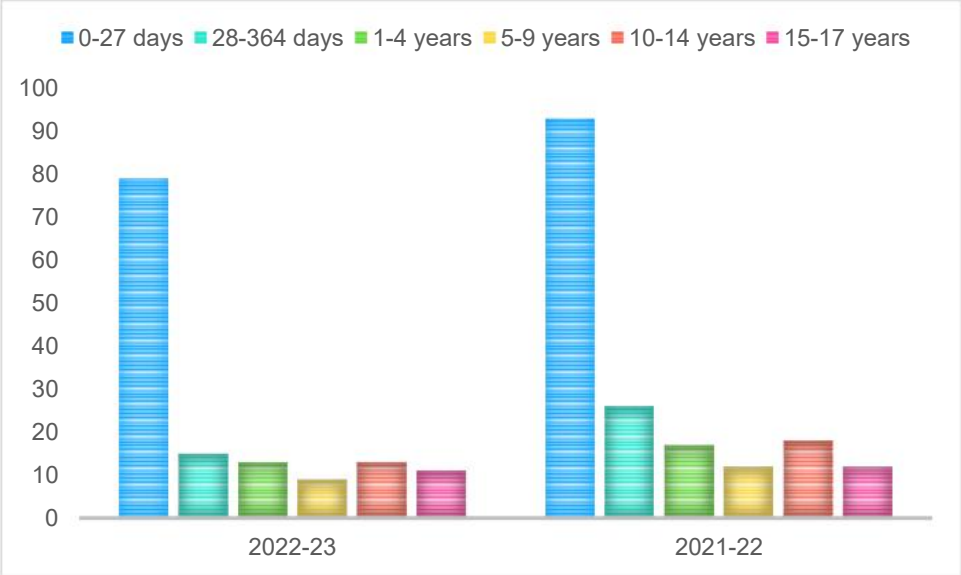
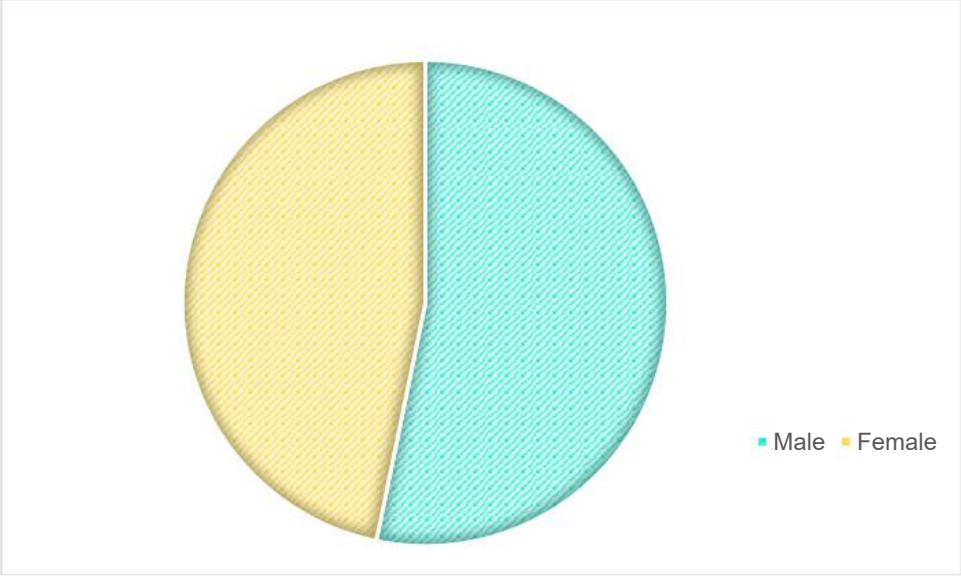


*Figure 17b Gender of children reviewed at CDOP 2022-23*

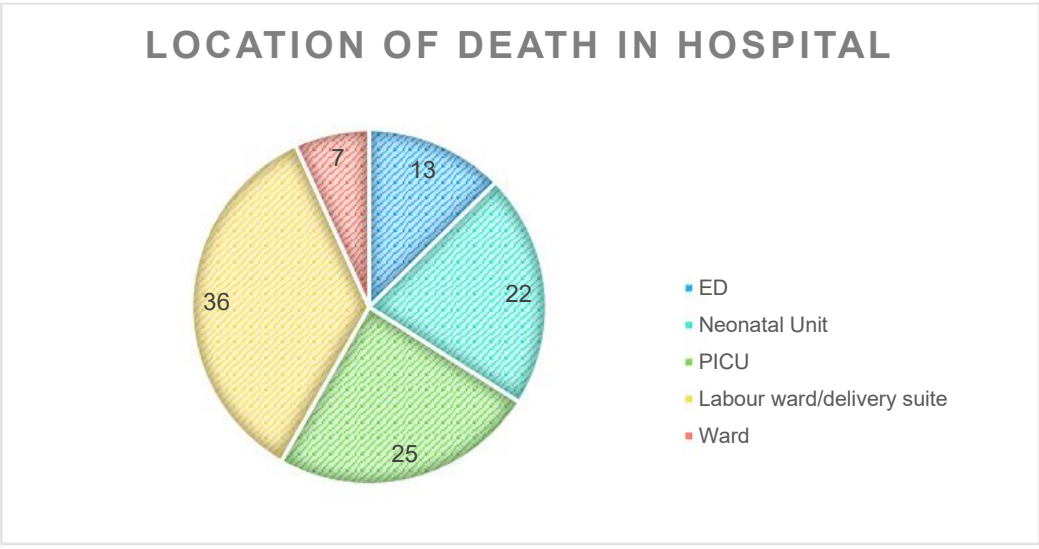



The median time for a review to be completed was 321 days (range 124 -1783). This compares to 360 days (range 91-1472) in 2021-22. For 2022-23 the median time from date of death to CDRM is 72 days, and the median time from CDRM to CDOP case closure is 236 days. There are often lengthy delays while CDOP wait to receive information from hospitals, particularly for mortality reviews to be completed at Birmingham Children's Hospital, in part due to their multi-layered mortality review process. Further delays are also unavoidable if there are criminal investigations, prosecutions or Child Safeguarding Practice Reviews.

## 6.1 Place of death

The majority of the deaths occurred in hospital (80%) or at home (15%) with a small number occuring in a hospice, apublic place or abroad. Most of the hospital deaths occurred on labour ward, PICU or the Neonatal Unit. This is illustrated in Figure 18.

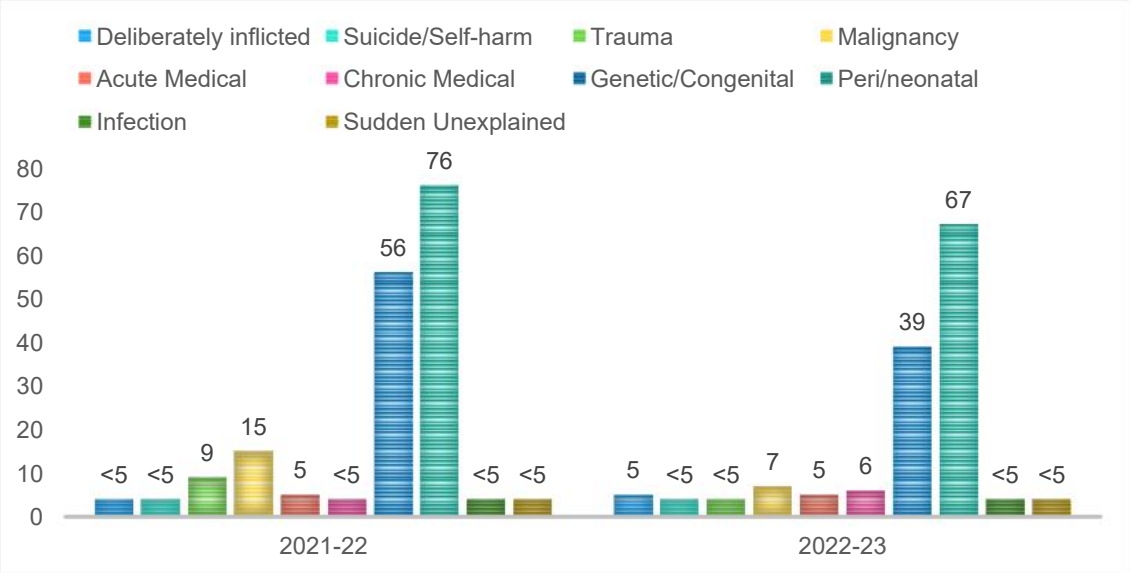
*Figure 18 Location of hospital death 2022-23*



## 6.2 Cause of death and modifiable factors

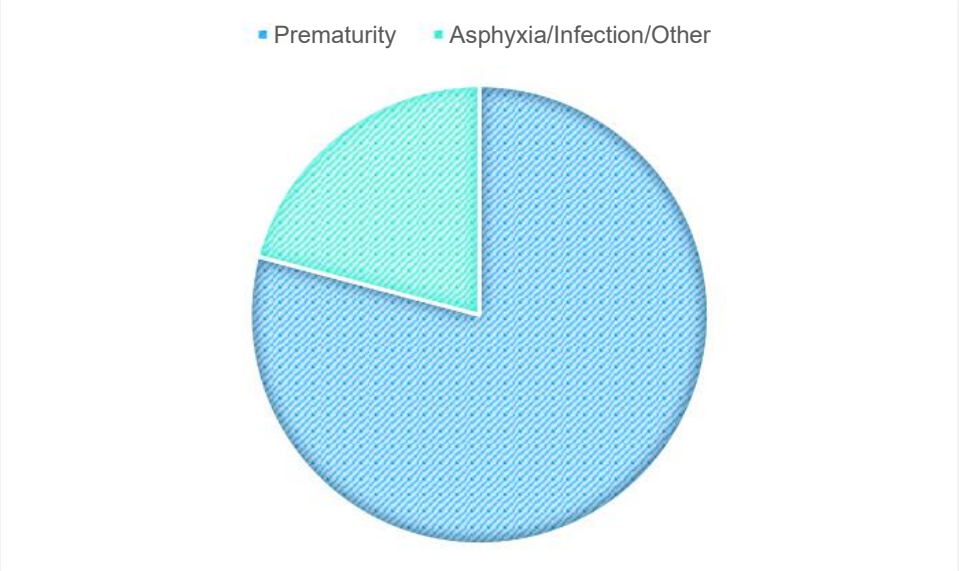
CDOP categorises deaths into broad categories, the frequency of deaths in each category varies with age as shown in Figure 19.

*Figure 19 Causes for death 2022-23, with 2021-22 for comparison*



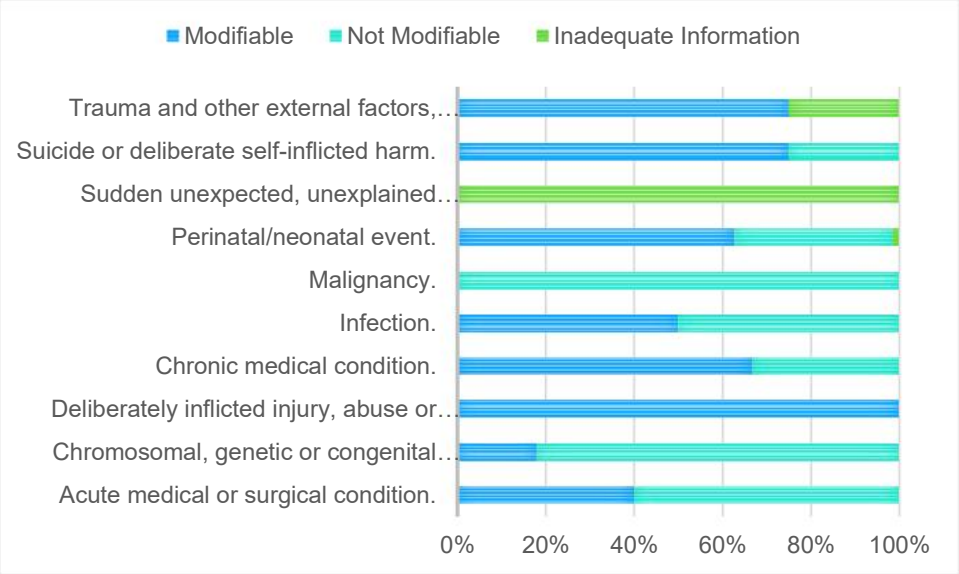

The Peri/Neonatal deaths are further subdivided into categories as detailed in Figure 20.

*Figure 20 Sub-categorisation of Peri/Neonatal deaths, 2022-23*



CDOP consider whether each death is preventable based on the presence of modifiable factors. These are defined as '… factors in any domain, which may have contributed to the death of the child and which, by means of locally or nationally achievable interventions, could be modified to reduce the risk of future child deaths.' In total 59/179 (33%) of deaths had modifiable factors, which is similar to 2020-21 (34%). The proportion of each category with modifiable factors is illustrated in Figure 21.

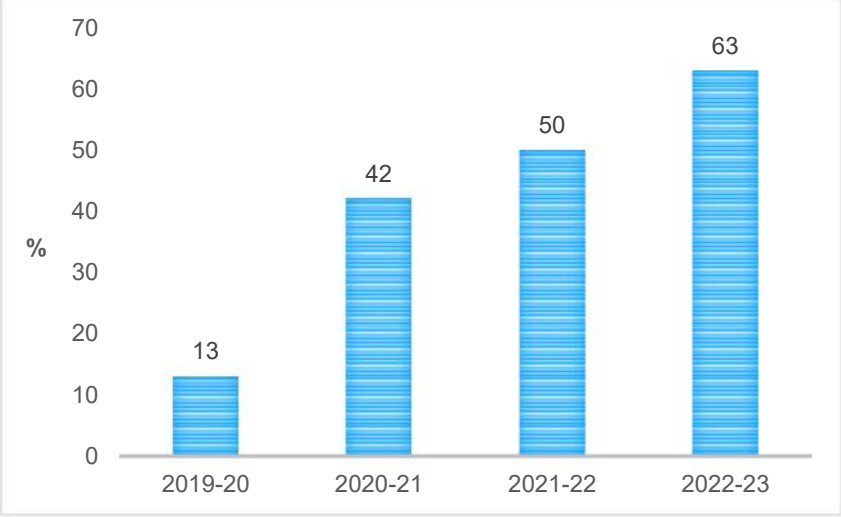
*Figure 21 Modifiable factors and category of death 2022-2023*




## 6.3 Modifiable factors for Perinatal and Neonatal Deaths

Notably, 63% (42/67) of our perinatal/neonatal deaths had one or more modifiable factor recognised. There has been a steady increase in this over the last 2 years, as demonstrated in Figure 22.

*Figure 22 Percentage of Perinatal and Neonatal Deaths with modifiable factors from 2019-20 until 2022-23*



We now receive high quality information in the form of the hospital completed Perinatal Mortality Review Tool (PMRT)[4], which is an evidence based template for reviewing stillbirths and neonatal deaths born after 22 weeks gestation. In addition to this, deaths of term babies (over 37 weeks gestation) who died within the first week of life were also reviewed by the Healthcare Safety Investigation Branch (HSIB)[5] and these reports were also reviewed as part of the CDOP process.

We hold specialist neonatal CDOPs, with consultant neonatologists and specialist midwives present enabling clinical experts to contribute to reviews. In Birmingham, there are three NHS Trusts with maternity hospitals: Birmingham Women's Hospital, Heartlands Hospital (University Hospitals Birmingham) and City Hospital. We hold separate CDOP meetings for cases from each hospital, with clinicians from the other hospital attending to review cases; this ensures both clinical expertise and a high degree of scrutiny with independent experts.

Some cases had more than one modifiable factor identified. There were 42 cases where modifiable factors were identified, and a total of 71 modifiable factors were identified within them.

Similarly to 2021-22, most of the modifiable factors identified in perinatal and neonatal deaths were related to suboptimal maternal health, namely maternal smoking (increasing risk of premature delivery and low birth weight) and maternal weight (obesity or underweight). There were some modifiable factors with service provision regarding antenatal care (e.g. not being referred to Preterm Prevention Clinic when indicated in national guidance, not being persistent enough when women did not attend appointments), intrapartum care (around the time of birth, e.g. incorrect monitoring/misinterpretation of cardiotocography monitoring, not giving or delay in giving Magnesium Sulphate or steroids when indicated) and with neonatal care (e.g. extremely premature babies being born in hospital that did not have tertiary NNU and then requiring transportation, which is associated with worse outcomes). The modifiable factors for perinatal and neonatal deaths are shown in Figures 23a and 23b.

*Figure 23a Modifiable factors for perinatal and neonatal deaths: Broad category*

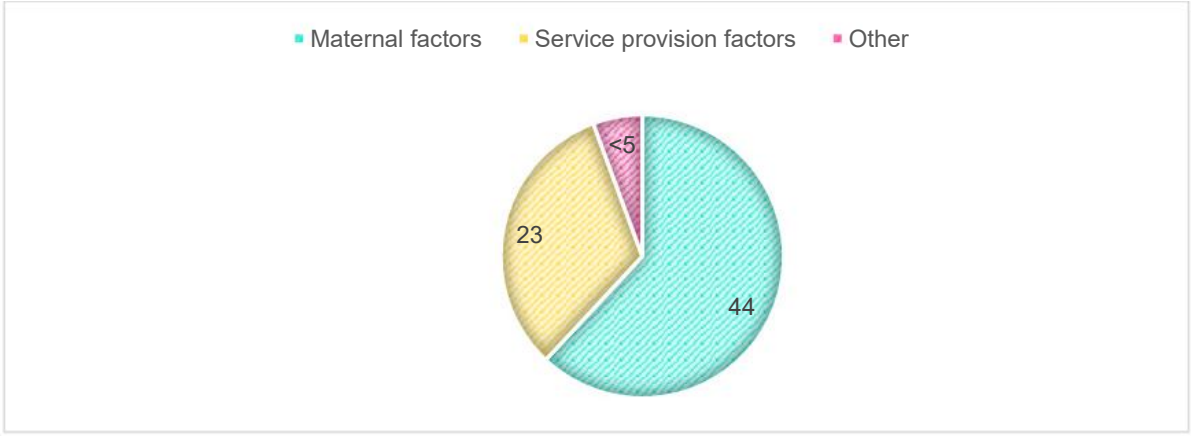
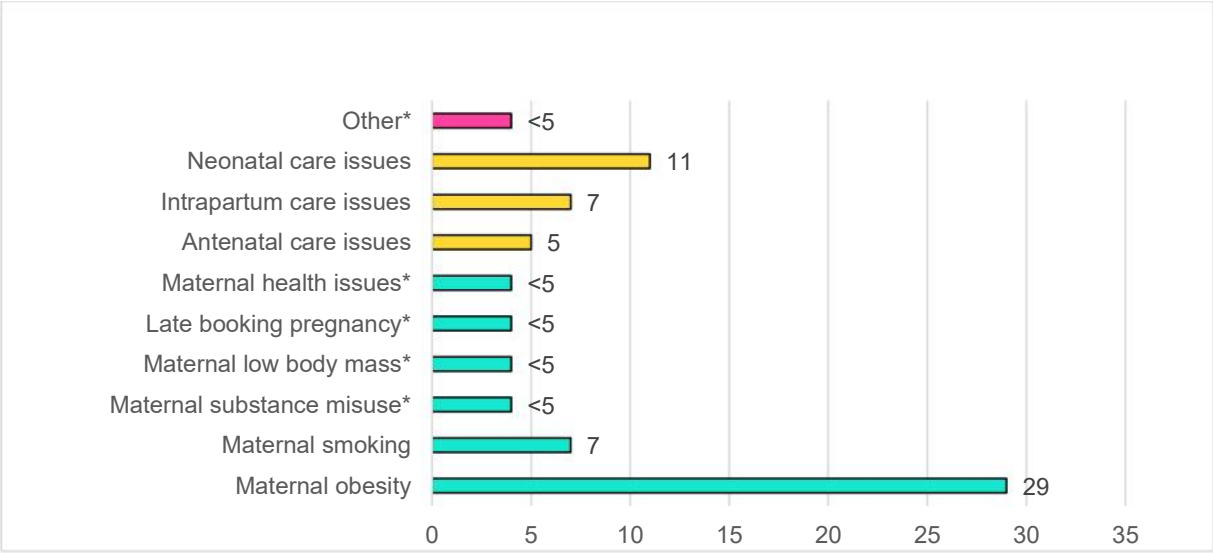


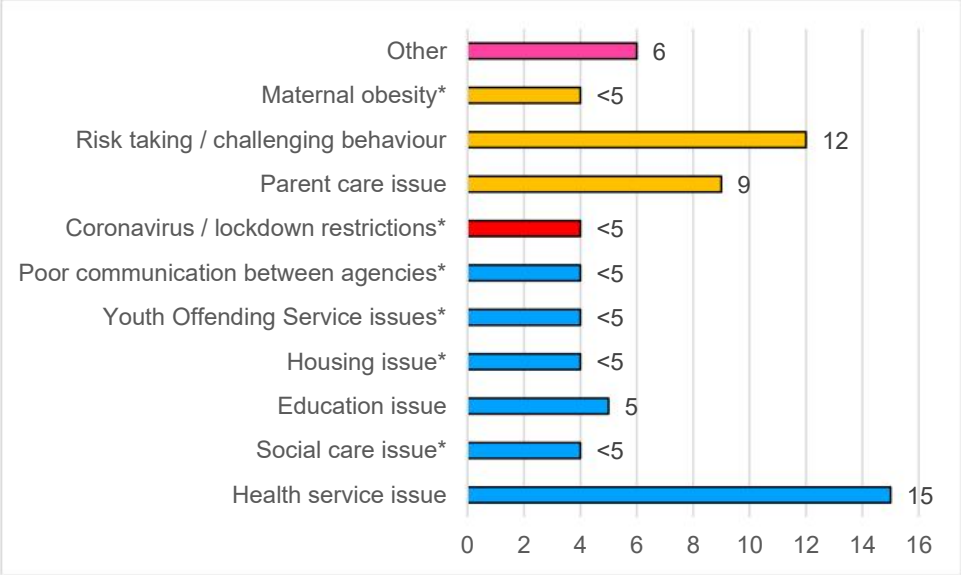
*Figure 23b Modifiable factors for perinatal and neonatal deaths: Subcategory (* numbers <5)*




## 6.4 Modifiable factors in other deaths (excluding perinatal and neonatal deaths)

Out of the 73 other (non-neo/perinatal) deaths, modifiable factors were identified in 25 cases. Some cases had more than one modifiable factor identified; there were 64 modifiable factors in total. Figure 24 demonstrates the themes of these factors.

*Figure 24 Modifiable factors for 'other' (non-neo/perinatal) deaths (* number <5)*




Modifiable factors in health service provision included delay in diagnosis, delays in transfer to tertiary centers, delay in follow up and management of WNB (Was Not Brought).

Modifiable factors in other (non health) service provision included school exclusions, delay in housing adaptations, cases not escalated to MASH (Multi Agency Safeguarding Hub) when indicated, and poor communication between agencies.

Several deaths involved risk taking behaviors in either the child or in those responsible for the child's death. A separate analysis of adolescent deaths below in Section 7 of this report explores this in more detail.

Parental consanguinity was noted to be present in 11 of the 39 Congenital/Chromosomal deaths. In 10 of these cases the consanguinity was felt to be contributory to the death. These were not classified as modifiable, in line with NCMD guidance[6].

### 6.5 Learning from deaths

66/140 (47%) reviews identified relevant learning, even though in most cases this would have made no difference to the outcome for that child. This is an increase compared to 2021-22 where 35% reviews identified learning. This increase is likely to be due to concerted effort by the CDR team to ensure all learning is captured on the eCDOP analysis form (as this was one of the objectives set for this year following the 2021-22 Annual Report).

Much of the learning was identified by provider trusts at internal CDRM or through the Healthcare Safety Investigation Branch.

Key learning was identified in deaths from asthma. This resulted in development of training for primary care, and following a Serious Case Review of one of the deaths resulted in 7 minute briefing on Childhood Asthma and Neglect, and a video was produced to increase awareness 'Managing Asthma in Children'.

Learning from congenital/chromosomal deaths included the need to offer genetic testing and post mortems even if baby is on a palliative pathway from the outset, as this may have implications for planning future pregnancies. Also identified learning included the need for earlier involvement of palliative care team (at the antenatal stage) for babies with likely non-survivable congenital anomalies identified on antenatal scans.

Learning from Peri/Neonatal deaths included optimizing maternal care in threatened preterm labour, management and training on CTG use/interpretation, following Neonatal Life Support guidelines, and importance of 'Golden Hour'. Golden Hour is the concept that neonates being admitted to a neonatal unit should have interventions like placing Intravenous lines, giving fluids and antibiotics and setting up monitoring all completed as soon as possible with no avoidable delay to allow a hands-off eyes-on approach meaning that the baby can then be left to rest with minimal handling (excessive handling is associated with poorer outcomes).

### 6.6 Learning from what went well

As well as learning from what went wrong, it is also an important role of CDOP to review and highlight positive factors in provision and examples of best practice. 36/140 deaths reviewed had examples of positive service provision or best practice. Examples included members of staff coming to work on their days off to help and good joint working with hospital teams and palliative care.

## 7.0 Adolescent Deaths

This year we took a closer look at our adolescent deaths (aged 10-17 years). A higher proportion of adolescent deaths were male (67%), compared to deaths across all ages (where 53% were male). A higher proportion were unexpected (58%) compared to deaths across all ages (19%). In fact, over 50% of all unexpected deaths occurred in adolescents (14/27) demonstrating this is a vulnerable age. Risk taking behaviours were a theme particularly in the non-natural deaths (Categories 1-3: deliberately inflicted, suicide/self-harm, trauma). Figure 25 demonstrates a) age, b) gender c) if death was expected or unexpected and d) CDOP categorisation of death.

*Figure 25a Adolescent deaths: Age category at time of death*

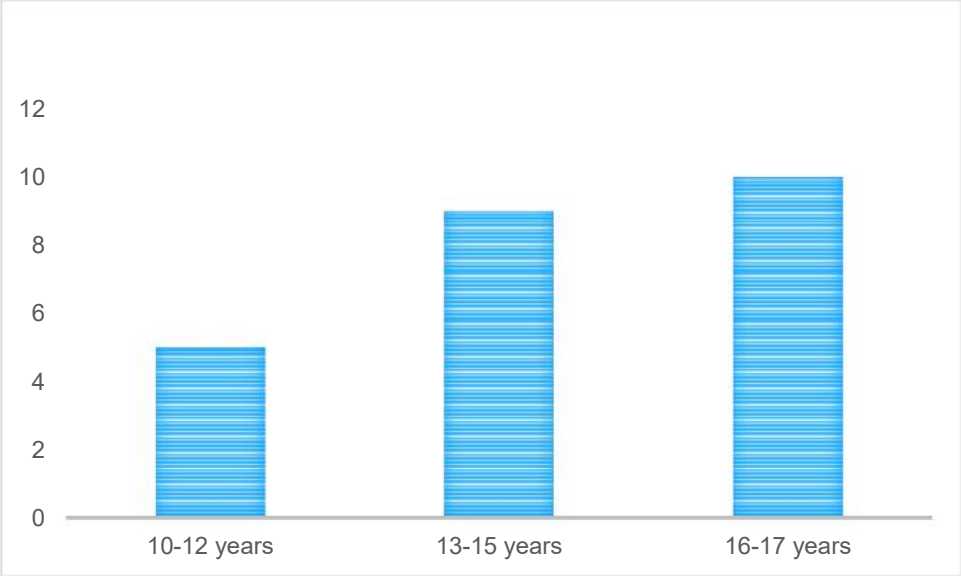



*Figure 25b Adolescent deaths: Gender*

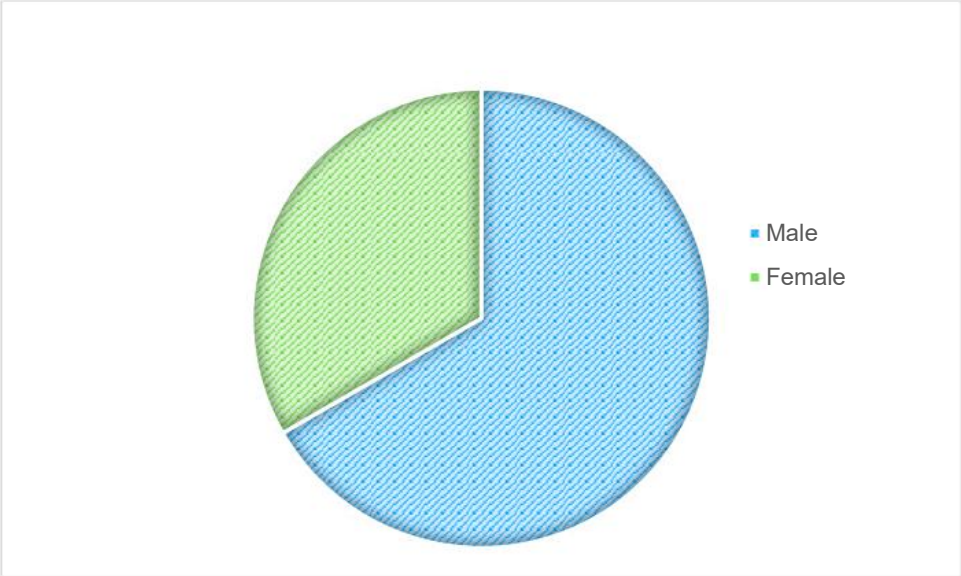


*Figure 25c Adolescent deaths: Expected or unexpected death*

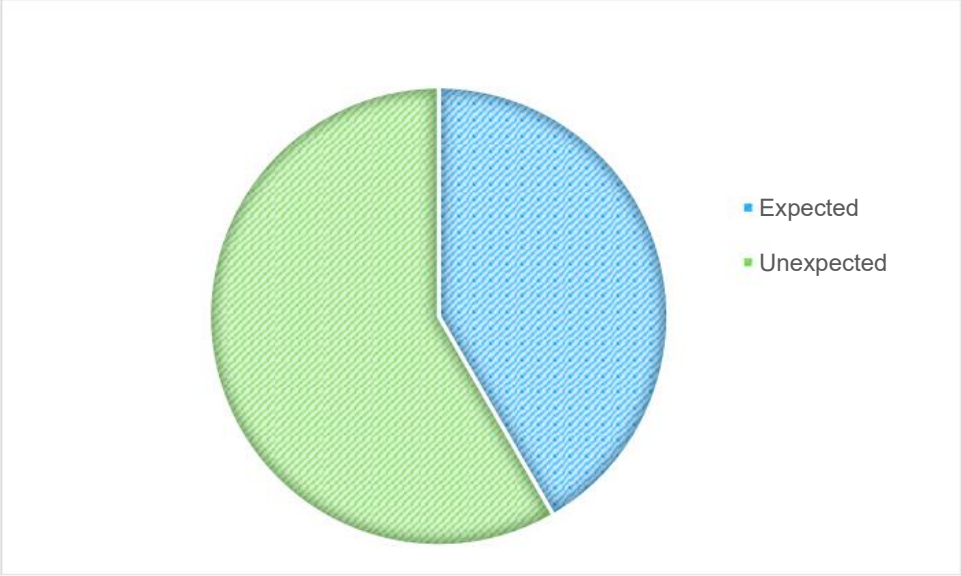
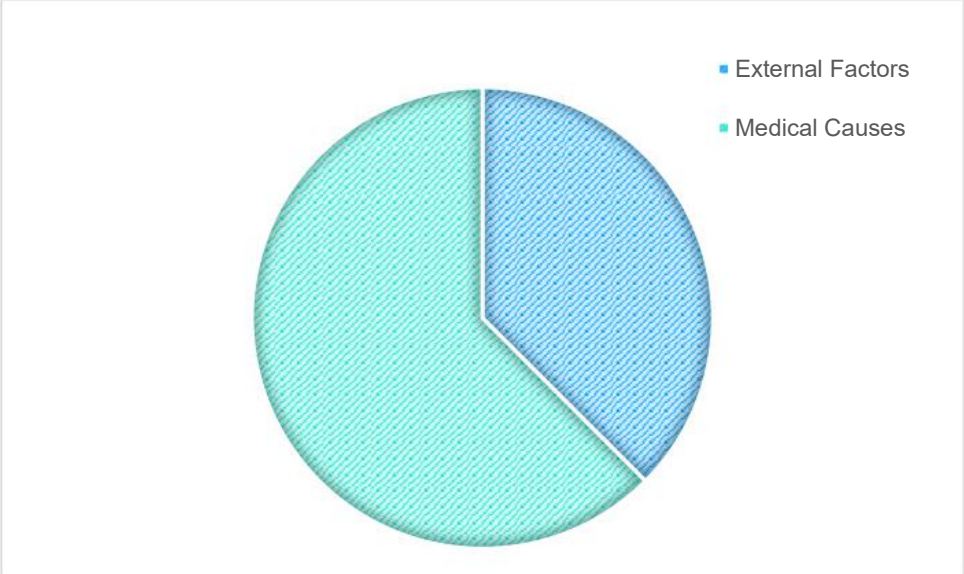



*Figure 25d Adolescent deaths: CDOP category of death*




| | |
|---|---|
| 1. Deliberately inflicted injury, abuse or neglect | External Factors |
| 2. Suicide or deliberate self-inflicted harm | |
| 3. Trauma and other external factors | |
| 4. Malignancy | Medical Causes |
| 5. Acute medical or surgical condition | |
| 6. Chronic medical condition | |
| 7. Chromosomal, genetic and congenital anomalies | |
| 8. Perinatal/neonatal event | |
| 9. Infection | |
| 10. Sudden unexpected, unexplained death | |

## 8.0 Learning Disability Mortality Review (LeDeR) - 2022-23

The Birmingham and Solihull (BSOL) Child Death Overview Panel (CDOP) reports deaths of children with a learning disability to LeDeR via the online referral form and provides core information about the child. CDOP is a statutory requirement under Working Together 2018. The purpose of CDOP is to review the interventions leading up to and surrounding all child deaths and ensure that any learning from those deaths is implemented effectively by partners. Additional CDOP documentation containing details regarding the circumstances leading to death is submitted following the comprehensive review at CDOP. This analysis form is then uploaded to the LeDeR database. The analysis form lists any common contributory factors leading to deaths:

- Factors that may have contributed to the vulnerability, ill health or death of the child
- Modifiable factors that may reduce the risk of future child deaths
- Learning points and issues identified in the review
- Recommendations and actions that may inform and support local, regional or national learning

This information is submitted to the LeDeR platform and themes and trends are collated for the city.
As of 1st July 2023, LeDeR policy relating to the deaths of children and young people under the age of 18 is changing. There will no longer be any requirement for deaths of children with a learning disability to also be notified to LeDeR.

This change is being made because it is important that the deaths of children with a learning disability and autistic children are reviewed by the national mandated processes that look at the deaths of all children.

Autism will be added to the national child mortality review child notification which will enable more in-depth analysis of the deaths of autistic children and young people for the first time.

The approach will reduce duplication of effort for systems. There will no longer be an expectation that the analysis forms from child death reviews are uploaded by ICBs into the LeDeR web platform.

There will be greater opportunity for the analysis of the deaths of children with a learning disability and autistic children – via the NCMD and via the LeDeR programme, working with our academic partners. The NCMD have been commissioned to do a thematic review of children with a learning disability and autistic children which is expected to be published in Autumn 2024.

There will be a data sharing agreement between NCMD and Kings College London (KCL) so data will still flow to LeDeR and it can be included in the annual report for analysis.

Relationships between LeDeR governance and child death review panels should be strengthened with agreements in place which enable the sharing of learning to improve services for people with a learning disability and autistic people of all ages.

ICB's will need to take a decision as to how to manage child deaths review currently in the LeDeR system in progress.

Total number of deaths in this period – 170
Number of LeDeR referrals – 16 (9.4%)
10 of these deaths were expected and 6 were subject to the Joint Agency Response process as these deaths were not anticipated as a significant possibility 24 hours before the death, or where there was a similarly unexpected collapse leading to or precipitating the events which led to the death.
Of the 16 cases that have been referred 9 had appropriate Advanced Care Plans (ACP) in place.
Reviews completed – 7

| **Age range** | |
|---|---|
| 5 - 7 | <5 |
| 8 - 10 | 5 |
| 11 - 13 | 7 |
| 14 - 17 | <5 |

| **Gender** | |
|---|---|
| Male | 8 – 50% |
| Female | 8 – 50% |

| **Ethnicity** | |
|---|---|
| White British / Other | 5 |
| Asian/Asian British | 9 |
| Other Ethnic Group / Mixed | <5 |

| **Classification of death at CDOP** | |
|---|---|
| Chromosomal, genetic or congenital anomaly | <5 |
| Chronic medical condition | <5 |
| Acute medical or surgical condition | <5 |
| Cases not yet reviewed at CDOP | 9 |

| **Modifiable factors** | |
|---|---|
| Modifiable factors | <5 |
| No modifiable factors | <5 |
| Not yet reviewed at CDOP | 9 |

Modifiable factors Modifiable are defined as 'those, where, if actions could be taken through national or local interventions, the risk of future child deaths could be reduced.
Themes throughout the cases include;

- Good communication between agencies involved with the child and family
- Parents/carers engagement with services
- Excellent provision of care
- Constraints of Coronavirus restrictions on face-to-face appointments
- Palliative Care team receiving debrief sessions from BCH Chaplaincy

## 9.0 Progress towards targets

In our last annual report we stated the following targets for this year as:

1. To ensure BCH implement joint CDRM for all deaths

*Significant support has been given to assist implementation. Some joint CDR meetings have occurred, and the benefit has been acknowledged. BCWH have made a business case for a co-ordinator to assist in implementation. However this has not been achieved yet and so remains a target for 2023-24.*

2. To continue to catch up on cases delayed due to the Covid-19 pandemic
   *This has been addressed and there is now no backlog related to Covid-19*

3. Ensure that all lessons learnt from the whole death review process are captured on eCDOP Analysis Form.
   *This is evidence from the increased proportion of cases with lessons learnt as detailed in Section 5.5*

4. Ensure all CDRM are multi-agency and external professionals invited

   *The CDOP Co-Ordinator advises the Trusts who should attend the CDRM from external agencies and we are assured that they are invited.*

5. To provide Joint Agency Response (JAR) training for health, police and coroners staff
   *A joint training day on the JAR was held in July with police, coroners, paediatricians and nurses, providing general refresher training and focusing on the most challenging JAR cases.*

6. Closer working with public health. Completing thematic analysis of deaths:
   a. Consanguinity
   b. Deaths compared to social deprivation
   c. Perinatal deaths and maternal health

   *Joint working with Public Health has enabled us to statistically analyse the data gathered at CDOP in more detail. Public Health colleagues worked closely with the CDRT to compile this report, and their support in this was very gratefully received. Information from infant mortality and the link to preconceptual maternal health has informed the Public Health strategy for BSol. Consanguinity was not analysed but will be addressed in 2024.*

## 10.0 Recommendations for 2023-24

1. To ensure BCH implement joint CDRM for all deaths
2. Continued close working with public health. Thematic analysis of Consanguinity and the impact on infant mortality.
3. To gain greater understanding of parent/carer experience of the JAR process by collecting their feedback and using this to inform/improve service provision.

## 11.0 Conclusion

The year 2022-23 has been a challenging year for the CDR team with some difficult peaks in SUDIC in December 2022-Jan 2023 including a major incident. This had a huge impact on the team, and supporting each other was key during this time. Restorative supervision has been organized for administrative staff and the child death nurses receive psychological supervision.

The quality of information available to CDOP when cases are reviewed has improved significantly. Whilst this has led to better recognition of modifiable factors and more learning arising from deaths, this rich information also leads to associated challenges as CDOP meetings and the associated preparation takes much more time.

Over the coming year we aim to continue to work more closely with our Public Health colleagues, so that the data we gather can inform strategies to reduce childhood (and in particular the infant) mortality rates in Birmingham and Solihull.

## 12.0 References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6. https://www.ncmd.info/wp-content/uploads/2023/01/NCMD-Guidance-on-Consanguinity.pdf



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