

# **Bradford Child Death Overview Panel Annual Report 2021-22 to 2022-23**

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The death of a child is a profoundly devastating event which affects parents, siblings, and communities. The Bradford Child Death Overview Panel treats every death reviewed with respect and compassion, and this report is dedicated to all families, friends and loved ones of the children and young people in this report.

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## 1. Introduction

The Child Death Overview Panel (CDOP) is a multi-agency group brought together to systematically review all deaths in children and young people from birth up to the age of 18 years in order to understand how and why children die in the district. In particular, the CDOP looks for factors contributing to a child's death that may have been modifiable, and where shared learning could reduce the chances of a recurrence of the circumstances around that death.

The Bradford CDOP was first established in 2008 by the Bradford Safeguarding Children Board (BSCB), in order to meet national statutory requirements. Guidance for CDOP panels is provided by the Department for Health and Social Care and the Department for Education, and is based on statutory guidance set out in "Working Together to Safeguard Children" [1]. The Bradford CDOP service is jointly funded by CBMDC and WY ICB (Bradford District and Craven place).

### 1.1 Review process following the death of a child

When a child who is a resident of Bradford dies, the events surrounding their death are discussed in a number of meetings, depending on the circumstances. In addition to the meetings and stages outlined in

Linked to the process following the death of a child, the Bradford and Airedale Sudden Unexplained Death in Childhood (SUDIC) Team have now completed a number of Rapid Response Investigations in children and young people presenting with Acute Life Threatening Events (ALTE). There are future plans for also reviewing the data pertinent to these cases.

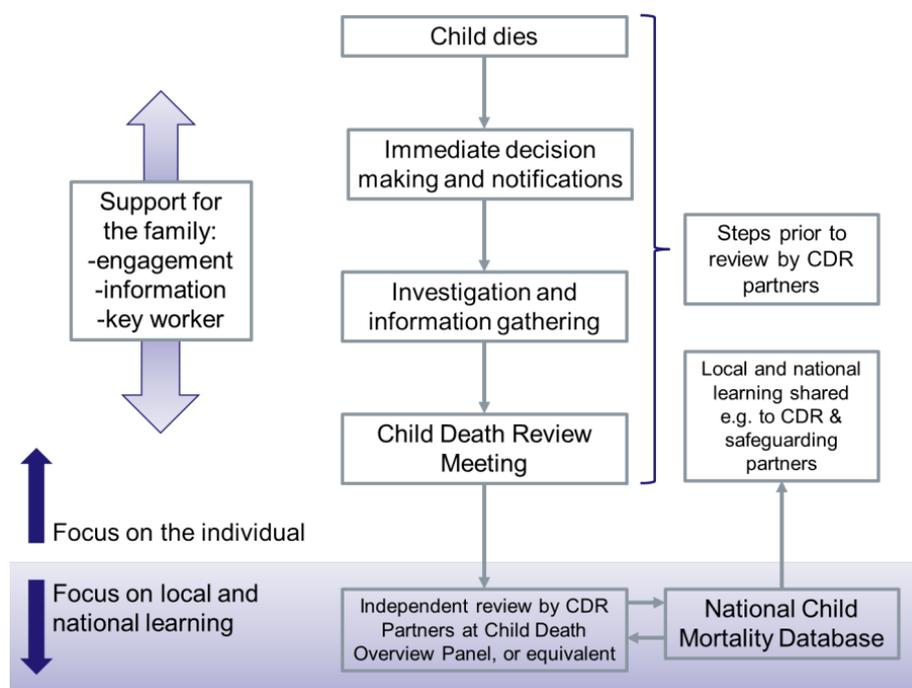
Figure 1, below, a death may also be discussed at a coronial investigation, joint agency response, NHS serious incident investigation, and in paediatric/ obstetric/ neonatal meetings, if it meets the criteria for one or more of these.

Discussion at the Child Death Overview Panel is the last stage in a process of review by different groups. As set out in national statutory guidance, the CDOP meets as a multiagency group collating all other reports and information from other agencies and services with involvement in the child's life and death. Anonymous information about each child is then submitted to the National Child Mortality Database [2], which collates the

information and produces reports about numbers of deaths from different causes in local, regional, and national areas.

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Figure 1: process following the death of a child (reproduced from [1])



This database system allows for regions to compare their own findings against those of neighbouring regions and the rest of the country. This means that we can both identify any locally-specific issues, and also pool data with other areas to generate more robust recommendations. For this reason, this annual report will be slightly different to previous reports, in having both comparison and pooled data with other areas to allow for different learning to be identified.

## 1.2 Methods

The data in this paper are taken from two separate reports (not publicly available), supplied by the National Child Mortality Database:

1. Deaths reviewed by Bradford CDOP between 1<sup>st</sup> April 2022 and 31<sup>st</sup> March 2023;
2. Deaths reviewed by Bradford CDOP and other regional CDOPs between 1<sup>st</sup> April 2019 and 31<sup>st</sup> March 2022, for which more detailed information is available from the regional data review.

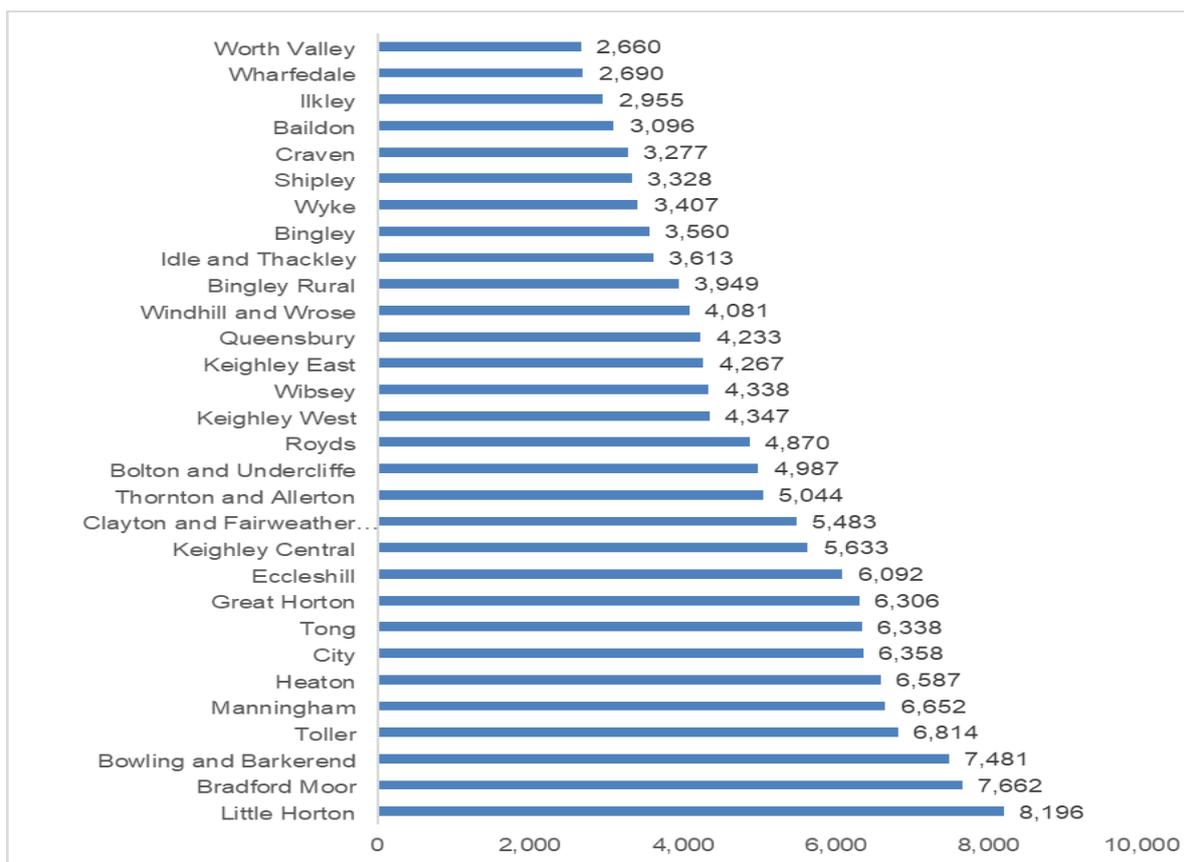
Unless otherwise specified, all data are taken from these two documents. Where numbers of children with a particular demographic are lower than 5, these will be presented within an aggregated category or redacted for the purposes of this paper.

## 2. The population of children and young people in Bradford

Bradford is now the seventh largest local authority in England in terms of population size after Birmingham, Leeds, Cornwall, Sheffield, Buckinghamshire and Manchester. This is a fall of two places in the last decade. Bradford has the 3<sup>rd</sup> highest number of 0-15 year olds in the country, at 117,100 after Birmingham and Leeds.

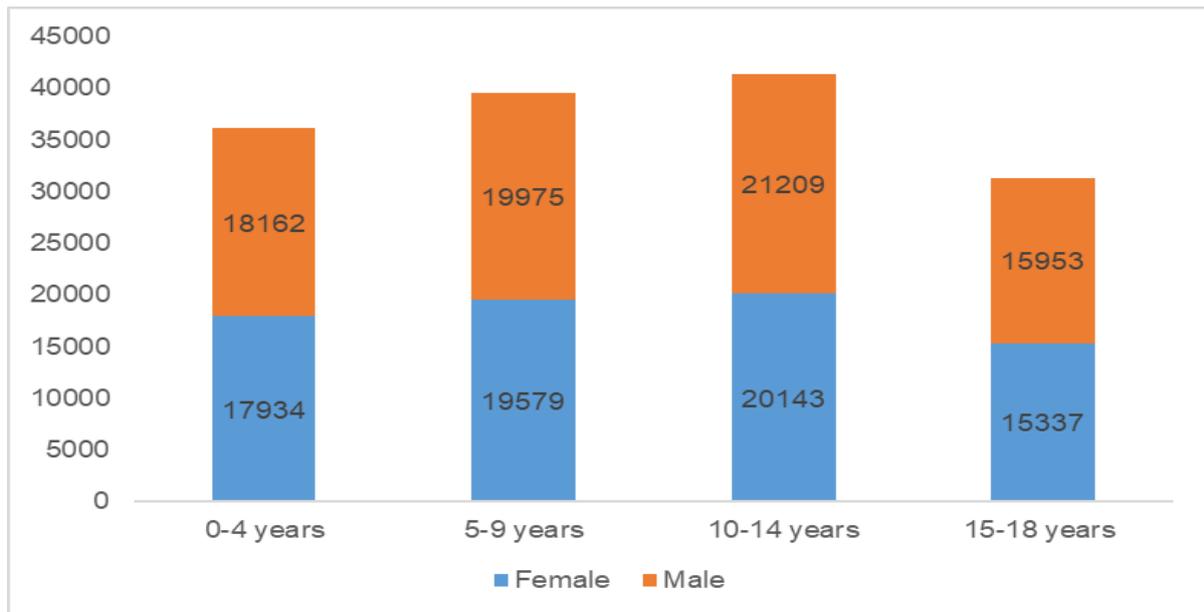
In 2021, it was estimated they were 148,291 children and young people in the Bradford district aged between 0–18 years. Little Horton had the highest number of children and young people (8,196) aged 0-18 years with Worth Valley the lowest at 2,660 [3] (Figure 2).

Figure 2: Population aged 0-18 years in Bradford by Ward, 2021 [3]



In Bradford there are roughly equal numbers of female and male children, with 49.2% of the 0-18 years' population being female and 50.8% male [3] (Figure 3).

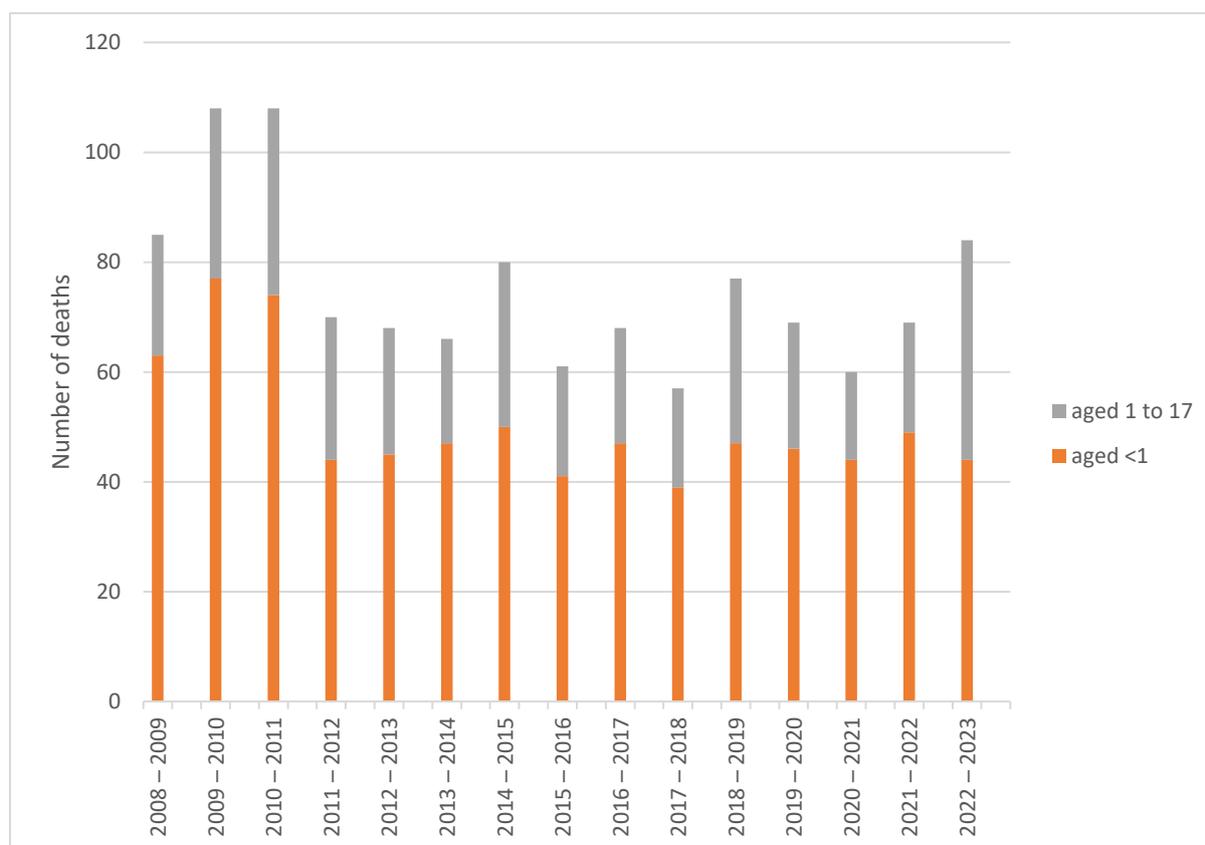
Figure 3: Population aged 0-18 years in Bradford by age group and sex, 2021 [3]



### 3. Child Deaths reviewed by CDOP

In the most recent year of 2022-23, a total of 84 deaths occurred among children from birth to 18 years of age. Since the inception of the CDOP process, the number of deaths among children in Bradford has been fairly stable following a relatively high number of deaths in the years from 2008 to 2011. The year 2022/23 saw a small increase in the number of deaths compared to the previous few years, mostly accounted for by an increase in the number of deaths among children aged 1 to 17 years (Figure 4).

Figure 4: Number of deaths of children and young people occurring between 2008-09 to 2022-23, in Bradford



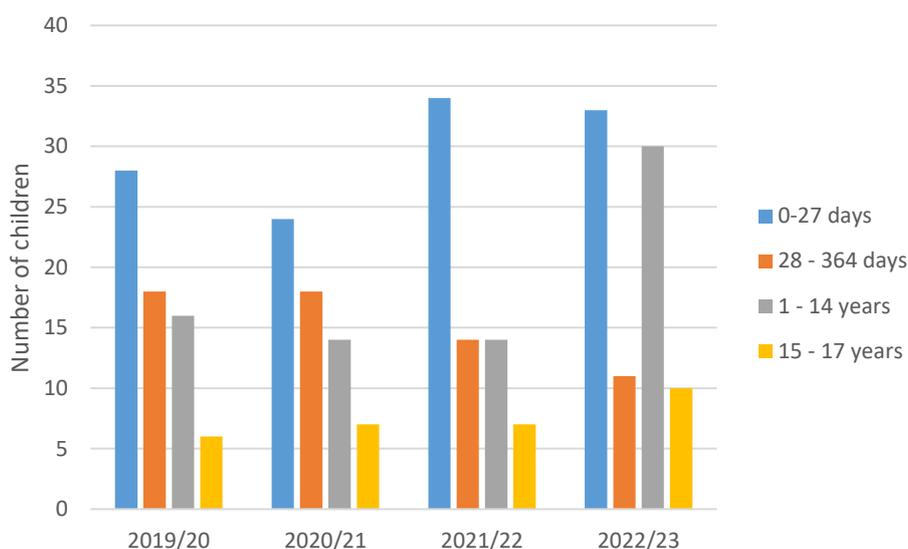
The majority of deaths in 2022/23 were of infants between birth and 27 days of age. This is similar to the pattern seen in previous years. However, there was an increase in the past year of older children dying in the district, in particular those aged 1-14 years (Figure 5). Because numbers are, statistically speaking, small, it is not possible to draw definitive conclusions about the cause of this increase.

However, since 2020, there have been questions about the impact of the COVID-19 pandemic and lockdowns on child mortality. Looking into this subject, a recent paper based on NCMD data [4] found that following a fall in child mortality in England during the first year of the pandemic in 2020/21, in the year 2021/22 mortality returned almost to pre-pandemic levels. The authors stated that “there was still a net reduction in deaths despite this, with 4% fewer deaths over the 3-year period than would have been expected. Reductions in child deaths during the pandemic were seen across much of the population, notably in reductions

of deaths from infection and underlying conditions, with reductions most noticeable in rural areas”.

In addition, the authors found that: “disruption to health care services, and potentially later diagnoses or underdiagnosed conditions, appear not to have had a measurable impact on mortality. For most groups the benefits seen in 2020 to 2021 of a reduction in deaths from infectious agents has also disappeared (again without a rebound to high levels), but for the oldest children, where no initial benefit was seen, risks of death are now well above prepandemic levels.” This was particularly the case for deaths due to trauma.

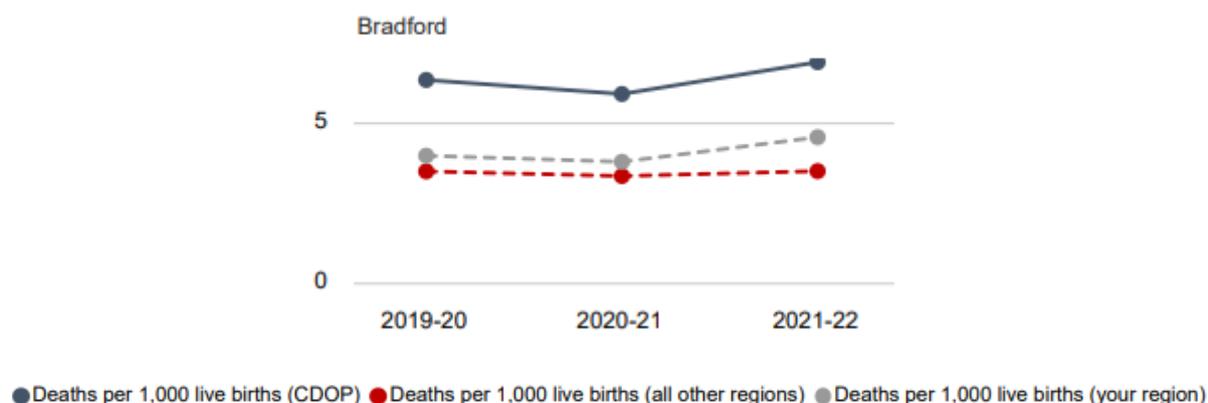
Figure 5: age group of deaths of children and young people occurring 2019/20 to 2022/23, in Bradford



As numbers of child deaths in each individual area are, in statistical terms, small, more detailed analysis can only be done by combining data from Bradford in the last year with other data. For some of the subsequent analysis, three years of data is used from the period from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2022. For even more detailed analysis of some factors, data can also be pooled with the other CDOP panels in the Yorkshire and Humber region, allowing us to examine the impact of ethnicity and poverty on the risk of death in childhood. We are also able to compare rates of child death in Bradford with other nearby and national regions.

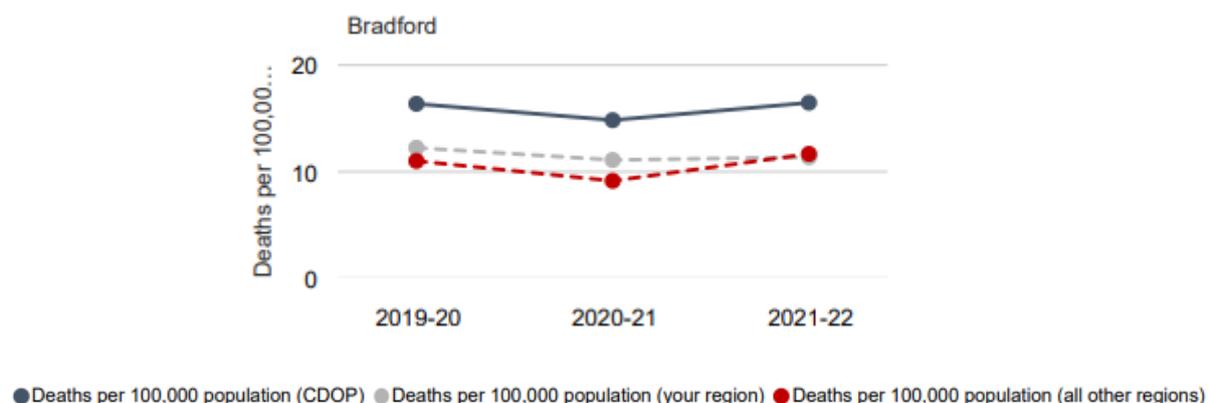
Compared to the regional and national averages, Bradford had a higher rate of infant deaths per 1000 live births occurring between 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2022, for all years 2019-2022. In line with most of the region, the rate of infant deaths fell slightly between 2019/20 and 2020/21, but rose again the following year. For 2021/22, there were approximately 7 deaths per 1000 live births, compared to fewer than 4 per 1000 in the rest of England (Figure 6).

Figure 6: Rate of infant (less than 1 year) deaths per 1000 live births in Bradford, Yorkshire and the Humber, and England, 2019/20 to 2021/22



Of those children aged between 1 and 17 years, a similar pattern is seen, with around 17 deaths per 100,000 children of this age group in Bradford, compared to around 12 per 100,000 children in England as a whole. Again, there was a slight reduction in the number of children dying from 2019/20 to 2020/21, followed by an increase in the following year (Figure 7).

Figure 7: Rate of deaths per 100,000 population of children aged 1-17 years in Bradford, Yorkshire and the Humber, and England, 2019/20 to 2021/22



### 3.1 Age and sex

In the year from 1<sup>st</sup> April 2022 to 31<sup>st</sup> March 2023, Bradford CDOP reviewed 42 child deaths. Half of these deaths (21) occurred in 2022/23 and the majority of the remainder in 2021/22, with smaller numbers of children reviewed dying in earlier years.

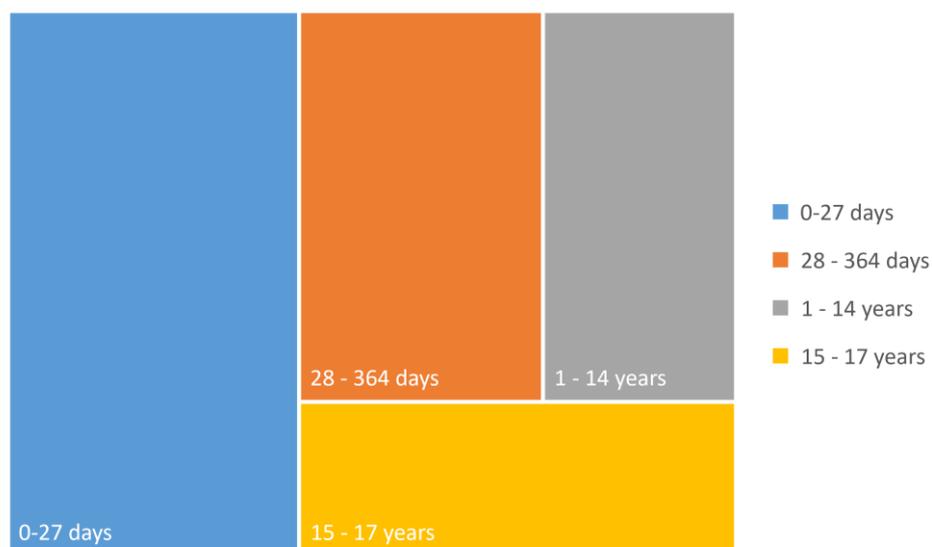
Of these children who died:

- 55% were male

- 45% female

The majority of the cases reviewed by CDOP over this period were aged less than one year, with a significant proportion in the first month of life: 40% were aged 0-27 days and a further 24% aged 28-364 days. The remainder of the children reviewed were aged 1-14 years (19%) and 15-17 years (17%) (Figure 8).

Figure 8: age at death of children reviewed by Bradford CDOP 2022 - 2023



For child deaths occurring between 2019-20 and 2021-22 in Bradford, the largest age category of child deaths (41.6%) was again among infants aged 0-27 days. This was followed by infants aged 28-364 days, at 25.9%, meaning that 67.5% of child deaths in Bradford for the period 2019/20 – 2021/22 were among children under 1 year of age. This is similar to the pattern seen across the rest of Yorkshire and the Humber.

### 3.2 Gestational age

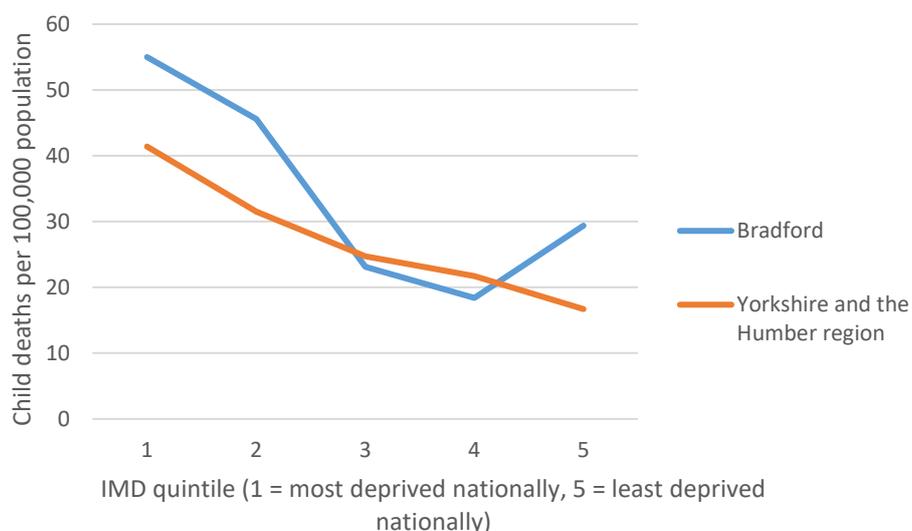
In Bradford, 22.5% of infants (below 1 year of age) who died over the three year period from 2019 to 2022 were born at 23 weeks gestation and below; 38.8% were born between 24-36 weeks; and 38.8% were born at 37 weeks or above. This is not substantially different to the pattern seen in other areas of the region.

### 3.3 Deprivation

As seen in previous years, there is a strong correlation between socio-economic status and child death: 84 of the 133 child deaths occurring in Bradford between April 2019 and March 2022 were among children from the most deprived fifth (quintile) of areas nationally. This is evident in the majority of CDOP panel areas across the region for deaths between 2019 and 2022, whereby there is a consistent fall in the rate of death for each quintile of affluence. In

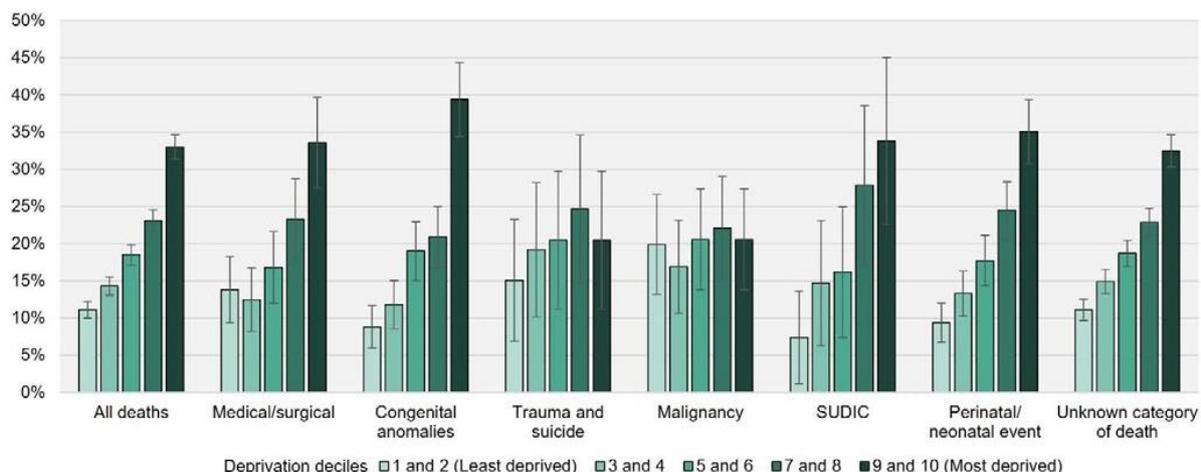
Bradford, the exception to this gradient is for the least deprived quintile (quintile 5), which shows a higher rate of child death than quintiles 3 and 4 (Figure 9). This is also seen in some other areas of the region. However, it is of note that there are very few deaths of babies, children and young people in this quintile, so due to statistically small numbers it's not possible to make inferences about what this means. When pooled with other CDOP panels in the region to work with larger, and therefore more statistically interpretable numbers, this anomaly disappears. In terms of the overall trend, the correlation between poverty and the rate of child death is strong.

Figure 9: Rate of child deaths per 100,000 population in Bradford and Yorkshire and the Humber by socioeconomic deprivation (IMD quintile), 3 year period (2019/20 to 2021/22)



A national exploration of the link between child death and poverty was undertaken by the National Child Mortality Database in 2021 [5]. This report identified a strong correlation between deprivation and the risk of childhood death for most causes of death, finding that on average, there is a relative 10% increase in risk of death between each decile of increasing deprivation (Figure 10). There was no evidence of an association between deprivation and the risk of death by trauma and suicide, or malignancy.

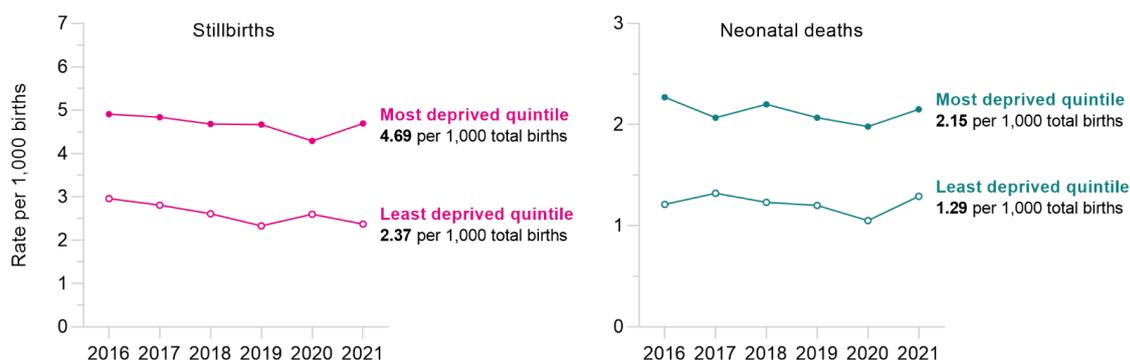
Figure 10: The proportion of national child deaths in each pair of deprivation deciles for all deaths and across each category of death, including 95% confidence intervals (reproduced from [5])



The authors found a strong link between child mortality and deprivation, which is stable across area, age and other demographic factors. The report found that “over one-fifth of all child deaths may be avoided if the most deprived half of the population had the same mortality as the least deprived.” [5]

In addition, the most recent MBRRACE report, published in September 2023 [6], found a widening of inequalities in stillbirth rates and a consistent pattern of inequalities in neonatal death rates in the year 2021 (Figure 11).

Figure 11: Stillbirth and neonatal mortality rates by mothers’ socio-economic deprivation quintile of residence: United Kingdom, for births in 2016 to 2021 (reproduced from [6])



### 3.4 Ethnicity

More children of Asian or Asian British ethnicity were reviewed in CDOP than would be expected based on the Bradford population, with 24 of the 42 children (57%) reviewed in 2022/23 by CDOP being of Asian or Asian British ethnicity, compared to 46% of all children

in Bradford District. A smaller proportion of children from white backgrounds were seen compared to the proportion of children in the district.

When looking at data on ethnicity, more detailed analysis can be done by pooling data from across the region, and this is available for the period of 2019 to 2022 (Table 1). Across Yorkshire and the Humber, and in the rest of the country, babies from Asian and black ethnic backgrounds were more likely to die than babies of white ethnicities, in all years examined. Babies from Asian and black backgrounds were roughly twice as likely to die in their first year of life, compared to their white peers.

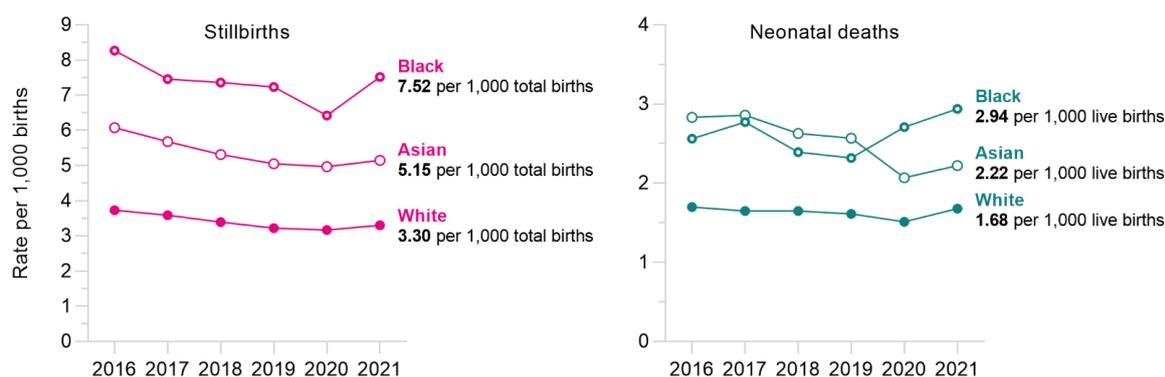
Table 1: Total number/rate of infant (under 1 year) deaths by ethnicity in Yorkshire and the Humber (“your region”) compared to “all other regions” in England, 2019/20 to 2021/22

Ethnicity	2019-20	2020-21	2021-22	Total
<b>Asian</b>				
Number of deaths	47	37	55	<b>139</b>
Deaths per 1000 live births (your region)	6.5	5.0	7.4	<b>6.3</b>
Deaths per 1,000 live births (all other regions)	5.0	4.0	4.9	<b>4.7</b>
<b>Black</b>				
Number of deaths	9	8	11	<b>28</b>
Deaths per 1000 live births (your region)	5.5	4.9	6.7	<b>5.7</b>
Deaths per 1,000 live births (all other regions)	5.9	5.9	6.6	<b>6.1</b>
<b>Mixed</b>				
Number of deaths	15	7	11	<b>33</b>
Deaths per 1000 live births (your region)	5.5	2.7	4.3	<b>4.2</b>
Deaths per 1,000 live births (all other regions)	3.0	3.2	3.8	<b>3.3</b>
<b>Other</b>				
Number of deaths				<b>10</b>
Deaths per 1000 live births (your region)				<b>2.4</b>
Deaths per 1,000 live births (all other regions)				<b>3.1</b>
<b>White</b>				
Number of deaths	118	121	149	<b>388</b>
Deaths per 1000 live births (your region)	2.7	3.0	3.6	<b>3.1</b>
Deaths per 1,000 live births (all other regions)	2.7	2.7	3.0	<b>2.8</b>

It is not possible to examine the relationship between ethnicity and deprivation together with child death for Bradford, as the numbers are too small in each category for statistical comparison.

The finding associating risk of child death with ethnicity is seen across the country. Looking at neonatal death, national research in the 2023 MBRRACE report [6] shows that compared with white British groups, babies of black, Pakistani or Bangladeshi ethnicity have a higher incidence of stillbirth and neonatal mortality, with this inequality increasing in 2021, particularly for babies of black ethnicities (Figure 12).

Figure 12: Stillbirth and neonatal mortality rates by babies' ethnicity: United Kingdom and Crown Dependencies, for births in 2016 to 2021 (reproduced from [6])



One study estimates that after taking into account socioeconomic group, smoking, BMI, and other maternal factors, 1.2% of preterm births can be attributed to ethnicity [7]. This report found a cumulative effect of ethnicity and deprivation, whereby the combination of having an ethnic minority identity and living in a less affluent household increases the risk of neonatal death.

However, this may differ by cause of death: another study [8] of births in England and Wales reported a lower incidence of unexplained deaths in infancy, including sudden infant death syndrome (SIDS) among babies from Indian, Bangladeshi, Pakistani, white Non-British and black African backgrounds, compared to those from white British backgrounds. The same study found the highest incidence of unexplained death in infancy was in babies from mixed black-African-white, mixed black-Caribbean-white, and black Caribbean backgrounds.

There are a number of potential reasons which have been put forward in national reviews for the increased risk of neonatal and child death among babies from black, Asian, and other ethnic groups. These include:

- Likely relationship between ethnicity and the impact of poverty.
- Impact of structural inequalities and access to care.
- Increased incidence of some genetic abnormalities in babies from some communities.
- A 2022 NCMD report [9] identified poor communication (e.g., between services, interpreters etc.) as a modifiable factor in 4% (n = 64) of neonatal deaths reviewed, and identified barriers to communication as a recurring theme.
- A 2023 NCMD report [10], found a socio-economic gradient in the number of child deaths as a result of vehicle collision (more deprived groups have a greater risk), which may relate to living in areas with high density housing, high levels of on-street parking and lack of play places. [11]
- NCMD in 2023 also found differences in the risk of trauma, maltreatment and violence by ethnicity. More socioeconomically deprived groups generally have a greater risk; with a lower risk in South Asian children but higher in black/ black British groups.
- Nationally, children from black and black British backgrounds also have a higher risk of drowning compared to children from other ethnic backgrounds, with boys having a greater risk than girls. It has been suggested that this may relate to disparities in swimming education [12].

Nationally, the 2022 MBRRACE report [13] found that “only 5-6% of babies of black African, black Caribbean, Pakistani and Bangladeshi ethnicity were born to mothers living in the least deprived quintile compared to 22% of babies of white ethnicity. Conversely, 36-40% of babies of black African, black Caribbean and Bangladeshi ethnicity and 28% of babies of Pakistani ethnicity were born to mothers living in the most deprived quintile compared to 18% of babies of white ethnicity.”

This highlights the issues faced by many families of multiple disadvantage, with deprivation combining with ethnicity and the impact of structural inequalities to contribute to adverse outcomes. This also means that there is difficulty examining the individual effects of ethnicity and deprivation.

### 3.5 Cause of death

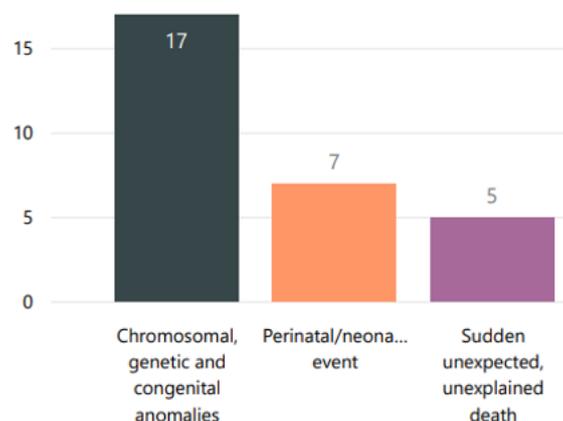
Causes of death for the purposes of the CDOP are divided into 10 categories:

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

More detailed information about category definitions is located in Appendix 4.

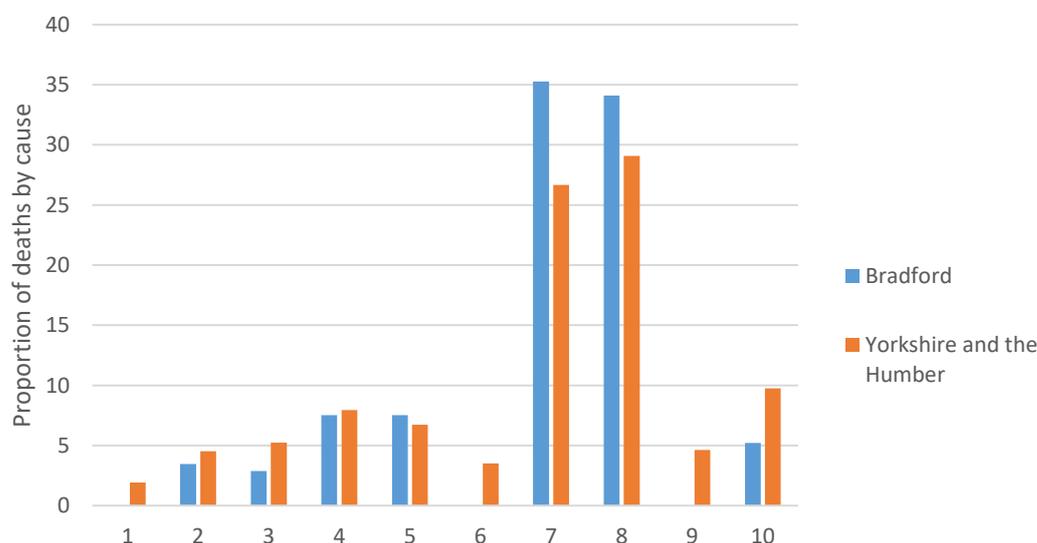
Across all age groups, the largest proportion of children who died and were reviewed by Bradford CDOP in 2022/23 (17 children) died due to chromosomal, genetic and congenital abnormalities, with perinatal or neonatal events and sudden, unexplained deaths the next highest categories (Figure 13). Very small numbers of children and young people died from other causes of death, including: acute medical or surgical conditions; chronic medical conditions; trauma and other external factors, deliberate injury or neglect, and suicide.

Figure 13: Causes of death for children reviewed by CDOP 2022/23 in Bradford (numbers below 5 have been excluded)



Comparing with the rest of the region for deaths reviewed by CDOPs in the period between April 2019 and March 2022, Bradford showed a similar pattern of causes of child deaths as the rest of the region. However, Bradford had a slightly higher proportion of deaths categorised as category 7 and 8 (chromosomal, genetic and congenital anomalies and perinatal/ neonatal event), and slightly fewer in category 10 (sudden unexpected, unexplained death) (Figure 14).

Figure 14: proportion of child deaths reviewed between April 2019 and March 2022 from different causes, Bradford and the region (numbers under 5 have been redacted)



There are a number of factors associated with an increased risk of genetic, chromosomal and congenital anomalies. In our Bradford district, we have communities who favour consanguineous marriage, which is a risk factor particularly associated with autosomal recessive conditions. The risk in the general UK population of a child being born with a congenital anomaly (defined as structural, chromosomal and genetic anomalies) is around 2 to 3% [14, 15]. The Born in Bradford (BiB) study (2007-2010) found that this risk was increased from 3% for the whole cohort to 5-6% for families in consanguineous unions [15].

Research has shown that there is much unmet need among families affected by increased genetic reproductive risk, for improved genetic services and communication of genetic information [16].

### 3.5.1 Evidence review: Trauma

Trauma is a relatively infrequent cause of death for children and young people in Bradford. Nationally, a thematic report [10] of child deaths due to trauma investigated the cases of 644 children and young people who died in England during 1<sup>st</sup> April 2019 and 31<sup>st</sup> March 2022. Of these deaths:

- 37 (6%) occurred while the child was abroad
- 211 were due to a vehicle collision
- 160 were due to violence or maltreatment
- 84 were due to drowning
- 47 were due to alcohol or drug poisoning
- 42 were due to accidental strangulation
- Falls, choking, fire and electrical incidents, animal attacks, and other traumatic events accounted for smaller numbers of cases.

### 3.5.2 Evidence review: Sudden and unexpected deaths

A second national thematic review [17] of babies, children and young people who died between April 2019 and March 2021 investigated 1,234 deaths in England occurring suddenly and with no immediately apparent cause.

The paper finds a link between deprivation and such deaths occurring in infants of under 1 year old, and a strong link with sleeping arrangements. Of the 127 sudden unexplained deaths among infants, 98% occurred while the infant was thought to be asleep, and 52% of these “occurred while the sleeping surface was shared with an adult or older sibling”. In addition, “Of the 124 deaths that occurred during apparent sleep, at least 75% identified one or more of the following risk factors related to the sleeping arrangements: put down prone (face down) or side; hazardous co-sleeping; inappropriate sleeping surface when sleeping alone; inappropriate items in the bed.”

For deaths of older children aged 1-17 years, sudden death was associated with a history of convulsions, and with living in a deprived neighbourhood. The majority of deaths in this category went on to be explained by other causes.

## 3.6 Modifiable factors

The presence of a modifiable factor contributing to the death of a child does not mean that the death was necessarily avoidable. However, by identifying factors contributing to the circumstances around a child’s death which could be decreased for the future, the risk of further such deaths may be reduced.

Of cases reviewed in 2022/23 by Bradford CDOP, modifiable factors were identified in 31%. This is lower than the England average of 39%. The proportion of deaths deemed to have a

modifiable contributory factor varied by cause of death, with some causes of death having a very high rate of modifiable factors involved, while others had a very low rate. For example, deaths due to sudden unexpected, unexplained death had very high rates of modifiable factors identified. Conversely, deaths due to malignancy; infection; perinatal/ neonatal events; chronic medical conditions; and chromosomal or genetic abnormalities all had low rates of modifiable factors identified.

There were similar differences in the proportion of deaths with modifiable factors identified by age: children aged between 1 year and 10 years had a low proportion of modifiable factors contributing to their deaths, while children aged 11 and over had higher rates of modifiable factors identified. Children of Asian or Asian British background had a slightly lower chance of having a modifiable factor identified, while children of white ethnic background had slightly higher rates.

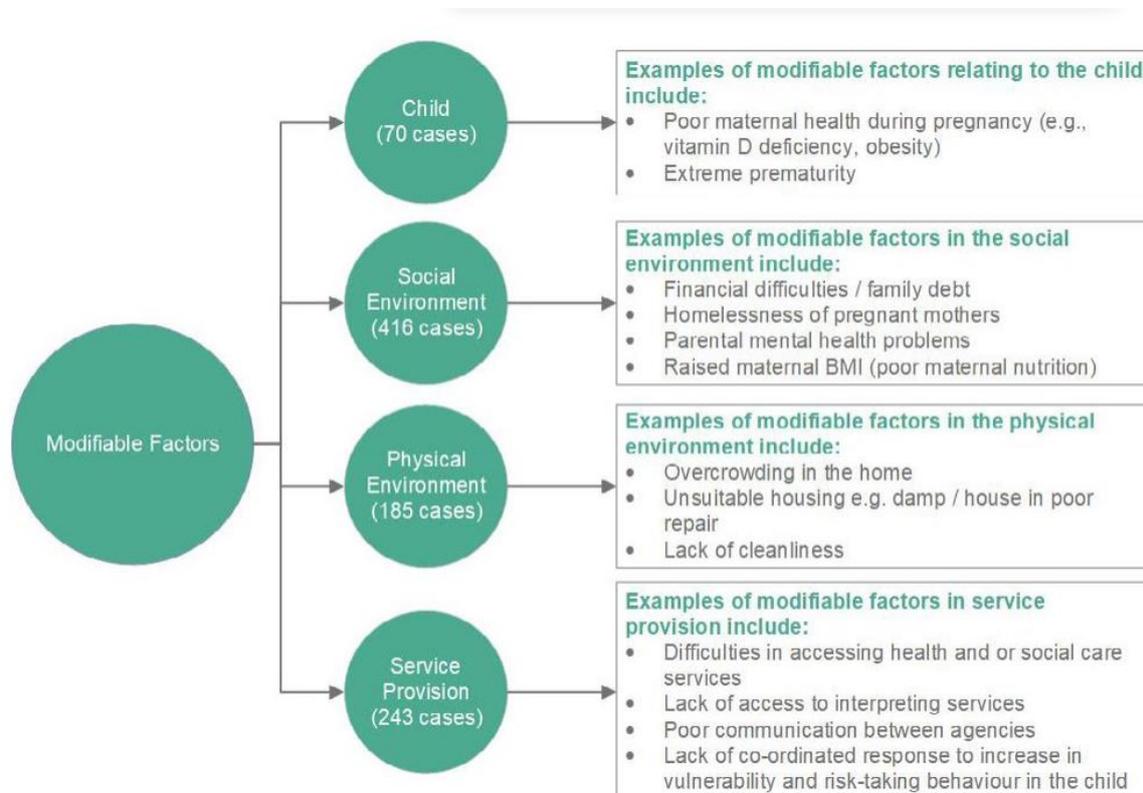
The number of deaths with modifiable factors identified in 2022/23 is higher than in recent years. Comparing with the rest of the region, between April 2019 and March 2022, modifiable factors were identified in 23% of child deaths in Bradford and 35% of cases in the region as a whole. Again, this was highly variable by cause of death, with a high rate of modifiable factors identified for categories 1, 2 and 3, and lower rates of identification of modifiable factors for other categories. This is consistent with the rest of the region. The locally provided NCMD data does not break down the data into specific modifiable factors.

In Bradford, over the last 2 years, a number of modifiable factors were identified. As each factor was uncommon by itself, a full breakdown won't be provided here. However, general themes could be identified:

- Factors related to co-sleeping and/ or the sleeping environment
- Factors related to the safety of the child's general environment
- Factors related to the control of long-term conditions of the child
- Factors related to maternal health in pregnancy

National evaluations of the NCMD data are able to explore modifiable factors in more detail. These factors are divided into four categories: factors relating to the child; their social environment; their physical environment; and service provision. An evaluation by the NCMD in 2021 [5] found that modifiable factors were identified in about 30% of all child deaths reviewed in their report. These were categorised as modifiable factors relating to the social environment (15.5%; e.g. homelessness, financial difficulties, maternal obesity), service provision (9%; e.g. communication barriers, lack of coordinated response), physical environment (7%; e.g. overcrowding in the home, unsuitable housing), and child (3%; e.g. extreme prematurity, maternal health during pregnancy) across all 2688 deaths reviewed (Figure 15); some deaths had more than one category of modifiable factors identified. At least 1 in 12 of all child deaths reviewed in 2019/20 had one or more factors related to deprivation identified at review.

Figure 15: Numbers and examples of modifiable factors identified by the 2021 NCMD report (reproduced from [5])

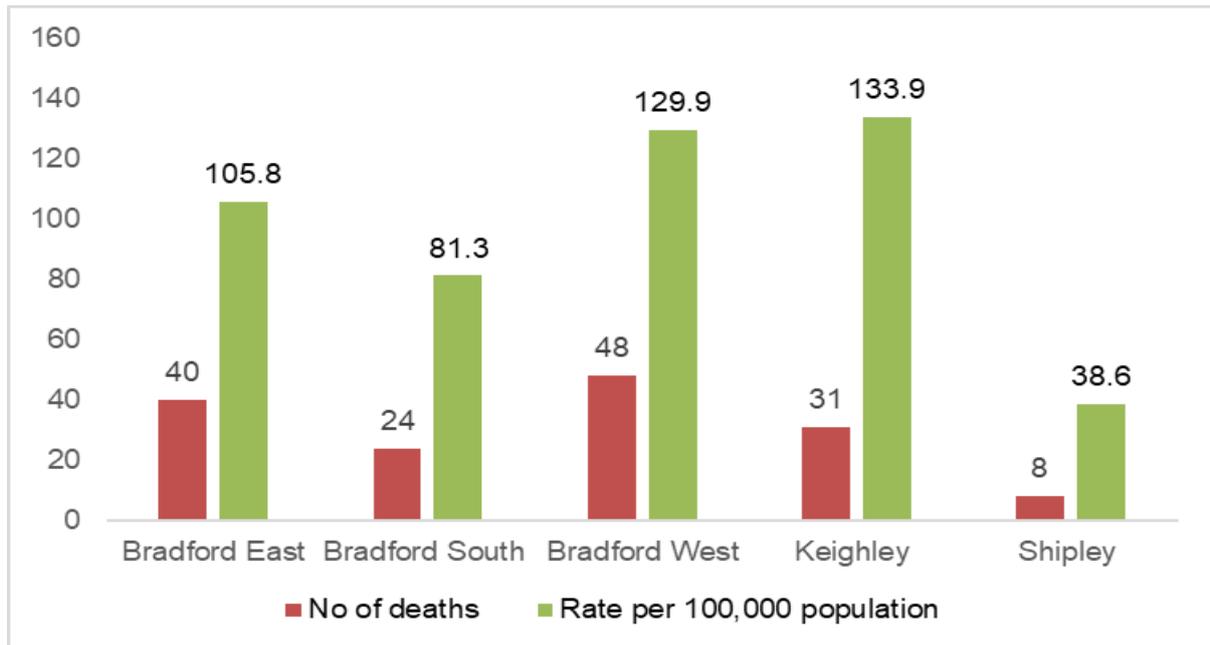


### 3.7 Geography

The last two year's deaths reviewed by CDOP are considered together for this part of the analysis, to enable local numbers to be pooled for analysis. Of the 151 deaths reviewed during 2021-22 and 2022-23 the highest number were in Keighley Central (16) then Manningham (15). Bradford Moor and City saw 13 deaths within each ward.

Comparing the rate of deaths of children from birth to 18 years per 100,000 population, Keighley has the highest rate at 133.9 per 100,000 followed by Bradford West at 129.9 per 100,000. Shipley had the lowest rate at 38.6 per 100,000 (Figure 16).

Figure 16: Deaths per 100,000 population, by Bradford District constituency, 2021/22 to 2022/23



## 4. Summarised National Publications

### 4.1 Ockenden Report

Published in March 2022, “the Ockenden report” [18] shared findings, and recommendations following the review of maternity services at The Shrewsbury and Telford Hospital NHS Trust. The review, led by Donna Ockenden, examined cases involving 1,486 families and 1,592 clinical incidents, and found that 201 babies and nine mothers might have survived had they received better care. The Ockenden Review found patterns of repeated poor care, and failures of governance and leadership, identifying over 60 actions for the Trust.

### 4.2 MBRRACE, 2023

The ninth annual perinatal mortality report [6] of the MBRRACE-UK collaboration analysed stillbirths and neonatal deaths in the calendar year 2021 in the UK. The researchers found that:

- Perinatal mortality rates increased across the UK in 2021 after 7 years of year-on-year reduction.
- For every 1,000 births in England, there were 3.52 stillbirths
- For every 1,000 live births in England, 1.6 babies died in the first 28 days of life
- In the UK in 2021, the stillbirth rates for babies born to mothers from the most deprived areas increased (from 4.29 per 1,000 total births in 2020 to 4.69 per 1,000 total births in 2021), and for babies of black ethnicity (from 6.42 per 1,000 total births in 2020 to 7.52 per 1,000 total births in 2021), leading to widening inequalities.
- In 2021, there were also increases in neonatal mortality rates for babies born to mothers from the most and least deprived areas, and for babies of black, Asian and white ethnicity, leading to sustained inequalities by both deprivation and ethnicity
- The most common causes of stillbirth were placental problems, congenital anomalies, cord problems, and infection. There remains a high proportion of stillbirths (33.3%) with an unknown cause of death.
- The most common causes of neonatal death were congenital anomalies, extreme prematurity, neurological, cardio-respiratory and infection.
- Congenital anomalies continue to contribute significantly to mortality rates, accounting for 9.3% of stillbirths and 32.6% of neonatal deaths.

### 4.3 Child death review data release, the National Child Mortality Database, 2022 [19]

The 2022 release from the NCMD covers 3,470 deaths occurring in 2021/22, and 2,724 deaths reviewed by local Child Death Overview Panels.

## 5. Local actions, 2022/23

A number of programmes and groups take place in the district to improve outcomes for children and young people in Bradford. Some of these are described below.

### 5.1 Every Baby Matters/ Health Inequalities

Several key actions have been undertaken this year in relation to prevention of modifiable factors and deaths of children and young people:

#### 5.1.1 *Preconception health*

A Preconception Service “Fit for pregnancy” has been commissioned initially for a further 12 months via Innovation Funding. Early intervention at preconception stage promotes lower risk pregnancies and improved birth outcomes.

#### 5.1.2 *Sudden unexpected death in infancy (SUDI)*

A safe sleep campaign “Every Sleep a Safe Sleep” has been developed at regional level to prevent SUDI, and is being promoted locally. This promotes evidence-based advice and the development of a risk minimisation tool. A safe sleep video has also been created in collaboration with parent education teams, which to date has been viewed 697 times.

Bradford Council has also received national government funding over the past 2.5 years in the form of the Household Support Fund, to deliver support with the cost of living direct to families and individuals in Bradford district. Partners agreed to use some of this funding to supply families of children with safe beds, bedding, and safety equipment. Families are referred by child health professionals when they are in need of these essential items and unable to afford them. From October 2022 to September 2023, a total of 821 families have been supported through this programme with the delivery of over 1,000 items of safe sleep equipment. In addition, 3000 room thermometers have been distributed to new parents during the winter months along with cost of living booklets.

#### 5.1.3 *Genetics*

The Reducing Inequalities in Communities (RIC) genetics project commissioned WomenZone (Genetics in Communities) to increase genetic literacy among families and healthcare professionals in Bradford. The aim is to support the workforce to increase confidence, knowledge, awareness and skills to support all families with an increased risk of recessive inherited disorders. Womenzone have delivered several training workshops to different audiences within the community. Womenzone are using innovative methods to target key audiences, including at community events where engagement has been high. To date, 207 health professionals and 436 members of the community have received training and information to increase genetic literacy. In addition Genetics in Communities have developed specialist training for General Practises, to begin rollout in September 2023.

In a parallel project in 2022/23 Bradford Council Public Health received funding from NHS England for a Culturally Competent Genetic Services Project. The three-year funding aims to:

- Raise genetic literacy (strand 1)
- Educate and equip healthcare professionals (strand 2)
- Improve access to genomic services (strand 3)
- Continuously improve with national support (strand 4)

Various roles are being recruited to support implementation including a regional genomic associate, a project administrator, a Close Relative Marriage Midwife to work across the two maternity trusts in the district, and a Personalised Care Support Worker role.

These two projects are closely aligned to ensure an integrated approach with all the agencies involved.

#### *5.1.4 Smoking in Pregnancy*

Long Term Plan funding has been used in Maternity Services to provide smoking cessation support for pregnant smokers to quit. Smoking at the time of delivery (SATOD) in Bradford was 12.1% in 2021-22, down from 13.6% in the previous year [20]. However this rate remains higher than the 2017-2022 Tobacco Control Plan for England national ambition for SATOD of 6% or less – a smokefree pregnancy for all.

#### *5.1.5 Hope for You*

This new scheme is available to all expectant and new parents across the district. It provides telephone support with interpreting if required to enable families to identify and access financial assistance that they are entitled to. To Date approximately 300 families have received support to a total value of over £350k.

#### *5.1.6 Next steps*

Over the coming 12 months, plans for the Every Baby Matters workstream involve:

- Every Sleep a Safe Sleep: Plans to roll out a train the trainer model across the district to ensure each sector has a programme in place to train and support staff to share key messages to support families to make informed choices to minimise risks using the risk minimisation tool.
- Genetic Literacy Survey due to be delivered: to reach out to health care professionals across Primary and Secondary care, Adult and Children's services, Family Hubs etc., to gain an understanding of the genetic literacy of the workforce and inform future training requirements to further support the coordinated approach across the district to increase reproductive choices for families.
- NHS England Genetics programme: Employing a Personalised Care Support Worker to support families identified as high risk of a recessive inherited genetic disorder, to navigate the support services available to them across Bradford District and the Regional Genetics Centre
- Substance, alcohol and drug use – Every Baby Matters steering group working in a coordinated approach with partners to develop health professional training and accessible information for pregnant women, which will be localised and co-produced with individuals and families with lived experiences including those with Foetal Alcohol Spectrum Disorders (FASD).

## 5.2 Cultural Competency

A cross-sector steering group from the West Yorkshire Health and Care Partnership have been working on a project to develop and pilot delivery of Cultural Competency & Humility Training. The need for this training was highlighted through a training and learning needs analysis that was initially focused on the West Yorkshire Community Mental Health Transformation (CMHT) workforce. However, the partnership, in developing this work, has increased the scope to include the wider cross sector West Yorkshire Health and Partnership.

A local need was identified through Health Inequalities workstream of Bradford Health and Care Partnership's Best 1001 Days programme. The aim of the local project is to address disparities for all service users with protected characteristics, particularly those from black, Asian and minority ethnic populations who are disproportionately affected by poor perinatal outcomes. This was also in response to feedback and engagement with student midwives who reported a need to improve experiences of Equality, Diversity and Inclusion (EDI) whilst on placement.

Six Individuals from across Bradford's partnerships have been identified to complete the train the trainer for cultural competency. These people will be able to deliver sessions as soon as they have completed the training, and we expect the sessions to commence from November onwards. Trainers are provided with a training package and there is the option to individualise the content to suit the cohort receiving the training. The expectation for the pilot is that each trainer delivers the session to a minimum of 10 delegates, but we hope to reach many more across all sectors and organisations in the district, with a particular focus on individuals who work with and support families in the perinatal period.

### 5.3 Suicide Prevention Action Group

Over the past year, several measures to reduce the rate of suicide in Bradford have been taken, many of which support children and young people:

- Development of our surveillance strategy for "real time suspected suicide" to identify suicide clusters and to offer specialist bereavement support to individuals affected by suspected suicide including family, friends, witnesses and organisations such as schools where relevant.
- Distribution of grants to support suicide prevention, with one organisation specifically working with children who have self-harmed or have had suicidal thoughts.
- Suicide prevention campaign via local sports teams, using the reach and community ethos of local sports teams to promote the prevention message "Check in with your mate".
- Development work on the "Check in with your mate" website including improving user accessibility and experience to local people to find reliable resources if they are worried about themselves or someone else at risk of suicide.
- An in-depth audit of coronial files where a conclusion of suicide has been reached is being undertaken in partnership with other local authorities in West Yorkshire to identify trends and any opportunities to support suicide prevention.
- A new self-harm and suicide prevention group for children and young people has been established at West Yorkshire level, with Bradford public health team a part of the group.
- Suicide prevention champions – launch of a new initiative designed to encourage people to become a champion in their workplace or community to encourage breakdown of stigma and share knowledge about where to get help.
- Training for system partners: a gold standard Provider has been commissioned to offer training to people across the district who may not see suicide prevention as their core business but have a key part to play in the prevention challenge. The training supports people to understand more about suicide, spot the signs of suicide and help individuals to make a safety plan. So far training has been arranged for Police, Primary care staff, and social care workers. This will continue into next year with plans to target women's perinatal services, people working with children and young people, drug and alcohol services and those working in the construction industry.

- 26 Community mental wellbeing grants have recently been awarded to community organisations to support residents in the district to improve their wellbeing over the winter months.
- Activities have been planned for world suicide prevention day to raise awareness and challenge stigma.

Over the coming year, further activities in progress and planned include:

- A “grab bag” style set of guidelines are in development to support schools in the event of a suicide that could affect their pupils or staff.
- We are in the process of commissioning a provider to review our current local policy and national guidelines to create an up to date user-friendly policy and guidance for professionals working with children and young people who have self-harmed.
- A children and young people’s mental health needs assessment is being undertaken to try and assess the mental health needs of children and young people in the District to support future planning and design of supportive services and interventions.
- A further round of wellbeing grants is being planned for next year with a specific focus on children and young people
- A sleep campaign is being planned for next year aimed at children and young people, families and adults. Sleep deprivation is linked to mental health crisis.
- Links with drug and alcohol services are being strengthened to identify ways of supporting individuals who use drugs or alcohol who may be at increased risk of suicide.
- Review of our local prevention strategy in line with the release of the new national strategy

## **6. Risks**

Reductions in funding for public services over the past few years, in addition to the more recent cost of living increase, are already putting pressures on the system and on families. The link between child death and poverty means that this is a risk. In the coming 18 months, a number of external grants are due to end, further increasing the pressure on services. These grants currently include Start for Life; Better Start Bradford; and the Household Support Fund.

These funding streams have broad, valuable impacts across our population. Additionally, they all make a contribution to reducing child deaths through a reduction in risk factors, linking vulnerable families to support, and some specific actions as described above. Partners are working together on plans which are in place for the end of all short-term grants and funding streams to mitigate against the impacts as much as possible, and to make use of learning gained from each project.

## **7. Recommendations**

The recommendations below are applicable to a wide range of policy-makers, decision-makers, commissioners and services in Bradford. They will be of particular interest to those working with babies, children and young people, but the implications should be considered by all partners working in Bradford district.

### **Environmental risk factors:**

1. Services and planners of services should work together to ensure that families with children have opportunities to access all the financial assistance they are eligible for.
2. Ensure that women have good access to pre-conception health advice. This should not be limited to women seeking medical advice, but should be available to all women, regardless of pregnancy status.

### **Service provision:**

3. Ensure that children and families in more socioeconomically deprived parts of Bradford have good access to services including maternity, health visiting, school nursing, social care, and education. This may include considerations of timing, location and transport to services, and of the language, both written and spoken, used to communicate messages and information to families.
4. Continue, learn from, and expand on the current work to increase cultural competency of the maternity and children & young people's workforce, with the aim to ensure that children and families from ethnic minority backgrounds have equitable access to culturally competent services.
5. Services and organisations must work to identify needs of children and families, and to refer to appropriate services as needed. Strong partnership working and referral pathways between services will be key to this.
6. CDOP must ensure strong partnerships with the Bradford Children's Trust and with the Safeguarding Partnership, and that the bodies are sighted on the findings and recommendations set out in this report.

### **Individual risk factors:**

7. Work through schools, colleges and communities to educate children and young people on safety messages should be undertaken. This may include information on swimming safely, road safety, drug and alcohol messaging, and general hazard awareness.
8. Links should be strengthened between the suicide prevention board and the CDOP panel.

9. Continue the work on genetic literacy and culturally competent service provision through the Every Baby Matters steering group.
10. Promote universal messaging for all new parents on safe sleep. This should be consistent across services and professionals to ensure that advice is the same, whoever is delivering it.
11. Provide advice for parents on safety in and outside of the home.

**Process:**

12. The terms of reference and operation of CDOP should be regularly reviewed to guarantee continual quality improvement of the process, and to ensure that the meeting continues to model best practice.

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## **9. APPENDIX 1: Terms of reference of Bradford District CDOP**

### **Purpose**

The CDOP should undertake a review of all child deaths including unattended stillbirths (excluding medically attended stillbirths and planned terminations of pregnancy) from birth up to the age of 17 years 364 days in the local authority area. Through a comprehensive and multidisciplinary review of the child deaths, the Bradford District CDOP aims to better understand how and why children die across the Bradford District and use the findings to take action to prevent other deaths and improve the health, wellbeing and safety of children in the area. The CDOP will meet its function as set out in Chapter 5 of Working Together to Safeguard Children (2018).

### **Remit**

CDOP will collect and analyse multi-agency information about each child with a view to:

- Review each child death (except medically attended still births and planned terminations of pregnancy) of children normally resident in the Bradford District
- To evaluate data on the deaths of all children normally resident in the Bradford District identifying lessons to be learnt or issues of concern
- To understand the cause of death and assess whether the death was preventable.
- Collect and analyse information about each child death with a view to identifying any case giving rise to the need for a serious case review
- To submit data to the National Child Mortality database (NCMD)
- To quality assure information presented and evaluated at the local Child Death Review Meeting
- To learn lessons regarding the death and causes of death in the Bradford District in order to establish if there are any trends/themes
- To learn any lessons about the professional and agency responses to child deaths
- To disseminate lessons and make recommendations to the Wellbeing Board and partner agencies on actions to take to prevent child deaths including guidance/protocols or procedures, raising staff awareness and community awareness campaigns
- To use the rapid response process to review unexpected child deaths
- Cases involving a criminal investigation will not be reviewed before the conclusion of proceedings, as with those cases where an Inquest is being conducted
- To produce and publish an annual report that is aggregated and anonymised

### **Accountability**

The Child Death Overview Panel is responsible, through its Chair, to the Chair of the Wellbeing Board.

### **Membership**

The agencies forming the core membership of the Group are:

- CBMDC Children's Social Care

- CBMDC Education Services
- CBMDC Public Health
- Clinical Commissioning Groups
- Bradford Teaching Hospital Foundation Trust
- Airedale Hospital Foundation Trust
- West Yorkshire Police

The group may co-opt additional or specialist members as required for the purposes of specific pieces of work.

### **Operational arrangements**

- The CDOP will be chaired by Public Health and will be directly responsible to the Wellbeing Board
- Meetings will be regarded as quorate or otherwise, in the light of material to be considered and decisions to be taken, at the discretion of the Chair
- Standing meetings of the CDOP will be held bi-monthly and additionally meetings held as and when required
- support will be provided by the Child Death Review Office located at Bradford Teaching Hospitals. Agendas and associated papers will be circulated at least 5 days in advance of the meeting
- Conflicts of Interest will be declared at each meeting regarding case involvement by panel members

### **Voice of the child**

Bradford SCB is committed to listening to the views of children and young people who use services and benefit from our protocols. We will involve them wherever possible in identifying needs and in planning, developing and improving policy and training.

### **Reporting and Governance Arrangements**

Through its Chair the CDOP will:

- Produce an annual report which will be:
  - Presented to the Well Being Board, the Childrens and Young People's and Family Partnership Board and the Act as One Better Births Programme.
  - Incorporated into the BSCB Annual Report
  - Published as part of the Bradford District JSNA
- Review the business/work plan annually
- Review the Terms of Reference every 3 years (unless appropriate to do sooner) and propose amendments to the Bradford District Well Being Board

### **Dispute**

In the event of a dispute or conflict of interest arising between agencies across or within groups, which cannot be resolved, the Chair will draw this to the attention of the Chair for

appropriate action and the BSCB Escalation Policy for Resolving Professional Disagreements will be invoked.

## **10. APPENDIX 2: Definitions (preventable, modifiable and category of death)**

Definitions used as cited in Statistical Release for Child Death Reviews: year ending March 2011 Dept. for Education July 2011:

### **1. Preventable/Potentially preventable death: Definition used from April 2008 to March 2010**

**Preventable** – A preventable child death is defined as events, actions or omissions contributing to the death of a child or a sub-standard care of a child who died, and which, by means of national or locally achievable interventions, can be modified. Potentially preventable – A potentially preventable death with same definition as above.

### **2. Modifiable death: Definition from April 2010 onwards**

A modifiable death is defined as “The Panel have identified one or more 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”.

#### **2.1 CDOP panel agreed from April 2016 to use the following definitions:**

**To decide if consanguinity is a risk factor and the case is to be deemed modifiable or non-modifiable:**

- I. If the parents are consanguineous and the child has a genetic condition which is identified for the first time and there is no previous history of similar conditions within the family, the case will be deemed to be NON MODIFIABLE
- II. If the parents are consanguineous, the child has a genetic condition and the same condition has been diagnosed within the family in previous children or close relatives and it is the type of condition associated with consanguinity (autosomal recessive condition) then the case will be deemed MODIFIABLE

**To decide if smoking, obesity and other lifestyle risk factors are to be deemed modifiable or non-modifiable:**

If a lifestyle risk factor such as smoking or obesity is deemed on the evidence presented to have had a significant role in the cause of death in an individual child, then this will be identified as a MODIFIABLE risk factor.

### **11. APPENDIX 3: Ten categories for cause of death**

**Category 1** – Deliberately inflicted injury, abuse or neglect: this includes suffocation, shaking injury, knifing, shooting, poisoning and other means of probable or definite homicide; also deaths from war, terrorism or other mass violence; includes severe neglect leading to death

**Category 2** – Suicide or deliberate self-inflicted harm: this includes hanging, shooting, self-poisoning with paracetamol, death by self-asphyxia, from solvent inhalation, alcohol or drug abuse, or other form of self-harm. It will usually apply to adolescents rather than younger people.

**Category 3** – Trauma and other external factors: this includes isolated head injury, other or multiple trauma, burn injury, drowning, unintentional self-poisoning in pre-school children, anaphylaxis and other extrinsic factors. Excludes deliberately inflicted injury, abuse or neglect (Category 1).

**Category 4** – Malignancy; solid tumours, leukaemias and lymphomas and malignant proliferative conditions such as histiocytosis, even if the final event leading to death was infection, haemorrhage etc.

**Category 5** – Acute medical or surgical condition; for example, Kawasaki disease, acute nephritis, intestinal volvulus, diabetic ketoacidosis, acute asthma, intussusception, appendicitis; sudden unexpected deaths with epilepsy.

**Category 6** – Chronic medical condition; for example, Crohn's disease, liver disease, immune deficiencies, even if the final event leading to death was infection, haemorrhage etc. Includes cerebral palsy with clear post-perinatal cause.

**Category 7** – Chromosomal, genetic and congenital anomalies; Trisomies, other chromosomal disorders, single gene defects, neurodegenerative disease, cystic fibrosis and other congenital anomalies including cardiac.

**Category 8** – Perinatal/neonatal event; Death ultimately related to perinatal events, e.g. sequelae of prematurity, antepartum and intrapartum anoxia, bronchopulmonary dysplasia, post-haemorrhagic hydrocephalus, irrespective of age at death. It includes cerebral palsy without evidence of cause, and includes congenital or early-onset bacterial infection (onset in the first postnatal week).

**Category 9** – Infection; Any primary infection (i.e. not a complication of one of the above categories), arising after the first postnatal week, or after discharge of a preterm baby. This would include septicaemia, pneumonia, meningitis, HIV infection etc.

**Category 10** – Sudden unexpected death; where the pathological diagnosis is either 'SIDS' or 'unascertained', at any age. Excludes Sudden unexpected death with epilepsy (Category 5).