

# Child Death Overview Panel (CDOP)

*Annual report 2016-17*

*Bradford Safeguarding Children Board*

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### 1. Introduction

On 1<sup>st</sup> April 2008, the Bradford Safeguarding Children Board (BSCB) established the Child Death Overview Panel (CDOP) to accommodate the national guidance and statutory requirement set out in Working Together to Safeguard Children<sup>1</sup>. The aim of the CDOP is to systematically review all child deaths (from birth to 17 years 364 days of age) in order to improve the understanding of how and why children in Bradford die, identify whether there were modifiable factors which may have contributed to each individual death, and use the findings to take action to prevent future such deaths. The panel is multi-agency and brings in expertise from a wide range of partners to ensure the discussions within the meetings are robust and challenging where required (see Appendix 1 and 2 for further details). The CDOP also has a role in categorising a child's death into one of 10 causes of death categories. Definitions around modifiable factors and the cause of death categories are highlighted in Appendix 3.

The Wood Review<sup>2</sup> was published in early 2016. The review had been undertaken to review the role and functions of Local Safeguarding Children Boards, and the government published its response in May 2016 and this included a review of the CDOP process. The government plans to introduce a more flexible, simpler statutory framework but will continue to be focused on engagement of key partners in particular the local authority, health and police with a continued multiagency approach. With regard to CDOPs, the review recommended a consideration of a national-regional model, that CDOPs should be hosted in the NHS and the ownership should move from the Department for Education to the Department of Health whilst ensuring the focus remains on distilling and embedding learning with key partners. Both BSCB and CDOP are currently awaiting further guidance on this<sup>2</sup>.

This report details the work of the Child Death Overview Panel (CDOP) during 2016/17. Having been established for nine years Bradford CDOP is able to identify emerging trends and themes in the data, and this enables the panel to make more meaningful recommendations. Hence, this report also details the 6 complete years of reviewed deaths from 2008/09 to 2013/14, and 95% of deaths between 2014/15 and 2015/16 that have been reviewed (see Figure 2: Child deaths reported to and reviewed by CDOP, Section 3).

The CDOP looks for factors contributing to a child's death that could have been modifiable, and where shared learning could reduce the chances of a recurrence of the circumstances around that death. This in turn would lead to a reduction in infant and child mortality rates in the future. Infant mortality rates for Bradford have reduced in recent years especially in deprived areas, but as with child mortality rates, they remain above the regional and national rates (see Appendix 4). The CDOP has a Modifiable Action Plan and Issues Log which it monitors closely to ensure all identified actions are completed. An annual Away Day is also held every May to look at all reviewed deaths for the previous year, areas of interest and overall themes for all reviewed deaths since April 2008.

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1 Department for Education (2015). Working Together to Safeguard Children. Available from: <https://www.gov.uk/government/publications/working-together-to-safeguard-children--2>

2 <https://www.gov.uk/government/publications/wood-review-of-local-safeguarding-children-boards>

## 2. Child deaths reviewed by CDOP in 2016/17

During the year April 2016 – March 2017 (2016/17), 69 child deaths were reported to the Bradford child death review team. There is a delay from reporting to reviewing whilst data and reports from agencies are collated. However, the majority of child deaths are reviewed within 12 months.

**In 2016/17 (1<sup>st</sup> April 2016 – 31<sup>st</sup> March 2017) Bradford CDOP reviewed 63 child deaths;** these reviews included 32 deaths that occurred in 2016/17, 25 deaths that occurred in 2015/16, and 6 deaths that occurred in previous years. Overall, 84% of deaths were reviewed within 12 months and this compares favourably with national data where 76% of all deaths were reviewed within 12 months<sup>3</sup>.

### 2.1 Demographics (age, gender, ethnicity), 2016/17

**Of the 63 cases reviewed<sup>4</sup>, approximately two thirds (68%) of these deaths were in under one year olds and of these most were in the first 28 days. There is also a higher proportion of death in males (56%) than females (44%) which is the same as national data for 2016/17<sup>5</sup>. Both South-Asian children and boys overall were over represented compared to the population of the Bradford district:**

- 68% (43) of the deaths reviewed occurring in children under 1 year of age
  - 46% (29) of deaths reviewed occurred in the neonatal period which is from birth to 28 days
  - 22% (14) of deaths reviewed were children aged 28-days–1 year
- 32% (20) of the deaths reviewed were children aged 1-17 years of age
  - 13% (8) of the deaths reviewed were children aged 1-4 years of age
  - 11% (7) of the deaths reviewed were children aged 5-13 years of age
  - 8% (5) of deaths reviewed were children aged 14-17 years of age
- 56% (35) were Male
- 44% (28) were Female
- 59% (37) were children of South-Asian ethnicity
- 24% (15) were children of White British ethnicity
- 17% (11) were children of 'Other'<sup>6</sup> ethnicities

An estimated 534,300 people live in the Bradford District<sup>7</sup>, with a large proportion of the population dominated by children and young people. The overall population of Bradford is also ethnically diverse, with just under two-thirds (64%) of the district's population identifying themselves as White British, and around 25% as South-Asian according to the 2011 Census. For under 18's, half of the population (50%) identify themselves as White British, and 37% as South-Asian (2011 Census). This is in contrast to the demographic findings above around ethnicity, where 59% of child deaths reviewed are recorded as being from a South-Asian background. The 2016/17 findings above are also similar to analysis of 2008-2017 data in Section 3.

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3 <https://www.gov.uk/government/statistics/child-death-reviews-year-ending-31-march-2017>

4 NB: Due to rounding, some percentage totals may not correspond with the sum of the separate figures.

5 <https://www.gov.uk/government/statistics/child-death-reviews-year-ending-31-march-2017>

6 'Other' ethnicities in this case include African, Eastern European, Mixed, White Other, and Other

7 Latest population figures produced by the Office for National Statistics (ONS) on 22 June 2017

## **2.2 Causes of death, 2016/17**

**Of the 63 cases reviewed**, where it was possible to classify the cause of death into one of the ten categories<sup>8</sup> used nationally, **79% were due to Category 7 and Category 8 deaths**:

- 31 (49%) deaths were categorised as chromosomal, genetic and congenital anomalies (Category 7)
- 19 (30%) deaths were categorised as perinatal/neonatal events (Category 8)
- 13 (21%) deaths fell into other categories

Compared to nationally, the proportion of Category 7 deaths was above average. This has been the case for many years and is outlined in more detail in the section on all reviewed deaths since 2008 in Section 3. South-Asian children are over-represented particularly in Category 7 deaths (genetic conditions) and this is similar to analysis of the 2008-2017 data in Section 3.

## **2.3 Expected/Unexpected deaths, 2016/17**

Child deaths fall into the two categories of either expected or unexpected. As set out in Working Together to Safeguard Children (2015)<sup>9</sup> an unexpected death is defined as 'the death of an infant or child which was not anticipated as a significant possibility, for example, 24 hours before the death; or where there was an unexpected collapse or incident leading to or precipitating the events which led to the death'.

**Of the 63 cases reviewed, 27% (17 deaths) were unexpected and 73% (46 deaths) were expected.**

Between April 2008 – March 2017, the trends between expected and unexpected deaths did not change significantly with 26% of all deaths overall being unexpected (see Figure 3: Trends over time of expected or unexpected child deaths, Section 3).

## **2.4 Modifiability classification, 2016/17**

See Appendix 3 for the definition of modifiable classification current for 2016/17. This was altered in April 2016 to allow more consistent inclusion of significant risk factors such as smoking or obesity in pregnancy and consanguinity with more clearly defined criteria for inclusion.

**Of the 63 cases reviewed a total of 18 deaths were considered to have modifiable factors (29%). These modifiable deaths were in the following categories:**

- Category 1 (deliberately inflicted injury, abuse or neglect)
- Category 2 (suicide or deliberate self-inflicted harm)
- Category 3 (trauma and other external factors)
- Category 7 (chromosomal, genetic and congenital anomalies)
- Category 8 (perinatal/ neonatal event)
- Category 9 (infection)
- Category 10 (sudden unexpected and unexplained death).

The percentage of reviews with modifiable factors has increased from 10% in 2015/16, reflecting the recent change of the CDOP (such as the inclusion of risk factors around consanguinity, smoking and obesity which are now more often included as outlined in

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<sup>8</sup> See Appendix 3 for 10 categories for cause of death

<sup>9</sup> [http://www.workingtogetheronline.co.uk/chapters/chapter\\_five.html](http://www.workingtogetheronline.co.uk/chapters/chapter_five.html)

Appendix 3) which has ensured modifiable factors are now in line with other CDOPs' and national figures. Nationally the percentage of deaths considered to be 'modifiable' increased from 24% in 2015/16 to 27%<sup>10</sup> in 2016/17.

**The following recommendations arose from the 18 deaths reviewed in 2016/17 which were identified as having modifiable factors:**

- Trauma – Serious Case Review (SCR) recommendations in published report (Diljeet)<sup>11</sup> overseen by SCR sub group of BSCB (1 death)
- Road traffic collisions – specific road safety recommendations, and in one case specific recommendations around risk/vulnerability for Youth Offending Team and School (3 deaths)
- Sudden Infant Death Syndrome (SIDS) with co-sleeping and risk factors including smoking and alcohol– continued awareness raising across the district and assurance from key organisations, staff regarding their approach with families and updated e-training package (2 deaths)
- Premature births linked to smoking in pregnancy – district action to reduce smoking in pregnancy (6 deaths)
- Prematurity linked to Obesity and Type II diabetes – district wide action to reduce obesity and manage obesity and diabetes effectively in pregnancy (1 death)
- Clinical incident in out-of-hours service (NHS 111) – serious incident recommendations and further in depth audit undertaken into deaths in out-of-hours services by CDOP (1 death)
- Genetic condition linked to Clinical incident at BTHFT – fail safes now in place to reduce risk of recurrence (1 death)
- Delay to presentation and safeguarding issues – appropriate support services in place (1 death)
- Accidental drug overdose – awareness raising CDOP newsletter and via specialist services (1 death)
- Genetic condition linked to consanguinity – Every Baby Matters Recommendation 7 group actions increasing genetic inheritance awareness (1 death)

The actions above are monitored within the CDOP Modifiable Action plan to ensure they are all completed in a timely manner.

Further to the recommendations set out above, the panel records an 'issues log' as outlined earlier. The log includes issues which did not cause the death of the child but were identified as a potential risk factor or specific issue. Identifying these risk factors or issues surrounding the child's death enables follow up action to be taken with organisations or lead clinicians to promote good practice. This in turn can potentially impact on the reduction of future child deaths.

**In 2016/17**, a number of issues were highlighted as potential risk factors or issues. These are set out in the table below (Figure 1: Issues identified by CDOP), together with actions the Panel identified to address them.

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<sup>10</sup> <https://www.gov.uk/government/statistics/child-death-reviews-year-ending-31-march-2016>

<sup>11</sup> <http://bradfordscb.org.uk/wp-content/uploads/2017/02/Diljeet-SCR-Overview-Report.pdf>

**Figure 1: Issues identified by CDOP, 2016/17**

Key risk factors/issues identified	Proposed specific action
Smoking, diabetes and obesity in pregnancy	<ul style="list-style-type: none"> <li>• District wide actions to reduce smoking, diabetes and obesity</li> <li>• Specific actions in place within maternity services to manage diabetes and obesity and support women to stop smoking</li> </ul>
Genetic inheritance issues and consanguinity as a risk factor. Genetic diagnosis not always clear	<ul style="list-style-type: none"> <li>• Genetic counselling offer and ensuring appropriate referrals</li> <li>• Every Baby Matters Recommendation 7 work to increase awareness</li> <li>• Ensuring family members are made aware of genetic risk and appropriate tests undertaken</li> </ul>
Non-viable babies e.g. 20-22 weeks	<ul style="list-style-type: none"> <li>• Ongoing monitoring</li> </ul>
Domestic abuse and safeguarding issues	<ul style="list-style-type: none"> <li>• Ensure flags for future pregnancies where relevant and any follow-up support is in place</li> </ul>
Domestic abuse and Mental health issues	
Need to clarify regional compassionate extubation pathway	<ul style="list-style-type: none"> <li>• Regional compassionate extubation pathway to be implemented</li> </ul>
Vulnerable at risk young mothers	<ul style="list-style-type: none"> <li>• Follow up contacts with Looked After Children (LAC) and/or at risk of Child Sexual Exploitation (CSE) as appropriate</li> </ul>
Use of Limitation of Treatment Agreement (LOTA) and advanced care plans – noted to be good practice	<ul style="list-style-type: none"> <li>• Monitor use of LOTAs and follow up where use identified as not fully compliant</li> </ul>
Delays to review	<ul style="list-style-type: none"> <li>• Red flag system now in place to monitor delays</li> </ul>
Variable levels of bereavement support	<ul style="list-style-type: none"> <li>• Noted if a child is on PICU (Paediatric Intensive Care Unit) robust</li> <li>• Community paediatric nursing not on call 24 hours – to be monitored and discussed with Bereavement services leads</li> </ul>
Joint mortality meetings Bradford/Leeds may be beneficial	<ul style="list-style-type: none"> <li>• Paediatricians BTHFT are following this up</li> </ul>
Cause of death judged to be different to Coroner	<ul style="list-style-type: none"> <li>• Discussions with Coroner planned for Nov 2017</li> </ul>
Insufficient details to review children who died abroad	<ul style="list-style-type: none"> <li>• Ongoing monitoring</li> </ul>
Sudden death of a child when parents not prepared	<ul style="list-style-type: none"> <li>• Ongoing work by Paediatricians to ensure parents are prepared for possible sudden death with congenital heart disease</li> </ul>

#### **Key CDOP Activity in 2016/17:**

- Total of 8 meetings in the year which included some extended meetings to ensure more cases could be reviewed.
- Annual Away Day held to review all data and understanding for 2016/17 and 3 key areas of special interest presented and discussed; obesity and smoking in pregnancy and audit of deaths in out-of-hours services.
- Updated modifiability definition agreed April 2016 for obesity, smoking and consanguinity (see Appendix 3).
- CDOP database updated and additional fields added.
- Suicide Audit presented at CDOP and findings reported into Suicide Prevention Action plan for the district.
- Awareness raising over the year for SIDS and co-sleeping and risk factors.

- Useful Red flag system established around cases which have taken a long time to reach review or where significant issues have been identified in reported deaths yet to be reviewed – this is to ensure any new areas of concern are identified early and any long delays to review are addressed where possible.
- CDOP members presented at safeguarding week and took part in training events throughout the year.

### 3. Child deaths reviewed by CDOP between 2008/09 – 2016/17

The following section provides key analysis and highlights changes in themes and trends of deaths in children (see Appendix 5 for full analysis). The following data includes the deaths of children under 18 years of age<sup>12</sup>, resident in Bradford District who died between 1<sup>st</sup> April 2008 and 31<sup>st</sup> March 2016.

**Figure 2: Child deaths reported to and reviewed by CDOP, 2008/09-2016/17**

	2008/ 09	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2014/ 15	2015/ 16	2016/ 17	Total
<b>Notified</b>	85	108	108	70	67	66	80	61	69	<b>714</b>
<b>Reviewed</b>	85	108	108	70	67	63	75	31	32	<b>670</b>
<b>% Reviewed</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>99%</b>	<b>94%</b>	<b>94%</b>	<b>51%</b>	<b>46%</b>	<b>94%</b>

Source: Bradford CDOP notifications data – Public Health Analysis Team, City of Bradford Metropolitan District Council

A total of 670 deaths of the 714 notified deaths (94%) have been reviewed since April 2008. Delays due to inquests, and other investigations outside the control of CDOP, can affect the year in which a death is reviewed. There were 44 outstanding deaths to be reviewed at March 2017. In addition, we now have a red flag system in place to ensure we are sighted on cases with a long delay to review or significant issues identified in the reported deaths. This ensures we can speed up the process where required and be fully aware of any emerging new causes of death.

#### 3.1 Demographics (age, gender, ethnicity), 2008/09 – 2016/17

Of the 670 cases reviewed<sup>13</sup>, most deaths were in the first year of life (69%), particularly within the first 28 days. Overall, deaths in South-Asian children (59%) are over-represented, compared to the under-18 South-Asian population of the Bradford district (37%). A higher proportion of deaths is noted in males (54%) compared to females (46%) which is similar to national data for 2016/17 (56% of death in males and 44% in females)<sup>14</sup>. In-depth analysis highlighted a higher proportion of deaths in White British boys, as detailed in the following paragraph:

- 69% (462) of the deaths reviewed occurred in children under 1 year of age
  - 43% (288) of deaths reviewed occurred in neonatal period (birth to 28 days)
  - 26% (174) of deaths reviewed were children aged 28-days – 1 year
- 31%(208) of the deaths reviewed were children ages 1-17 years of age
  - 13% (89) of the deaths reviewed were children aged 1-4 years of age
  - 10% (69) of the deaths reviewed were children aged 5-13 years of age
  - 7% (50) of deaths reviewed were children aged 14-17 years of age

<sup>12</sup> Up to the 18th birthday and described as 0-17 years

<sup>13</sup> NB: Due to rounding, some percentage totals may not correspond with the sum of the separate figures.

<sup>14</sup> <https://www.gov.uk/government/statistics/child-death-reviews-year-ending-31-march-2017>



- 54% (361) were Male
- 46% (309) were Female
- 62% (415) were children of South-Asian ethnicity
- 29% (197) were children of White British ethnicity
- 9% (58) were children of 'Other'<sup>15</sup> ethnicities

Further analysis into ethnicity and gender differences, showed South-Asian children are specifically over-represented in Category 7 deaths as has been noted in previous reports. Overall, although the proportion of deaths in White British children is lower (29%) compared to the under-18 White British population in Bradford (50%), detailed analysis of White British deaths by gender demonstrated a higher incidence of deaths in boys (62%) than in girls (38%); this difference is not seen in South-Asian children or other ethnicities. There are more deaths in White British boys in Categories 7, 8 and 10 and these deaths were more likely to be unexpected and modifiable. These findings require further exploration and discussion with other regional and national CDOPs; there is no national child death review analysis published for this specific area so it is not possible to compare with national findings.

### 3.2 Expected or unexpected deaths, 2008/09 – 2016/17

Deaths are grouped into expected and unexpected. Expected deaths may include cases where a medical condition, known to doctors was the cause of death. Unexpected deaths included cases which could not have been predicted or expected e.g. due to road traffic collision or sudden infant death.

**Figure 3: Expected or unexpected child deaths, 2008/09-2016/17**

Period 2008-2017	
Expected deaths	74% (493)
Unexpected deaths	26% (172)
Unknown whether death was expected/unexpected	1% (5)
<b>Total</b>	<b>100% (670)</b>

Source: Bradford CDOP review data

**Of the 670 cases reviewed<sup>16</sup>, 26% (172) were unexpected deaths and 74% (493) were expected. A higher proportion of the unexpected deaths are attributable to the following categories:**

- Category 3 (trauma and other external factors)
- Category 7 (chromosomal, genetic and congenital anomalies)
- Category 8 (perinatal/ neonatal event)
- Category 9 (infection)
- Category 10 (sudden unexpected and unexplained death).

From the 6 complete years of reviewed deaths from 2008/09 to 2013/14 and near complete reviewed deaths between 2014/15 and 2015/16, the difference between expected and unexpected deaths remains generally unchanged.

<sup>15</sup> „Other“ ethnicities in this case include African, East Asian, Eastern European, Mixed, White Other, and Other

<sup>16</sup> NB: Due to rounding, some percentage totals may not correspond with the sum of the separate figures.

**Figure 4: Trends over time of expected or unexpected child deaths**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	Total
<b>Expected</b>	74%	77%	72%	74%	72%	82%	60%	75%	81%	<b>74%</b>
<b>Unexpected</b>	25%	21%	27%	26%	27%	18%	40%	25%	19%	<b>26%</b>
<b>Not Known</b>	1%	2%	1%	0%	1%	0%	0%	0%	0%	<b>1%</b>
<b>Grand Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: Bradford CDOP review data

### **3.3 Causes of death, 2008/09 – 2016/17**

**Of the 670 deaths reviewed over the last 9 years**, where it was possible to classify the cause of death into one of the ten categories used nationally, **the most common causes of death out of all the reviewed cases were chromosomal, genetic and congenital anomalies (Category 7) and perinatal/neonatal events (Category 8), which accounted for 74% of all reviewed deaths:**

- 43% (287) of deaths were categorised as chromosomal, genetic and congenital anomalies (Category 7)
- 31% (207) of deaths were categorised as perinatal/neonatal events (Category 8)
- 26% (176) of deaths fell into other categories

The proportion of deaths attributable to chromosomal, genetic and congenital anomalies (Category 7) is higher in Bradford (43%) than nationally (25%)<sup>17</sup>.

Genetic conditions can occur across all families due to sporadic, autosomal recessive/autosomal dominant or X-linked causes. In addition, some cases are not known as it is not possible to identify the cause. Around one third of all Category 7 deaths in Bradford are autosomal recessive in nature, and this type of condition is twice as likely to occur if the couple are consanguineous than in the whole population<sup>18</sup>. Consanguinity is common in South-Asian families locally and 54% of all South Asian children who died due to Category 7 as a whole are from families who have married their cousin.

Overall numbers and proportions of deaths are reducing except for Category 10 in the under 1 year olds and Category 7 in the 1-17 year olds.

### **3.4 Modifiable factors, 2008/09 – 2016/17**

The panel look at all the factors in the child's life to ascertain if any factors may have affected their health and/or death, which could have been prevented and/or modified.

**Of the 670 cases reviewed, a total of 81 deaths were considered to have modifiable factors (12%). This is less than nationally (27% in 2016/17) but it must be noted that the methodology for this has changed since April 2017 and in 2016/17 this has increased to 29% which is more in line with national data.**

Key demographics to note of the 81 modifiable deaths:

- 59% (48) were children ages under 1 year of age
- 41% (33) were children ages 1-17 years of age

<sup>17</sup> <https://www.gov.uk/government/statistics/child-death-reviews-year-ending-31-march-2016>

<sup>18</sup> <https://borninbradford.nhs.uk/our-findings/different-findings-in-a-nutshell/babies-born-with-serious-conditions/>

- 52% (42) were Male
- 48% (39) were Female
- 49% (40) were children of South-Asian ethnicity
- 40% (32) were children of White British ethnicity
- 11% (9) were children of 'Other'<sup>19</sup> ethnicities

**For this 9-year period the following themes for potentially modifiable causes of death which have continued up until 2017:**

- Sudden Infant Death in Infancy (SIDS) and Co-sleeping with risk factors
- Specific clinical incidents over a range of causes
- Road traffic collisions
- Risk factors around Consanguinity, Obesity and Smoking in pregnancy
- Serious Case Reviews and safeguarding issues
- Suicides

**Less common modifiable causes of death occurring which have not repeated since 2015:**

- Drownings in bath and death in fires
- Asthma
- Swine Flu

## **4. Actions and lessons learned**

**What has been done to reduce risk of future deaths across the district?**

- SIDS and co-sleeping and risk factors awareness and organisational response audited.
- Road traffic collisions – road safety actions in place and specific organisational actions.
- Suicide audit and monitoring fed into Suicide Action Plan for the district.
- Serious Case Review (SCR), Safeguarding issues and Clinical incidents – range of actions by organisations via SCR recommendations and serious incident action plans – CDOP seeks assurance all actions completed.
- Safeguarding – work by all organisations as part of the BSCB Action plan.
- Smoking/obesity/genetic inheritance risk – district wide work as part of Actions plans for Every Baby Matters, Maternity Board, and district wide work to reduce obesity and smoking in pregnancy, and increase genetic inheritance awareness.

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<sup>19</sup> „Other’ ethnicities in this case includes Eastern European, and Mixed.

## **5. Conclusion**

Overall infant and child mortality rates are reducing but remain above national and regional rates. CDOP continues to seek assurance from lead organisations that all actions within the Modifiable Action Plan are being fully implemented by lead organisations across all the recommendation areas.

### **The current focus for 2017/18 is:**

- Continue to monitor new child deaths and any changes in demographic profile or cause of death
- Continue to update and monitor Modifiable Action Plan/Issues Log
- Training and awareness about CDOP and CDOP findings
- Preparation of in depth analysis for next Annual Away Day
- Continue to focus on:
  - SIDS and Co sleeping – awareness and organisational response
  - Suicide monitoring and Suicide Prevention Plan for district
  - Smoking/obesity/consanguinity and genetic risk – district wide actions led via Maternity Board, Every Baby Matters Group and Key partners
  - Serious Case Reviews, Safeguarding issues and Clinical incidents – ensuring all actions taken
  - Road Safety across the district – ensuring actions taken

In this way we continue to understand why children die in Bradford district and seek to ensure all organisations and partners work towards reducing the risk of death for all children and young people in the district and hence reduce infant and child mortality rates in the future.

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## APPENDIX 1 (CDOP): Membership of Bradford CDOP

CDOP is composed of a standing core membership as follows:

- Specialist Children's Services
- Health – Primary care
- Education
- Police
- Coroner's Office
- Hospital Chaplain
- Public Health
- Sudden Infant Death in Childhood (SUDIC) paediatricians
- Health – Acute Trusts
- Health – Bradford Teaching Hospitals NHS Foundation Trust and Airedale Hospital NHS Foundation Trust
- Other members as co-opted to specific meetings

Also in attendance is the manager of the Bradford Safeguarding Children Board, as an advisor, and the CDOP Manager.

**Figure 1: Membership of the Bradford CDOP**

Name	Role	Organisation
CBMDC Public Health	Dr Shirley Brierley	Chair
BSCB	Mark Griffin	Board Manager
BTHFT	Dr Eduardo Moya	Consultant Paediatrician
BTHFT	Dr Catriona McKeating	Consultant Paediatrician
BTHFT	Dr Chakra Vasudevan	Consultant Neonatologist
BTHFT	Sara Keogh	Head of Midwifery
BTHFT	Shaheen Kauser	Muslim Chaplain
BTHFT	Karen Bentley	Named Nurse Safeguarding Children
ANHST	Dr Kate Ward	Consultant Paediatrician
ANHST	Joanne Newman	Named Nurse Safeguarding Children
CCGs	Jude McDonald	Deputy Designated Nurse Vice Chair
West Yorkshire Police	Granville Ward	Serious Case Review Officer
West Yorkshire Police	Joanna Fraser	Serious Case Review Officer
CBMDC	Ashraf Seedat	Senior Educational and Child Psychologist
CBMDC	Kate Leahy	Service Manager Children's Social Care

**Deputies**

In exceptional circumstances, where a member is unable to attend, another appropriate person may attend in their stead. The Vice-chair may deputise for the Chair.

The Bradford CDOP meets on a monthly basis. Additional members have been co-opted to the panel when relevant, for the cases scheduled to be reviewed. Since the establishment of CDOP in 2008, the panel has consistently strived to increase the number of cases reviewed each month, and additional meetings are held if required to ensure a backlog does not build up. This also allows for modifiable factors and issues to be identified sooner, and changes to practice can be implemented. This year a new database has been set up to allow accurate transfer of information between the CDOP Manager and Public Health to assist with analysis.

**Notification of Death**

Any professional who becomes aware of a child death is required to notify the Child Death Manager at the Child Death Review office either by completing a notification form or by telephoning the office. The Coroner's Office and the Registrar of Births Deaths and Marriages have a statutory responsibility to engage in the child death review process by notifying the Manager of all deaths reported to them. There can be confidence, therefore, that information on all deaths is captured by the Child Death Review Manager.

Each agency involved with children and families has a nominated individual who takes responsibility for coordinating the information required for the review of each death. The data collection forms (Agency Report Forms – Form B) are distributed via the administrator and copies of the various forms can be found at the Department for Education on the Gov.uk website<sup>20</sup>.

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<sup>20</sup> Child death reviews: forms for reporting child deaths. Available at: <https://www.gov.uk/government/publications/child-death-reviews-forms-for-reporting-child-deaths>

## **APPENDIX 2 (CDOP): Terms of Reference of Bradford CDOP**

### **Purpose**

The CDOP should undertake a review of all child deaths (excluding stillbirths and planned terminations of pregnancy) up to the age of 18 years in the LSCB area.

Through a comprehensive and multidisciplinary review of the child deaths, the Bradford 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 (2015).

### **Remit**

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

- Review each child death (except 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 collect a minimum data set as required by the DfE and submit this annually for national data collection
- To meet monthly to review and evaluate data on all child deaths
- 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 LSCB 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 Bradford Safeguarding Children Board.

The CDOP Sub Group is accountable to the BSCB. The Sub Group will raise with the Board issues that need resolution beyond the remit of its members.

### **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 Children's Safeguarding Board
- 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. The current list of named representatives is shown at Appendix 1.

### **Operational arrangements**

- The Board will select its chair and deputy chair. The Chairperson should be a member of BSCB.
- 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 monthly and additionally meetings held as and when required.
- Administrative support will be provided by BSCB. Agendas and associated papers will be circulated at least 5 days in advance of the meeting.

### **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 Sub Group will:

- Provide a highlight report to each (quarterly) meeting of the BSCB. This will include a scorecard that reports on local and national indicators, benchmarking the partnership against other areas and evidences the effectiveness of the work of each Board partner in relation to safeguarding and promoting the welfare of children.
- Review the business/work plan annually
- Produce an annual report which will be incorporated into the BSCB Annual Report
- Review the Terms of Reference every 3 years (unless appropriate do sooner) and propose amendments to BSCB

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



## **APPENDIX 3 (CDOP): Definition of Preventable and Modifiable Deaths and 10 Categories for Cause 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 the same definition as above.

### **2. Modifiable death: Definition changed 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

## 10 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).

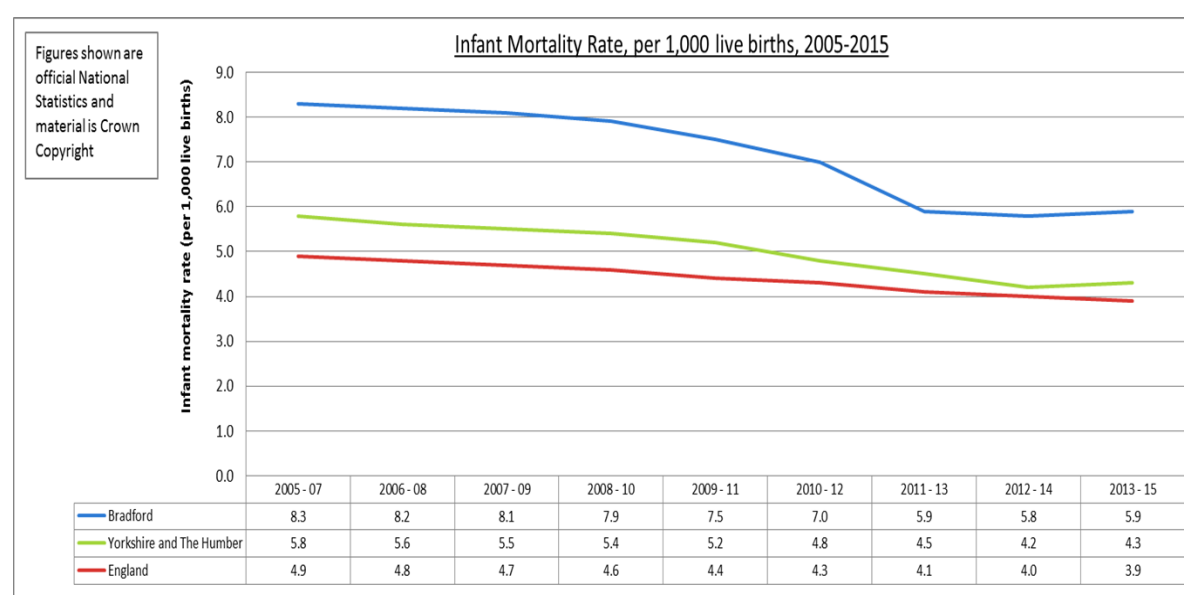
## APPENDIX 4 (CDOP): Infant and child mortality rates

**Figure 1: Mortality rates, 2013–2015**

	Infant (<1 year) mortality rate, per 1,000 live births	Child (1-17 years) mortality rate, per 10,000 population
<b>Bradford</b>	5.9	18.3
<b>Yorkshire and The Humber</b>	4.3	13.7
<b>England</b>	3.9	11.9

Source: PHE, Child Health Profiles 2017

**Figure 2: Infant mortality rates for Bradford District vs National/Regional rates, 2005-07 to 2013-15**



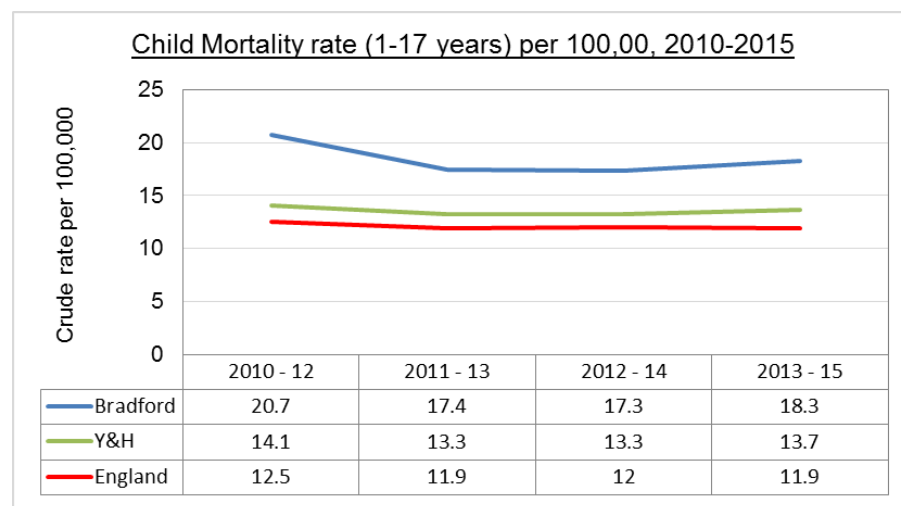
Source: Office for National Statistics (ONS) data

**Figure 3: Infant mortality rates in the most deprived quintiles Bradford District, Region and England during 2007-09 to 2013-2015**

Year	Bradford Most Deprived Quintile	Bradford	Yorkshire & Humber	England
<b>2007-09</b>	10.6	8.1	5.5	4.7
<b>2008-10</b>	10.2	7.9	5.4	4.6
<b>2009-11</b>	9.0	7.5	5.2	4.4
<b>2010-12</b>	7.8	7.0	4.8	4.3
<b>2011-13</b>	6.9	5.9	4.5	4.1
<b>2012-14</b>	6.6	5.8	4.2	4.0
<b>2013-15</b>	6.6	5.9	4.3	3.9
<b>IMR change between 2007-09 and 2013-15</b>	<b>-4.0</b>	<b>-2.2</b>	<b>-1.2</b>	<b>-0.8</b>

Source: Public Health Analysis Team, City of Bradford Metropolitan District Council, based on ONS data

**Figure 4: Child Mortality Rates for Bradford District vs England and Yorkshire and The Humber, 2010-12 to 2013-15**



Source: PHE, Child Health Profiles 2017

## APPENDIX 5 (CDOP): CDOP activity and analysis of reviewed deaths

### CDOP Activity

**Figure 1: Number of notified and reviewed deaths, 2008/09-2016/17**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	Total
<b>Notified deaths</b>	85	108	108	70	67	66	80	61	69	<b>714</b>
<b>Reviewed deaths</b>	85	108	108	70	67	66	78	56	32	<b>670</b>
<b>% of deaths reviewed</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>98%</b>	<b>92%</b>	<b>46%</b>	<b>94%</b>

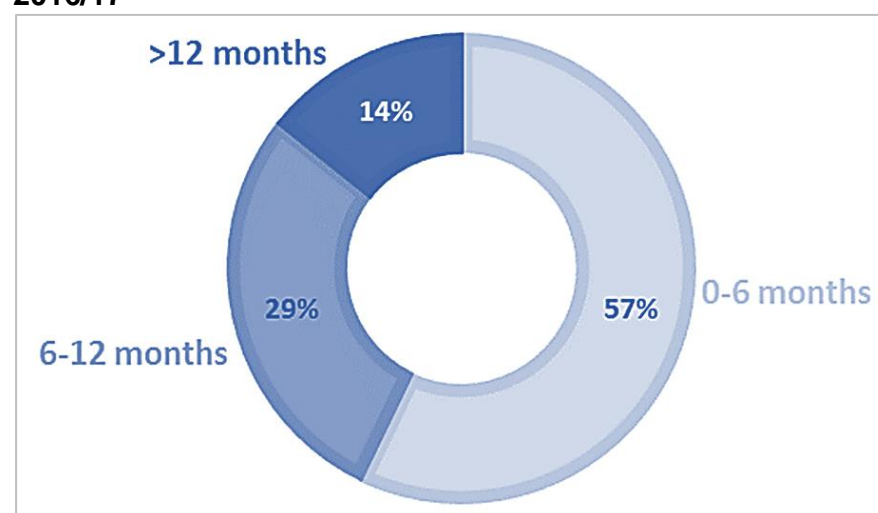
Source: Bradford CDOP review data

**Figure 2: Numbers of deaths notified to the CDOP by age category and year of death, 2008/09 to 2016/17**

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<b>Under 1 year</b>	63	77	74	44	45	47	50	41	48
<b>1-17 year olds</b>	22	31	34	26	23	19	30	20	21
<b>TOTAL</b>	<b>85</b>	<b>108</b>	<b>108</b>	<b>70</b>	<b>67</b>	<b>66</b>	<b>80</b>	<b>61</b>	<b>69</b>

Source: Bradford CDOP notifications data

**Figure 3: Percentage of reviews completed within 12 months of the child's death – 2016/17**



Source: Bradford CDOP review data

## Analysis of deaths reviewed

Characteristics of the child deaths reviewed between April 2008 and March 2016<sup>21</sup>.

### Age

**Figure 4: Age distribution of all reviewed deaths, 2008/09-2016/17**

	Number	Percentage
Under 1 year	462	69%
1-17 years old	208	31%
<b>TOTAL</b>	<b>670</b>	<b>100%</b>

Source: Bradford CDOP review data

**Figure 5: Age distribution of all reviewed infant deaths, 2008/09-2016/17**

	Number	Percentage
Under 28 days	288	62%
28 days to 2 months	85	18%
3 months to 1 year	89	19%
<b>TOTAL</b>	<b>462</b>	<b>100%</b>

Source: Bradford CDOP review data

**Figure 6: Age distribution of all reviewed child deaths, 2008/09-2016/17**

	Number	Percentage
1-4 years old	89	43%
5-13 years old	69	33%
14-17 years old	50	24%
<b>TOTAL</b>	<b>208</b>	<b>100%</b>

Source: Bradford CDOP review data

### Gender

**Figure 7: Gender distribution of all reviewed deaths, 2008/09-2016/17**

	Number	Percentage
Male	361	54%
Female	309	46%
<b>TOTAL</b>	<b>670</b>	<b>100%</b>

Source: Bradford CDOP review data

21 NB: Due to rounding, some percentage totals may not correspond with the sum of the separate figures.

## Ethnicity

**Figure 8: Ethnicity distribution of all reviewed deaths, 2008/09-2016/17**

	Number	Percentage
South Asian	415	62%
White British	197	29%
Eastern European	20	3%
Mixed ethnicities	21	3%
Other ethnicities (includes African, East Asian, White Other and Not Known)	17	3%
<b>TOTAL</b>	<b>670</b>	<b>100%</b>

Source: Bradford CDOP review data

**Figure 9: Ethnicity of all reviewed deaths by gender, 2008/09-2016/17**

	% of deaths		Total
	Male	Female	
South-Asian	50%	50%	100%
White British	62%	38%	100%
All Other ethnicities	52%	48%	100%
<b>TOTAL</b>	<b>54%</b>	<b>46%</b>	<b>100%</b>

Source: Bradford CDOP review data

## Category of death

**Figure 10: Category of death distribution of all reviewed deaths, 2008/09-2016/17**

	Number	Percentage
Category 1	7	1%
Category 2	5	1%
Category 3	32	5%
Category 4	22	3%
Category 5	22	3%
Category 6	23	3%
Category 7	287	43%
Category 8	207	31%
Category 9	40	6%
Category 10	23	3%
No category assigned	2	0%
<b>TOTAL</b>	<b>670</b>	<b>100%</b>

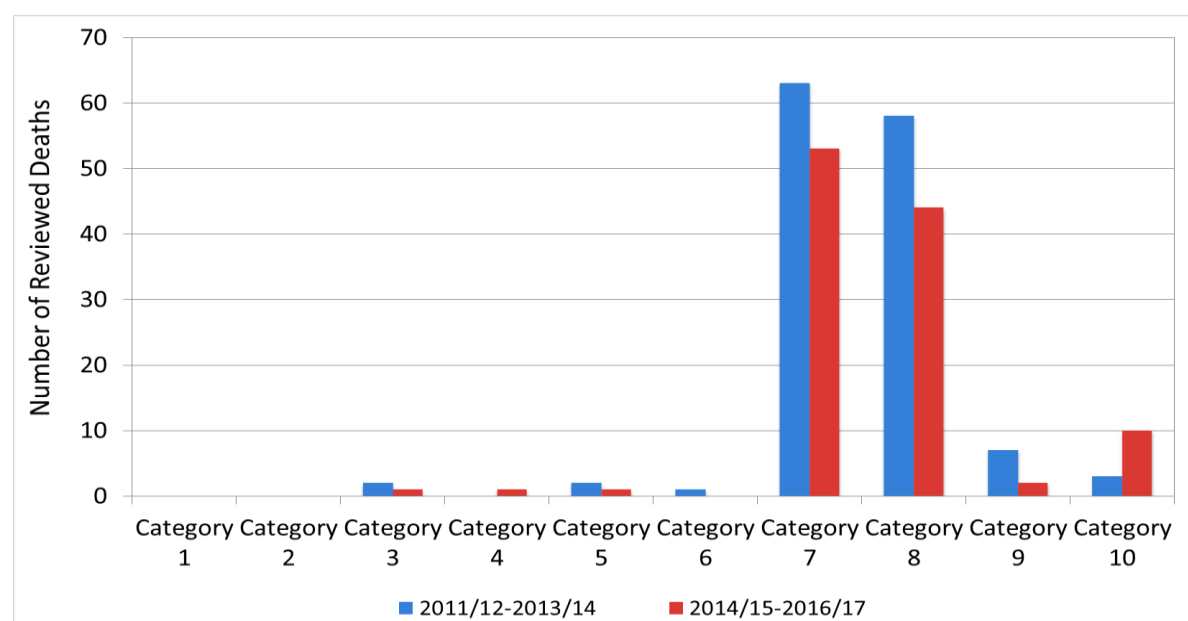
Source: Bradford CDOP review data

**Figure 11: Comparison to national CDOP data: proportion of reviewed deaths by category of death, 2009/09–2016/17**

		2016/17	2008/09-2016/17	Difference (percentage points)
Proportion of reviewed deaths by category of death		National	Bradford	
<b>Cat 1:</b>	Deliberately inflicted injury, abuse or neglect	1%	1%	<b>0</b>
<b>Cat 2:</b>	Suicide or deliberately inflicted self-harm	3%	1%	<b>-2</b>
<b>Cat 3:</b>	Trauma and other external factors	6%	5%	<b>-1</b>
<b>Cat 4:</b>	Malignancy	7%	3%	<b>-4</b>
<b>Cat 5:</b>	Acute medical or surgical condition	6%	3%	<b>-3</b>
<b>Cat 6:</b>	Chronic medical condition	5%	3%	<b>-2</b>
<b>Cat 7:</b>	Chromosomal, genetic and congenital anomalies	25%	43%	<b>18</b>
<b>Cat 8:</b>	Perinatal/neonatal event	34%	31%	<b>-3</b>
<b>Cat 9:</b>	Infection	6%	6%	<b>0</b>
<b>Cat 10:</b>	SUDI	7%	3%	<b>-4</b>

Source: National CDOP review data and Bradford CDOP review data

**Figure 12: Numbers of reviewed infant deaths in each category of death, 2011/12-2012/13 compared to 2014/15-2016/17**

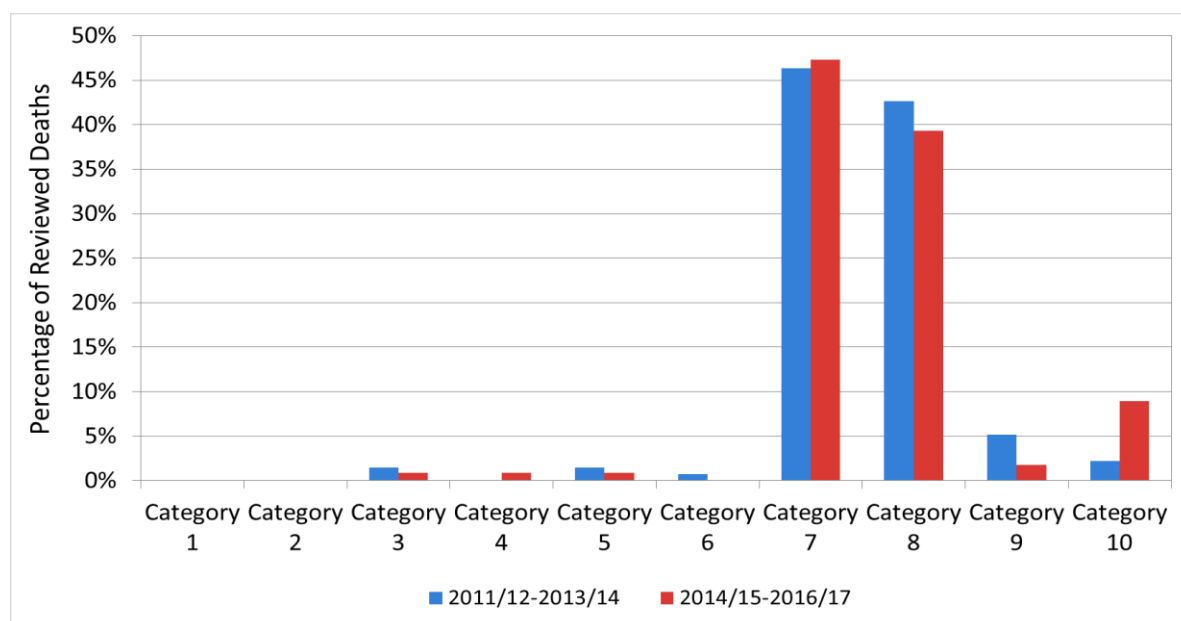


Source: Bradford CDOP review data

NB: The deaths with inadequate information to make a category of death classification were removed from the analysis



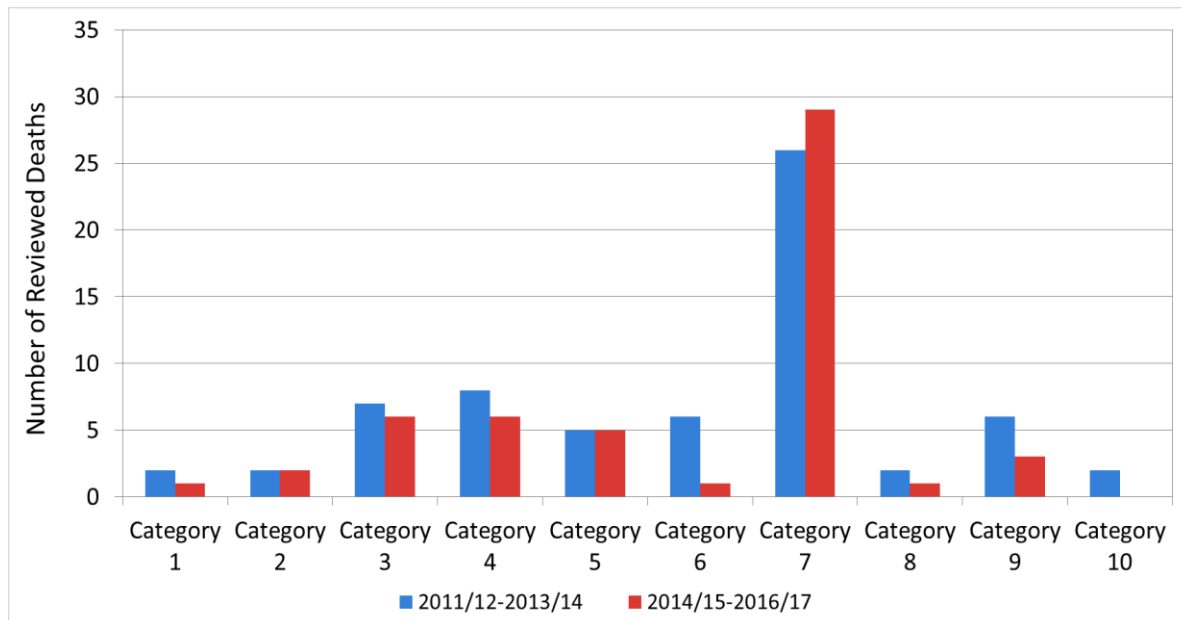
**Figure 13: Proportion of reviewed infant deaths in each category of death, 2011/12-2012/13 compared to 2014/15-2016/17**



*Source: Bradford CDOP review data*

NB: The deaths with inadequate information to make a category of death classification were removed from the analysis

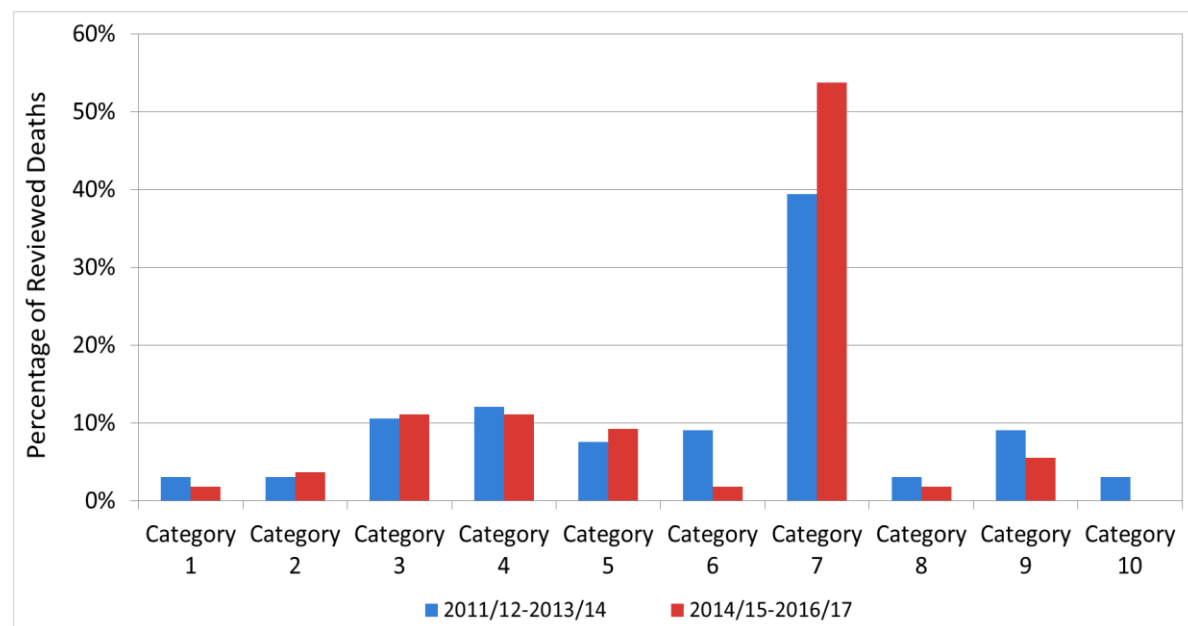
**Figure 14: Numbers of reviewed child deaths (1-17 years old) in each category of death, 2011/12-2012/13 compared to 2014/15-2016/17**



*Source: Bradford CDOP review data*

NB: The deaths with inadequate information to make a category of death classification were removed from the analysis

**Figure 15: Proportion of reviewed child deaths (aged 1-17 years old) in each category of death, 2011/12-2012/13 compared to 2014/15-2016/17**



*Source: Bradford CDOP review data*

NB: The deaths with inadequate information to make a category of death classification were removed from the analysis

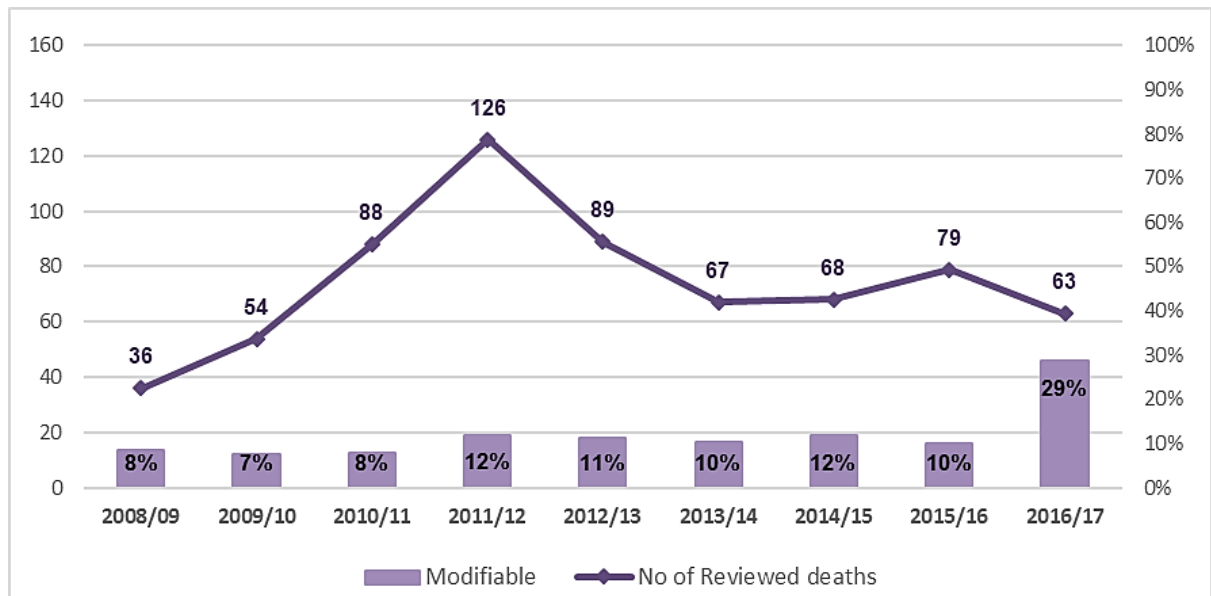
## Modifiability

**Figure 16: Modifiability classification of all reviewed deaths, 2008/09-2016/17**

	Number	Percentage
<b>Preventability/potentially preventable/modifiable</b>	80	12%
<b>Not modifiable</b>	585	87%
<b>Inadequate information</b>	4	1%
<b>Undecided</b>	1	0%
<b>TOTAL</b>	<b>670</b>	<b>100%</b>

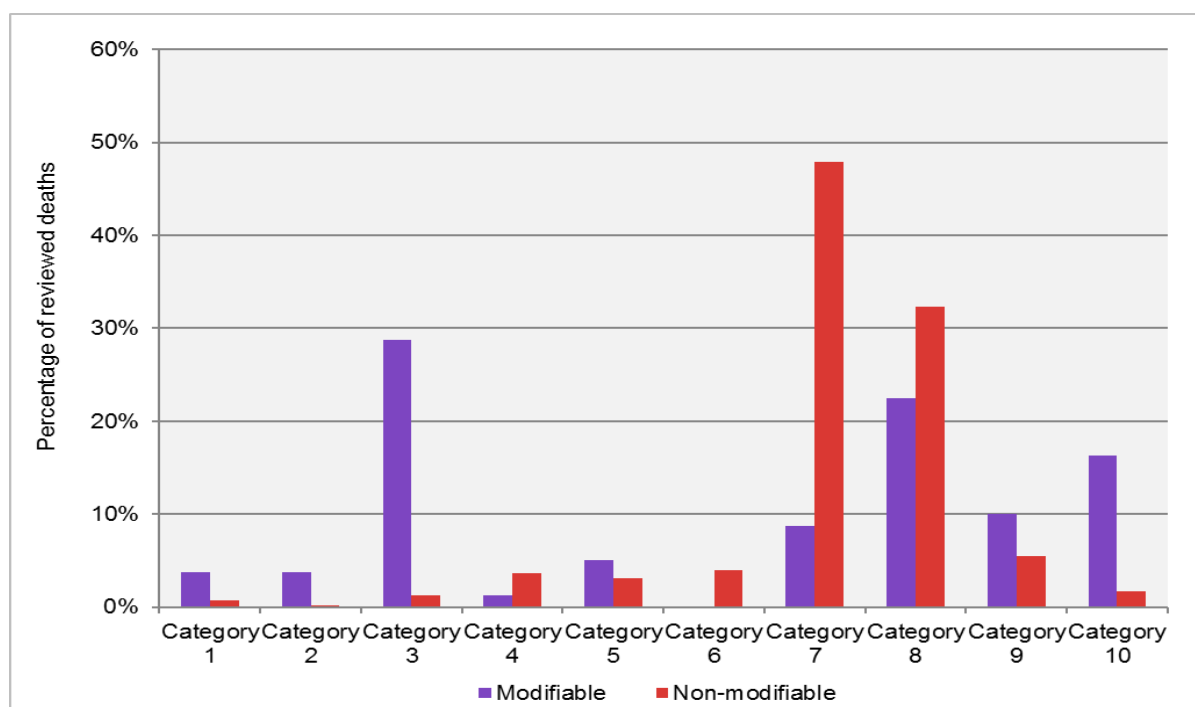
*Source: Bradford CDOP review data*

**Figure 17: Percentage of reviews with modifiable factors 2008/09-2016/17**



Source: Bradford CDOP review data

**Figure 18: Percentage of modifiable/non-modifiable deaths by category 2008/09-2016/17**



Source: Bradford CDOP review data

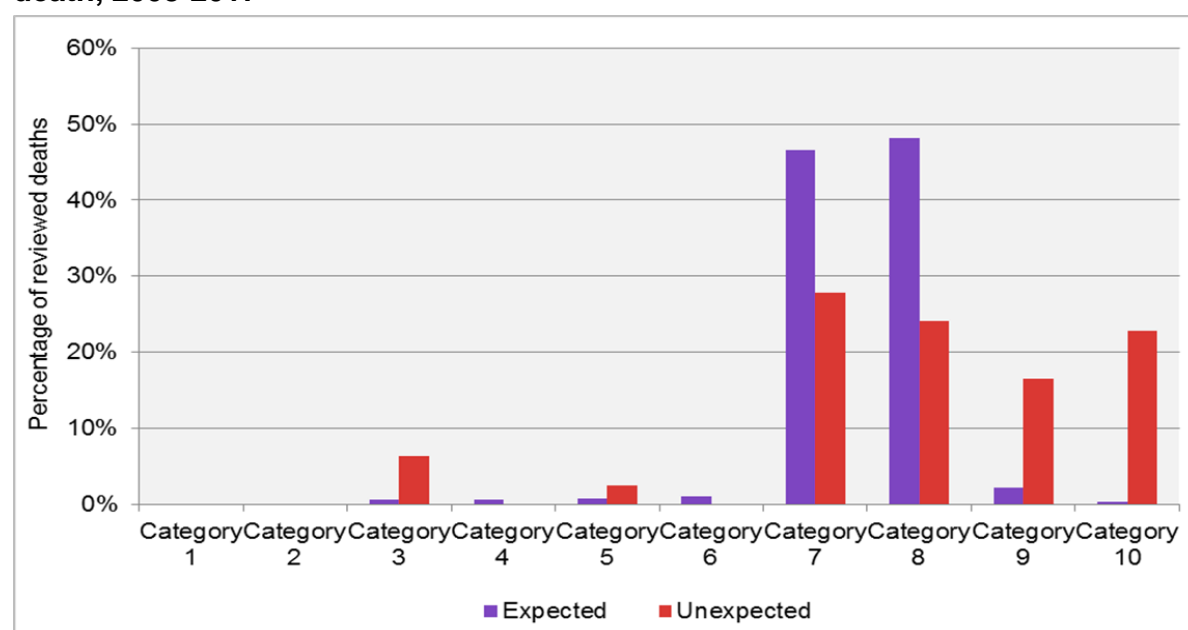
## Expected/unexpected deaths

**Figure 19: Expected/unexpected classification of all reviewed deaths, 2008/09-2016/17**

	Number	Percentage
<b>Expected</b>	493	74%
<b>Unexpected</b>	172	26%
<b>Unknown</b>	5	1%
<b>TOTAL</b>	<b>670</b>	<b>100%</b>

Source: Bradford CDOP review data

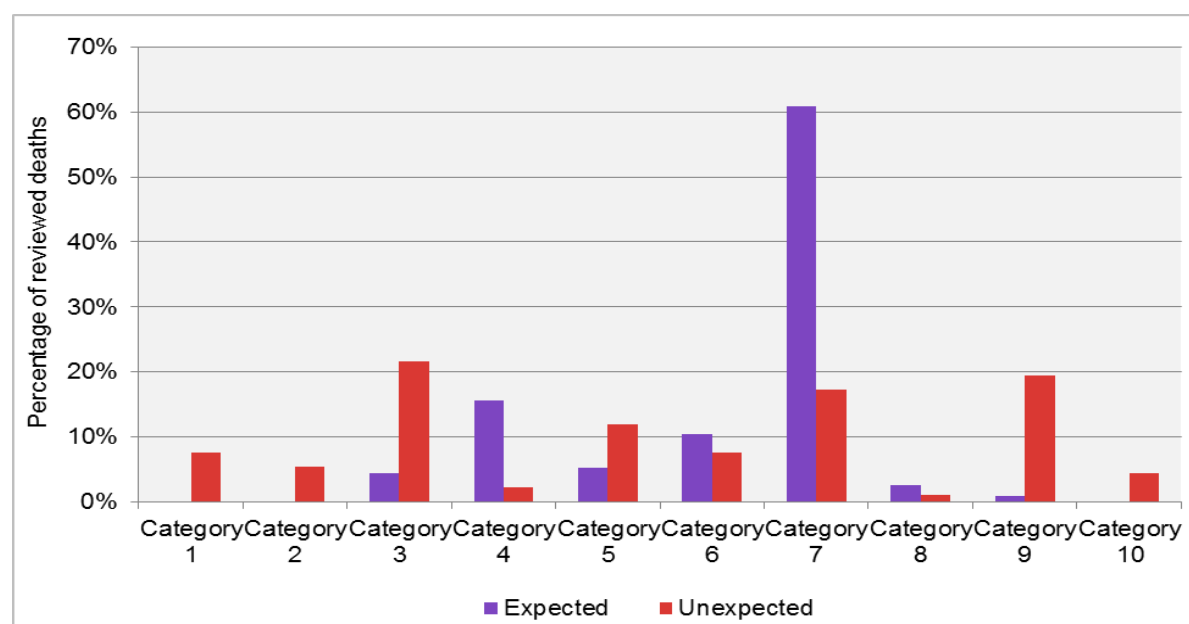
**Figure 20: Proportion of expected/unexpected infant deaths in each category of death, 2008-2017**



Source: Bradford CDOP review data

NB: The deaths with inadequate information to make a category of death classification were removed from the analysis

**Figure 21: Proportion of expected/unexpected child deaths in each category of death, 2008-2017**



Source: *Bradford CDOP review data*

NB: The deaths with inadequate information to make a category of death classification were removed from the analysis