

BURY, ROCHDALE & OLDHAM

Child Death Overview Panel

Annual Report

April 2017 – March 2018

1.0 Executive Summary

This report presents data for all child deaths (0-18 years) cases which were concluded in Bury, Oldham and Rochdale (BRO) during the period 1st April 2017 to 31st March 2018. Data was collected from the Child Death Overview Panel (CDOP) for these areas. Whilst some data is presented as notified cases, the majority comprises of that from closed cases as this is more complete.

The findings from this data are used to inform local strategic planning on the best way to safeguard and reduce harm in children, in order to promote better outcomes in the future.

The responsibility for determining the cause of death rests with the coroner or doctor who signs the death certificate, not the CDOP. The function of the CDOP is to evaluate information about the child's death, identify lessons to be learnt and inform an understanding of all child deaths at a local and national level.

Depending on the complexity of a case, the time from notification to closure of a review can vary and may span more than one calendar year. The vast majority of this report only considers cases closed during 2017/18, meaning the CDOP will have been notified of some of these cases before 2017/18 and other deaths in 2017/18 will not be included in this report.

A report is also collated across Greater Manchester and the key recommendations from this report are outlined in Appendix 1.

1.1 Key Findings for Bury, Rochdale and Oldham (BRO)

- In total 70 cases were notified. Rochdale had a higher rate of notified cases
- As in previous years the highest number of deaths were in the perinatal and neonatal (26) followed by chromosomal and congenital categories (17). This mirrors the findings for Greater Manchester.
- The highest number of deaths are seen in babies under 28 days and up to 1 year.
- We did see an increase in deaths due to trauma and external causes in Oldham and Rochdale. Numbers are small and are not therefore statistically significant
- The highest percentage of expected deaths was in Bury (64%) and the lowest in Rochdale (50%)
- As in other areas there are slightly more deaths of boys than girls
- In terms of ethnicity this year's figures showed higher rates in BME groups for Bury and Oldham but not for Rochdale
- Rates were again shown to be higher for those living in areas of greater deprivation
- The number of cases with modifiable factors has continued to increase but this is partly due to adding maternal obesity and there is a trend nationally to report more factors
- Safer sleeping as a factor was noted both locally and within other CDOPs
- Dangerous driving was noted as a factor in this year
- Swimming in open water was again a factor in a case
- Consanguinity was noted in several cases as a factor
- The risk of nappy bags left close to a baby was also noted in this year

- Risk factors of smoking in pregnancy, maternal obesity, drugs and alcohol use continue to be noted in many cases
- The CDOP panel note a number of families where domestic abuse is present in the family. There is no way to know if this is higher or lower than population rates and is not usually directly related to the death of the child

2.0 Introduction

This is the Annual Report of child death cases concluded in Bury, Oldham and Rochdale (BRO) for 1st April 2017 to 31st March 2018. The report aims to present the data from the local Child Death Overview Panel (CDOP) and make observations about trends and factors contributing to the deaths, with an ultimate aim that it may be used to improve child safety and well-being and ultimately prevent future avoidable deaths. The CDOP reports to the Local Safeguarding Children Boards in each locality in order to help safeguard the lives of children in the future and all data is reported annually to the Department for Education (DfE).

3.0 Background

In 2008 it became the statutory responsibility of the Local Safeguarding Children Boards to review the death of every child up to the ages of 18 years, excluding those who were stillborn or planned termination of pregnancy performed within the law. In April of that year, Bury, Oldham and Rochdale came together to form a tripartite arrangement in order to review a larger combined population and provide a wider dataset on which to conduct analysis.

The Bury, Rochdale and Oldham CDOP (BRO) is 1 of 4 CDOPs in Greater Manchester which are split into the Coroner's jurisdiction:

Manchester North	<i>Bury, Rochdale and Oldham CDOP</i>
Manchester South	<i>Tameside, Trafford and Stockport CDOP</i>
Manchester West	<i>Bolton, Salford and Wigan CDOP</i>
Manchester City	<i>Manchester CDOP</i>

3.1 Panel Membership

The Child Death Overview Panel (CDOP) membership is made up of multi-agency professionals from across the three local authorities (Table 1). Some posts change during the year through rotation of post to other areas (or other reasons) and so may only be filled for a proportion of time, or may have a different representative.

Table 1: CDOP Membership 2017-18			
Area	Name	Agency	Position
Rochdale	Wendy Meston	Public Health	(Chair from September 2017) – Consultant in Public Health
Rochdale	Alison Kelly	HMR CCG	Deputy Executive Nurse and Head of Quality and Safeguarding
Rochdale	Anna Oddy	Pennine Care	Children's Complex Care Coordinator and Palliative Care Specialist Nurse

Rochdale	Rebecca McGeown/Louise Hamer	Pennine Care	Named Nurse Safeguarding Children & Adults
Oldham	Ed Francis	Social Care	Head of Safeguarding and Partnerships
Oldham	Chris Howard	Pennine Care	Paediatrician
Oldham	Eileen Mills	Oldham CCG	Designated Nurse
Oldham	Vanessa Woodall	Bridgewater NHS	Named Nurse Safeguarding Children & Adults
Bury	Maxine Lomax	Bury CCG	Designated Nurse
Bury	Sarah Davidson	Pennine Care	Named Nurse Safeguarding Children & Adults
All 3 areas	Kate Atton/Gary McIntyre	Greater Manchester Police	Detective Chief Inspector
All 3 areas	Julie Dean/Anna Svarc	Pennine Acute	Named Midwife for Safeguarding/Named Nurse Safeguarding Children
All 3 areas	Dr Anindya Mukherjee	Pennine Acute	Consultant Paediatrician/SUDC Paediatrician

Source: BRO CDOP 201718

3.2 Overview of Bury, Oldham and Rochdale population aged under 18 years

Bury, Oldham and Rochdale are each separate local authorities, brought together for the purposes of the CDOP. Table 2 demonstrates the number of children living within each borough under the CDOP and the total population for the three combined. Bury has the smallest population and Oldham has the largest, this has been the case since the CDOP was established.

Table 2: Number of children aged under 18 years in Bury, Oldham and Rochdale	
CDOP	Under-18 Population Size
Bury	42,879
Oldham	58,802
Rochdale	51,463
Bury, Oldham & Rochdale (BRO)	153,144

Source: ONS 2016 mid-year estimate (MYE) & GM CDOP report

3.3 Ethnicity

Ethnicity is recorded for all closed cases: By using data from the 2011 census we can extrapolate the estimated child populations of Local Authorities by ethnicity. Across the 0-18 year's population throughout GM, 71.5% identify as White and 28.5% as BME. In BRO, these figures are 69.9% White and 30.1% BME. As shown in Table 3, Oldham has the highest proportion of children identifying as BME (37.7%), Bury the least (18.6%) and Rochdale in between (31.1%). Bury Rochdale and Oldham combined have nearly double the proportion of BME children than the North-West average.

Table 3: Estimated under 18 years population by ethnic group for GM local authorities, mid-2016 population data applying 2011 census ethnicity breakdown (source ONS)

Area	White British		BME	
	Population	Percentage	Population	Percentage
Bury	34,557	80.6%	7,871	18.6%
Oldham	35,898	61.0%	21,753	37.7%
Rochdale	36,030	70.0%	16,229	31.1%
Bury, Rochdale and Oldham	106,485	69.9%	45,853	30.1%
Greater Manchester	451,446	71.5%	180,164	28.5%
North-West	1,282,511	84.3%	238,854	15.7%

4.0 2017/2018 Reviews by CDOP

4.1 Notified Cases 2017/18

Between 1st April 2016 and 31st March 2017, Bury, Oldham and Rochdale (BRO) CDOP were notified of 70 deaths. Table 4 shows the distribution of these cases throughout the local authorities and compares it to the GM data. The largest proportion of notified deaths was in Rochdale, it would be expected that Oldham would have the higher number of notified cases as they have the larger population however the notification rate per 10,000 does not support this expectation. When looking at the number of notified cases per 10,000 population, Oldham had a notification rate 3.74 per 10,000 population and Rochdale 6.02 per 10,000 population. This figure for Rochdale is considerably higher than Greater Manchester (3.97). Due to the relatively small number of cases, it is difficult to attribute causality to this finding and it may be due to normal variation. It will be important to look at any trends year-on-year when more annual data is available in the future and collated over a longer time period and across Greater Manchester. GM CDOPs are working to complete an exercise on available data from 2013-2018 to identify themes and trends. The findings from this exercise will be disseminated once available.

Table 4: Bury, Rochdale and Oldham Notified Cases 2017/18			
Local Authority	Total Deaths Notified (number)	Deaths Notified (rate per 10,000 population)	Percentage of overall GM child deaths (%)
Bury	17	3.96	6.8
Oldham	22	3.74	8.8
Rochdale	31	6.02	12.4
Bury, Rochdale and Oldham	70	4.57	28
Greater Manchester	250	3.97	100

Source BRO & GM CDOPs 2017/18

4.2 Closed Cases 2017/18

Between 31st March 2017 and 1st April 2018, Bury, Rochdale and Oldham CDOP closed 71 cases.

Table 5 shows the distribution of closed cases by local authority and comparison to the total GM CDOP cases closed

Table 5: Number and percentage of deaths (cases closed) 2017/18 by local authority and CDOP

Local Authority	Total Cases Closed	Closed cases (rate per 10,000 population)	Percentage of overall GM deaths (cases closed)
Bury	14	3.27	5.1%
Oldham	31	5.27	11.3%
Rochdale	26	5.05	9.5%
Bury, Rochdale and Oldham	71	4.64	25.9%
Greater Manchester	274	4.35	100%

Source: BRO & GM CDOPs 2017/18

There is year on year variation regarding the number of number of cases closed but it is difficult to determine any trends because of the relatively small number of cases each year. Table 6 shows the year-on-year values for number of closed cases for each local authority.

Chart 1: Number of Closed Cases by Local Authority (2012 - 2017)

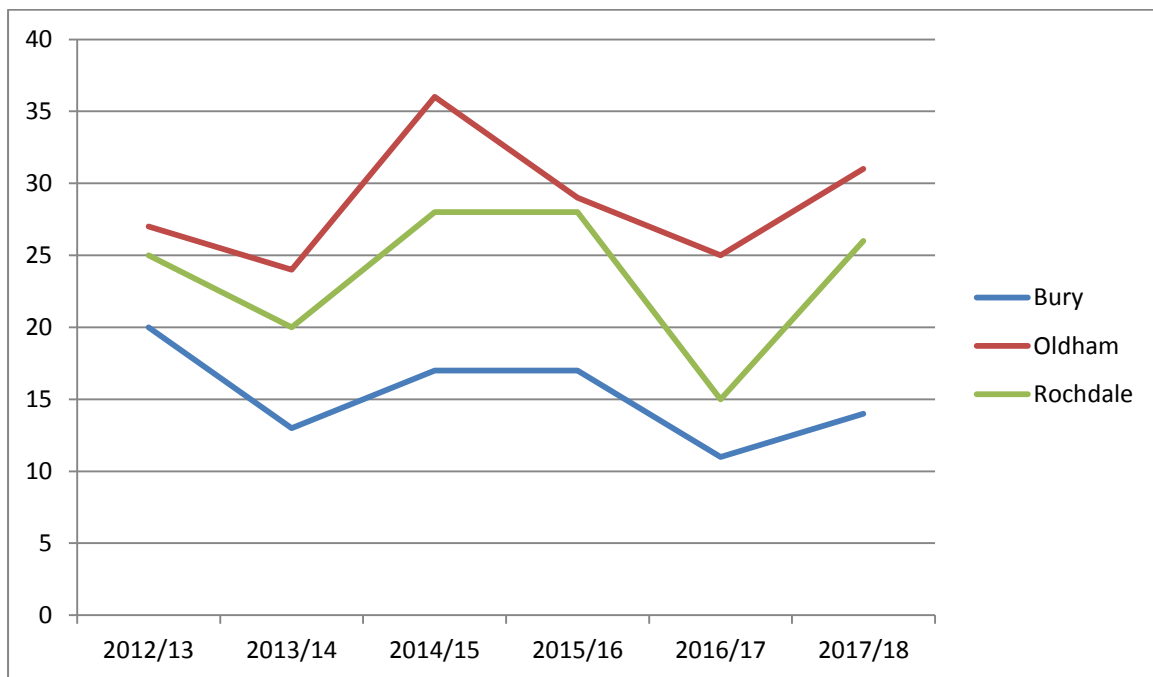


Table 6: Number of Cases Closed per Year by Local Authority and Throughout Greater Manchester 2012-2017

Area	0-17 population 2015	Number of cases closed 2012/13	Number of cases closed 2013/14	Number of cases closed 2014/15	Number of cases closed 2015/16	Number of cases closed 2016/17	Number of cases closed 2017/18	Average over five years
Bury	42,653	20	13	17	17	11	14	15.6
Oldham	50,855	27	24	36	29	25	31	28.2
Rochdale	58,305	25	20	28	28	15	26	23.2
Bury, Rochdale and Oldham	151,813	72	57	81	74	51	71	67.0
Greater Manchester	621,815	267	216	262	236	231	274	242.4

Source BRO & GM CDOPs 2017/18

4.3 Duration of Reviews

In order to close a case, the panel must ensure there is enough information available to permit a full review of the circumstances surrounding the death and consider all factors that may have had an impact. The duration of the case review is taken from the date of the death until the date the case is closed. The duration of review will vary for each case as they are affected by a number of different factors. Information must be gathered from a number of agencies and sources and collated appropriately.

4.4 Causes of death

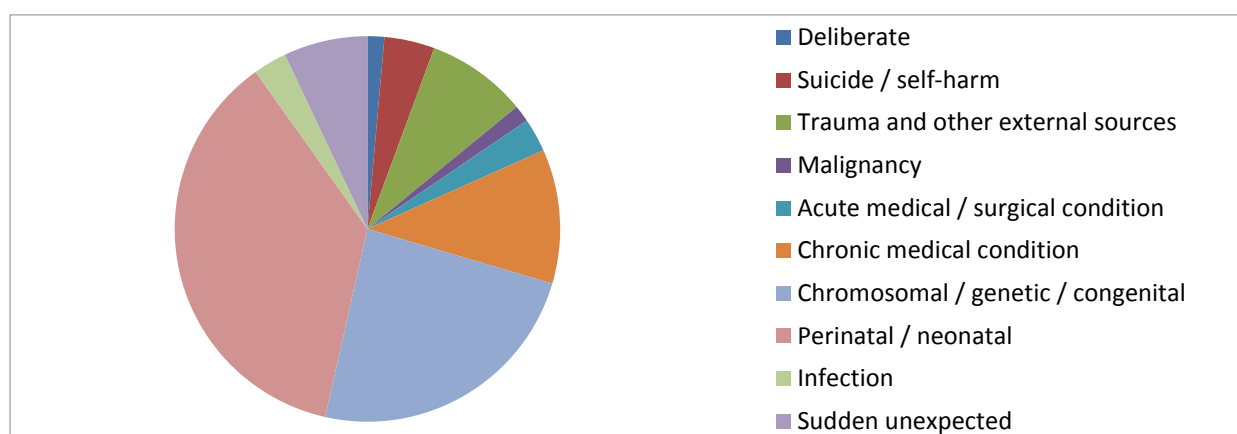
At the close of a case, the CDOP complete a *Form C Analysis Proforma* and assign the cause of death to one of 10 categories, as per national guidance (Appendix 2). The categories are classified hierarchically so that if there is felt to be more than one cause of death, the highest ranking category will be the recorded cause.

Table 7 below shows the number of closed cases by category of death. When all three areas are combined, the highest number of deaths (26) was assigned to the perinatal/neonatal category. This is the case for Greater Manchester as 102 cases were assigned to this category; this is nearly double the number of the second highest category which is chromosomal, genetic and congenital anomalies. The figures are small and do vary between these categories each year.

Table 7: Number of Closed Cases in Each Local Authority by Category of Death 2016/17										
Category	Bury		Oldham		Rochdale		Bury, Rochdale and Oldham		Greater Manchester	
	No	%	No	%	No	%	No	%	No	%
Deliberate	0	0%	0	0%	<5		<5		<5	
Suicide / self-harm	<5		<5		<5		<5		10	4%
Trauma and other external sources	0	0%	<5		<5		6		15	5%
Malignancy	0	0%	0	0%	<5		<5		20	7%
Acute medical / surgical condition	<5		<5		0	0%	<5		11	4%
Chronic medical condition	<5		<5		<5		8	11%	16	6%
Chromosomal / genetic / congenital	<5		9	29%	<5		17	24%	67	24%
Perinatal / neonatal	7	50%	9	29%	10	39%	26	37%	102	37%
Infection	0	0%	<5		0	0%	<5		12	4%
Sudden unexpected	0	0%	<5		<5		<5		19	7%
Unknown	0	0%	0	0%	0	0%	0	0%	0	0%
Total	14	20%	31	43%	26	37%	71	26%	274	100%

Source BRO & GM CDOPs 2017/18

Chart 2: Category of Cause of Death for Closed Cases in Bury, Oldham and Rochdale



Source BRO CDOPs 2017/18

4.5 Expected / unexpected deaths

When a death is reviewed by a CDOP, it must be assigned either 'expected' or 'unexpected' classification. As can be seen for the 71 deaths across Bury, Rochdale and Oldham, the majority of deaths were expected (58%) and this was also true for Greater Manchester as a whole (65%). However, for the individual areas the expected deaths ranged from 50% in Rochdale to 64% in Bury. This is similar to last year whereby Bury had the highest number of expected deaths across the tripartite.

Table 9: Expected versus Unexpected Deaths by Local Authority (2017/18)

LA	Expected		Unexpected		Not known		Total
	N°	%	N°	%	N°	%	N°
Bury	9	64%	<5		<5		14
Oldham	19	61%	7	23%	<5		31
Rochdale	13	50%	10	39%	<5		26
Bury, Rochdale and Oldham	41	58%	21	30%	9	12%	71

Source: BRO CDOPs 2017/18

4.6 Modifiable factors

The CDOP analyses if there are any relevant environmental, extrinsic, medical or personal factors that may have contributed to the child's death and applies a score of relevance to them as per the following categories.

- 0** - Information not available
- 1** - No factors identified or factors identified but are unlikely to have contributed to the death
- 2** - Factors identified that may have contributed to vulnerability, ill-health or death
- 3** - Factors identified that provide a complete and sufficient explanation for the death

In some cases, there will be certain elements that, with removal or change, could have reduced the risk of death to the child. The presence of these modifiable factors must be considered by the CDOP for all cases before closure. The case will then be categorised as follows:

1. Modifiable factors identified

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. No Modifiable factors identified

The panel have not identified any potentially modifiable factors in relation to this death

3. Inadequate information upon which to make a judgement

NB this category should be used very rarely.

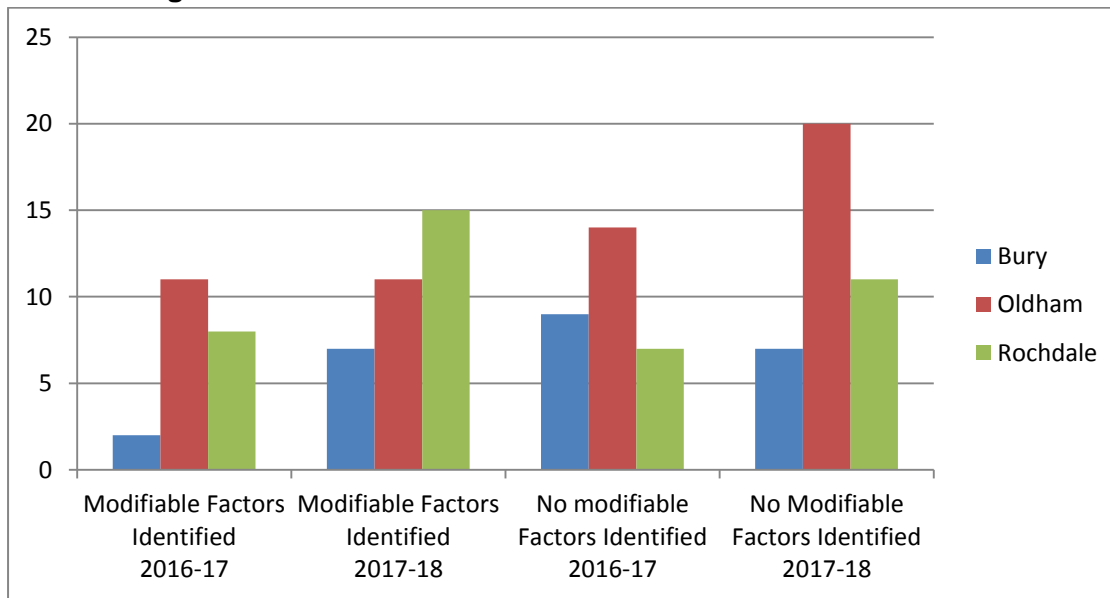
Since category 3 (Inadequate information) should only be used rarely. No cases were in category 3 in 2017/18. The majority of cases in BRO had no identified modifiable factors, with an average of 54% across the tripartite. Rochdale and Oldham had the highest number of cases with modifiable factors identified (58% and 50%). The number of cases with modifiable factors identified for Rochdale has nearly doubled since 2016-17.

Table 10 and 3 show the number of cases in each category for each locality. The proportion of cases with modifiable factors identified in BRO combined (46%) is higher than the average for GM (40%). This is a considerable increase compared to 24% in 2014/15 however it is in line with national trends. As with previous elements, it is difficult to determine any real trend because of the small numbers involved. A review of modifiable factors in year and the inclusion of maternal obesity may have contributed to this increase but does not explain the difference in GM.

Table 10: Number of Bury, Oldham and Rochdale Cases where Modifiable and Non-Modifiable Factors Contributed Towards Death							
LA	Modifiable factors identified		Modifiable factors not identified		Insufficient information		Total
	N°	%	N°	%	N°	%	N°
Bury	7	50%	7	50%	0	0%	14
Oldham	11	35%	20	65%	0	0%	31
Rochdale	15	58%	11	42%	0	0%	26
Bury, Rochdale and Oldham	33	46%	38	54%	0	0%	71

Source: BRO CDOP 2017/18

Chart 3: Bury, Oldham and Rochdale Modifiable and Non-Modifiable Factors Contributing Towards Death 2016/17-2017/18



Modifiable factors identified by the BRO CDOP in 2017/18 included:-

- Consanguinity
- Maternal Obesity (BMI 30+)
- Parent/carer smoking
- Maternal smoking in pregnancy
- Alcohol Misuse
- Safe sleeping
- Medical care / Access to medical care issues
- Late / un-booked pregnancy
- Dangerous driving/driving without due care
- Swimming in open water

4.7 Age at death

The age at death is an important factor to consider and Table 12 shows the findings across BRO and also GM. What can be seen in the table 12 below is that the greatest proportion of deaths are under 1 year of age and BRO had a higher proportion than GM in 0-28 days

Table 11: Distribution of Closed Cases by Age Band Throughout Bury, Oldham and Rochdale and Greater Manchester (2017/18)

LA	0-28 days		28-364 days		1-4 years		5-9 years		10-14 years		15-17 years		Total
	N ^o	%	N ^o	%	N ^o	%	N ^o	%	N ^o	%	N ^o	%	
Bury	9	64%	0	0%	<5		<5		<5		<5		14
Oldham	14	45%	8	26%	<5		<5		<5		0	0%	31
Rochdale	14	54%	<5		<5		<5		<5		<5		26
Bury, Rochdale and Oldham	37	52%	11	16%	8	11%	<5		7	10%	<5		71
Greater Manchester	123	45%	54	20%	34	12%	18	7%	15	6%	30	10%	274

Source: BRO CDOP 2017/18 and GM CDOP 2017/18

As can be seen in Table 11, 68% of the 71 deaths in Bury, Rochdale and Oldham were in children under the age of 12 months. This is higher than the findings for GM as a whole (65%). For all three areas, the highest percentage of deaths occurred in the neonatal period (0-28 days).

4.8 Socio-Demographic Characteristics

The socio-demographics of the cases are collected to try and identify any health inequalities between different groups and consider targeted interventions.

4.8.1 Gender

Table 12: Number of cases closed by gender by Local Authority (2017/18)

LA	Males	%	Females	%	Not Known	%
Bury	7	50%	7	50%	0	0%
Oldham	17	55%	13	42%	<5	
Rochdale	15	58%	11	42%	0	0%
Bury, Rochdale and Oldham	39	55%	31	44%	<5	

Source: BRO CDOP 2017/18

In Bury, Rochdale and Oldham, males appear over-represented when compared to females; although it is an equal split in Bury. Because the numbers are small, there is no breakdown of age and gender or cause of death and gender at a local level so it is difficult to attribute potential causes for this gender imbalance. The Greater Manchester report goes into more detail in this area.

4.8.2 Ethnicity

Large inequalities in infant mortality rates exist between White and ethnic minority groups in England and Wales¹. Explanations for variations in infant mortality between ethnic groups are complex, involving the interplay of deprivation, physiological, behavioural and cultural factors. More research is needed in order to identify the pathways that lead to higher risks of infant death among Black and other ethnic minority groups. Nationally, reviews of deaths of children from a White background account for around 3 out of 5 reviews, which is higher than BRO CDOP data with 55% of in-year closed cases being White/White British.

Table 13: Cases Closed by Ethnicity for Each Area											
Authority	White/ White British		Asian /Asian British		Mixed/ Other		Black/ Black British		Not Known/Not Input		Total
Bury	10	71%	<5		0	0%	0	0%	0	0%	14
Oldham	13	42%	12	39%	<5		<5		<5		31
Rochdale	16	62%	7	27%	0	0%	<5		<5		26

Source: BRO CDOP 2017/18

Oldham has a higher rate of cases coming from Asian/Asian British, Black and mixed categories than Bury and Rochdale. These are among the highest rates in the Greater Manchester area and above the GM average. The Greater Manchester CDOP Annual Report explores ethnicity in much further detail across the four CDOPs. Both Oldham and Bury had potentially higher than expected deaths in BME groups.

¹ Gray, R., Headley, J., Oakley, L., Kurinczuk, J. J., Brocklehurst, P. & Hollowell, J. (2009) **Inequalities in infant mortality project briefing paper 3**. Towards an understanding of variations in infant mortality rates between different ethnic groups. Oxford: *National Perinatal Epidemiology Unit*.

Table 14: Age and Ethnicity of Cases Closed in Bury, Oldham and Rochdale 2017/18										
Age Band	White/White British		Asian/Asian British		Mixed/Other		Black/Black British		Not Known/Not Input	
	N°	%	N°	%	N°	%	N°	%	N°	%
0-27 days	20	28%	11	16%	<5		<5		<5	
28-364 days	<5		<5		<5		<5		0	0%
1-4 years	<5		<5		0	0%	0	0%	<5	
5-9 years	<5		<5		0	0%	0	0%	0	0%
10-14 years	<5		<5		0	0%	0	0%	0	0%
15-17 years	<5		<5		0	0%	0	0%	0	0%
Total	39	55%	23	32%	<5		<5		<5	

Source: BRO CDOP 2017/18

When looking at the distribution of cases by age and ethnicity (Table 14), BME groups are over-represented in deaths in infants under 1. As with the other data, the numbers are small for other ages so it is difficult to draw conclusions. BME groups were overrepresented in the perinatal/neonatal event category 2017/18. For other categories the numbers are too small.

4.8.3 Deprivation

Once again the analysis by deprivation in Table 15 shows those in quintiles 1 and 2 the most deprived quintiles have a greater percentage of deaths, deaths within these quintiles make up for 90% of cases across the year.

Table 15: Distribution of Closed Cases in Bury, Rochdale and Oldham and by Deprivation Quintile (2016/17)										
LA	Q5 (Least deprived)		Q4		Q3		Q2		Q1 (most deprived)	
	N°	%	N°	%	N°	%	N°	%	N°	%
Bury	<5		0	0%	<5		<5		9	64%
Oldham	0	0%	0	0%	<5		7	23%	23	74%
Rochdale	<5		0	0%	<5		<5		19	73%
BRO	<5		0	0%	<5		13	18%	51	72%

GM CDOPs 2017/18 & IMD 2018

4.8.4 Smoking status of the mother

Smoking can be a particular health risk during and after pregnancy for both mother and child. Risks include complications during labour and increased risk of miscarriage, premature birth, still birth and sudden unexpected death in infancy.²

Maternal smoking status should be recorded for all CDOP cases in children under 1 year of age and other relevant cases e.g. SUDI, respiratory disease. Smoking status was deemed not relevant in the majority of cases in each area, 70% across the three areas. This remains consistent with last year however the number of cases where smoking was relevant to the death has increased from 4 (2016/17) to 14 (2017/18). This is an increase of 250%.

Maternal smoking in pregnancy was considered a modifiable factor in 11 cases (23% of infant cases). This is slightly above the 21% of cases closed across Greater Manchester where smoking in pregnancy was considered a modifiable factor.

Table 16: Smoking relevance in closed cases for infants under 1 year by local authority 2017/18							
Local Authority	Smoking relevant (key = 2/3)		Not relevant (key = 1)		Not known (key = 0)		Total
	N°	%	N°	%	N°	%	
Bury, Rochdale and Oldham	14	30%	33	70%	0	0%	47

Source: BRO CDOP 2017/18.

4.8.5 Maternal BMI

It has recently been agreed that all GM CDOPs will collect maternal BMI data in all cases of death under 12 months of age, as it may be a modifiable factor. In BRO, maternal BMI was considered a modifiable factor in 12 cases (17% of closed cases). This is an increase of 100% from 2016/17. Further work is needed across GM and beyond to explore the impact of maternal obesity on outcomes.

4.9 FACTORS TO NOTE

4.9.1 Domestic Violence

Although not usually considered to be a direct risk factor in a child's death, the panels do note domestic abuse is or has been within a number of families. Further work is needed nationally on this factor and its impact on outcomes.

² Kramer, M. S. (2003). The Epidemiology of Adverse Pregnancy Outcomes: An Overview. *Journal of Nutrition*, 133(5), 1592–1596.

4.9.2 Consanguinity

It has been decided that if consanguineous parents have had a previous child who has died from or is affected by the genetic abnormality, this should be considered a modifiable factor. Consanguinity was identified as a modifiable factor in fewer than five cases. Therefore, consanguinity was a modifiable factor in 25% of cases where consanguinity is known. Consanguinity can be a sensitive issue and it has been previously difficult to determine whether or not to classify it as a modifiable factor if it is known to be relevant to a case.

4.9.3 Mental health of parents / carers

The mental health of parents / carers was either a modifiable factor or an issue identified in fewer than five cases in 2017/18. Mental and emotional health issues were noted by panel in a number of other cases but were not relevant to the death of the child.

4.9.4 Suicide or self-harm

Fewer than five cases in 2017/18 were categorised as suicide or deliberate self-harm. It can sometimes be difficult for the coroner to classify a case as suicide because of a lack of evidence demonstrating the child intended to take their own life by evidence such as a note of intention so some cases are not defined as such but may have similar factors to consider.

4.9.5 Road traffic collisions

Fewer than five cases in Bury, Rochdale and Oldham were known to have been due to a road traffic collision. Modifiable factors within these cases included careless driving, excessive speed of a vehicle and a seat belt not working.

4.9.6 Safe Sleeping

Safe sleeping was identified as a modifiable factor in fewer than five closed cases in 2017/18. Co-sleeping is known to have an association with sudden infant death syndrome (SIDS)³, especially if the co-sleeping occurs on a sofa; if the adult smokes or is under the influence of drugs or alcohol; or if the child is pre-term.⁴ Advice against co-sleeping in these circumstances should be provided to all parents. We have extended our advice from 'co sleeping' to promotion of 'safe sleeping' to encompass a wider set of factors to consider when providing advice to parents

4.9.7 Housing & Living Conditions

Housing and living conditions were found to be a modifiable factor in fewer than five cases in 2017-18.

³ Alexander, R. T., & Radisch, D. (2005). Sudden Infant Death Syndrome Risk Factors with Regards to Sleep Position, Sleep Surface, and Co-Sleeping. *Journal of Forensic Science*, 50(1), 1–5.

⁴ Blair PS, Sidebotham P, Pease A, Fleming PJ. (2014) Bed-Sharing in the Absence of Hazardous Circumstances: Is There a Risk of Sudden Infant Death Syndrome? An Analysis from Two Case-Control Studies Conducted in the UK. *PLoS ONE*; 9(9)

4.9.8 Parental Alcohol/Drug Use

Parent/carer alcohol/drug use was found to be a modifiable factor in fewer than five BRO closed cases in 2017/18.

4.9.9 Access to medical/health care

This is determined by a child or parent lacking access to appropriate healthcare or not seeking appropriate healthcare, ultimately contributing to the circumstances surrounding death. Access to medical care was recorded as a modifiable factor in fewer than five cases for 2017/18. The lessons learnt were picked up and actioned by the appropriate providers.

4.9.10 Swimming in Open Water

Swimming in open water - non-organised event was identified as an issue in fewer than five cases.

4.9.11 Nappy Bags

Professional awareness of the risk of nappy bags was raised through fewer than five cases.

4.9.12 Quality of Care

During CDOP discussions some issues were identified for consideration that related to quality of care. CDOP were concerned that about whether sufficient staff within Pennine Acute Trust were fully tracheostomy trained preventing some care closer to home. This was raised within the Trust for consideration and a response was received and noted that they were exploring options.

5. Recommendations

- Safer sleeping advice should continue to be prioritised. To clarify if there is any conflicting advice on safe sleeping for women who breastfeed compared to those who bottle feed and ensure consistent advice is provided to all.
- The risk of nappy bags has been circulated across all areas but should continue to be part of routine advice to parents
- The risk of swimming in open water has been addressed during the year by many agencies and should continue and advice be displayed at appropriate open water venues
- Strategies to reduce dangerous driving should continue to be implemented
- Genetic and advice services for potential and actual parents who are cousins should be available in all three areas. The Oldham service and evaluation is available as a model to consider in Bury and Rochdale
- It was noted as a quality issue that some children are travelling distances due to the fact that providers do not have sufficiently trained nurses for tracheotomies to care close to home. This is being considered by Pennine Acute Trust.
- Actions to reduce smoking in pregnancy, maternal obesity and the harm caused by drugs and alcohol should continue to be local priorities
- Action to reduce domestic abuse should continue to be a local priority

Appendix 1 – GM Recommendations

The following should be considered by each CDOP and their respective LSCBs and any relevant GM groups:

1. Work is underway to look at how we look across GM at CDOP data for the 5 years that it has been consistently collected (2013-2018), to further analyse trends and reduce the effect of random variation.
2. GM CDOPs should consider any emerging evidence from other areas and from international research to identify any risk factors which have not received the focus that others have, including areas for future data collection and analysis. In particular, it may be worthwhile recording the relevance (1,2,3) for factors which are not (yet) on the national data analysis proforma but which CDOPs currently record, such as high BMI of mother and physical health or learning disability.
3. Close cooperation and moderation between the 4 CDOPs in GM has improved data quality and allowed for analysis across GM on emerging issues such as maternal obesity and consanguinity. This close co-operation and moderation should be recognised and continue, particularly in risk factors that newly emerge and / or are not included in standard national proformas. This will give credence to this combined GM analysis and allow more reliable comparisons and identification of trends.
4. Children under the age of 1 year old are the most vulnerable to childhood deaths by a considerable margin both in GM and nationally, with rates in GM worse than the national average. With rates locally and nationally stagnating and possibly beginning to increase, all LSCBs should review local sector led improvement (SLI) plans agreed following the GM CDOP / Public Health Conference in November 2017 and last year's annual reports.
5. Health inequalities in the distribution of child deaths remain a concern. The BME population remains at increased risk of childhood mortality and further analysis should be conducted to look at the more granular population breakdown to compare to the categories now collected by CDOPs and assess which populations in particular appear to be over-represented in order to consider how this might be targeted. The improvements in collecting of ethnicity data by CDOPs should be recognised as significantly assisting in targeting safeguarding efforts.
6. The proportion of deaths in the most deprived group appears to have fallen again this year with a corresponding increase in deaths from the second most deprived group. This needs further analysis to assess whether this is a true trend and if so, whether it is the result of positive service or community improvements (with negative or at best no effect for those in the 2nd most deprived quintile) or population / demographic changes or an artefact in the data or random variation for the last 2 years.
7. As in previous years, smoking remains a key modifiable factor for child deaths across GM, with the proportion of cases where smoking is identified as a relevant factor higher than the rate of smoking in pregnancy. This has been recognised in the

Greater Manchester Population Health Plan which is putting in place a GM evidence-based approach to reducing smoking, particularly in pregnancy. CDOP data and action plans should be linked to this and allow an opportunity to review the impact of smoking on deaths through the in-depth CDOP review process.

8. Some research into consanguineous practices amongst the general population would be useful to provide a baseline to assess to what extent deaths are over-represented amongst parents who are blood-relatives. This must take into account birth rates, access to antenatal care and deprivation to consider how much of the increased risk of death is attributable to consanguinity. Joint work with the lead geneticists in this area and linking with national / regional strategies to support families where there is a known risk will be important, using this data-led approach. The data recording may need to be tweaked slightly to ensure accurate recording of the nature of relationships to allow comparisons but this would add crucial information to any case for work in this area.
9. GM CDOPs collect data on maternal BMI, despite the national analysis proforma not requesting it. This has enabled them to identify a significant risk factor which appears to be over-represented amongst child deaths and was identified as modifiable factor in some cases due to a direct relationship with the cause of death. Given this dataset, GM should lead the way nationally in identifying where the most impact could be made on these types of deaths by analysing those cases further. In particular, health/care pathways were identified as a missed opportunity to change outcomes for the families and this should be reviewed now by all areas. Reduction in obesity in women of childbearing age prior to conception is clearly the longer-term goal for all partners and these figures on child death risks make the case for investment in this area.
10. 34% of cases had reference to some involvement by social care in terms of the child themselves or a sibling being subject to a plan or statutory order. The data available for analysis does not provide enough detail to say whether there were opportunities for improving the outcomes for these children or whether these interventions were effective at safeguarding the child until the natural end of their life from a known life-limiting disease, for example. Individual CDOPs and LSCBs consider the best way to learn lessons from cases where abuse or neglect may have been a factor and/or when agencies have been involved with the child but at a GM-level, particularly for agencies operating across CDOP boundaries, further analysis of the nature of these interventions and cases may be useful.

Appendix 2 - CDOP categories

1. **Deliberately inflicted injury, abuse or neglect**
This includes suffocation, shaking injury, knifing, shooting, poisoning & other means of probable or definite homicide; also deaths from war, terrorism or other mass violence; includes severe neglect leading to death.
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 children.
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 & other extrinsic factors. Excludes deliberately inflicted injury, abuse or neglect. (Category 1).
4. **Malignancy**
Solid tumours, leukaemia's & lymphomas, and malignant proliferative conditions such as histiocytosis, even if the final event leading to death was infection, haemorrhage etc.
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.
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.
7. **Chromosomal, genetic and congenital anomalies**
Trisomies, other chromosomal disorders, single gene defects, neurodegenerative disease, cystic fibrosis, and other congenital anomalies including cardiac.
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).
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.
10. **Sudden unexpected, unexplained death**
Where the pathological diagnosis is either 'SIDS' or 'unascertained', at any age. Excludes Sudden Unexpected Death in Epilepsy (category 5).