

MANCHESTER CHILD DEATH OVERVIEW PANEL (CDOP)

2019/2020 ANNUAL REPORT

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1. WELCOME & INTRODUCTION

Welcome to the 2019/2020 Manchester Child Death Overview Panel (CDOP) Annual Report, written in line with the [Child Death Review: Statutory and Operational Guidance \(England\)](#). The CDOP has a statutory requirement to prepare and publish a local report on:

- a) what has been done as a result of the child death review arrangements; and
- b) how effective the child death review arrangements are in practice.

The CDOP Annual Report is produced to advise Child Death Review (CDR) Partners on local patterns and trends in child deaths, any lessons learnt, and actions taken, and the effectiveness of the wider child death review process. This report reviews the deaths of children normally resident in the area of Manchester, aged 0-17 years of age (excluding stillbirths and legal terminations of pregnancy) and focuses on the analysis of the number of cases closed between 1 April 2019 to 31 March 2020 (2019/2020). Reporting on cases closed provides a full and complete data set, including the outcome of the final CDOP review. The richness of the data and information collated assists in the identification of factors antenatally, postnatally and throughout the child's life. This report aims to highlight relevant factors and modifiable factors that are likely to contribute to Manchester's infant (under one year of age) and child (age 1-17 years) mortality rate.

2019/2020 has been a period of change for CDOPs nationally. Following the publication of the HM Government Child Death Review: Statutory & Operational Guidance (England) in October 2018, there have been changes to the way in which child death reviews are undertaken. The new arrangements build on the interface between the hospital/community led mortality reviews (Child Death Mortality Reviews (CDRM)) and the final CDOP review. The publication of the guidance generated conversations with a range of child death review partners regarding the practicalities of the new process and how the agreed arrangements could be effectively implemented.

The Greater Manchester (GM) CDOP Network is made up of the four CDOPs (ten local authorities) across the GM footprint:

- Manchester CDOP
- Bury, Rochdale & Oldham CDOP
- Bolton, Salford & Wigan CDOP
- Tameside, Trafford & Stockport CDOP

The GM CDOP Network focussed heavily on the implementation of the new guidance, to ensure a consistent approach was adopted, with the aim of establishing an efficient child death review process, whilst maintaining the day to day business of the CDOP. The Manchester CDOP continues to work closely with neighbouring GM CDOPs to carry out a standardised approach when reviewing child deaths, identify patterns and trends across GM and to support Public Health representatives produce the GM CDOP Annual Report.

I would like to thank those who have contributed to the child death review process including CDOP members, practitioners completing data returns and colleagues that have contributed to the content of this report.



Barry Gillespie

Consultant in Public Health

Manchester Child Death Overview Panel Chair

2. THE CHILD DEATH REVIEW PROCESS

In line with Working Together to Safeguarding Children (2006)¹, the Child Death Overview Panel (CDOP) became a statutory function from 1 April 2008. Local Safeguarding Children Boards (LSCBs) were tasked with establishing a multi-disciplinary CDOP Subgroup to conduct a review into the death of all children 0-17 years of age, normally resident in their geographical area.

In October 2018, HM Government published the revised Child Death Review: Statutory and Operational Guidance (England)² for Clinical Commissioning Groups and Local Authorities as Child Death Review Partners (CDR Partners). CDR Partners are identified as Local Authorities and any Clinical Commissioning Groups for the local area as set out in the Children and Social Work Act 2017³. The guidance sets out the full process that follows the death of a child, who is normally resident in England and builds on the statutory requirements set out in Working Together to Safeguard Children (2018)⁴. The revised guidance clarifies how individual professionals and organisations across all sectors, involved in the child death review process, contribute to reviews in order to improve the experience of bereaved families and professionals involved in caring for children.

The Government produced the Working Together: Transitional Guidance⁵ (published July 2018) and provided CDR Partners up to 12 months (from 29 June 2018) to agree arrangements for the review of all child deaths normally resident in their area, including arrangements for the analysis of deaths reviewed. At the 12-month period, CDR Partners then had up to three months to implement the arrangements ensuring at the latest, that the new child death review arrangements were in place by 29 September 2019. The implementation of the guidance prompted changes to the way in which child deaths are reviewed such as the introduction of the Child Death Review Meeting (CDRM).

The Child Death Review Meeting (CDRM)

The Child Death Review Meeting (CDRM) is a multi-professional meeting where all matters relating to an individual child death are discussed by the professionals directly involved in the care of the child during life and any investigation after death. The nature of the meeting varies according to the circumstances of the child's death and the practitioners involved. The CDRM can take place in the form of a final case discussion following a Joint Agency Response (JAR); a perinatal mortality review group meeting in the case of a baby who dies in a neonatal unit; a hospital based mortality review meeting following the death of a child in a paediatric intensive care unit; or similar case discussion.

In all cases, the aims of the CDRM are:

- to review the background history, treatment, and outcomes of investigations, to determine, as far as is possible, the likely cause of death;
- to ascertain contributory and modifiable factors across domains specific to the child, the social and physical environment, and service delivery;
- to describe any learning arising from the death and, where appropriate, to identify any actions that should be taken by any of the organisations involved to improve the safety or welfare of children or the child death review process;
- to review the support provided to the family and to ensure that the family are provided with:
 - the outcomes of any investigation into their child's death;

¹ <https://webarchive.nationalarchives.gov.uk/20100408113130/http://www.dcsf.gov.uk/everychildmatters/resources-and-practice/IG00060/>

² <https://www.gov.uk/government/publications/child-death-review-statutory-and-operational-guidance-england>

³ <https://www.legislation.gov.uk/ukpga/2017/16/part/1/chapter/2/crossheading/child-death-reviews/enacted>

⁴ <https://www.gov.uk/government/publications/working-together-to-safeguard-children--2>

⁵ <https://www.gov.uk/government/publications/working-together-to-safeguard-children--2>

- a plain English explanation of why their child died (accepting that sometimes this is not possible even after investigations have been undertaken) and any learning from the review meeting;
- to ensure that the CDOP and, where appropriate, the Coroner is informed of the outcomes of any investigation into the child's death; and
- to review the support provided to staff involved in the care of the child.

Information, reports and notes of the CDRM are shared with the appropriate CDOP.

The Child Death Overview Panel (CDOP)

CDR Partners have a legal responsibility to ensure that the deaths of children normally resident in their area are reviewed. This function is carried out by the Child Death Overview Panel (CDOP) to ensure that a review is undertaken for all child deaths age 0-17 years, excluding babies who are stillborn, late foetal loss and planned terminations of pregnancy carried out within the law.

In reviewing the death of each child, the CDOP considers relevant factor and modifiable factors in the family environment, parenting capacity and service provision. The CDOP identifies what action could be taken locally, regionally or at a national level with the aim of preventing child deaths and to improve the health and safety of children and young people.

The functions of the CDOP are:

- to collect and collate information about each child death, seeking relevant information from professionals;
- to analyse the information obtained, including the report from the CDRM, in order to confirm or clarify the cause of death, to determine any contributory factors, and to identify learning arising from the child death review process that may prevent future child deaths;
- to make recommendations to all relevant organisations where actions have been identified which may prevent future child deaths or promote the health, safety and well-being of children;
- to notify the Child Safeguarding Practice Review Panel (CSPR) and Local Safeguarding Partnership (LSP) when it suspects that a child may have been abused or neglected;
- to notify the Medical Examiner and the Doctor who certified the cause of death, if it identifies any errors or deficiencies in an individual child's registered cause of death. Any correction to the child's cause of death would only be made following an application for a formal correction;
- to provide specified data to the National Child Mortality Database (NCMD);
- to produce an annual report for child death review partners on local patterns and trends in child deaths, any lessons learnt, and actions taken, and the effectiveness of the wider child death review process; and
- to contribute to local, regional and national initiatives to improve learning from child death reviews, including, where appropriate, approved research carried out within the requirements of data protection.

The Manchester CDOP membership is made up of senior multi-agency professionals who have knowledge and expertise in fields such as public health, children's social care, paediatrics, police, education etc. The panel consists of representation from a range of organisations who can make a valuable contribution when undertaking a child death review. Each professional provides information and advice to enable a thorough review and analysis, with the aim of identifying relevant factor, modifiable factors and emerging themes.

The Manchester CDOP membership includes:

1. Manchester CDOP Chair, Consultant in Public Health - Manchester Health and Care Commissioning, Manchester Population Health Team
2. Manchester CDOP Lay Representative, Therapy Services Team Leader - The Gaddum Centre
3. Deputy First Officer/Deputy Service Manager and Senior Paediatric Coroners Officer - Manchester City Coroner's Office (*ad hoc member*)
4. Detective Chief Inspector - Greater Manchester Police
5. Project Officer - Manchester City Council, Strategic Housing
6. Programme Lead - Manchester Health and Care Commissioning, Manchester Population Health Team
7. Head of Service Children's Community Nursing Team - Children's Community Palliative Care Team (STAR Team)
8. Senior Officer for QA of Safeguarding in Schools - Manchester City Council, Education
9. Head of Services Vulnerable Baby Service, Health Visiting South and Lead for Early Help and Prevention Manchester University NHS Foundation Trust Vulnerable Baby Service and Health Visiting Service - Manchester Local Care Organisation
10. Designated Nurse Safeguarding Children/Specialist Nurse Safeguarding Children - Manchester Health and Care Commissioning
11. Named Nurse for Safeguarding Children - Greater Manchester Mental Health Foundation Trust
12. Safeguarding and Quality Assurance Team Manager - Manchester Children's Social Care
13. Designated Doctor for Child Death and Community Paediatrician - Manchester University NHS Foundation Trust
14. General Manager - Child Adolescent Mental Health Services (CAMHS) (*ad hoc member*)
15. Bereavement Midwife - Manchester University NHS Foundation Trust, Saint Mary's Hospital
16. Senior Police Coroner's Officer - Greater Manchester Police
17. Consultant in Paediatric Emergency Medicine, Group Associate Medical Director - Manchester University NHS Foundation Trust (*ad hoc member*)
18. Consultant Paediatric Intensivist - North West and North Wales Paediatric Transport Service Intensive Care Paediatric Transport Service

The purpose of a review and analysis is to identify any matters relating to the death(s), that are relevant to the welfare of children in the area or to public health and safety, to consider whether action should be taken. The aim of the child death review process is to ensure that information is systematically captured for every death to enable learning and prevent future deaths. The CDOP publishes an annual report which provides an overview of local patterns and trends and evidences what has taken place as a result of the child death review arrangements and how effective the arrangements are in practice.

Themed Panel Meetings

Some child deaths are reviewed at the Themed Panel meeting to discuss a particular cause or group of causes. The Manchester CDOP holds Themed Panel meetings to review neonatal deaths (<28 days of life) and infant deaths (under 1 year of age), where the infant was never discharged from hospital. Such arrangements allow for the attendance of appropriate professional experts including the Manchester University NHS Foundation Trust Consultant Neonatologist and Designated Doctor for Child Death, to inform discussions and allow easier identification of themes. Deaths reviewed at the Themed Panel are pre-screened to highlight any relevant factors and/or modifiable factors during the antenatal/postnatal period, focusing on issues relating to service provision.

The Learning Disabilities Mortality Review (LeDeR) Programme

Once the Manchester CDOP is notified of the death of a child aged 4-17 years who has learning disabilities, or is very likely to have learning disabilities but not yet had a formal assessment for this, information is shared and the death is reported to the Learning Disabilities Mortality Review (LeDeR) Programme. The Manchester CDOP reports deaths to LeDeR via the online referral form and provides core information about the child which is submitted to the LeDeR Local Area Contact.

Once all investigations have concluded and sufficient information has been collated to ensure the CDOP can undertake a comprehensive review, the Manchester CDOP invites the LeDeR representative to attend the panel meeting at which the death is reviewed. During the CDOP meeting, the LeDeR Local Area Contact may offer advice and expertise about learning disabilities (if appropriate) and ensure that the CDOP provides sufficient core data to support the LeDeR Programme. Once the Manchester CDOP has conducted a review, documentation is submitted to the LeDeR Local Area Contact. This includes the final Analysis Form which highlights the:

- common contributory factors leading to deaths
- factors that may have contributed to the vulnerability, ill health or death of the child
- modifiable factors that may reduce the risk of future child deaths
- learning points and issues identified in the review
- recommendations and actions that may inform and support local, regional or national learning

The National Child Mortality Database (NCMD)

The National Child Mortality Database (NCMD) is a repository of data relating to all child deaths in England. The NCMD was commissioned by the Healthcare Quality Improvement Partnership (HQIP) on behalf of NHS England and is delivered by the University of Bristol, in collaboration with the University of Oxford, University College London (UCL) Partners and the software company QES. The NCMD enables more detailed analysis and interpretation of all data arising from the child death review process, to ensure that lessons are learned, that learning is widely shared and that actions are taken locally and nationally, to reduce child mortality. The introduction of the NCMD aims to learn lessons that could lead to changes to improve outcomes for children.

As of the 1 April 2019, it became a statutory requirement that CDOPs across England submit data via the NCMD. For every child death, CDR Partners must ensure that:

1. A notification form is completed and sent to the CDOP secretariat or equivalent immediately after the death of a child
2. The details on the notification form are entered onto the NCMD within 24 hours of receipt of the form by the CDOP secretariat or equivalent
3. The CDOP gathers information from all agencies that were involved with the child during their life or after death through completion of a reporting form
4. The CDOP secretariat identifies the most appropriate agency to complete the relevant supplementary reporting forms, depending on the cause of death, and request for that agency to complete the relevant forms
5. When completed, reporting forms and supplementary reporting forms are returned to the CDOP secretariat or equivalent, and information is entered onto the NCMD
6. A local CDRM is convened, to include all professionals that were involved with the child during their life or after death
7. Anonymous versions of the completed CDOP templates (notification form, reporting form, supplementary reporting forms and draft analysis form) are presented to the CDOP, to conduct an independent review of the death
8. Following the CDOP review, the details are entered on the final analysis form and data is submitted to the NCMD.

3. MANCHESTER'S CHILD HEALTH PROFILE (2020)

A key tool used in assessing deprivation is the Indices of Deprivation 2019 that combines data from across seven domains of deprivation to produce an overall relative measure of deprivation:

- Income: Measures the proportion of the population experiencing deprivation relating to low income
- Employment: Measures the proportion of the working age population in an area involuntarily excluded from the labour market
- Health Deprivation and Disability: Measures the risk of premature death and the impairment of quality of life through poor physical or mental health
- Education, Skills Training: Measures the lack of attainment and skills in the local population
- Crime: Measures the risk of personal and material victimisation at local level
- Barriers to Housing and Services: Measures the physical and financial accessibility of housing and local services
- Living Environment: Measures the quality of both the indoor and outdoor local environment

Each small area in England is ranked from 1 (most deprived) to 32,844 (least deprived)⁶. Manchester ranks 6 out of 317 local authorities in England, on the 2019 Indices of Multiple Deprivation, when ranked by average score.

The Manchester Child Health Profile 2020⁷ provides an annual snapshot of child health across the City. Children and young people aged 0-19 years account for 25.6% (140,300) of Manchester's total population. Children aged 0-4 years account for 6.9% (37,800) of the total population. Manchester's infant mortality rate of 6.4 per 1,000 live births (2016-2018), is worse than the England rate of 3.9, with an average of 48 infants dying before the age of one each year. Manchester's child mortality rate (2016-2018) of 18.4 per 100,000 children (aged 1-17 years), is worse than the England rate of 11.0, with an average of 21 child deaths each year. This is a slight increase in comparison to previous years (2015-2017) where the standardised rate was recorded as 17.5 per 100,000 children, with an average of 19 child deaths (aged 1-17 years) each year.

Overall, comparing local indicators with England averages, the health and wellbeing of children in Manchester is worse than England.

⁶ <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>

⁷ <https://fingertips.phe.org.uk/profile/child-health-profiles>

4. CHILD DEATH NOTIFICATIONS REPORTED TO THE CHILD DEATH OVERVIEW PANEL

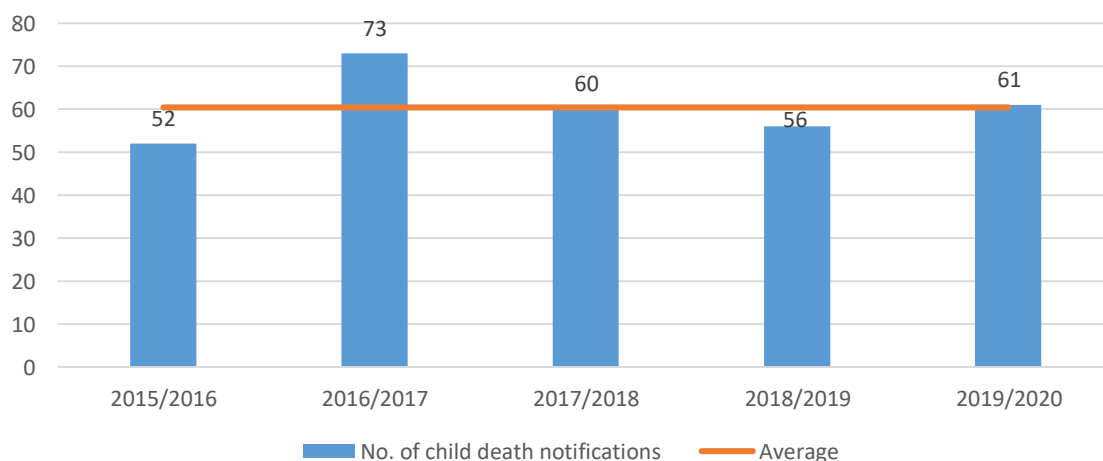
There were 61 child death notifications reported to the Manchester CDOP from 1 April 2019 to 31 March 2020 (2019/2020). At the end of the CDOP reporting year (31 March 2020) there were a total of 65 cases that remained open, 24 of which were historical child death notifications where the death occurred prior to 1 April 2019.

Owing to the CDOP review process, there is a time lapse between a death being reported to the CDOP and the case being discussed and closed at panel. This depends heavily upon the circumstances leading to death, the outcome of the CDRM and if the death is subject to investigations. Deaths subject to multiple investigations such as internal agency reviews, coronial investigations, criminal proceedings and child safeguarding practice reviews, can take several months/years before these have concluded.

From 1 April 2015 to 31 March 2020 there were 302 child deaths reported to the Manchester CDOP. There has been a variation in the number of child deaths reported to the panel year on year, with an average of 60.4 notifications per year.

The latest Office of National Statistics (ONS) 2019 mid-year estimates⁸ projects Manchester's child population (0-17 years) as 122,914, accounting for 22% of Manchester's total population (552,858). With a total of 61 child death notifications reported to the Manchester CDOP during the period 2019/2020, this would indicate Manchester's overall child death rate as 4.96 deaths per 10,000 children (aged 0-17 years).

Diagram 1: Number of child deaths reported to the Manchester CDOP per CDOP year (2015-2020)

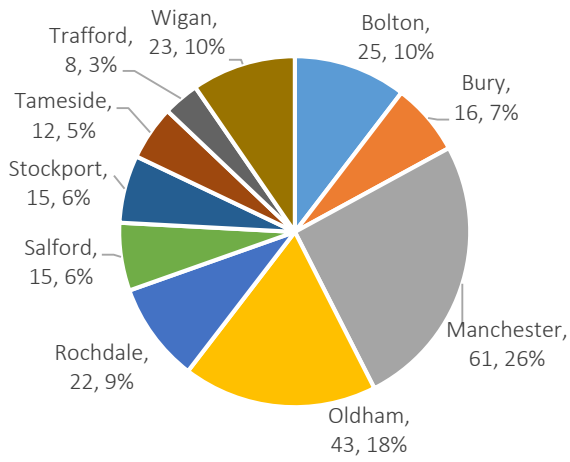


A total of 240 deaths were reported to the four GM CDOPs in 2019/2020, of which 25% of the children resided in Manchester City. The number of GM 2019/2020 child death notifications is very similar to previous years. Since child death records began in the 1980s, there has been a steady reduction in the rate of child death. This reduction has stalled in the last few years, leading to a 'levelling out' of child death rates.

⁸

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalescotlandandnorthernireland>

Diagram 2: Number of child deaths reported to GM CDOPs (2019/2020)



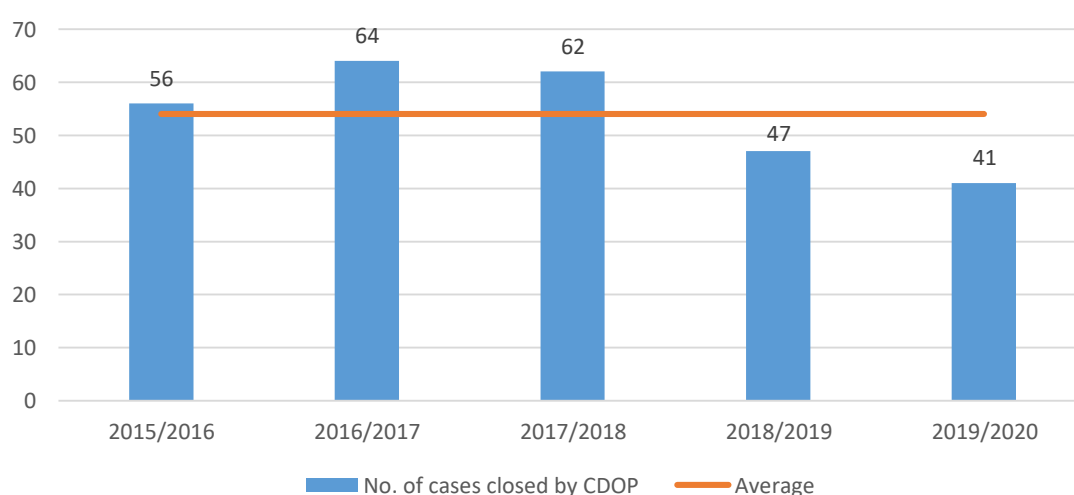
GM Child Death Overview Panels	No. of child death notifications	
Bolton, Salford & Wigan CDOP	63	26%
Bury, Rochdale & Oldham CDOP	81	34%
Manchester CDOP	61	25%
Tameside, Trafford & Stockport CDOP	35	15%
Total	240	100%

Manchester had the highest crude number of child death notification (61, 25%) and Trafford the least (8, 3%). It is hard to draw conclusions for the variation in child death rates across GM; it is notable that Manchester is the most deprived local authority in GM and Trafford the least.

5. CASES CLOSED BY THE CHILD DEATH OVERVIEW PANEL

Once the CDRM has taken place, all investigations have concluded and sufficient information has been collated, the CDOP holds the final multi-disciplinary review. Examining deaths using the data of cases discussed and closed at panel, provides a full dataset to conduct analysis. This annual report focuses on data relating to the 41 cases discussed and closed by the CDOP from 1 April 2019 to 31 March 2020 (2019/2020). Of the 41 cases closed in 2019/2020, 20 (49%) deaths occurred during the same period and the remaining 21 (51%) are historical cases, where the death occurred prior to 1 April 2019. From 1 April 2015 to 31 March 2020, the Manchester CDOP closed a total of 270 cases. Year on year, there has been variations in the number of cases closed by the Manchester CDOP, with an average of 54 cases closed per year.

Diagram 3: Number of cases closed by the Manchester CDOP per CDOP year (2015/2020)



Following the publication of the revised Child Death Review: Statutory and Operational Guidance (England), it was anticipated that nationally CDOPs would see a decrease in the number of closed cases. In previous years, the Manchester CDOP conducted timely reviews for expected child deaths, where the death was anticipated within 24 hours due to natural causes such as extreme prematurity and life limiting conditions. The Manchester CDOP operates in line with the current guidance, which stipulates that a CDOP review will not take place until the CDRM has concluded and information is shared for discussion at panel. Whilst the Manchester CDOP welcomes the new standardised approach to CDRMs, this impacts on the timescale in which the panel undertakes a review, therefore resulting in fewer cases closed.

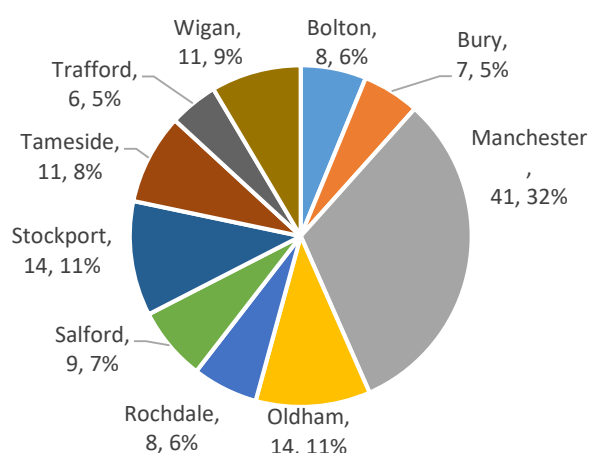
Information submitted by CDRMs is detailed and extremely useful in supporting the Manchester CDOP carry out a thorough review of the death. The Manchester CDOP utilises CDRM reports and information to assess the care provided to highlight any issues in relation to service provision such as, the identification of illness, assessment, investigations and diagnosis; treatment or healthcare management; communication or teamwork within or between agencies; and organisational or systemic issues. The Manchester CDOP identifies contributing factors including underlying staffing issues, equipment, work environment, education and training requirements and documents positive aspects of service delivery to record examples of excellent care.

Whilst the number of child deaths reported to the Manchester CDOP remain stable (average of 60.4 notifications per year), it is anticipated that the panel will continue to see a reduced number of cases closed over the coming years. It has been recognised by the NCMD programme team that the interface

between the CDRM and CDOP process will impact the timescale of completed reviews. It is projected that nationally CDOPs will continue to see a decreased in the number of cases closed due to operational aspects of the new child death review process.

The circumstances leading to death and the nature of the death also impact upon the number of cases closed by the CDOP. Deaths where the cause appears to be unnatural, sudden and unexpected can be subject to multiple investigations that can remain ongoing for a number of months/years, which impacts on the timeliness of the CDOP review. To undertake a comprehensive review, the Manchester CDOP will await the conclusion of all investigations and once finalised, request copies of reports that document outcomes for consideration at the panel meeting. 65 cases remained open at the end of the CDOP reporting year (31 March 2020), of which 40 deaths were subject to one or multiple pending investigations including coronial hearings, criminal proceedings, child safeguarding practice reviews and internal agency reviews.

Diagram 4: Number of cases closed by GM CDOPs (2019/2020)

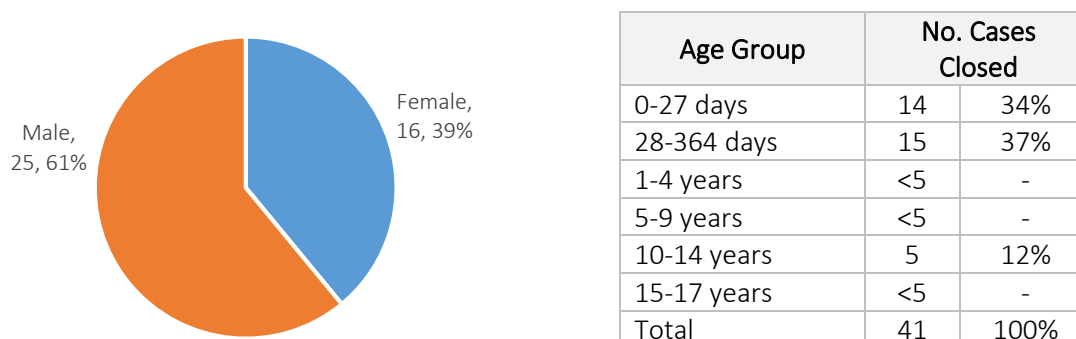


GM Child Death Overview Panels	No. of case closed	
Bolton, Salford & Wigan CDOP	28	22%
Bury, Rochdale & Oldham CDOP	29	22%
Manchester CDOP	41	32%
Tameside, Trafford & Stockport CDOP	31	24%
Total	129	100%

For 2019/2020, the four GM CDOPs closed 129 cases, 30% of which were deaths notified during the same period. This is a significant fall in closed cases from the 204 in 2018/2019, which reflects a number of factors including changes to the child death review process. Owing to changes to the child death review process, there has been a decrease in the number of closed cases from previous years, but the number of child death notifications remains very similar.

6. A SUMMARY OF 2019/2020 CASES CLOSED

Diagram 5: Manchester CDOP cases closed by gender and age at time of death (2019/2020)



Age Group	No. Cases Closed	
	No. Cases	Percentage
0-27 days	14	34%
28-364 days	15	37%
1-4 years	<5	-
5-9 years	<5	-
10-14 years	5	12%
15-17 years	<5	-
Total	41	100%

Of the 41 cases closed, 16 (39%) children were female and 25 (61%) male. 14 (34%) of the infants were neonatal deaths (<28 days). A further 15 (37%) deaths occurred before the first year of life (28-364 days), accounting for a total of 71% (29) of cases closed. Of the 29 infant deaths (0-364 days), 15 (52%) had one or more modifiable factors identified in the review (see section 7). Year on year, infants under the age of one account for the majority of case with modifiable factors, with the most common factors occurring in the antenatal period such as maternal obesity and maternal smoking in pregnancy.

Diagram 6: Manchester CDOP cases closed by ethnic grouping (2019/2020)

Ethnic Grouping	No. Cases Closed	
	No. Cases	Percentage
White	15	37%
Mixed/Multiple ethnic groups	6	15%
Asian/Asian British	15	37%
Black/African/Caribbean/Black British	<5	-
Other ethnic group	<5	-
Total	41	100%

The largest number of cases closed were recorded in children who were White (15, 37%) and Asian/Asian British (15, 37%). Breaking the data down further into specific ethnicities identifies the largest number of cases closed were children of English/Welsh/Scottish/Northern Irish/British heritage (12, 29%) and child from the Pakistani community (11, 27%).

When undertaking a child death review, the CDOP is responsible for categorising the likely cause of death (See Appendix 1). The CDOP identifies relevant factors and modifiable factors in the review, although categorising a death as having modifiable factors does not necessarily mean the CDOP regards the death in question as preventable, but that there may be emerging trends which could reduce the risk of future child deaths:

Modifiable factors identified: The panel has identified one or more factors across any domain which may have contributed to the death of the child and which might, by means of a locally or nationally achievable intervention, be modified to reduce the risk of future child deaths

No modifiable factors identified: The panel have not identified any potentially modifiable factors in relation to this death

Inadequate information upon which to make a judgement: The panel was not provided with sufficient information

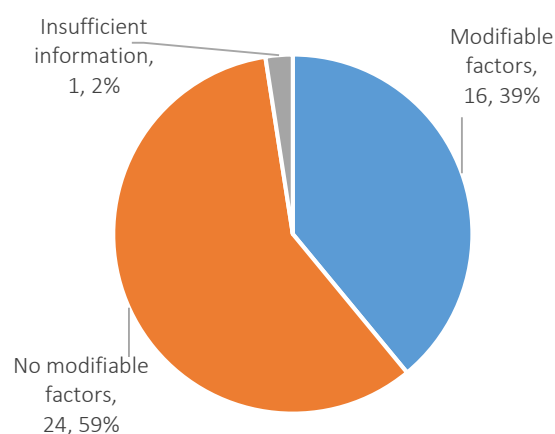
Diagram 7: Categorisation of death of GM CDOPs cases closed (2019/2020) compared to Manchester CDOP (2019/2020 and 2015/2020)

Category of Death		GM CDOPs 2019/2020 Cases Closed		Manchester CDOP 2019/2020 Cases Closed		Manchester CDOP 2015/2020 Cases Closed (5 year Snapshot)	
1	Deliberately inflicted injury, abuse or neglect	<5	-	<5	-	<5	-
2	Suicide or deliberate self-inflicted harm	<5	-	<5	-	<5	-
3	Trauma and other external factors, including medical/surgical complications/error	10	8%	<5	-	14	5%
4	Malignancy	6	5%	<5	-	18	7%
5	Acute medical or surgical condition	<5	-	<5	-	13	5%
6	Chronic medical condition	6	5%	<5	-	13	5%
7	Chromosomal, genetic and congenital anomalies	29	22%	12	29%	71	26%
8	Perinatal/neonatal event	41	32%	13	32%	102	38%
9	Infection	9	7%	<5	-	5	2%
10	Sudden unexpected, unexplained death	20	16%	6	15%	29	11%
	Inadequate information to make a judgement	<5	-	<5	-	<5	-
	Not known	<5	-	<5	-	<5	-
	Total	129	100%	41	100%	270	100%

Of the 41 cases closed, the largest number of deaths were categorised as a perinatal/neonatal event (13, 32%) and chromosomal, genetic and congenital anomalies (12, 29%). Year on year, both categories account for the largest proportion of child deaths and have remained stable overtime, as is the case across the GM CDOPs.

Of the 129 GM CDOPs cases closed, 72% were due to medical causes. 'Medical causes' encompass multiple categories of death including acute medical or surgical, chronic medical, chromosomal, perinatal/neonatal event, malignancy and infection. Small numbers were attributable to non-medical causes including trauma, deliberate harm/abuse/neglect, suicide/self-harm and sudden unexpected/unexplained death. There has been a consistent GM pattern in the categories of death over a number of years. Perinatal/neonatal events remain the single largest category of death, with chromosomal, genetic and congenital anomalies a close second. These remain, by far, the two main causes of death accounting for over half of all closed cases.

Diagram 8: Modifiable factors identified in cases closed by the Manchester CDOP (2019/2020)



Modifiable Factors	No. Cases Closed	
Modifiable factors	16	39%
No modifiable factors	24	59%
Insufficient information	1	2%
Total	41	100%

The Manchester CDOP identified one or more modifiable factors in 16 (39%) cases which is higher than the England average of 30% (as recorded by the NCMD). The highest number of modifiable factors were recorded in deaths categorised as a perinatal/neonatal event (10, 63%) and sudden unexpected, unexplained death (5, 31%).

Year on year, deaths categorised as a perinatal/neonatal event continue to have the largest number of modifiable factors identified in the review. Modifiable factors in perinatal/neonatal deaths mostly relate to antenatal maternal health and wellbeing, which can lead to poor outcomes for both mother and infant such as maternal smoking in pregnancy and maternal obesity in pregnancy. Factors also include, engagement with health services in accessing antenatal care, social and environmental conditions during pregnancy.

Modifiable factors were present in 40% of the GM CDOPs 2019/2020 cases closed, 58% having no modifiable factors and 2% having insufficient information to make a judgment. The most recent 2019/2020 national data, provided by the NCMD, records modifiable factors present in 30% of cases closed by CDOPs across England, indicating a significantly higher proportion of local cases with modifiable factors. Though attempts have been made to standardise the process of identifying and categorising modifiable factors, it is often a subjective matter which is decided on a case by case basis. The GM CDOPs continue to conduct reviews in line with the agreed GM set standard of modifiable factors, as developed by the GM CDOP Network. The standard ensures consistency across the four GM CDOPs when undertaking reviews and identifying modifiable factors.

The highest number of GM CDOPs modifiable factors were recorded in deaths categorised as a perinatal/neonatal event (10, 63%) and sudden unexpected, unexplained death (5, 31%).

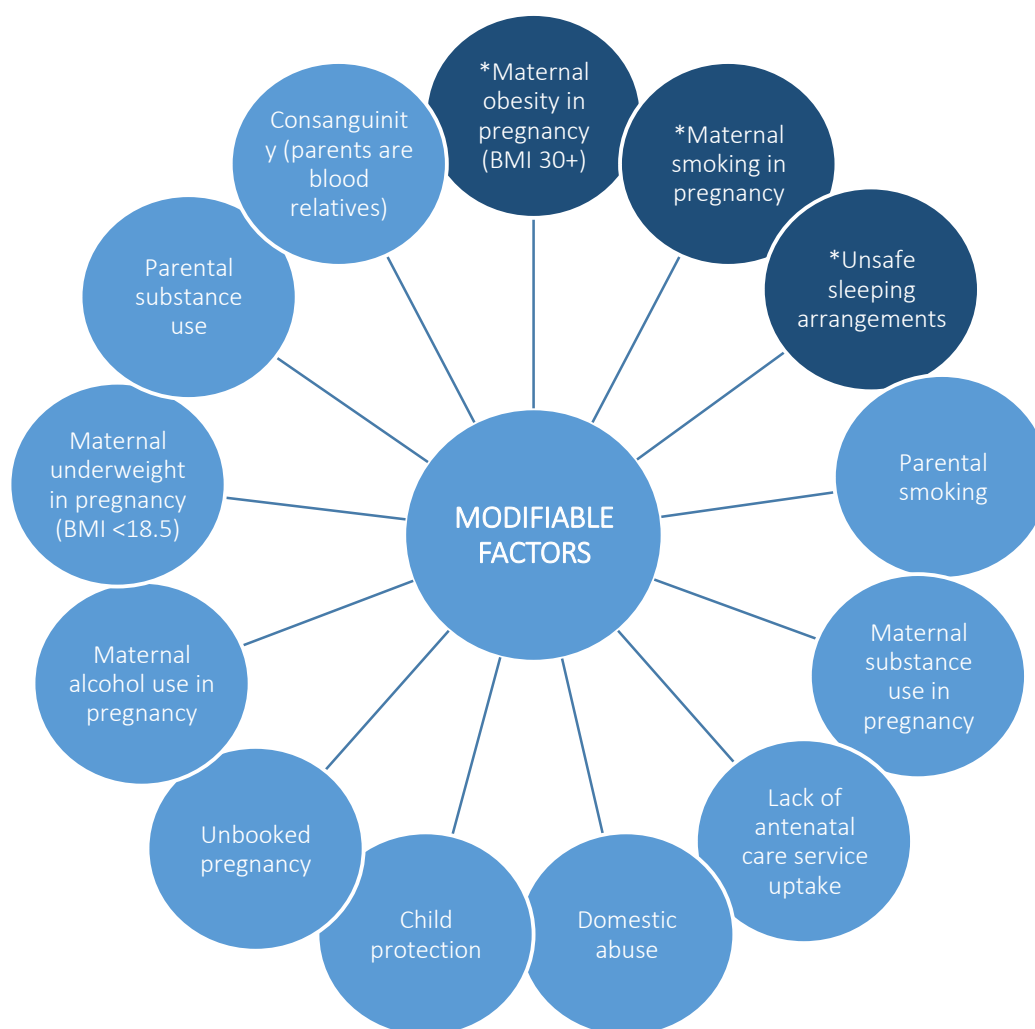
The key GM CDOPs modifiable factors relate to smoking (10% of all cases closed) and maternal obesity (9% of cases closed) which is broadly in line with previous years. Though the numbers involved are relatively small, it emphasises that smoking and maternal obesity in pregnancy remain key modifiable factors for child deaths and despite ongoing efforts to reduce them, their influence in the death of children remains steady. Further, the link between smoking and obesity strongly correlate with deprivation, meaning they represent a significant health inequality.

7. A SUMMARY OF 2019/2020 MODIFIABLE FACTORS

Of the 41 cases closed, the Manchester CDOP identified modifiable factors in 16 (39%) deaths. These are factors where local or nationally achievable intervention could be modified to potentially reduce the risk of future child deaths. Of the 16 deaths with modifiable factors, 15 (94%) children died before the age of 1, 9 of which were during the neonatal period.

Some deaths display multiple modifiable factors which vary depending on the circumstances leading to death and the child's cause of death. For example, deaths categorised as a perinatal/neonatal event, may exhibit more than one modifiable factor such as maternal smoking in pregnancy, maternal obesity in pregnancy and lack of antenatal care service uptake. Modifiable factors act as multiplier effect, increasing the child's vulnerability where multiple factors are present.

Diagram 9: Modifiable factors identified in cases closed by the Manchester CDOP (2019/2020)



* Smoking continues to be the most common modifiable factor identified by the Manchester CDOP with maternal smoking in pregnancy and household smoking a factor in deaths categorised as a perinatal/neonatal event and sudden unexpected, unexplained death. Maternal obesity, where mother has a raised body mass index (BMI) of 30+ during pregnancy is also a common modifiable factor in perinatal/neonatal deaths. Multiple modifiable factors were also identified (antenatally and postnatally) in sudden unexpected, unexplained deaths the most common being unsafe sleeping arrangements.

8. A SUMMARY OF 2019/2020 RELEVANT FACTORS

Information is collated using the Department of Health and Social Care (DHSC) national CDOP reporting forms⁹. Completed forms are presented during the CDOP meeting to assess the cause of death. As part of the child death review process, the CDOP is responsible for analysing information to determine relevant factors that may have contributed to the vulnerability, ill health or death of the child.

These factors are categorised using four domains:

Domain A: Factors intrinsic to the child:

Factors in the child (and in neonatal deaths, in the pregnancy) relating to the child's age, gender and ethnicity; any pre-existing medical conditions, developmental or behavioural issues or disability, and for neonatal deaths, the mother's health and wellbeing.

Domain B: Factors in social environment including family and parenting capacity:

Factors in family structure and functioning and any wider family health issues; provision of basic care (safety, emotional warmth; stimulation; guidance and boundaries; stability); engagement with health services (including antenatal care where relevant); employment and income; social integration and support; nursery/preschool or school environment.

Domain C: Factors in the physical environment:

Factors relating to the physical environment the child was in at the time of the event leading to death, and for neonatal deaths, the mother's environment during pregnancy including poor quality housing; overcrowding; environmental conditions; home or neighbourhood safety; as well as known hazards contributing to common childhood injuries (e.g. burns, falls, road traffic collisions)

Domain D: Factors in Service Provision:

Factors in relation to service provision or uptake including any issues relating to identification of illness, assessment, investigations and diagnosis; treatment or healthcare management; communication or teamwork within or between agencies; and organisational or systemic issues. Consider underlying staff factors, task factors, equipment, and work environment, education and training, and team factors.

For each of the four domains, the Manchester CDOP determines the level of relevance (0-2) for each factor, in relation to the registered cause of death and to inform learning of lessons at a local level. The categories are:

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

⁹ <https://www.gov.uk/government/publications/child-death-reviews-forms-for-reporting-child-deaths>

Diagram 10: Frequency of relevant associated factors in closed cases by the Manchester CDOP (2019/2020)

Factors identified that may have contributed to vulnerability, ill-health or death (2)	No of factors categorised as a relevance of 2
Factors intrinsic to the child	
Acute/Sudden onset illness	33
Asthma	<5
Epilepsy	5
Diabetes	<5
Other chronic illness	16
Learning disabilities	5
Motor impairment	5
Sensory impairment	5
Other disability or impairment	13
Emotional/behavioural/mental health condition in the child	<5
Allergies	<5
Alcohol/substance misuse by the child	<5
Domain B: Factors in social environment including family and parenting capacity	
Emotional/behavioural/mental/physical health condition in a parent or carer	13
Alcohol/substance misuse by a parent/carers	5
Smoking by the parent/carers in household	6
Smoking by the mother during pregnancy	5
Domestic violence	5
Co-sleeping	<5
Bullying	<5
Gang/knife crime	<5
Pets/animal assault	<5
Consanguinity	8
Poor parenting/supervision	5
Child abuse/neglect	<5
Domain C: Factors in the physical environment	
Housing	5
Domain D: Factors in Service Provision	
Access to health care	5
Prior medical intervention	<5
Prior surgical intervention	<5

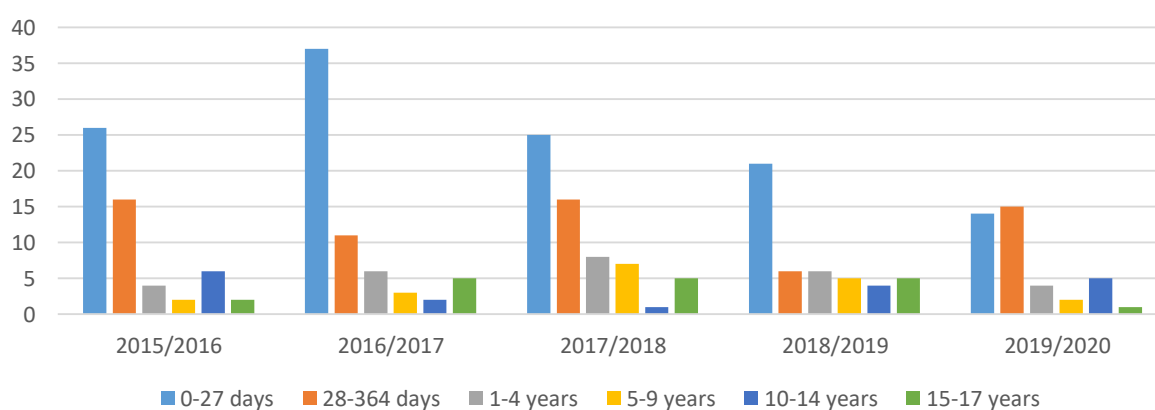
There may be factors present, although not deemed relevant to the child's cause of death. These are categorised as a relevance of 1. Some cases present no modifiable factors but have multiple relevant factors that may have contributed to vulnerability, ill-health or death of the child such as parental alcohol/substance use and housing conditions and therefore categorised as a relevance of 2. For example, natural causes of death categorised as chromosomal, genetic and congenital anomalies, where the child was known to have an autosomal recessive disorder, may not display any modifiable factors but there may have multiple factors as a relevance of 2. Similar to the way in which modifiable factors are documented, where there are multiple relevance 2 factors present, the vulnerability of the child increases.

9. TRENDS & EMERGING THEMES IN CASES CLOSED

Infant Deaths (0-364 Days of Life)

Of the 41 cases closed (2019/2020), a large proportion of the deaths occurred in the neonatal period (<28 days of life) accounting for 34% (14) of the total cases closed. A further 15 (37%) infants died before the age of one (28-364 days of life), highlighting 71% (29) of the deaths occurring in the first year of life. This remains to be a year on year trend, as is the case across GM CDOPs, highlighting infants under the age of one as the most vulnerable age group. The majority of the GM cases closed deaths occurred in the first year of life (83, 64%) with a large proportion in the neonatal period (47, 36%). Older age groups 1-4 years, 5-9 years, 10-14 years and 15-17 years, accounted for 15%, 7%, 10% and 4% respectively.

Diagram 11: Manchester CDOP cases closed by age at time of death (2015/2020)



Of the 29 infant deaths, a large proportion of the deaths were categorised as a perinatal/neonatal event (12, 41%) and chromosomal, genetic and congenital anomalies (11, 38%). Of the 12 deaths categorised as a perinatal/neonatal event, information regarding the infant's gestation at the time of delivery was documented in 11 cases, all of which were delivered prematurely, with prematurity featuring as the registered cause of death. Many infant deaths were anticipated due to the death ultimately being related to perinatal/neonatal events and chromosomal, genetic and congenital anomalies. This reflects that deaths in the first year of life are often due to the complications of prematurity or from underlying health conditions.

Babies are considered viable at around 24 weeks' gestation, meaning it's possible for them to survive at this stage. Infants delivered under 24 weeks' gestation, have a significantly reduced chance of survival. The World Health Organization (WHO)¹⁰ defines preterm birth as babies born alive before 37 weeks of pregnancy are completed, with sub-categories of preterm birth based on gestational age:

- extremely preterm (less than 28 weeks)
- very preterm (28 to 32 weeks)
- moderate to late preterm (32 to 37 weeks)

¹⁰ <https://www.who.int/news-room/fact-sheets/detail/preterm-birth>

Of 29 infant deaths, 17 (59%) babies were delivered preterm (<37 weeks). Babies born before full term (<37 weeks) are vulnerable to health problems associated with prematurity. The earlier in the pregnancy a baby is born, the more vulnerable they are. Preterm birth occurs for a variety of reasons. Most preterm births happen spontaneously, but some are due to early induction of labour or caesarean birth, whether for medical or non-medical reasons. Common causes of preterm birth include multiple pregnancies, infections and chronic conditions such as diabetes, high blood pressure and genetic influence.

Around 8 out of 100 babies are born prematurely¹¹. Using the WHO preterm birth sub-categorises, highlights 71% (12) of the preterm infants (17) were born extremely preterm (<28 weeks). Twins and triplets are often born prematurely with an average delivery date for twins at 37 weeks and 33 weeks' gestation for triplets. 5 (17%) of the 29 infant deaths were recorded as a twin or triplet pregnancy all of which were born prematurely. Unfortunately, a number of these pregnancies also resulted in a late foetal loss (<24 weeks' gestation) or stillbirth (>24 weeks) although, in line with Child Death Review: Statutory and Operational Guidance (England), stillbirths and late foetal loss are not subject to CDOP reviews.

Low birth weight is defined by the WHO¹² as weight at birth less than 2500 g (5.5 lb). Low birth weight continues to be a significant health problem and is associated with a range of both short- and long-term consequences. Low birth weight is complex and includes preterm neonates, small for gestational age neonates at term and the overlap between these two situations. Typically, both preterm and small for gestational age neonates, have the worst outcomes.

The Royal College of Obstetricians and Gynaecologists¹³ defines small for gestational age to an infant born with a birth weight less than the 10th centile¹⁴. Historically small for gestational age at birth has been defined using population centiles. The use of centiles is customised for maternal characteristics (maternal height, weight, parity and ethnic group) as well as gestational age at delivery and infant sex, identifies small babies at higher risk of morbidity and mortality than those identified by population centiles. Of the 29 infant deaths, 19 (66%) had a birth weight of less than 2500 grams, 17 of which were preterm deliveries (<37 weeks' gestation).

Whilst prematurity impacts the infant's birth weight, low birth weight is also influenced by maternal lifestyle such as smoking and wider maternal health including pre-eclampsia. When reviewing infant deaths, the Manchester CDOP identifies modifiable factors and relevant factors during pregnancy that increase the risk to both mother and baby. These factors may also contribute to an early onset of labour, leading to poorer outcomes. All of the associated factors act as a multiplier effect increasing the risk of prematurity, or that the infant may not be born in the best possible condition.

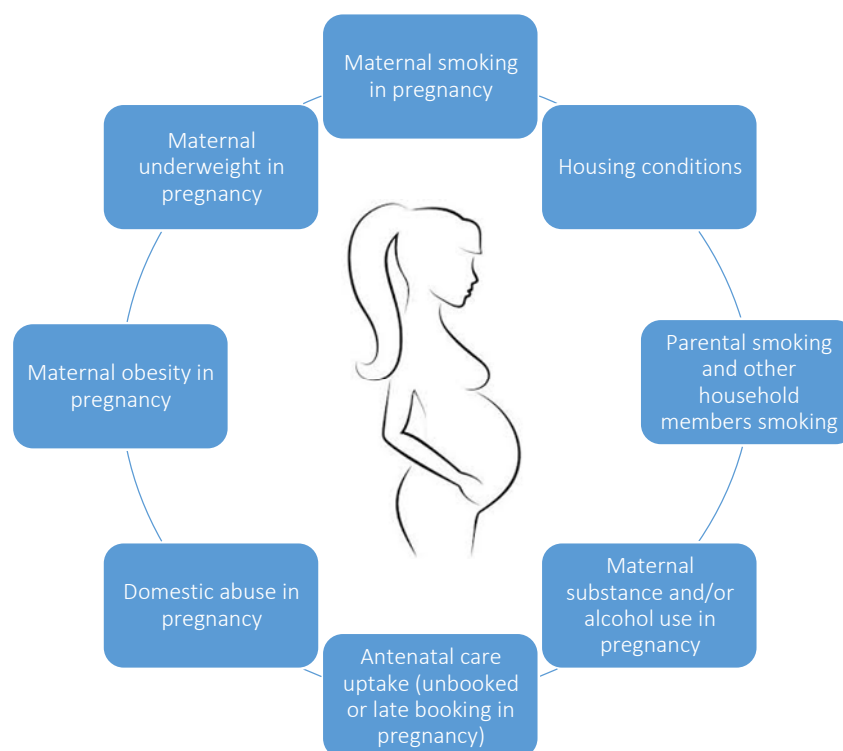
¹¹ www.nhs.uk/conditions/pregnancy-and-baby/premature-early-labour

¹² www.who.int/nutrition/publications/globaltargets2025_policybrief_lbwt/en/

¹³ www.rcog.org.uk/globalassets/documents/guidelines/gtg_31.pdf

¹⁴ www.rcpch.ac.uk/resources/uk-who-growth-charts-neonatal-infant-close-monitoring-nicm

Diagram 12: Modifiable factors and/or relevant factors identified in infant death cases closed by the Manchester CDOP (2019/2020)



Smoking

Smoking is the main cause of preventable illness and death in England. Smoking continues to have a negative impact on the general health of children and remains one of the main factors for child deaths in Manchester. Depending on the nature of the death, the CDOP collates information regarding the smoking status of the child and during the antenatal period, maternal smoking in pregnancy and household members to monitor women who are who are exposed to harmful effects of environmental tobacco smoke during pregnancy. Of the 41 cases closed, 6 mothers stated that they were smokers at time of booking and smoked during pregnancy. In 5 (12%) of these deaths, the Manchester CDOP deemed maternal smoking in pregnancy a significant relevant factor in relation to the child's cause of death.

Reducing smoking in pregnancy is the single most important factor in reducing infant mortality. 9.6% of women in Manchester were recorded as smokers at the time of delivery, in comparison to the to a national average of 10.6%. Smoking in pregnancy has well known detrimental effects for the growth and development of baby and the health of the mother. Smoking during pregnancy can cause serious pregnancy related health problems including complications during labour and an increased risk of miscarriage, premature birth, stillbirth, low birth weight and sudden unexpected death in infancy (SUDI).

Reducing smoking in Manchester remains one of the highest population health priorities. The Manchester Population Health Plan¹⁵ priority 'The first 1000 days of a child's life' focuses on this area of work. Maternal smoking and living in homes where people smoke, impacts negatively upon infant mortality, child health and that children who grow up in homes where adults smoke are two to three times more likely to become smokers themselves. Therefore, reducing smoking in pregnancy and

¹⁵ https://secure.manchester.gov.uk/downloads/download/6898/manchester_population_health_plan_2018-2027

promoting Smoke Free homes are key work areas for the Tobacco Control Programme, as outlined in the Smoke Free Manchester Tobacco Control Plan 2018-2021¹⁶.

Manchester has a dedicated Smoking in Pregnancy Service which is funded by Manchester Health and Care Commissioning, Greater Manchester Health and Social Care Partnership and the Trafford Public Health Team. The service is delivered city wide by St Mary's Hospital and North Manchester General Hospital maternity services. All women who smoke are offered free Nicotine Replacement Therapy (NRT) and support for the duration of their pregnancy. Manchester Health and Care Commissioning will also be commissioning a new, nurse led, city wide Tobacco Addiction Service (Be Smoke Free), which will be provided by the Change, Grow, Live charity. The Be Smoke Free service is in accordance with NICE guidance NG92 and offers, what Manchester believes to be, a gold standard service where support and the offer of NRT, Varenicline and Bupropion (as required), is supplied free and direct to a persons' home for up to twelve weeks.

Smoking prevalence in adults (aged 18+) in Manchester was 18.0% in 2019¹⁷, which is a slight, but not statistically significant, increase from 17.2% in 2018. Smoking by the parent or carer in the household was recorded as a relevant factor in 6 (15%) of the 41 cases closed. For deaths categorised as sudden unexpected, unexplained death; maternal smoking in pregnancy, maternal smoking postnatally and other household smoking, increases the risk of sudden infant death syndrome (SIDS).

Maternal Obesity in Pregnancy

A modifiable and relevant factor highlighted by the Manchester CDOP is mother's raised body mass index (BMI) during pregnancy. For most adults, an ideal BMI is in the 18.5 to 24.9 range (healthy weight range). The NHS defines the BMI categories¹⁸ as:

- below 18.5 - underweight
- between 18.5 and 24.9 - healthy weight range
- between 25 and 29.9 - overweight range
- between 30 and 39.9 - obese weight range
- 40 and over - severely obese weight range

Being overweight increases the risk of complications for pregnant women and baby¹⁹. The higher a woman's BMI, the higher the chance of complications. Problems for baby can include being born prematurely and an increased risk of stillbirth (from an overall risk of 1 in 200 in the UK to 1 in 100 if mother has a BMI of 30 or more).

The increasing chances are in relation to:

- miscarriage - the overall chance of miscarriage under 12 weeks is 1 in 5 (20%); for women with a BMI over 30, the chance is 1 in 4 (25%)
- gestational diabetes - women with a BMI of 30 or above, are 3 times more likely to develop gestational diabetes than women who have a BMI below 25
- high blood pressure and pre-eclampsia - women with a BMI of 30 or above at the beginning of their pregnancy, have a chance of pre-eclampsia which is 2 to 4 times higher than that of women who have a BMI below 25
- blood clots - all pregnant women have a higher chance of blood clots compared to women who are not pregnant, for women with a BMI of 25 or above, the chance is increased further

¹⁶ https://www.manchester.gov.uk/downloads/download/6971/smoke_free_manchester

¹⁷ <https://fingertips.phe.org.uk/profile/tobacco-control/data#page/1/gid/1938132885/pat/6/par/E12000002/ati/102/are/E08000003/cid/4>

¹⁸ <https://www.nhs.uk/conditions/obesity/>

¹⁹ <https://www.nhs.uk/conditions/pregnancy-and-baby/overweight-pregnant/>

- the baby's shoulder becoming "stuck" during labour (sometimes called shoulder dystocia)
- heavier bleeding than normal after the birth (post-partum haemorrhage)
- having a baby weighing more than 4kg (8lb 14oz) - the overall chance of this for women with a BMI of 20 to 30 is 7 in 100 (7%); for women with a BMI of above 30, the chance is doubled to 14 in 100 (14%)
- women are also more likely to need an instrumental delivery (forceps or ventouse), or an emergency caesarean section

Deaths categorised as a perinatal/neonatal event, where mothers BMI in pregnancy is recorded as underweight (BMI <18.5) or obese (BMI 30+), are deemed a modifiable factor by the Manchester CDOP. Year on year, maternal obesity in pregnancy continues to be a key featuring modifiable factor for Manchester, and across GM, in deaths categorised as a perinatal/neonatal event. Of the 13 deaths categorised as a perinatal/neonatal event, mothers BMI was recorded in 11 cases, 5 (45%) mothers were recorded as obese or severely obese at time of booking.

The Manchester Population Health Team has refreshed the weight management offer in the city, alongside launching a five-year Healthy Weight Strategy 2020-2025. The system takes a life-course approach which includes pregnant women and babies. It advocates equipping health professionals with the resources to begin sensitive conversations about weight in pregnancy, at key contacts, increasing breastfeeding and making healthy choices in weaning and feeding. Manchester took part in a national pilot with Public Health England to develop maternal obesity resources in late 2019.

Two tiers of weight management provision are commissioned by Manchester Population Health, for pregnant women aged 18 years and over. A social prescribing service for pregnant women who have a BMI of 30 and over, offers a voucher for free access to a local weight loss group. A specialist service is available for pregnant woman with a BMI of 35 or above. The service encourages lifelong change by supporting pregnant women achieving a healthier lifestyle through education and personalised goal setting. Both programmes offer advice and support on nutrition, lifestyle and behaviour change to enable women to be healthy throughout their pregnancy, and beyond, such as a personalised assessment of lifestyle, behavioural and medical support needs with tips for a healthy pregnancy. Both services provide advice on nutrition in relation to breastfeeding and complementary feeding. Women can be referred into the tier three service by midwives at 12 weeks of pregnancy which includes psychological therapy and (where appropriate) pharmacotherapy.

10. SUDDEN & UNEXPECTED DEATH IN INFANCY/CHILDHOOD (SUDI/SUDC)

Of the 41 cases closed, 6 (15%) deaths were categorised as a sudden unexpected, unexplained death where the pathological cause of death was recorded as either 'sudden infant death syndrome (SIDS)' or remains 'unascertained'. Forms of unsafe sleeping arrangements were identified in 5 of the deaths.

Unsafe sleeping arrangements and co-sleeping are particularly dangerous if the parent/carer has consumed alcohol or ingested substances, which may limit their awareness. Other known co-sleeping factors include babies born prematurely or those with a low birth weight, overheating and covering baby's face or head while sleeping, including loose bedding and falling asleep with baby on a sofa or in an armchair. Of the 6 deaths categorised as a sudden unexpected, unexplained death, there were several modifiable factors identified including:

- Unsafe sleeping arrangements
- Baby placed to sleep on a soft surface (such as a sofa, parental bed, baby bean bag)
- Co-sleeping
- Maternal smoking in pregnancy

- Parental smoking and/or other household smokers

The Manchester CDOP also highlighted several relevant factors which may have contributed to the vulnerability, ill-health or death of the infant such as parental mental health issues, domestic abuse, poor parenting/supervision, child abuse/neglect and accessing healthcare services. It should be noted that these factors (in the antenatal and/or postnatal period) act as multiplier effect, where there is more than one present this increases the vulnerability of the child

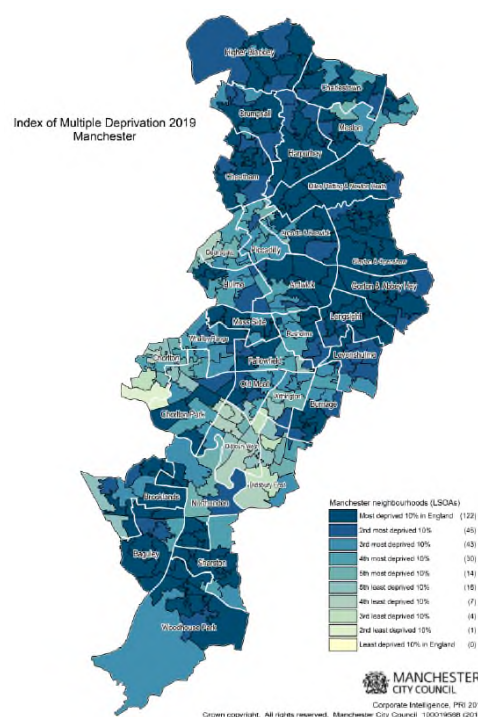
The Manchester CDOP continues to raise awareness of safer sleep messages via quarterly newsletters²⁰ and Manchester Safeguarding Partnership’s (MSP) training events, to embed safer sleep advice into multi-agency practice. The Manchester CDOP continues to endorse consistent safe sleep advice, as promoted by the Manchester Local Care Organisation Safer Sleeping Practice for Infants²¹:

‘The safest place for a baby to sleep is on their back, in a Moses basket or cot, in a room with the parent or carer for the first six months. This advice is the same for all times of the day and night when the baby is sleeping’

In December 2004, the Manchester University NHS Foundation Trust (MFT) implemented the Vulnerable Baby Service (VBS) with the aim of reducing the risks of sudden and unexpected death in infancy (SUDI) across the City. Initially implemented as a pilot, it was developed into a mainstream service and as a result SUDIs have dropped significantly. The service facilitates multi-agency case planning meetings for any unborn baby and infants under one year of age, living in Manchester, who are considered to be vulnerable as defined by the referral criteria. Any practitioner can refer into the service if the family meets the criteria.

In each case, the assessment of need and liaison with partners continues and is carried out by the VBS staff. It is intended to be a relaxed but structured meeting to identify and discuss the family needs and mobilise resources to meet those demands by an agreed date. The VBS continues to play a public health role in preventative measures, leading on safe sleeping policies across the City and strategically informing practice to improve outcomes for infants.

Diagram 12: 2019 Index of Multiple Deprivation (IMD) Manchester



11. DEPRIVATION & WARD OF RESIDENCE

The 2019 Index of Multiple Deprivation (IMD), ranked Manchester as 6 out of 326 local authorities in England (where 1 is the most deprived). Within GM, Manchester has the highest proportion of residents (43%) residing in the most deprived 10% of neighbours in England²². 27.1% of children (under 16 years of age) in Manchester are living in poverty (2016) which is higher than the North West (18.0%) and England (17.0%)²³.

²⁰ <https://www.manchestersafeguardingpartnership.co.uk/resource/cdop/>

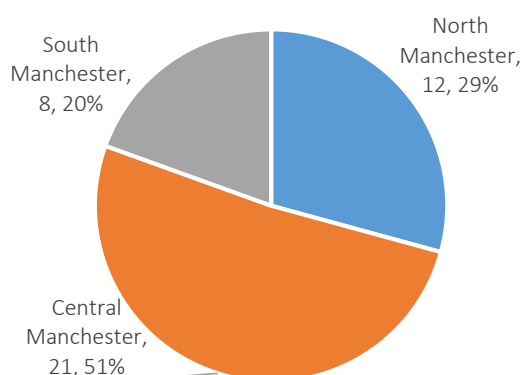
²¹ <https://www.manchestersafeguardingpartnership.co.uk/resource/safe-sleeping/>

²²

https://secure.manchester.gov.uk/downloads/download/414/research_and_intelligence_population_publications_deprivation

²³ <https://fingertips.phe.org.uk/profile/child-health-profiles>

Diagram 13: Area of residence for closed cases by the Manchester CDOP (2019/2020)



Family homelessness in Manchester has increased, with a rate of 3.6 per 1,000 homeless households with dependent children/pregnant women (2017/18) which is higher than the England average (1.7). Of the 41 cases closed, the majority of children resided in areas of deprivation with 73% (30) of families residing in quintile 1 (most deprived) and a further 20% (8) in quintile 2.

Of the 41 cases closed, 51% (21) of the children resided in central Manchester²⁴. Breaking the data down into neighbourhoods identifies Ardwick and Longsight as having the largest number of deaths accounting for 20% (8) of the 41 cases closed, followed by Gorton and Levenshulme (15%, 6). Reviewing deaths by ward of residence highlights

Longsight with the largest number of cases closed (15%, 6). Based on the average 2019 IMD score, the ward of Miles Platting and Newton Heath ranks as the most deprived ward in Manchester. Year on year, there continues to be a strong correlation with the higher rate of deaths in areas of deprivation where the Lower Layer Super Output Area (LSOA) are deemed most deprived.

Across GM, 6 of the 10 local authorities have a higher proportion of their population living in the most deprived areas of the country in comparison to the North West average, Manchester being the most deprived local authority. All local authorities but Trafford have deprivation scores above the national average. Of the GM cases closed, over half of the children resided in the most deprived quintile (1), and a further 20% in the second most deprived quintile (2), these two quintiles account for three quarters of the cases closed. This emphasises that deprivation remains a significant public health concern and demonstrates a significant correlation between poverty and child death.

12. ETHNICITY

Breaking the data down into ethnicities, highlights the largest number of cases closed (41) were children who were English/Welsh/Scottish/Northern Irish/British (12, 29%) and Pakistani (11, 27%). There is some variation in the causes of death across ethnic groups. Of the 15 children recorded as White British, the largest number of deaths were categorised as a perinatal/neonatal event (33%, 5). In these deaths' modifiable factors and relevant factors such as maternal obesity and late booking of pregnancy were identified.

Of the 15 children recorded as Asian/Asian British, the largest number of deaths were categorised as chromosomal, genetic and congenital anomalies (47%, 7) with consanguinity being highlighted as a relevant factor in 6 of the deaths. Consanguinity refers to a relationship in which a couple are blood relatives, for example first cousins, second cousins etc. Consanguinity increases the risk of genetic disorders known as autosomal recessive disorders. Parents who are both unaffected healthy carriers of a genetic disorder present a 1 in 4 (25%) chance that the child could be affected and a 50% chance that the child could be a healthy carrier with no sign of the disorder but could pass the unusual gene on to the next generation. Unrelated parents have a 2% risk of having a child with a severe abnormality, whilst parents who are first cousins have a 5% risk and second cousins have a 3% risk. However, couples that are more closely related, such as a family with a history of cousin marriages going back generations, will have a higher risk of having a child with autosomal recessive disorders.

²⁴ Manchester Local Care Organisation's 12 Integrated Neighbourhood Teams <https://www.manchesterlco.org/howwework>

13. MANCHESTER UNIVERSITY NHS FOUNDATION TRUST (MFT) GENETIC SERVICE

The Manchester University NHS Foundation Trust (MFT) provides one of the largest and most comprehensive multi-disciplinary clinical genetics units in UK and Europe providing integrated clinical and laboratory genetics services²⁵. The aim of the regional genetic service is to provide a diagnostic, counselling and support service to individuals and their families with a genetic disorder affecting any body system at any age. Practitioners can make referrals to the service for a number of reasons including:

- organisation of specialist prenatal diagnosis for a known familial genetic disorder
- diagnosis and counselling on diagnosis of foetal abnormality either on genetic testing or ultrasound
- investigation and diagnosis of congenital abnormality
- investigation and diagnosis of abnormalities of growth or development in childhood
- diagnosis of a metabolic disorder
- diagnosis if a possible genetic disease, including eye, renal, cardiac and neurological disorders with known or possible genetic basis
- strong family history of cancer
- concern regarding personal or family history of a genetic disease
- access testing of family members for carrier status for single gene (mendelian disorders) including presymptomatic or predictive gene testing when indicated.

The specialist genetic service which is an integrated clinical and laboratory genetics service, aims to provide diagnostic, counselling and support to families with a genetic disorder. The service also offers management, support and appropriate information for genetic conditions and offers pre-symptomatic diagnosis.

The Manchester CDOP works with the Specialist Geneticist to request information to review factors in relation to service provision. The Manchester CDOP reviews whether a referral to the genetic service was made and if the family engaged, to access additional support and counselling. There are health requirements regarding awareness raising amongst both practitioners and the community about the associated health factors and services available that can provide advice and support. As part of the Manchester Reducing Infant Mortality Strategy 2019-2024²⁶, work remains ongoing to raise awareness of the genetic service and how practitioners can make referrals. This includes information about autosomal recessive disorders, to increase the knowledge and understanding of genetics in the population.

14. DOMESTIC VIOLENCE & ABUSE

One in four women experience domestic abuse or domestic violence at some point in their lives²⁷. Pregnancy can be a trigger for domestic abuse, and existing abuse may get worse during pregnancy or after giving birth. Domestic abuse during pregnancy puts both the mother and unborn baby at risk. It increases the risk of miscarriage, infection, premature birth, and injury or death to the baby. It can also cause women to experience emotional and mental health problems, such as stress and anxiety, which can affect the development of the baby. The recognition of the extent of domestic violence/abuse and its impact on families and children is a factor to be considered. Of the 41 cases closed, there were 5 (12%) deaths where domestic abuse incidents involving family members, which

²⁵ <https://www.mangen.co.uk/>

²⁶ https://secure.manchester.gov.uk/downloads/download/7002/reducing_infant_mortality_strategy

²⁷ <https://www.nhs.uk/conditions/pregnancy-and-baby/domestic-abuse-pregnant/>

the Manchester CDOP deemed a relevant factor that may have contributed to vulnerability, ill-health or death of the child. These deaths were categorised as a perinatal/neonatal event, sudden unexpected, unexplained death and acute medical or surgical condition.

15. GREATER MANCHESTER (GM) JOINT AGENCY RESPONSE (JAR)

The Greater Manchester (GM) Joint Agency Response (JAR), Rapid Response Team, was established in January 2009, to provide a rapid assessment of each sudden and unexpected death of an infant or child. The team is made up of Senior Paediatricians who provide a 24/7 on-call service across GM, working in close collaboration with partner agencies such as Greater Manchester Police (GMP), the GM Coroners, Health and Children's Social Care. A review of the deaths reported to the Rapid Response Team, found SUDC Paediatrician were informed of the child's death within two hours on 100% of occasions.

There has been year on year fluctuation in the numbers of cases referred to the Rapid Response Team, with an average of one to two deaths referred each week. Between 1 April 2019 - 31 March 2020, the GM Rapid Response Team received 57 child death referrals, 13 (23%) of which were Manchester children. Since the 1 January 2009, a rapid response has occurred for a total of 713 children across GM.

Deaths subject to the JAR process usually remain open to the CDOP for a longer period due to pending coronial investigations. Until the Coroner has ascertained a cause of death, the CDOP is unable to confirm if the death was in fact a sudden and unexpected death in infancy (SUDI)/childhood (SUDC). Where the pathological cause of death is record as 'sudden infant death syndrome' or 'unascertained', at any age, these deaths are categorised by the Manchester CDOP as a sudden unexpected, unexplained death (excluding sudden unexpected death in epilepsy).

In line with national data, and consistent with findings from previous years, the majority of 2019/2020 deaths reported to the GM JAR occurred in infants under one year of age (32%), with a peak incidence in infants aged between one and six months of age (26%). There is a second peak in older teenagers who exhibit risk-taking behaviours. The proportion of cases in each age category has stayed relatively constant since 2009, although for 2019/2020 there was a further rise in the number of children aged 16-17 years of age. This appears to map an increase in the number of deaths by apparent suicide, although numbers are too small to allow statistical analysis.

The GM JAR Lead continues to be an integral part of the Manchester CDOP, attending panel meetings to interpret medical terminology and supporting the implementation of the Child Death Review: Statutory and Operational Guidance (England).

16. ACKNOWLEDGEMENTS

Thanks are due to Manchester CDOP multi-agency panel members of their time and commitment to attend each of the meetings and colleagues in the Manchester Population Health Team who have contributed to the content of this annual report. The Manchester CDOP remains continually thankful for the support from the Manchester City Coroner's Office, Manchester City Register Office and Manchester University NHS Foundation Trust (MFT) in supplying the necessary data and information required to conducted a thorough CDOP review.

17. 2020/2021 MANCHESTER CDOP RECOMMENDATIONS

Child Death Review Meetings (CDRM)

The publication of the Child Death Review: Statutory and Operational Guidance (England) documents changes to the child death review process including the introduction of the Child Death Review Meetings (CDRM). The area in which the death occurred will hold a CDRM for individual child deaths involving the professionals directly involved during life and investigation after death. Information, reports and notes of the CDRMs are to be shared with the Manchester CDOP to support the panel undertake a thorough review, to identify emerging patterns and trends. Depending on the nature of the death, reports such as perinatal mortality reviews, neonatal/paediatric hospital-based mortality reviews and the outcome of internal investigations are to be shared with the Manchester CDOP.

The City of Manchester is host to multiple acute hospital settings which fall under the umbrella of Manchester University NHS Foundation Trust (MFT) and Northern Care Alliance NHS Group. As a tertiary care provider, a large percentage of child deaths that occur in MFT hospital settings, are children residing outside Manchester City's jurisdiction, in neighbouring GM local authorities. This impacts on the number of CDRMs held by MFT hospitals such as St Marys Hospital and the Royal Manchester Children's Hospital.

RECOMMENDATION 1: The Manchester CDOP is to liaise with MFT clinicians and senior management, to agree the interface between the CDRM/CDOP process and the exchange of information. A designated point of contact is to be established within MFT to ensure the Manchester CDOP receives updates and information once the CDRM has taken place.

National Child Mortality Database (NCMD) & eCDOP

Following the implementation of the National Child Mortality Database (NCMD) on 1 April 2019, CDOPs had a statutory requirement to submit data collated using the national CDOP templates, to the NCMD web portal. The NCMD programme team request that data be entered onto the NCMD within 24 hours of the child death being reported to the CDOP. This includes large quantities of data being inputted into the NCMD from all CDOP reporting forms, supplementary reporting forms and analysis forms.

The NCMD is a repository of data relating to all child deaths in England to enable detailed analysis and interpretation of data to identify national emerging trends, learn lessons and take action that could lead to changes to improve outcomes for children. The CDOP data is used to support the NCMD influence national strategy and improve the child death review process. The NCMD programme team request real-time data to support changes to NHS systems and promote public health messages.

The NCMD requirements to provide live notifications for all child deaths and a full dataset for all cases closed by the CDOP, has resulted in a significant increase in the Manchester CDOPs operational and administrative functions, when processing cases. Due to level of data collated and national demand for information, 85% of CDOPs across England have purchased the eCDOP system which automatically populates the NCMD. The eCDOP system submits real time data and drastically reduces the time it takes for CDOPs to collate, consolidate, anonymise and share information.

RECOMMENDATION 2: To ensure national statutory requirements are met, the Manchester Safeguarding Partnership in collaboration with GM Local Safeguarding Partnerships, is to assess the cost and funding arrangements to purchase the eCDOP system.

18. APPENDICES

Appendix 1: National CDOP Form C Analysis Profoma - Categorisation of Death

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, including medical/surgical complications/error

This includes isolated head injury, other or multiple trauma, burn injury, drowning, unintentional self-poisoning in pre-school children, anaphylaxis & other extrinsic factors. Also includes proven medical and surgical complications or errors as the primary cause of death. 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, necrotising enterocolitis, 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).

Appendix 2: Manchester CDOP 2019/2020 Attendance

Position	Agency	June 2019	Sept 2019	Dec 2019	March 2020
Consultant in Public Health	CDOP Chair, Manchester Health and Care Commissioning	✓	✓	✓	✓
Therapy Services Team Leader	CDOP Lay Representative	-	✓	✓	✗
Detective Chief Inspector	Greater Manchester Police	✗	✓	✓	✓
Project Officer	Manchester City Council, Strategic Housing	✓	✓	✗	✓
Safeguarding and Quality Assurance Team Manager	Manchester Children's Social Care	✗	✓	✓	✓
Designated Nurse Safeguarding Children/Specialist Nurse Safeguarding Children	Manchester Health and Care Commissioning	✓	✓	✓	✓
Programme Lead	Manchester Health and Care Commissioning	✓	✗	✓	✓
Senior Quality Assurance Officer of Safeguarding in Schools	Manchester City Council, Education, Safeguarding	✓	✓	✓	✓
Head of Services Vulnerable Baby Service, Health Visiting South and Lead for Early Help and Prevention MFT Vulnerable Baby Service and Health Visiting Service	Manchester Vulnerable Baby Service and Health Visiting Service, Manchester Local Care Organisation	✗	✓	✗	✓
Adult Social Care Manager	Manchester Children's Adults Social Care	-	-	✗	✗
Named Nurse for Safeguarding Children	Greater Manchester Mental Health Foundation Trust	-	-	-	✓
Advanced Nurse Practitioner	Children's Community Palliative Care Team (STAR Team)	✓	✗	✗	-
Designated Doctor Child Death and Community Paediatrician - Manchester University NHS Foundation Trust	Manchester Foundation Trust, Rapid Response Team	✓	✓	✓	✓
General Manager	CAMHS (<i>ad hoc CDOP rep</i>)	✓	-	-	-
Consultant Paediatric Intensivist	NWTS Intensive Care Paediatric Transport Service	✗	✓	✓	✗
Bereavement Midwife/DU Co-ordinator	Manchester Foundation Trust, St Marys Hospital	-	-	-	✓
Clinical Nurse Lead- Learning Disabilities	LeDeR (<i>ad hoc CDOP rep</i>)	-	-	✓	-
Senior Police Coroner's Officer	Greater Manchester Police	✓	✗	✓	✗