Manchester City Council
Report for Information

Report to: Children and Young People Scrutiny Committee - 8 January 2019

Subject: Reducing Infant Mortality Strategy

Report of: Director of Population Health and Wellbeing
Strategic Lead, Children and Young People, Population Health and Wellbeing

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Summary

This report provides information on current trends, patterns and risk factors associated with infant mortality in Manchester. It highlights a concerning picture of infant mortality rates increasing since 2011-13 following a long period of year on year reductions.

The report also presents the draft five year multi agency strategy to reduce infant mortality and support those affected by baby loss. The strategy contributes to the Manchester Population Health Plan first 1000 days priority.

Recommendations

The Committee is asked to:

i) Note the report.
ii) Comment on the draft multi agency strategy to reduce infant mortality and support those bereaved by baby loss (see Annex 1).

Wards Affected: All

Alignment to the Our Manchester Strategy Outcomes (if applicable)

Manchester Strategy outcomes	Summary of how this report aligns to the OMS
A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities	Being in good health is essential for our children and young people in enabling them to achieve their full potential in transition to adulthood. A healthy start in life is fundamental to our young people being able to contribute to the city and take employment opportunities. Action to reduce infant mortality will impact on the long term health of infants.
A highly skilled city: world class and home grown talent sustaining	

the city's economic success	
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	Ensuring the best health of our children is critical in addressing inequalities and the wider determinants that cause poor health.
A liveable and low carbon city: a destination of choice to live, visit, work	Demonstrating good health outcomes for our children is attractive to parents who choose to live and work in our city.
A connected city: world class infrastructure and connectivity to drive growth	

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Background documents (available for public inspection):

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

The Population Health Plan can be found at www.manchester.gov.uk/healthplan

Manchester Child Health Overview Panel (CDOP) Annual Report 2017/18
https://www.manchestersafeguardingboards.co.uk/wp-content/uploads/2017/07/2017-2018-Manchester-CDOP-Annual-Report-FINAL.pdf

Acknowledgements

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1. Introduction

1.1. This report provides information about infant mortality and outlines our proposed strategy to reduce the number of infant deaths in Manchester.

1.2. Infant mortality is an indicator of the overall health of a population. It reflects the relationship between the causes of infant mortality and upstream determinants of population health such as economic, social and environmental conditions. Reducing infant mortality overall and the gap between the richest and poorest groups are part of the strategy for public health (Healthy Lives, Healthy People: Our Strategy for Public Health November 2010) and is key element of the new Manchester Population Health Plan First 1000 Days priority.

2. Definitions

2.1. Infant mortality is defined as deaths that occur in the first year of a child's life. The infant mortality rate is the number of deaths at ages under 1 per 1,000 live births. Stillbirths are not normally counted as infant deaths and are not included in the calculation of the infant mortality rate. Some of the factors that contribute to a stillbirth may also be contributing factors in infant deaths.

2.2. Infant deaths can be divided into three broad stages, each with a different set of risk factors and determinants:

- Deaths under 7 days of life (perinatal mortality)
- Deaths to infants aged under 28 days (neonatal mortality)
- Deaths to infants aged 28 days to 1 year (post-neonatal mortality)

3. Data sources and limitations

3.1. There are three main sources of data and information on infant deaths in the UK:

- Vital Statistics i.e. information supplied when infant deaths are certified and registered as part of the civil registration process. This is a legal requirement and the information that is collected is prescribed in the relevant legislation. The data collected through this process is managed by the Office for National Statistics (ONS) and is usually reported based on the local authority within which the deceased was usually resident at the time of death.

- Child Death Overview Panels (CDOP) collect and review information about each child death in a local area in order to build a picture of emerging themes and patterns and inform local strategic planning on how to best safeguard and reduce harm and promote better outcomes for children in the future. Each CDOP collects data in a common format and also submits information to the DfE on an annual basis to inform the national picture.

- Surveillance reporting systems, notably the Mothers and Babies Reducing Risk through Audits and Confidential Enquiries (MBRRACE) system.

MBRRACE is part of the national Maternal, Newborn and Infant Clinical Outcome Review Programme, the aim of which is to provide robust national information about the causes of maternal deaths, stillbirths and infant deaths and support the delivery of safe, equitable, high quality, patient-centred maternal, newborn and infant health services across the UK.

3.2. The information collected by each of these sources is different. For example, the restrictions on the data collected as part of the deaths registration process means that the ONS dataset contains limited information on key risk factors, such as ethnic group, mother's country of birth, maternal lifestyles and family circumstances. However, data on some of these factors is collected as part of the CDOP process. Used together, the ONS and CDOP data provide a rich and powerful picture of infant deaths in Manchester.

4. Trends and patterns of infant deaths in Manchester

4.1. Infant Mortality rates

Figure 1 shows the infant mortality rate for Manchester is 6.4 per 1,000 compared to 3.9 per 1,000 England 2015-17. Manchester has the fourth worst infant mortality rate in England.

Figure 1: Infant mortality rate for Manchester compared to England 2015-17

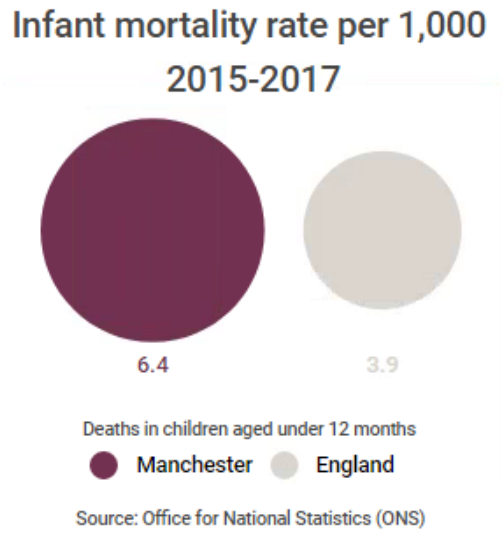
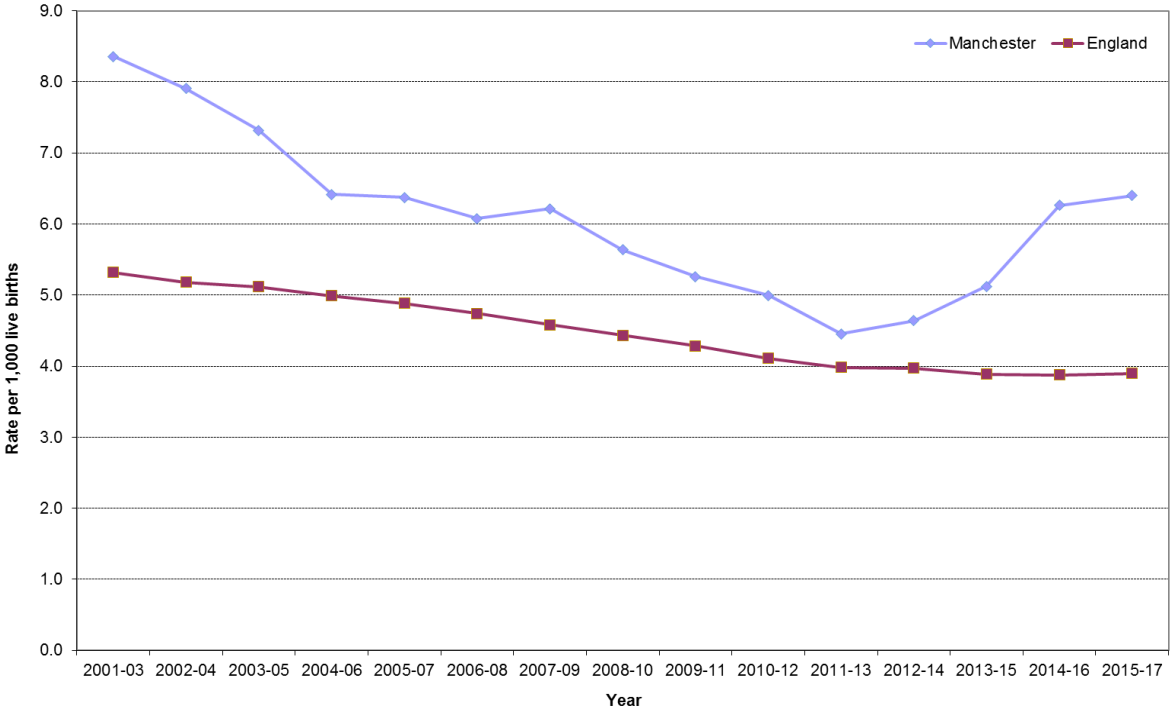


Figure 2: Infant mortality rate 2001-3 to 2015-17 in Manchester and England



4.2. The infant mortality rate in Manchester has fallen substantially since the early 1900s. This is due, in part, to general improvements in healthcare combined with specific improvements in midwifery and neonatal intensive care. Between 1999-2001 and 2015-17, the infant mortality rate in Manchester fell from 9.2 per 1,000 live births to 6.4 deaths per 1,000 live births - a 30% fall in the infant mortality rate over this period.

4.3. Although in Manchester the infant mortality rate remains low in historical terms, the data shows that the rate of infant deaths has started to increase again. The number of infant deaths rose from 108 in 2011-13 to 151 in 2015-17 - an increase of 39.8%. In contrast the number of live births over this period has remained relatively stable.

4.4. Data from ONS provides a more detailed insight into the recent increase in the number of infant deaths in Manchester (see table 1 below).

Table 1: Number of infant deaths in Manchester 2012-2017 by stage of death

Year	Stage of death		
	Neonatal	**Non-neonatal**	**Total deaths**
2012	25	6	31
2013	22	12	34
2014	32	15	47
2015	28	14	42
2016	51	11	62
2017	41	7	48
Total	**198**	**65**	**263**

4.5. The table shows that there was an unusually large increase in the number of infant deaths in 2016 compared with 2015, particularly among deaths occurring in the neonatal period (>28 days), and that this reduced in 2017 but remained above the numbers seen in 2015. Overall, around a third (35%) of infant deaths occur very shortly after birth (less than 1 day) with a further 21% occurring within the child's first week of life. The figures indicate that the increase in infant deaths observed leading up to 2016 has now started to reduce.

4.6. CDOP discussed and closed a total of 62 child deaths during 2017/18. Of these 40% were neonatal deaths (babies who dies under 28 days of life) and a further 25% died before their first birthday. Of the neonatal deaths 72% were born prematurely (56% were extremely premature <26 weeks) and 76% were born with a low birth weight.

4.7. Infant deaths by residence

In the period from 2013 to 2017, three of the neighbourhoods, based on the previous ward boundaries in Manchester, stand out by virtue of having higher numbers of infant deaths. These are (in order of the number of deaths), Higher Blackley, Harpurhey and Charlestown, Ardwick and Longsight, and Gorton and Levenshulme. In terms of the rate per 1,000 children aged 0 years, the Neighbourhood that stands out as having the highest rate is Ardwick and Longsight and the Neighbourhood with the lowest rate is Fallowfield and Withington.

Table 2: Number, rate and percentage of child deaths in Manchester by neighbourhood

Neighbourhood	**Number of deaths 2013-17**	**% of all deaths**	**Rate per 1,000 (MYE 2015)**
Higher Blackley, Harpurhey and Charlestown	31	13.4%	7.5
Ardwick and Longsight	29	12.5%	11.5
Gorton and Levenshulme	28	12.1%	5.4
Miles Platting, Newton Heath, Moston and City Centre	23	9.9%	7.5
Cheetham and Crumpsall	22	9.5%	5.5
Didsbury, Burnage and Chorlton Park	21	9.1%	5.1
Ancoats, Clayton and Bradford	18	7.8%	6.1
Moss Side, Hulme and Rusholme	17	7.3%	4.3
Wythenshawe	14	6.0%	3.7
Chorlton, Whalley Range and Fallowfield	13	5.6%	4.6
Wythenshawe and Northenden	12	5.2%	5.1
Fallowfield and Withington	<5	2.0%	2.9
Total (rounded to nearest 5)	**235**	**100%**	**5.8**

5. Causes and underlying factors of infant deaths

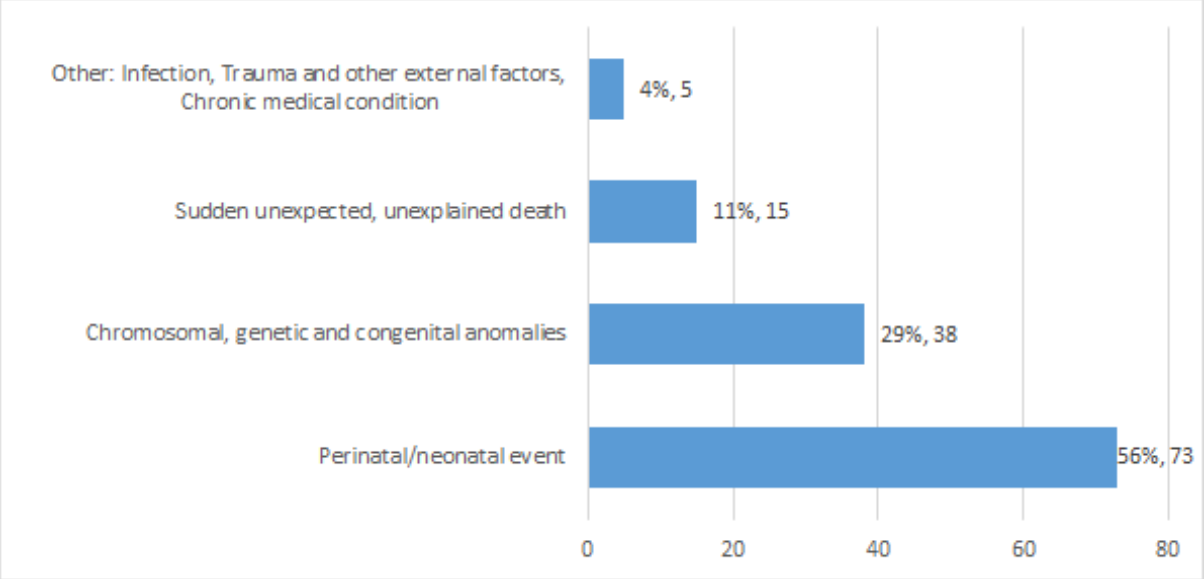
5.1. When discussing and closing a case at panel, in line with the Department for Education requirement, the CDOP must categorise the nature of the death and the preventability to:

- evaluate information about the child's death;

- identify lessons to be learnt and gain an understanding of child deaths at a national level.

Of the 131 cases closed between April 2015 and March 2018, the CDOP categorised the deaths as follows:

Figure 3: Categorisation of deaths Manchester CDOP cases closed April 2015 - March 2018



5.2. The CDOP categorised just over half (56%) as a perinatal (under 7 days) / neonatal (under 28 days) event. 29% of cases were categorised as chromosomal, genetic and congenital anomalies. For these anomalies deaths are often expected due to the nature of the child's condition, however issues within service provision and whether or not families have accessed genetic counselling can be highlighted as a modifiable factor. For a small number of cases categorised as genetic, chromosomal or congenital parents stated that they were in a consanguineous relationship (1st or 2nd cousins) which increases the risk of inherited autosomal recessive disorders.

5.3. For deaths categorised as a perinatal / neonatal event, the majority of deaths are expected although there may be a number of risk factors both antenatally and postnatally which increase the likelihood of an infant death.

5.4. CDOP reviews age of mother when considering cases. Table 3 below shows maternal age for all perinatal / neonatal deaths for cases closed between 2015 / 18. There were no deaths of infants to teenage mothers recorded among cases reviewed during this period, although national research indicates infants of teenage mothers are at increased risk. This shows that the additional support offered to teenage parents in Manchester has a protective factor. The largest group were mothers ages 30-34 although this reflects the greatest number of births in this group. The highest rate of infant deaths occurred where mothers were 40+.

Table 3: Maternal age of mother - Manchester CDOP cases closed 2015-2018

Age of mother	**No. of infant deaths**	**% of infant deaths**	**Births 2015/17**	**Rate per 1,000 births**
Mothers Aged under 20	0	0%	731	0.0
Mothers Aged 20 - 24	15	21%	3,623	4.1
Mothers Aged 25 - 29	15	21%	6,854	2.2
Mothers Aged 30 - 34	**25**	**34%**	**7,093**	3.5
Mothers Aged 35 - 39	10	14%	4,166	2.4
Mothers Aged 40+	8	11%	997	**8.0**

5.5. The ethnicity of the mother or the child are not collected at the time of registering a birth or death and, therefore, it is not possible to produce an ethnic breakdown of infant deaths using the data provided by ONS. However, national data shows that of babies with known gestational age, babies born in the White Other ethnic group (White Irish and any other White background) had the lowest infant mortality rate. In contrast, Pakistani and Black African babies had the highest infant mortality rates.

5.6. Ethnicity is collected as part of the CDOP process. Table 4 below shows infant deaths reported to CDOP 2015/2018.

Table 4: Ethnic groups - Manchester CDOP cases closed 2015-2018

Ethnic Groups	No. of infant deaths	% of infant deaths	2011 census data (under 5s)	Primary Schools roll data January 2018
White	49	40%	67%	42%
Black/African/Caribbean/ Black British	31	25%	9%	17%
Asian or Asian British	30	25%	17%	22%
Mixed/ multiple ethnic groups	12	10%		9%
Other ethnic group	0	0%		
Total	122	100%		

5.7. These deaths have been considered alongside census data and primary school roll data. This suggests that deaths amongst Black/African/Caribbean/Black British and Asian or Asian British ethnic groups were more likely to die under the age of 1 compared with what might be expected, in line with ethnic distribution of the Manchester child population.

5.8. In part, this can be linked to the fact that the prevalence of some lifestyle factors known to increase the risk of infant mortality are higher in certain ethnic groups. For example, the prevalence of obesity is known to be higher among women of Black Caribbean, Black African and Pakistani origin compared with other ethnic groups. It may also be the case that BME women are accessing maternity services less frequently (and later in their pregnancy) due to previous experiences and uncertain awareness of important prenatal testing.

5.9. Infant deaths are linked to deprivation. For cases closed at CDOP during 2017/18, 78% occurred where residence was in the most deprived quintile. A similar pattern has been seen over a number of years.

5.10. A number of the perinatal/neonatal deaths reviewed by the CDOP were recorded as being multiple pregnancies (i.e. twins or triplets). Some of the multiple pregnancies also resulted in miscarriages and stillbirths.

5.11. The CDOP also noted that in some cases the mother had sought IVF treatment, a number of whom had travelled abroad for treatment. Issues were highlighted by the CDOP regarding 3 or more eggs being implanted, putting both the mother and baby at increased risk of complications during pregnancy and childbirth and having a lower birth weight.

5.12. Maternal obesity during pregnancy can lead to increased health risks for mother and baby. For perinatal / neonatal cases closed by CDOP 2015-18, 34% of mothers had a Body Mass Index (BMI) of 30+ at time of booking (obese, morbidly obese) a further 37% (27) of mothers were overweight (BMI between 25 - 29.9). Maternal obesity more prevalent in mothers aged 30+

5.13. Smoking in pregnancy is the single biggest risk factor for infant mortality. Of the 41 infant deaths closed by CDOP in 2017/18, 20% of mothers stated that they smoked during pregnancy. A further 7% stated that they did not smoke in pregnancy but smoked postnatally.

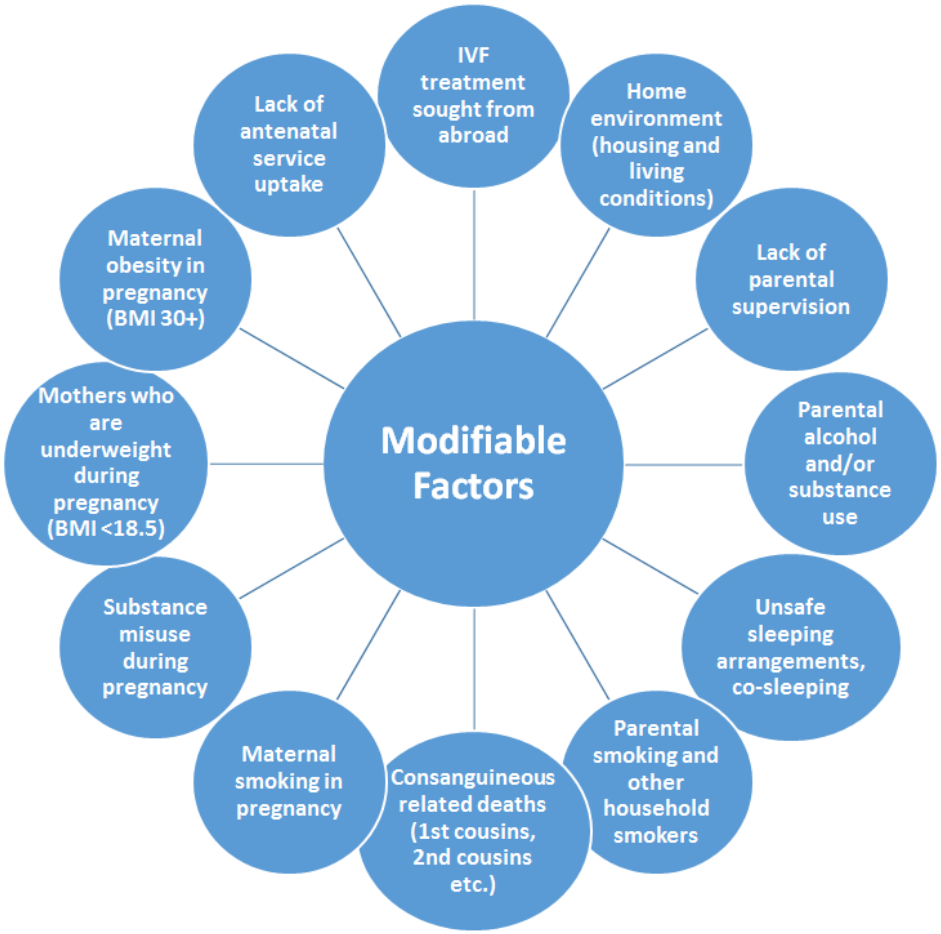
5.14. As well as risk factors there are a number of protective factors against infant deaths. These include vaccinations (including flu vaccination for pregnant women), breastfeeding and safe sleeping practices (putting babies to sleep on their backs in a separate cot or moses basket in the same room as parents)[1].

6. Modifiable factors

6.1. Figure 4 below summarises the range of modifiable / risk factors identified in infant deaths in Manchester. All of these factors can can either increase the risk of prematurity, or that the infant will not be born in the best possible condition or make sudden infant death syndrome more likely. It is identified that modifiable factors occur in around one third of infant deaths. Modifiable factors act as a multiplier effect, where there are two or more factors present, the vulnerability of the child increases.

[1] https://www.lullabytrust.org.uk/safer-sleep-advice/

Figure 4: Modifiable risks factors identified in infant deaths in Manchester



7. About the strategy for reducing infant mortality

7.1. In order to try to reverse the trends in infant mortality rates in Manchester and ensure that those who experience baby loss get the support they need, a multi agency strategy has been drafted and is attached as Annex 1. The work to develop the strategy has been led by the Population Health and Wellbeing Team with a steering group who will oversee the implementation of the strategy. The steering group includes key partners with a role to play in the delivery of the strategy and influencing others including maternity services, health visiting services, strategic housing, early help, early years, CDOP, Manchester Health and Care Commissioning (MHCC) and safeguarding.

7.2. The development of the strategy has included the following elements to ensure it reflects local and national evidence and the experiences of professionals and families:

- Analysis of trends, data and research relating to infant mortality locally and nationally including CDOP annual reports, North West Sector Led Improvement Project on Infant Mortality 2016, Maternity Experiences in North Manchester Research.
- Establishment of a steering group to oversee the writing of the strategy and support its implementation in the coming months and years.

- Two multi agency workshops to engage a wider range of partners and gather ideas and expertise
- Specialist meetings on key issues including genetics and bereavement support
- Consultation with delegates attending the Manchester Preventing Infant Deaths Conference in October 2018

7.3. There is already a strong network of organisations and programmes in the city focused on supporting healthy pregnancy and the first years of a baby's life. The approach of the strategy will be to embed priorities in the provision of quality services. It will also support current and developing work programmes and to test and implement new approaches to improving the health and wellbeing of mothers and infants.

7.4. Our Reducing Infant Mortality Strategy will span five years from 2019 to 2024 to allow time for longer term outcomes to be realised. Reducing infant mortality is a complex picture of interrelated factors including the wider determinants of health. Whilst we have described and simplified the strategy under themes and objectives, it is recognised that this belies the complicated system wide nature of this important priority.

8. Next steps

8.1. The final version of the strategy will be presented at Manchester Safeguarding Children's Board on 17th January 2019 and taken to Health and Wellbeing Board for approval on 23rd January 2019.

8.2. Following approval, the strategy will be published and launched during February / March and disseminated to key boards and groups.

8.3. A partnership steering group will oversee the delivery of the strategy and provide regular updates to Children and Young People Scrutiny Committee, MSCB, the Children's Board and Health and Wellbeing Board.

9. Conclusion and Recommendations

9.1 The City Council and partners are extremely concerned by the recent rise in infant mortality and every child death is reviewed thoroughly by the Child Death Overview Panel (CDOP). The work of CDOP has informed the draft Strategy attached as Annex 1.

9.2 The Strategy is a clear indication of our collective commitment to ensure that we reverse the recent rise in infant mortality and by co-ordinating our efforts across the city we are confident that we can start to see a downward trend once again. The delivery of the Strategy will be a key priority for both the Council and partners in 2019.

9.3 The Committee is asked to:

i) Note the report.

ii) Comment on the draft multi agency strategy to reduce infant mortality and support those bereaved by baby loss (see Annex 1).

Annex 1

Manchester Reducing Infant Mortality - Draft Strategy

1. Introduction

1.1 Our aim

We want to reduce the rates of infant mortality in Manchester, improve the physical and mental health and wellbeing of pregnant women and babies and provide compassionate support to families who are bereaved following the loss of a baby.

1.2 Our approach

In order to have the greatest impact we have identified ten principles which will underpin our priorities and programmes and the way we deliver services.

1) Providing system wide leadership and coordination

Chaired by the Population Health and Wellbeing Team, the 'Reducing Infant Mortality Steering Group' will oversee the delivery of the strategy, regularly report progress to Children's Board, Children's Safeguarding Board and Health and Wellbeing Board and act as champions for this agenda across services and networks in the city. System wide leadership will come through key partners in the city who are in a position to support maternal and infant health and wellbeing. Reducing infant mortality is everyone's business and partners will consider how different settings and services can contribute and develop their own delivery plans.

2) Commissioning services to support infant mortality strategy

We will ensure that the commissioning of existing and future services supports our reducing infant mortality strategy.

3) Providing high quality and safe services

Providing high quality and safe services is crucial to reducing infant mortality. This applies not just to maternity and specialist services such as Neonatal Units but to other services that support the health and wellbeing of pregnant women, mothers and infants such as Stop Smoking Services, Perinatal Mental Health Services, Weight Management Services.

4) Raising awareness and knowledge of mums / partners / family about issues impacting on maternal and infant health and wellbeing.

Increasing health and wellbeing knowledge and literacy about keeping mothers and babies healthy and safe is a core feature cutting across the priority themes of our strategy. We will look for opportunities to educate families through resources, campaigns, training and strengths-based conversations.

5) Ensuring the wider workforce is equipped and knowledgeable

We will ensure that training / education needs relating to reducing infant mortality are reflected in workforce development plans and that key messages are developed and disseminated.

6) Targeting the most vulnerable and at risk to reduce health inequalities

As well as working universally we will target those most vulnerable to the risk factors. For example people in poor quality or unsuitable accommodation, refugees and asylum seekers or with no recourse to public funds, teenage parents and other communities.

7) Working at a neighbourhood level to tailor programmes of work to the needs of the population and supporting local assets

We will work at neighbourhood level to ensure that approaches are co-produced with communities and reflect local needs and concerns and draw on local assets.

8) Thinking 'family' in everything we do

Rather than just focusing on mothers, we will 'Think Family' in our services and approaches and ensure that messages are targeted to wider family - fathers, partners, older siblings and grandparents. Evidence has shown that issues relating to safe sleeping, accidental injuries, abusive head trauma, smoking can occur where infants are in the care of those other than mums.

9) Safeguarding children and keeping them safe from harm

Good safeguarding practices should underpin all work with families and children and will contribute to efforts to reduce infant mortality.

10) Learning and evaluation - from Serious Case Reviews (SCRs), CDOP and national data.

We will ensure that of focus and priorities are informed in a dynamic way by learning from national and local research, CDOP and serious case reviews. We will evaluate the effectiveness of our approach and monitor performance.

2.0 Priority themes, objectives and actions

2.1 We have set out actions to reduce infant mortality, improve maternal and infant health and support those bereaved under five priority themes. We recognise the complexity and interrelatedness of work required and we will co-ordinate activities across all the key objectives.

1. Quality, safety and access to services	
OBJECTIVES	ACTIONS
Increase engagement with antenatal services and promote the benefits of antenatal care	● Increase awareness of the benefits of antenatal care starting from preconception, for example through open days and roadshows in Children's Centres ('under one roof') ● Increase early booking and attendance into antenatal care, for example researching new ways of booking sessions - including use of IT ● Find out where and how antenatal health education is delivered, identify gaps and develop a targeted approach ● Maximise opportunities to deliver key communications when antenatal services are delivered, such as providing information on flu vaccinations. ● Ensure appropriate assessment of mother and child where there is a concealed / denied pregnancy to ensure any additional needs are identified ● Explore the feasibility of a 'Pregnancy Circle' pilot in different neighbourhoods linked to GP practices - local antenatal groups that include health care, education, peer support and building social networks.
Appropriate assessment and referral during pregnancy and support during birth	● Investigate feasibility of implementing the Saving Babies Lives Care Bundle across all hospitals ● Ensure National Institute of Clinical and Health Excellence (NICE) guidelines and Greater Manchester (GM) maternity spec are implemented ● Consider the contribution of specialist midwives to ensure the most vulnerable get continuity of care e.g. refugees and asylum seekers, women with no recourse to public funds. ● Ensure transient and traveller population receive consistency of care and don't miss out on important messages such as safe sleeping for example through Early Help Assessment. This will include providing information in different languages. ● Ensure swift and appropriate referral to weight management, stop smoking services and genetics services
Improving take up of flu vaccinations for pregnant women	● Ensure more health professionals in contact with pregnant women are able to promote the importance of and administer flu vaccinations.
Genetic counselling / genetic literacy for	● Swift referral and clear pathways for genetic counselling where family history is identified

individuals and communities with a need	● Training for midwives and obstetricians to improve knowledge of genetics and consanguinity ● Pilot a place based community focused genetic literacy project ● Explore how genetic literacy can be taught in schools
Improving access to IVF and Raising awareness about IVF treatment outside UK	● We will work with the Human Fertilisation and Embryology Authority to develop and disseminate key messages about risks of IVF abroad to the public. We will also communicate to health care professionals working with women looking into IVF to ensure that women have an informed choice ● We will find out more about the experiences of women who have sought IVF treatment abroad
2. Maternal and infant wellbeing	
OBJECTIVES	ACTIONS
Supporting women to stop smoking and promote 'smoke free homes'	● We will implement the Baby Clear programme across Manchester to support smoke free pregnancies ● We will actively promote stop smoking services to women and their families. ● We will support staff to have conversations about smoke free homes with clear, constructive and supportive messages and communications
Supporting maternal mental health and wellbeing	● We will build on the success of services offered in south and central parts of Manchester and increase access to specialist perinatal mental health support ● We will investigate ways to reduce social isolation in new mums and dads / partners ● We will embed the "Manchester University Hospitals NHS Trust (MFT) Health Visiting Service Perinatal and Infant mental health Pathway" with leadership from specialist Health Visitor.
Reducing maternal obesity and improving nutrition	● We will take a fresh look at maternal obesity through a dedicated task group focusing on prevention and earlier intervention ● We will raise awareness of the importance of healthy weight for a healthy pregnancy ● We will ensure that maternal obesity is treated as a priority and that referrals to appropriate services take place as early as possible, at family planning and booking stages, for example. This will involve training

	more health professionals to confidently identify, provide consistent advice and refer where required.
Encouraging and supporting breastfeeding	● We will build on the strength of the successful breast pump loan scheme and expand across the city ● We will take a collaborative approach to breastfeeding and nutrition, ensuring the benefits of breastfeeding and maternal Body Mass Index (BMI) are understood. ● We will ensure that conversations about infant feeding decisions take place as early as possible with consistent advice provided by all health professionals to ensure women are able to make an informed choice. ● We will explore options for increasing the provision of peer support.
Alcohol and substance misuse support in pregnancy and postnatally	● We will ensure that available alcohol and substance misuse services are communicated more effectively to health professionals and other relevant agencies to help improve referral pathways. ● We will ensure that health professionals are vigilant to safeguarding risks associated with drug and alcohol use
3. Addressing the wider determinants of health	
OBJECTIVES	ACTIONS
Support efforts to reduce and mitigate against poverty (the most important determinant of a child's health)	● We will make sure that services and organisations that can help people are properly promoted. ● We will continue to highlight the links between deprivation and infant mortality ● We will produce guidelines on what the basics are that a new baby needs and work with charities and community organisations to ensure the most vulnerable are able to access them.
Housing - focus on the private rented sector to ensure housing is safe and warm and meets basic standards for mother and baby	● We will work with housing sector bodies to influence provision - particularly in the private rented sector. ● We will devise a set of minimum housing standards for a mother and baby (covering safe sleeping, safe appliances, warm and dry etc) ● We will ensure everyone working with families has up to date knowledge about housing options and feasible actions
Identifying and addressing	● All professionals working with a family to consider housing conditions including overcrowding during

inappropriate environments	assessments ● We will work with partners, such as GPs and Early Help team, to help identify families who may be living in overcrowded or unsuitable homes. ● We will ensure that agencies working with families understand the mental health impacts associated with moving (and the lack of choice that can occur) and living in temporary accommodation.
Working with Homeless Families Services to support vulnerable mothers and infants	● We will agree a set of standards required for safe temporary accommodation and support their implementation ● We will ensure families have the basics for safe sleeping and breastfeeding in temporary accommodation.
4. Safeguarding and keeping children safe from harm	
OBJECTIVES	ACTIONS
Continuing to educate on safe sleeping and supporting those most vulnerable with additional help	● We will continue to work with partners to educate and promote clear messages and consistent messages on safe sleeping. This will include visuals and leaflets to aid required training. ● We will instigate targeted work with vulnerable families at risk from alcohol and drug use. ● We will produce specific guidance for families in temporary accommodation to ensure safe sleeping standards are met for the most vulnerable. ● We will target messages to the wider family, not just parents, as incidents often happen when babies are away from home
Helping parents to keep a safe home environment	● We will work with families in poor living conditions to support them to make improvements recognising issues that may impact on this such as poverty, mental health problems, drug and alcohol use
Preventing unintentional injuries (e.g. scolds and falls)	● Improve the flow of information between Accident & Emergency and Health Visitors following an accident ● We will work with partners who enter people's home to increase awareness of potential accidents and raise awareness amongst families as a means of their prevention. ● We will work with partners to understand and share amongst agencies potential patterns of injuries. ● We will support the development and delivery of the emerging Child Accident Prevention strategy for

	Manchester.
Reducing the damage of abusive head trauma	● Implement the 'ICON' Programme to reduce abusive head trauma across the city (see description below).
Supporting pregnant women / mums experiencing domestic abuse	● Continued support for specialist maternity Independent Domestic Violence Adviser (IDVA) services to support pregnant women experiencing domestic abuse ● We will ensure that investigating potential signs of domestic abuse forms part of health care assessments as standard ● We will strengthen links to organisations who provide essential basic items for babies and children to women in need
5. Providing support to those bereaved and affected by baby loss	
OBJECTIVES	ACTIONS
A system-wide approach to making things as easy as possible for bereaved families	● We will train more staff across our partnership in bereavement care and support. ● We will work with partners, such as death registrations, to ensure support is provided to those in need. ● We will ensure staff are equipped provide support during antenatal period to help reduce anxiety for those who have previously lost children. ● We will offer support to extended family and siblings. ● We will work with local groups so that bereavement support can continue in the community. ● We will promote Baby Loss Awareness week during October every year.
Increase knowledge about bereavement services to improve signposting	● We will build on the positive work from partners in Manchester and will work together to compile a directory of services to which agencies across the city can signpost.
Strengthening pathways to ensure people who have had a loss get enhanced support for the next pregnancy	● We will work with families to improve the way that information is shared between services.

Increasing the skills and confidence of wider workforce to talk about bereavement	● We will disseminate a training and awareness resource available to organisations and businesses across the city to improve understanding, support and signposting outside of clinical settings.
Minimum standards of care for bereavement support	● We will strengthen the work already taking place across the city and work with partners to develop standards for use across agencies ● Work with employers to develop guidance on supporting employees following baby loss

3.0 Where are we now?

3.1 As already described, the prevention of infant mortality is delivered through key statutory health and social care services e.g. Maternity Services, Neonatal Units, Health Visiting, Children's Social Care as well as wider public and voluntary services and society as a whole. There are also a number of established and emerging programmes/services directly supporting this strategy – four are highlighted below.

1) Vulnerable Babies Service (see case study, Appendix 1)

This service, provided by MFT was established in 2004 to address rising numbers of sudden infant deaths. It provides targeted case planning to meet the needs of individual families, involving them in their package of support. The service works with and takes referrals from all professionals and volunteers who work with parents and babies. It facilitates a multi-agency approach so that families do not have to keep repeating their story and to improve communication between professionals.

The criteria for referrals are:

- Substance misuse which raises concerns around safe and consistent parenting and/or has the potential to place the baby at risk
- A previous unexplained death of a child in the family
- A violent criminal history against a child, partner or animals
- Parents who have experienced a difficult childhood
- Late booking for antenatal care (no proof of care before 22 weeks gestation) plus movement in to Manchester or poor engagement with antenatal care
- A previous child not living with a parent
- Homelessness/transient lifestyle/inappropriate housing **plus** any one of the following: mental illness, domestic abuse, drug/substance user (including alcohol), contact with the probation service or criminal justice team (including drug treatment and testing orders), hearing impaired.
- Other Additional Needs that may impact upon ability to parent

2) Midwifery Domestic Abuse Support (MiDASS) / Pathway: Specialist IDVA support based in maternity services

In recognition of the increased risk of domestic abuse during pregnancy (30% starts in pregnancy and existing abuse may get worse), a specialist Independent Domestic Violence Adviser (IDVA) service is located in Maternity Services of the three Manchester hospitals (St Mary's, Wythenshawe, North Manchester General Hospital). The service offers training and advice to midwives and provides individual support to women experiencing violence.

3) Baby Clear Programme

Baby Clear is a key part of the Greater Manchester Strategy to make smoking history. The programme is being implemented across GM in three phases:

- Cluster one: Rochdale, Bury, Oldham and North Manchester (Pennine) (in delivery phase)
- Cluster two: Bolton, Salford
- Cluster three: Tameside, Manchester (MFT) and Trafford (target start date for MFT by March 2019)

The overall aim of the programme is to reach a target of no more than 6% of women smoking at delivery in any locality by 2021 *and ultimately for no woman to smoke during her pregnancy.* Key programme elements are Carbon Monoxide (CO) monitoring of all pregnant women at booking (all midwives specially trained), referral to specialist stop smoking support within 24 hours for ongoing support to quit and risk perception interview for those who have not quit at the first scan.

4) ICON Programme

ICON is a new programme based on research of programmes in Canada and North America to address the damage of abusive head trauma through a simple four point message delivered by health professionals through strength based conversations to parents.

I= Infant Crying is normal and it will stop
C= Comfort methods can sometime soothe the baby and the crying will stop
O= it's OK to walk away if you have checked the baby is safe and the crying will stop
N= Never ever shake or hurt a baby.

The programme has been piloted in South Manchester and dependant on endorsement by the Manchester Safeguarding Children Board (MSCB) in January will be expanded to all babies in Manchester.

NB. Final amendments to the Strategy including closing summary will be added after the Children and Young People's Scrutiny Committee on 8 January 2019.

Appendix 1

Case Study of pregnant mother with complex needs and indicators of risk for infant mortality

Mary completed an Early Help Assessment (EHA) with the midwife at her booking appointment. She had a 5 year old boy who has significant behaviour problems, some health issues and poor school attendance at previous school. Mary had recently ended a relationship with a violent partner who had been prosecuted and a Multi Agency Risk Assessment Conference (MARAC) assessment been carried out.

Mary had completed a 14 week course with the Child and Parents Service (CAPS) on parenting. Mary had recently been rehoused to a new area where she did not know anyone or have any local support. Mary had recently been diagnosed with bi-polar disorder and started medication. Mary had a BMI of 29 at booking and was trying to cut down on smoking.

Mary was happy for organisations to have joint meetings together managed by Specialist Baby Case Planning. The EHA was forwarded to Vulnerable Baby Service in order to assess, plan, deliver and review the actions from plans put in place for the family. Meetings were arranged at the 5 year old's new school. 3 meetings were held involving Mary, Health Visitor, Psychology, Housing Trust, Midwife, Early Help and teaching staff. With the extensive support available Mary was able to fully engage in all appointments and therapeutic relationships provided, which led to positive outcomes for her and her children.

Mary benefitted from the medication for her mental health condition and worked effectively with the agencies who monitor and support this. Mary's weight was maintained and she had an elective caesarean section to deliver a healthy baby girl. Mary cut down on smoking and is working towards stopping with a re-referral into support.

Mary's 5 year old has 94.1% school attendance. Mary is continuing to work on having a responsive relationship with school and using an email address to keep up to date. Her son is making some small steps in progress and bespoke interventions continue, for improvements in behaviour. His oral health is being addressed and appointments for his eyes and management of glasses with school is done in partnership. He has been discharged from hospital for asthma which is now controlled. His father has not asked for contact with him.

Mary's baby daughter is thriving and mum has bonded well with her. They have ongoing support from the health visiting service. Mary's risk of abuse is significantly reduced and the perpetrator does not know where she is living. Mary is aware of actions she must take if she perceives any threat in the future. The housing situation is good and the family have settled well in the new area.

Mary is very happy with the progress she has make and the support she has received to achieve this. Universal services will continue to be available to the family and work

with her to maintain her success and develop further opportunities for them in the future.