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Evidence Briefing: Improving maternal health and health in early years

Maternal health and health in the early years is critical to the short and long term health and wellbeing of mothers and children. The Healthy Child Programme<sup>1</sup> is a key part of the Government's strategy to improve child health. The programme focuses on early years as an opportunity to identify and support families where children are at risk of poor health outcomes.



The 2013 Public Health Outcomes Framework<sup>2</sup> includes several indicators relating to this topic including low birth weight, breastfeeding, smoking status at time of delivery, under 18 conceptions, population vaccination coverage and infant mortality. Public health services in England for children in early years are currently commissioned by the NHS Commissioning Board. However, this will become the responsibility of local authorities in 2015<sup>3</sup>. Research evidence can inform the provision of effective preconception, prenatal and postnatal care, and the care of young children, in order to reduce inequalities and improve health outcomes. This evidence briefing provides an overview of the key issues relating to this topic.

### What are the priorities in the North West of England

Data<sup>4</sup> indicates that in the North West outcomes relating to the health and wellbeing of young children compare poorly overall to the rest of England. Areas of particular concern include infant and child mortality, childhood obesity, hospital admissions due to injury, smoking during pregnancy, breastfeeding initiation, teenage conception and motherhood. There are also greater proportions of children in care in the North West, and immunisation rates among this population are low.

Priorities identified for the North West<sup>5</sup> include improving access to preconception and maternal advice and care, early intervention for children at risk, reducing death in the early years and reducing childhood obesity.



Some mothers and children are likely to be at an increased risk of achieving poor health. Many different factors are associated with poor health in early years and some key risk factors and outcomes are summarised in the table shown on page 3.

# Inequalities in achieving good maternal and early years health

	Birth outcomes	Child health outcomes	Family outcomes
Deprivation	<ul style="list-style-type: none"> <li>Higher rates of early birth, low birth weight and still birth</li> </ul>	<ul style="list-style-type: none"> <li>Lower rates of breastfeeding initiation</li> <li>Increased risk of respiratory diseases associated with poor quality housing</li> </ul>	<ul style="list-style-type: none"> <li>Increased likelihood of parental smoking</li> <li>Increased risk of growing up in poor quality, overcrowded and damp housing</li> <li>Higher rate of teenage pregnancy in the most deprived areas</li> </ul>
Teenage parenthood	<ul style="list-style-type: none"> <li>Increased risk of low birth weight and infant mortality</li> </ul>	<ul style="list-style-type: none"> <li>Lower risk of breastfeeding initiation</li> <li>Increased risk of poor diet</li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of poor quality housing</li> <li>Increased risk of unstable home life</li> <li>More likely to live in poverty</li> <li>Reduced likelihood of parental education achievement</li> </ul>
Children with parents who have poor mental health e.g. postpartum depression		<ul style="list-style-type: none"> <li>Decreased likelihood of breastfeeding</li> <li>Increased risk of developing emotional and social interaction difficulties</li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of neglect, attachment disorder</li> </ul>
Looked after children		<ul style="list-style-type: none"> <li>Greater risk of diseases due to low immunisation rates</li> <li>Greater risk of poorer mental health particularly amongst those in residential care</li> <li>Difficulties accessing health care and registering with a GP</li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of unstable home life</li> <li>Increased risk of antisocial behaviour and reduced support</li> </ul>
Children with parents who smoke	<ul style="list-style-type: none"> <li>Smoking during pregnancy is associated with increased risk of perinatal mortality, stillbirth, pre-term birth, low-birth weight, birth defects and impaired growth and lung development</li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of respiratory diseases through second hand smoke exposure including asthma, pneumonia and reduced lung function. Increased risk of Sudden Infant Death Syndrome</li> </ul>	
Children of alcohol and substance misusing parents	<ul style="list-style-type: none"> <li>Drinking during pregnancy is associated with Foetal Alcohol Spectrum Disorder</li> <li>Alcohol and substance misuse are associated with increased risk of a range of negative pregnancy outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of reduced motor function and neurodevelopment</li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of neglect and abuse and poor parenting skills</li> <li>Increased risk of unstable home life, family conflict, poor parental mental health and attachment disorder</li> </ul>
Parental obesity	<ul style="list-style-type: none"> <li>Maternal obesity is associated with birth defects</li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of childhood obesity and adult obesity, heart disease and diabetes</li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of poor parental health</li> </ul>



## How to improve outcomes for maternal health and health in the early years

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This section contains evidence from systematic reviews about a wide range of interventions that have been shown to be effective in improving maternal health and health in the early years. Such interventions have been delivered in various settings across all stages of the reproductive continuum and in early childhood. Also included is information about interventions that have specifically targeted 'at-risk' groups.



## Increasing rates of breastfeeding

Various interventions have been implemented to promote breastfeeding initiation and continuation. Further evaluation is needed to judge the effectiveness of breastfeeding interventions in specific contexts and with different groups<sup>6</sup>. Effective interventions have generally included a combination of approaches including:

- Professional support by skilled staff in maternity care and primary care settings, often involving skin-to-skin contact between mother and baby and breast milk pumping<sup>7</sup>.
- On-going and targeted peer support, particularly in the postnatal period<sup>8</sup>.
- Breastfeeding promotion programmes delivered via the internet<sup>9</sup>.



## Promoting healthy body weight and nutrition in mothers and young children



Excessive weight gain in pregnancy is a complex problem that requires a multifaceted approach<sup>10</sup>. Antenatal lifestyle interventions that address women's diets and physical activity can be effective in restricting gestational weight gain and reducing postpartum weight retention<sup>11,12</sup>.

Interventions to improve parents' nutritional knowledge and feeding practices can help parents to make positive changes to their children's diets and physical activity. This helps influence child dietary behaviours and food preferences<sup>13,14</sup>.

## Improving housing quality

- It is important to improve insulation and ventilation in poor quality houses to reduce damp and cold homes. The Chartered Institute of Environmental Health<sup>15</sup> has produced a toolkit that demonstrates the impact of housing interventions that have health and economic benefits.
- Families that are unable to heat their homes may benefit from financial support and information about what options are available to them.

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### Increasing parental smoking cessation

A range of smoking cessation interventions have been shown to reduce smoking during pregnancy, which in some cases has led to reductions in low birth weights and preterm births<sup>16</sup>. High risk groups include smoking couples and female smokers who have previously given birth<sup>17</sup>. It is also important to target parents who smoke following pregnancy. Effective interventions include activities such as the provision of financial incentives for smoking cessation, nicotine replacement therapy (although concerns remain about the safety of nicotine for the unborn child), cognitive behavioural therapy and self-help materials.

### Prevention and early intervention

Prevention, early identification and treatment of health problems leads to better outcomes for mothers, babies and young children. Health professionals can identify risk through indicators such as where parents live in unsatisfactory accommodation, have mental health problems or a history of mental illness, are in unstable relationships, or are living in poverty<sup>1</sup>. Women who are single mothers, in prison, from ethnic minorities and travelling communities or leave education earlier, have poorer access to and poorer outcomes relating to maternity and health care<sup>18</sup>.

Appropriate services need to be made universally accessible, with targeting towards the most vulnerable groups. For example:

- Obesity prevention strategies should begin in early childhood, when contributing factors are usually prevalent; obesity is difficult to reverse in older children<sup>19</sup>.



- Early detection and treatment of postpartum depression in mothers at risk of the disorder are beneficial for both mothers and their children<sup>20</sup>.
- Early home visiting and parent education may be effective in reducing risk factors for the mistreatment of children and cases of abuse and neglect<sup>21, 22</sup>.

It is important for health professionals to engage fathers as early as possible. This ensures that the needs and health behaviours of fathers are assessed and addressed, alongside those of the mother. It is also important to provide fathers with antenatal services and information that is likely to have a positive impact on fathers and the child<sup>1</sup>.

**“It is important for health professionals to engage fathers as early as possible.”**



## Reducing substance misuse among pregnant women and new mothers

Several interventions have been shown to be effective in reducing alcohol or drug use during and after pregnancy.

- Single session brief interventions delivered face-to-face during antenatal care have been shown to have positive effects on the maintenance of abstinence from alcohol during pregnancy<sup>23</sup>.
- Intensive interventions may be necessary to reduce alcohol consumption among women who continue to drink alcohol while pregnant<sup>23</sup>.
- Contingency management, a type of psychosocial intervention that uses positive reinforcement, is effective in improving the retention of pregnant women in drug treatment<sup>24</sup>.
- Home visits by health professionals or trained lay people can increase the engagement of mothers with babies in drug treatment services<sup>25</sup>.

## Increasing immunisation uptake

Interventions to increase childhood immunisation rates need to incorporate the following key elements:

- Advocacy of immunisation by GPs, health care workers and other opinion formers<sup>26</sup>.
- Personalised, face-to-face information for patient risk groups who demonstrate vaccination hesitancy<sup>27</sup>.
- Reminders to parents, carers and vaccine providers of upcoming and overdue vaccinations and the provision of feedback to vaccine providers about their performance<sup>28</sup>.

# How to improve outcomes for maternal health and health in the early years

## Reducing postpartum depression

Promising approaches to preventing and treating postpartum depression include:

- Intensive postpartum support provided by health professionals including individually based, rather than group based, interventions<sup>29</sup>.
- Home visitation programmes<sup>30</sup> and home based psychological interventions<sup>31</sup>.

## Reducing rates of teenage pregnancy

A range of interventions to reduce unplanned teenage pregnancies have been implemented in school and community settings. Evidence suggests the following types of interventions may be effective:

- Availability and promotion of contraception<sup>32</sup>.
- Parent based interventions<sup>33</sup>.
- Interventions that combine several activities to address knowledge, attitudes and skills<sup>34</sup>.
- Interventions that target the social disadvantage associated with teenage pregnancy<sup>35</sup>.



“previous attempts to increase immunisation uptake among looked-after children has been ineffective.”



## Improving health outcomes for looked-after children

While interventions have been successful in increasing uptake of childhood immunisation in the general population, previous attempts to increase immunisation uptake among looked-after children have been ineffective<sup>36</sup>. Several types of intervention have been identified as being effective in improving the physical and mental health of looked-after children. Approaches include training and support for foster carers<sup>37</sup>, improved information sharing by health professionals and improving accessibility to health services<sup>36</sup>. “Wrap around” services and relational interventions can have good outcomes for both children and their carers<sup>38</sup>.



## Conclusion - key points



Improving maternal health and health in the early years requires a multidimensional approach by staff working in a range of settings, with a focus on prevention and early intervention. Effective strategies include:

- Increasing rates of breastfeeding using a combination of professional and peer support.
- Promoting healthy body weight and nutrition in mothers and young children through interventions that address parents' knowledge and behaviours.
- Increasing parental smoking cessation through the provision of incentives and the targeting of groups who are less likely to quit smoking.
- Reducing alcohol or drug use among pregnant women and new mothers using tailored interventions and home visits.
- Increasing uptake of childhood immunisations through communication with parents and vaccine providers.
- Reducing postpartum depression through the delivery of professional and personalised postpartum support.
- Reducing teenage pregnancy through the provision of sex education and contraceptive services, together with the targeting of socially disadvantaged groups.

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