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# Maternity Services Needs Assessment

Cath Lewis, Jane Harris, Maria Forde and Jane Rooney

January 2016

Centre for Public Health, World Health Organization Collaborating Centre for Violence Prevention, Liverpool John Moores University, Henry Cotton Campus,  
15-21 Webster Street, Liverpool, L3 2ET | 0151 231 4411 | [c.e.lewis@ljmu.ac.uk](mailto:c.e.lewis@ljmu.ac.uk) | [www.cph.org.uk](http://www.cph.org.uk) | ISBN: 978-1-910725-47-4 (web)

# **Maternity Services Needs Assessment for Cheshire, Merseyside and West Lancashire— Final Report**

**January 2016**

**Cath Lewis, Jane Harris, Maria Forde and Jane  
Rooney**

**Centre for Public Health, Liverpool John  
Moores University on behalf of Cheshire and  
Merseyside Public Health collaborative  
(CHAMPS)**

## Contents

1. Summary.....	1
2. Introduction.....	6
3. Overview of national policy.....	7
4. Population .....	9
4.1 Population projections.....	10
4.2 Ethnicity .....	10
4.3 Population not originally from the UK .....	12
5. Pre- Conception and conception.....	12
5.1 Folic acid use.....	12
5.2 Infertility estimates .....	12
5.3 IVF cycles.....	13
5.4 Conception rates .....	13
5.5 Teenage conceptions per 1000 women aged under 18 .....	14
5.6 Legal abortions, all ages, under 25 and 25 and over by Clinical Commissioning Groups ....	15
5.7 Repeat abortions (termination of pregnancy) .....	16
6. Antenatal period .....	18
7. Birth .....	20
7.1 General fertility rates .....	20
7.2 Total fertility rates.....	22
7.3 Age of mother at time of delivery (as a proportion of live births).....	22
7.4 Birth in different birth settings.....	23
7.5 Person conducting delivery.....	26
7.6 Method of delivery by trust.....	28
7.7 Costs and length of stay by type of delivery .....	29
7.8 Full term or premature births .....	30
7.9 Low birth weight .....	31
8. Postnatal period .....	32
8.1 Neonatal screening and immunisations.....	32
8.2 Breastfeeding initiation and 6-8 weeks.....	36
8.3 Infant mortality .....	37
8.4 Perinatal mental health: postnatal depression and other forms.....	39
8.5 Unexplained deaths in infancy .....	39
8.6 Maternal deaths .....	41
8.7 Foetal Alcohol Syndrome Disorder (FASD).....	41

<b>9. Lifestyle factors before, during and after pregnancy.....</b>	<b>42</b>
<b>9.1 Smoking: overall prevalence.....</b>	<b>42</b>
<b>9.2 Smoking: at time of booking.....</b>	<b>43</b>
<b>9.3 Smoking at time of delivery.....</b>	<b>43</b>
<b>9.4 Obesity: general population prevalence.....</b>	<b>44</b>
<b>9.5 Obesity at time of booking/during pregnancy.....</b>	<b>46</b>
<b>9.6 Diabetes: type 1, type 2 and gestational.....</b>	<b>46</b>
<b>9.7 Alcohol: prevalence by age and gender.....</b>	<b>51</b>
<b>9.8 Prevalence of giving up drinking during pregnancy: Infant Feeding Survey 2010.....</b>	<b>51</b>
<b>10. Quality.....</b>	<b>52</b>
<b>11. Interviews with women who have used maternity services within the last year.....</b>	<b>53</b>
<b>11.1 Summary.....</b>	<b>53</b>
<b>11.2 Pre-pregnancy.....</b>	<b>53</b>
<b>11.3 Care in pregnancy.....</b>	<b>53</b>
<b>11.4 Labour and birth.....</b>	<b>56</b>
<b>11.5 Support immediately after the birth.....</b>	<b>57</b>
<b>11.6 Support after discharge from hospital.....</b>	<b>61</b>
<b>12. Discussion.....</b>	<b>64</b>
<b>13. Evidence based recommendations.....</b>	<b>68</b>
<b>13.1 Recommendations for commissioners;.....</b>	<b>68</b>
<b>13.2 Recommendations for acute trusts and midwifery teams;.....</b>	<b>68</b>
<b>13.3 Recommendations for University/Champs;.....</b>	<b>69</b>
<b>14. Conclusion.....</b>	<b>70</b>
<b>Appendices.....</b>	<b>71</b>

**Authors:**

Cath Lewis, Centre for Public Health, Liverpool John Moores University

Jane Harris, Centre for Public Health, Liverpool John Moores University

Maria Forde, School of Nursing and Allied Health, Liverpool John Moores University

Jane Rooney, School of Nursing and Allied Health, Liverpool John Moores University

With input from the **project Working Group:**

**Catherine McClennan, project lead, NHS Halton**

Sharon McAteer, Halton Borough Council

Chris Williamson, Liverpool City Council

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## 1. Summary

### 1.1 Introduction

Liverpool John Moores University (LJMU) was commissioned by Cheshire and Merseyside Directors of Public Health to conduct a maternity services needs assessment for Cheshire, Merseyside and West Lancashire. This research was conducted as part of the 'Improving Me'<sup>1</sup> programme, which is a review programme commissioned to assess and improve maternity provision for women and families within participant Clinical Commissioning Groups' (CCGs) footprint within Merseyside, Warrington, Wirral, and West Lancashire. The programme was led by NHS Halton CCG. This report provides a range of quantitative data, a brief review of national policy, and the findings of 45 interviews with women who have recently accessed maternity services across the area.

### 1.2 Key findings

- There are a total of 481,100 women aged 16-45 in Cheshire, Merseyside and West Lancashire. This includes 188,000 women in Cheshire, 272,600 in Merseyside, and 20,500 in West Lancashire.
- A wide range of quantitative data was collected as part of this project. The data showed that there was a great deal of variation across the 10 local authority areas that were included. For example:
  - Teenage conceptions per 1,000 varied from 34.1 per 1,000 in Liverpool, to 19.3 per 1,000 in Cheshire East, compared to the England average of 24.3 per 1,000.
  - Legal abortions per 1,000 population varied from 23.2 in Knowsley, to 13.3 in Cheshire East, compared to the England average of 16.5 per 1,000.
  - Low birthweight varied from 1.9% in Wirral to 2.8% in Lancashire, compared to the England average of 2.9%.
  - Initiation of breastfeeding varied from 54% for the Merseyside Area Team, and 69% for the Lancashire Area Team<sup>2</sup>, compared to the England average of 74%.
  - The percentage of women who were recorded as smokers at the time of delivering their baby varied from 8.5% in West Cheshire, to 19.4%, more than double, in Knowsley, compared to the England average of 11.4%.
- In the 45 interviews that were carried out, mothers described a wide variety of experiences of using maternity services, which themselves were organised differently across the 10 local authority areas covered by this needs assessment. Some common themes that emerged were:
  - Accessing antenatal classes was difficult for some parents who were working, as they were often held during the day on weekdays. Although most parents were aware that they could have time off work for antenatal appointments, some found that this was difficult in practice, and time off for fathers was limited to two antenatal appointments.
  - Parents valued the opportunity to get to know other parents in antenatal classes, as well as gaining knowledge.

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<sup>1</sup> <http://www.improvingme.org.uk/>

<sup>2</sup> Separate rates for West Lancashire alone were not available

- Women that we spoke to sometimes felt that their partners' needs could be more fully addressed. Several women suggested that there was a need for further research with fathers/partners, in order to determine how their needs could be met more fully.
- Women who had had a caesarean section said that they would have liked more advice, as well as more practical help following the birth of the baby. They would like more advice on rehabilitation following the caesarean, for example on how soon they can return to activities such as driving or exercising.
- Women in most areas that we spoke to felt that visiting hours could be too restrictive -visiting was often restricted to between 9am and 9pm, or in one case 11am-9pm, which meant that partners would have to leave before they were ready to. Women would have liked their partners to be able stay for longer, particularly on the first night after their baby had been born. In many cases, this was because they would have liked their partner to help them care for the baby, particularly if they had had a caesarean, or other interventions such as epidural or episiotomy, for example.
- Many women mentioned that they felt midwives were very busy, especially at night, or that there was a need for more midwives, as they would like to have spent more time with the midwife. Women valued midwives 'popping into' their rooms to check that everything was OK, rather than having to ring the buzzer to ask for help.

### **1.3 Recommendations**

The following recommendations have been produced based upon the national and local evidence, and drawing on best practice of what is effective in improving maternity health care. This needs assessment included a wide range of quantitative data, and 45 interviews with women, but due to time constraints did not include an in-depth review of services that were available across the area.

#### **1.3.1 Recommendations for commissioners;**

- Conduct a detailed review of services that are currently available across Cheshire, Merseyside and West Lancashire.
- The in depth review of services should also take into account the socio-demographic context of each maternity trust area – it is difficult to generalise results as some trusts have issues specific to the area they serve. Any changes to services and care needs to be considered in a holistic way for women and families, so that any local needs are taken into account.
- Ensure the most vulnerable groups who are at increased risk of morbidity and mortality, are identified, and have access to an enhanced level of service.
- Facilitate greater involvement of service users in the development and improvement of local services.

#### **1.3.2 Recommendations for acute trusts and midwifery teams;**

- Use developing technology in provision of care – for example, mobile phone applications to provide information and advice, Twitter and WhatsApp.
- Consider co-commissioning family planning and maternity services for a holistic ‘family focussed’ approach, and address abortion rates where these are higher than the national average.
- Look into the reasons why teenage pregnancy rates are high in Merseyside local authority areas, and take steps to address this where appropriate.
- Ensure that women are aware of where to book in when they find out that they are pregnant, and that they are aware of the need to do this as soon as possible. Local information sources and access mechanisms should be available so that women can access maternity services as early as possible in the pregnancy.
- Early in the pregnancy, midwives should provide women with information and opportunities to discuss their views on what their options are about where they will give birth, so women are able to discuss this with their families and make an informed choice.
- Ensure that parents are able to make informed choices on how they would like to feed their baby, in line with UNICEF UK Baby Friendly Initiative Standards.
- Allow sufficient time for the first ‘booking in’ appointment, and ensure that it covers all relevant topics, even when women already have older children. Lifestyle advice should be provided at this appointment.
- Ensure there is flexibility in when parents can attend antenatal classes. Offer classes in the evenings and at weekends where possible, to meet the needs of working families.



- At antenatal classes, facilitate interaction between parents, so that they can get to know other parents and access crucial peer support.
- Ensure that fathers have adequate opportunities to raise issues that are concerning them, and that they have the advice that they need.
- Ensure that all parents are offered adequate advice at all stages of the childbearing continuum, even if they already have older children.
- Ensure that the whole family has opportunities to bond following the birth of the baby – this is a crucial time to consider family mental health. Consider more open visiting hours for partners.
- Ensure that women know where to access child-care for older children, when they are attending antenatal classes, and when they are in labour.
- Ensure that women are supported to understand the labour process and that they know where to access the support that they need when they are in labour, including in the early stages of labour before they are admitted to hospital (if applicable).
- Provide parents with sufficient information about the risks and benefits of interventions during labour, so that they are able to make an informed decision.
- Provide more information for women who have had a Caesarean section. This might include verbal information from midwives or other relevant health professionals, both before (in the case of a planned caesarean) or after the birth. Consider developing, or signposting women to, an app providing advice, and provide a written pack giving information, although literacy levels must always be taken into account.
- If the birth is difficult, provide mental and emotional support.
- Ensure that community services are resourced to deliver the above, as the community midwifery service is the hub of many improvements and changes.

### **1.3.3 Recommendations for University/Champs;**

- Conduct interviews with new fathers, to fully understand their health needs, and how well these are met by current provision.
- Conduct interviews with midwives, to gain a better understanding on what would help them to carry out their roles.
- Facilitate greater emphasis and support for public health issues as part of maternity, and increased awareness of the public health role of the midwife.

## 1.4 Conclusion

In conclusion, the interviews and data show that there is a need for additional breastfeeding support, perhaps by adopting models of good practice from areas where breastfeeding rates are higher. Rates of smoking during pregnancy are higher than the national average in several local authority areas, and it is important that initiatives are put in place in order to address this. Teenage pregnancy rates, as well as abortion rates, which are also higher than the national average in several Merseyside local authority areas, should be addressed. There is also a need to ensure that adequate mental health support is available to both parents during the perinatal period.

The interviews showed that there was a great deal of variation in women's experiences of using maternity services, both across and within local authority areas. Many women were very happy with the care that they had received, although there were several areas suggested for improvement. These included improving access to antenatal classes, ensuring support for women is in place immediately before the birth of their baby, increased support for women who have had a caesarean section, and ensuring that the whole family has adequate opportunities to bond following the birth of the baby.

## 2. Introduction

Liverpool John Moores University (LJMU) was commissioned by Cheshire and Merseyside Directors of Public Health to conduct a maternity services needs assessment for Cheshire, Merseyside and West Lancashire. This research was conducted as part of the 'Improving Me' programme, which is a review programme commissioned to assess and improve maternity provision for women and families within participant Clinical Commissioning Groups' (CCGs) footprint within Merseyside, Warrington, Wirral, and West Lancashire, with NHS Halton CCG leading the programme<sup>3</sup>.

Since 2013 NHS Clinical Commissioning Groups (CCGs) in England have been responsible for commissioning health care, including maternity services. In 2014, following data released by the Royal College of Obstetricians and Gynaecologists (RCOG)<sup>4</sup>, clinicians, commissioners, providers and other organisations agreed that variation existed in maternity outcomes across Cheshire and Merseyside which raised concerns and which required further exploration to understand the extent of the variation, reasons for it and ways to improve it. Commissioners realised that quality of services could not be looked at in isolation, therefore nine CCGs have agreed to work in partnership to make maternity services a priority within their health strategy<sup>5</sup>.

This report provides a range of quantitative data on a range of relevant data, focussing primarily on women aged 16-45<sup>6</sup>. As well as a brief review of national policy, it also includes the findings of interviews with women who have accessed maternity services in Cheshire, Merseyside and West Lancashire within the previous year. A total of 45 interviews were carried out in the 10 local authority areas. This needs assessment covers 10 local authority areas – Cheshire East, Cheshire West and Chester, Halton, Knowsley, St. Helens, Liverpool, Sefton, Warrington, West Lancashire and Wirral. The needs assessment covers the main acute trusts that women aged 16-45 who live in these areas use to access maternity services.

According to the Improving Me website<sup>7</sup>, maternity services within the Improving Me (IME) areas are predominately provided by hospital trusts in obstetric units with midwife led services available and in some cases community midwifery services to support communities and home births. Five hospital trusts provide obstetric and midwifery services, one of them is a tertiary centre which provides specialist maternity and gynaecology services for women and level 3 specialist neonatal intensive care as well as a specialist fetal medicine unit. There is also a community midwifery service in Halton, and since 2013, One to One Midwives<sup>8</sup>, an independent provider of maternity services that has contracts in some areas of Cheshire and Merseyside.

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<sup>3</sup> (<http://www.improvingme.org.uk/improving-experiences/>)

<sup>4</sup> Patterns of Maternity Care in English NHS Hospitals 2011/12 - RCOG

<sup>5</sup> <http://www.improvingme.org.uk/media/1120/acaseforchangesm.pdf>

<sup>6</sup> Ethnicity data by sex was only available in 5 year age bands, so data for women aged up to 44 was included. Conception rate data was only available up to age 44.

<sup>7</sup> <http://www.improvingme.org.uk/media/1120/acaseforchangesm.pdf>

<sup>8</sup> <http://www.onetoonemidwives.org/>

### 3. Overview of national policy

According to the Improving Me website<sup>9</sup>, in recent years there have been numerous reports highlighting the issues within maternity services and bringing to the fore the question of safety, capacity and sustainability.

According to the Royal College of Midwives Report, 'improvement and Innovation in Maternity Services' 'reductions in public sector spending, rising costs, demographic change, and increased public expectations are forcing public services to find new ways of working and hence to focus on innovation'.

In the 2013 'State of Maternity Services' report,<sup>10</sup>, the Royal College of Midwives reported an 85% increase, between 2001 and 2012, in women in England aged 40 and over giving birth. They also noted that maternal obesity in the first three months of pregnancy more than doubled from 7.6 per cent to 15.6 per cent between 1989 and 2007. The result is an extra 47,500 women requiring more demanding care'. Over the same time period, according to the report, there had been a reduction in midwives– a reduction of 117 midwives in the North West. The age of the midwifery workforce is also increasing.

According to the Improving Me website<sup>11</sup>, in 2013 the National Audit Office produced its' report on Maternity services in England<sup>12</sup>, which looked at performance and management of maternity services, as well as value for money. The report concluded that 'in 2012/13, the majority of Maternity Units in England are not staffed to Royal College recommended staffing levels. 73% of units provided 60 hours of consultant cover on delivery suite, half of all units were not meeting the recommended levels. Midwife to birth ratio equated to 1: 32.8, an additional 2,300 midwives would be needed nationally to meet recommended 1: 29.5. As tariff is based on average historical cost it cannot fund recommended staffing levels'. The report recommended that clinical commissioning groups and trusts should agree long-term, sustainable plans for the distribution and capacity of maternity services in their locality.

The NHS needs to innovate, due to factors including the ageing population, the growth of lifestyle diseases such as diabetes and obesity, and the costs of technological advances. Government policy has tried to make innovation more of a priority through, for example, the Quality, Innovation, Productivity and Prevention (QIPP) agenda. The desire to increase choice for women through pregnancy, birth and in postnatal care has also brought about change, as well as the drive to enhance quality and value for money. For example there has been widespread support to increase the normal birth rate, according to the Royal College of Midwives<sup>13</sup>, as normal birth offers good outcomes for women and babies and is a more effective use of resources. The financial pressures facing the NHS and the structural reorganisation associated with the Health and Social Care Act<sup>14</sup> are also influencing change within maternity services.

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<sup>9</sup> <http://www.improvingme.org.uk/media/1120/acaseforchangesm.pdf>

<sup>10</sup> XIX State of Maternity Services 2013 - RCM

<sup>11</sup> <http://www.improvingme.org.uk/media/1120/acaseforchangesm.pdf>

<sup>12</sup> National Audit Office: Maternity Services in England 2013

<sup>13</sup> <https://www.rcm.org.uk/sites/default/files/Innovation%20and%20Improvement%20in%20Midwifery.pdf>

<sup>14</sup> <http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted>

According to the King's Fund<sup>15</sup>, the 2014 NHS Five year Forward View<sup>16</sup>, a 5 year vision for the NHS proposes a new care model for modern maternity services. The authors of the Forward View argue that the sustainability of the NHS depends upon a radical upgrade in prevention and public health. They argue that the NHS will back national action on obesity, smoking, alcohol and other major health risks. When people do need services, patients will gain much greater control of their own care.

NHS leaders have also pledged to make it easier for groups of midwives to set up their own NHS-funded midwifery services, and to ensure that tariff-based funding supports patient choices.

In terms of mental health, according to a 2015 Department of Health and NHS England report<sup>17</sup>, NHS England is working with partner organisations to reduce the incidence and impact of postnatal depression, through earlier diagnosis and better intervention and support. By 2017, every birthing unit should have access to a specialist perinatal mental health clinician. Mental health training is being updated for health visitors and developed for midwives. A waiting standard is being considered for rapid access to mental health services for women in pregnancy or in the postnatal period with a known or suspected mental health problem.

Midwifery 2020: Delivering Expectations<sup>18</sup> is a 2010 report authored by the Chief Nursing Officers of England, Northern Ireland, Scotland and Wales. The authors suggest that, by 2020, midwives will be the lead professional for all healthy women with straightforward pregnancies. For women with complex pregnancies they will work as the key coordinator of care within the multidisciplinary team, liaising closely with obstetricians, general practitioners, health visitors/public health practitioners and maternity support workers/maternity care assistants.

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<sup>15</sup> <http://www.kingsfund.org.uk/projects/nhs-five-year-forward-view/modern-maternity-services?gclid=CMj1hKyEqckCFUg8Gwod904ACQ>

<sup>16</sup> <https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf>

<sup>17</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/414024/Childrens\\_Mental\\_Health.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414024/Childrens_Mental_Health.pdf)

<sup>18</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/216029/dh\\_119470.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216029/dh_119470.pdf)

## 4. Population

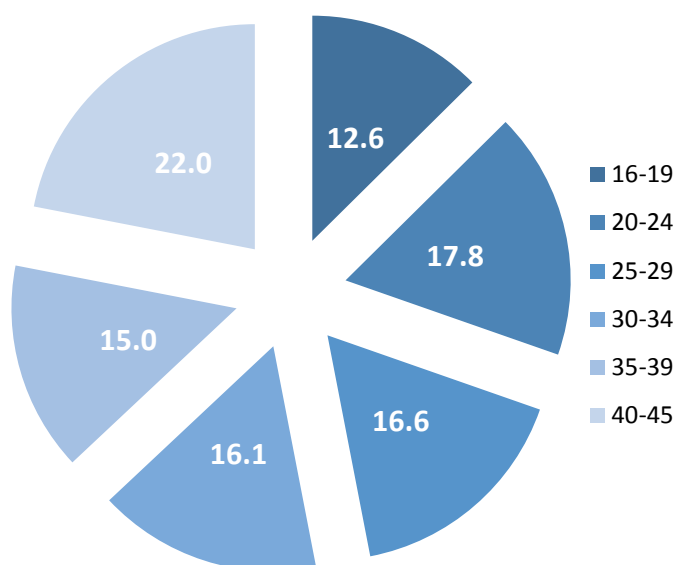
Please note that for presentation purposes all figures in this section have been rounded to the nearest 100.

There are a total of 481,100 women aged 16-45 in Cheshire, Merseyside and West Lancashire. This includes 188,000 women in Cheshire, 272,600 in Merseyside, and 20,500 in West Lancashire, as shown in the tables below. Figure 1 below provides a breakdown of women across the three areas by age group, the age distribution is fairly evenly spread across the 16-45 years population with a slightly higher proportion (22%) aged 40-45 years and a slightly lower proportion aged 16-19 years (12.6%). Table 1 provides a breakdown of the 16-45 years female population by local authority; Liverpool had both the highest number (104,200) and the highest proportion of women aged 16-45 years (44%). The lowest proportion of women aged 16-45 years was in Sefton (31%) whilst the local authority with the lowest number of women aged 16-45 years was West Lancashire (19,700).

*Table 1: Resident females (16-45 years) by local authority*

Local Authority	Number of women (16-45 years)	% population aged 16-45 years
Cheshire East	64,000	34
Cheshire West and Chester	60,800	36
Halton	24,300	38
Warrington	38,900	37
<b>Cheshire Total</b>	<b>188,000</b>	<b>35</b>
Knowsley	29,100	38
Liverpool	107,200	45
Sefton	46,500	33
St. Helens	32,900	36
Wirral	56,900	34
<b>Merseyside Total</b>	<b>272,600</b>	<b>38</b>
West Lancashire	20,500	36
<b>Total</b>	<b>481,100</b>	<b>37</b>

Source: Office for National Statistics, population estimates for 2014 published 25<sup>th</sup> June 2015



*Figure 1: Females (16-45) by age*

#### 4.1 Population projections

The table below shows that the population of Cheshire, Merseyside and West Lancashire is estimated to decrease from 475,200 in 2015 to 450,600 in 2020, although it is estimated that it will increase again to 460,900 by 2025. The population of England as a whole is expected to increase by 2020, and to increase again by 2025.

*Table 2: Population projections for females aged 16-45*

Local authority	2015	2020	2025
<b>Cheshire East</b>	63,300	56,600	59,900
<b>Cheshire West and Chester</b>	59,700	56,300	60,200
<b>Warrington</b>	38,900	38,100	39,900
<b>Halton</b>	23,900	21,300	22,000
<b>Knowsley</b>	28,700	27,300	27,100
<b>Liverpool</b>	106,100	103,700	104,000
<b>Sefton</b>	46,100	43,800	43,800
<b>St.Helens</b>	32,500	31,200	31,600
<b>Wirral</b>	56,400	54,200	54,200
<b>West Lancs</b>	19,600	18,200	18,100
<b>Total of Cheshire, Merseyside and West Lancashire</b>	475,200	450,600	460,900
<b>England</b>	10,184,000	10,313,000	10,434,000

Source: Office for National Statistics 2012 estimates

#### 4.2 Ethnicity

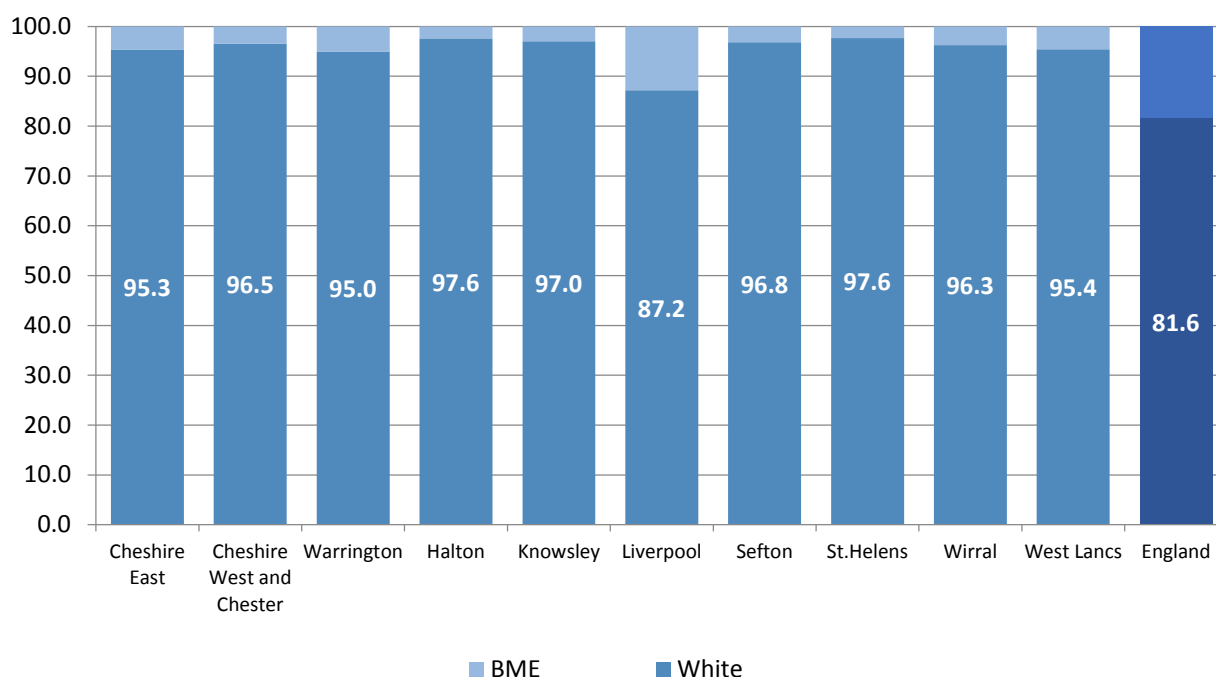
Table 3 below shows women aged 16-44 from each ethnic group, for the 10 local authority areas (% in brackets). All local authorities across Cheshire, Merseyside and West Lancashire have a higher proportion of females aged 16-44 years from a white background when compared with the national average (81.6%). The table shows that the highest proportion of people from a 'white' background was in Halton (97.6%) and Knowsley (97.0%). Liverpool had the lowest proportion of people from a white background (87.1%). The local authority with the highest proportion of women from an Asian/Asian British background was Liverpool (5.5%), followed by Warrington (3.4%). The local authority with the highest proportion of women aged 16-44 from a Black/African/Caribbean /Black British background was Liverpool (2.8%).

Table 3: Ethnic background for women aged 16-44

Local authority	Total	White (%):	Mixed/multiple ethnic group (%)	Asian/Asian British (%)	Black/African/Caribbean/Black British (%)	Other ethnic group (%)
Cheshire East	64,000	61,000 (95)	800 (1)	1,700 (3)	300 (1)	200 (0.3)
Cheshire West and Chester	60,300	58,200 (97)	600 (0.9)	1,100 (1.8)	300 (4.9)	100 (0.2)
Warrington	38,000	36,100 (95)	400 (5)	1,300 (3)	100 (0.3)	100 (0.2)
Halton	24,200	23,600 (98)	300 (1)	300 (1)	40 (0.1)	13 (0)
Knowsley	28,700	27,900 (97)	400 (1)	400 (1)	100 (0.3)	40 (0.1)
Liverpool	104,100	90,700 (87)	2,900 (3)	5,800 (6)	3,000 (3)	1,700 (2)
Sefton	46,300	44,900 (97)	500 (1)	600 (1)	200 (0.3)	100 (0.2)
St.Helens	32,200	31,400 (98)	200 (1)	400 (1)	48 (0.1)	47 (0.1)
Wirral	56,700	54,600 (96)	400 (1)	1,200 (2)	200 (0.2)	100 (0.1)
West Lancs	20,200	19,300 (95)	600 (3)	200 (1)	51 (0.2)	22 (0.1)
England	10,433,650	8,509,100 (82)	255,800 (2)	1,082,000 (10)	458,100 (4)	128,700 (1)

Source: Office for National Statistics 2011 data. Figures rounded to nearest 100

Figure 2: Females aged 16-44 years by local authority and ethnic group





### 4.3 Population not originally from the UK

Table 4 below shows that the local authority area with the highest proportion of women not originally from the UK was Liverpool, where 15.8% of women were not originally from the UK, followed by Cheshire East (10.9%) and Warrington (10.2%). The local authority area with the lowest percentage of women not originally from the UK was St. Helens (3.0%), followed by Sefton (4.3%). All local authority areas had a lower proportion of women who were not originally from the UK than the national average (21.7%).

**Table 4: Women aged 16-45 not originally from the UK aged 16-45**

Local authority	No.	Total population	% of population
Cheshire East	7,000	64,016	10.9
Cheshire West and Chester	5,000	60,788	8.2
Warrington	4,000	38,930	10.2
Halton	1,000	24,280	4.1
Knowsley	2,000	29,097	6.8
Liverpool	17,000	107,205	15.8
Sefton	2,000	46,524	4.3
St.Helens	1,000	32,984	3.0
Wirral	4,000	56,928	7.0
West Lancashire	2,000	20,504	9.7
England	2,334,000	10,718,996	21.7

Source: Office for National Statistics 2014 estimates. Data rounded to nearest 1000

## 5. Pre- Conception and conception

### 5.1 Folic acid use

According to the Infant Feeding Survey 2010<sup>19</sup>, UK health departments advise pregnant women to take a daily supplement of 400 micrograms of folic acid prior to conception and during the first 12 weeks of pregnancy to reduce the risk of neural tube defects, such as spina bifida, in unborn babies. Most mothers (94%) reported that they took folic acid either before or during pregnancy. More than a third (37%) said they took folic acid before they were pregnant, increasing to 79% who reported taking it during the first three months of pregnancy, while 23% took it later on in pregnancy.

### 5.2 Infertility estimates

Fertility problems are estimated to affect one-in-seven heterosexual couples in the UK. NICE define infertility as a failure to conceive after regular unprotected sexual intercourse for one to two years<sup>20</sup>.

<sup>19</sup> <http://www.hscic.gov.uk/catalogue/PUB08694/Infant-Feeding-Survey-2010-Consolidated-Report.pdf>

<sup>20</sup> <http://guidance.nice.org.uk/CG156>

### 5.3 IVF cycles

According to the Human Fertilisation and Embryology Authority Report, 'Fertility Treatment in 2012'<sup>21</sup>, 47,422 women had a total of 62,155 cycles of in vitro fertilisation (IVF) or intra-cytoplasmic sperm injection (ICSI) and 2,265 women had a total of 4,452 cycles of donor insemination (DI). In 2012, 77 licensed clinics performed IVF treatment and 72 performed DI treatment. As in previous years, the largest number of clinics are based in London. The number of women treated in each region ranged from 1,254 in Wales to 15,008 in London. This figure is based on the location of the clinic, rather than where women reside as patients sometimes travel to different regions for treatment – particularly London.

61,726 cycles of IVF or ICSI and 4,091 of DI were performed, in 2012. In the North West of England four clinics saw 4,655 women who had a total of 5,938 cycles of IVF and 242 women who had a total of 532 cycles of DI.

### 5.4 Conception rates

According to an Office for National Statistics 2015 report<sup>22</sup>, in 2013, the estimated number of conceptions in England and Wales fell by 1.3% to 872,849 from 884,748 in 2012. The number of conceptions rose between 2001 and 2010 despite a slight fall in 2008. Since 2010 the number of conceptions has fallen from a peak of 909,245 conceptions.

Most couples (about 84 out of every 100) who have regular unprotected sexual intercourse (that is, every two to three days) will get pregnant within a year. About 92 out of 100 couples who are trying to get pregnant do so within two years<sup>23</sup>.

Between 2012 and 2013 conception rates increased for women aged 35 years and over, and decreased for women aged under 35 years. The largest percentage increase in conception rates occurred among women aged 35 to 39 (1.7%). A smaller increase in conception rates was recorded among women aged 40 and over (1.4%). Conception rates for women aged under 20 and 20 to 24 decreased by 8.4% and 4.3% respectively. Rates for women aged 25 to 29 and 30 to 34 decreased by smaller amounts (0.5% and 0.3% respectively).

Table 5 shows conception rates for local authorities in Cheshire, Merseyside and Lancashire. In total there were 23,324 conceptions in the Liverpool city region and 11,980 in Cheshire. The conception rate in four local authorities (Knowsley, Halton, Sefton and Wirral) was higher than the national average with Knowsley recording the highest conception rate among women aged 16-44 years (85 per 1,000 women). Cheshire West and Chester have the lowest conception rate (71 per 1,000 women). Liverpool had the highest percentage of conceptions leading to abortion (28%; further information on abortions across Cheshire and Merseyside is provided in section 5.3 below).

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<sup>21</sup> <http://www.hfea.gov.uk/docs/FertilityTreatment2012TrendsFigures.PDF>

<sup>22</sup>

<sup>23</sup> <http://www.hfea.gov.uk/docs/FertilityTreatment2012TrendsFigures.PDF>

*Table 5: Conception rates (16-44) by local authority, 2013*

Local Authority	Number	Conception rate per 1,000 women in age-group	Percentage of conceptions leading to abortion
Cheshire East UA	4,745	74.1	19.2
Cheshire West and Chester UA	4,313	71.0	18.9
Warrington UA	2,922	75.4	21.3
Cheshire	11,980	-	-
Knowsley	2,482	85.3	27.2
Liverpool	7,940	74.2	28.1
Sefton	3,676	78.8	22.8
St. Helens	2,524	77.3	22.7
Wirral	4,695	82.2	24.0
Halton UA	2,007	82.7	24.6
Liverpool City Region	23,324	-	-
Lancashire	16,660	76.0	20.8
Merseyside (Met County)	21,317	78.2	25.5
NORTH WEST	109,483	79.3	22.2
ENGLAND	831,282	78.0	21.2

Source: ONS, Conception Statistics England and Wales, 2013

### 5.5 Teenage conceptions per 1000 women aged under 18

According to an Office for National Statistics 2014 report<sup>24</sup>, the under 18 conception rate for 2013 is the lowest since 1969 at 24.3 conceptions per thousand women aged under 18

Table 6 below shows quarterly rates of pregnancies per 1000 women aged under 18, for the 10 local authorities that are included in the needs assessment. The local authorities with the highest rates were St. Helens, with 34.2 pregnancies per 1000 women aged under 18, and Liverpool, with 34.1 per 1000. All the Merseyside local authorities, as well as Warrington, had rates that were higher than the national average.

*Table 6: Teenage conception per 1,000 women aged 15-17 years*

Local authority	Rate per 1,000 women in age group
Cheshire East	19.3
Cheshire West and Chester	23.3
Warrington	24.6
Halton	33.3
Knowsley	32.1
Liverpool	34.1
Sefton	26.2
St. Helens	34.2
Wirral	33.7
West Lancashire	21.6
England	24.3

Source: Office for National Statistics. 2013 data published 2015. Conceptions to women aged under 18, rates (conceptions per thousand women aged 15 to 17)

<sup>24</sup> [http://www.ons.gov.uk/ons/dcp171778\\_396674.pdf](http://www.ons.gov.uk/ons/dcp171778_396674.pdf)

## 5.6 Legal abortions, all ages, under 25 and 25 and over by Clinical Commissioning Groups (CCG)

The statistics below refer to termination of pregnancy. Table 7 below shows that the LA with the highest rates of abortions was Knowsley, with 23.2 abortions per 1000; this was significantly higher than the rate in all other LAs across Cheshire, Merseyside and West Lancashire as well as the England average. Liverpool, Wirral, Halton, Sefton and St. Helens also had abortion rates significantly higher than the national average. Liverpool had the highest abortion rates among women aged under 18 years (20.4 per 1,000) and amongst women aged 35 years and older (9 per 1,000). Halton had the highest rate among women 18-19 years and 20-24 years (41 per 1,000) while Knowsley and Sefton had the highest rate among women aged 25-29 years (31 per 1,000 each), with Knowsley also having the highest rate for those aged 30-34.

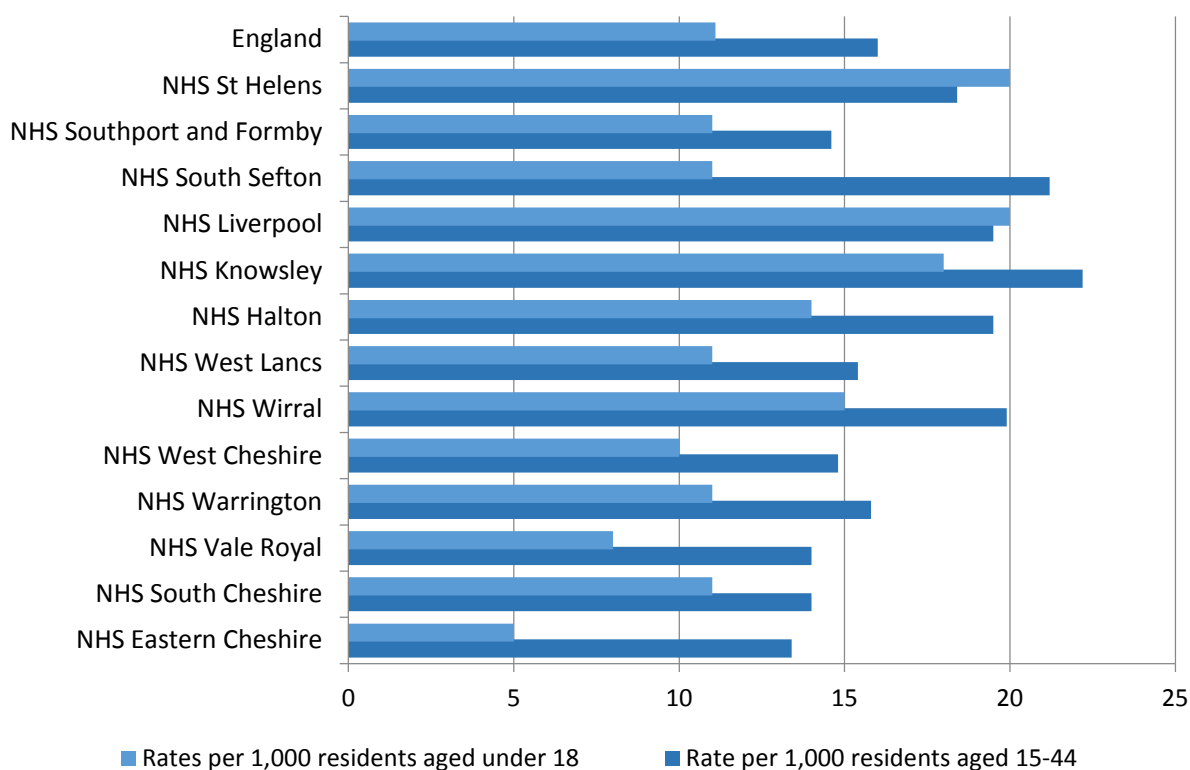
*Table 7: Rate of legal abortions per 1,000 population by Local Authority and age group*

Local Authority	All ages	95% confidence interval	Under 18	18-19	20-24	25-29	30-34	35+
Cheshire East UA	13.3	13.1 - 14.3	8.3	25	27	20	13	6
Cheshire West and Chester UA	14.7	13.9 - 15.2	9.4	21	28	21	15	6
Halton	19.9	18.4 - 20.8	14.0	41	41	24	18	7
Knowsley	23.2	21.0 - 23.4	17.8	38	41	31	24	8
Liverpool	21.5	18.9 - 20.0	20.4	26	28	28	22	9
Sefton	18.9	17.9 - 19.6	11.1	26	34	31	20	7
St. Helens	18.9	17.5 - 19.5	19.7	33	33	27	17	7
Warrington	15.8	15.0 - 16.7	11.1	25	28	27	14	7
Wirral	20.2	19.1 - 20.7	14.7	33	38	30	20	7
Lancashire	16.3	15.3 - 16.0	13.7	25	28	22	15	6
<b>North West</b>	<b>18.1</b>	<b>17.2 - 17.5</b>	<b>13.5</b>	<b>27</b>	<b>31</b>	<b>26</b>	<b>18</b>	<b>7</b>
<b>England</b>	<b>16.5</b>	<b>16.0 - 16.1</b>	<b>11.1</b>	<b>24</b>	<b>28</b>	<b>23</b>	<b>17</b>	<b>8</b>

Source: Department of Health 2014 statistics<sup>25</sup>

<sup>25</sup> <https://www.gov.uk/government/statistical-data-sets/abortion-statistics-england-and-wales-2014>

Figure 3: Rates of legal abortions by CCG and age



Source: Department of Health 2014 statistics<sup>26</sup>

Nationally, 32% of abortions are NHS funded and take place in an NHS hospital whilst 66% are NHS funded and take place in the independent sector. Table x shows legal abortions by purchaser for each local authority; there is considerable variation in abortion provision by local authority, with 94% of NHS abortions in Warrington taking place in the independent sector compared with Liverpool where 84% of NHS funded abortions take place in an NHS Hospital. Across the ten commissioning local authorities the majority of abortions take place at three to nine weeks gestation (range 76%-83%) a similar level to the national average (79%).

### 5.7 Repeat abortions (termination of pregnancy)

According to 2013 figures from the Department of Health<sup>27</sup>, 37% of women undergoing abortions had one or more previous abortions, an increase from 32% in 2003. Repeat unintended pregnancy and subsequent abortion is a complex issue associated with increased age as it allows longer for exposure to pregnancy risks. The largest proportion of women having a repeat abortion nationally were aged 30-34 years (47%) followed by those aged 35 years and over (45%).

The majority of abortions in the UK are carried out on the basis that continuing with the pregnancy would have adverse physical or psychological harms to either the

<sup>26</sup> <https://www.gov.uk/government/statistical-data-sets/abortion-statistics-england-and-wales-2014>

<sup>27</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/319460/Abortion\\_Statistics\\_England\\_and\\_Wales\\_2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/319460/Abortion_Statistics_England_and_Wales_2013.pdf)

woman or child. There has been growing concern in recent years that abortion itself may increase psychological risk and adversely affect women's mental health. The largest existing systematic review on the topic, by the Academy of Medical Royal Colleges in 2011, concluded that, while unwanted pregnancy is associated with increased risk of mental health problems, these rates are no higher among women having an abortion compared to those giving birth. A history of mental health problems before the abortion being the most important predictor of post-abortion mental health problems. The review also identified some additional factors associated with increased mental health problems relating to abortion including pressure from a partner to have abortion, negative attitudes towards both abortion generally and women's personal experiences of abortion<sup>28</sup>.

Table 8 shows the percentage of repeat abortions by local authority and age group. Liverpool had the highest percentage of repeat abortions for all ages (42%). Liverpool also had the highest percentage of repeat abortions in women aged under 25 along with Sefton and Wirral (30% each) and this highest rate of repeat abortions in women aged 25 years and over (53%). Six of the ten local authorities had a repeat abortion higher than the England average (namely Liverpool, Sefton, Wirral, Knowsley, St. Helens and Warrington). Liverpool, Knowsley, Sefton and Wirral all had a higher percentage of repeat abortion in the under 25s than the national average whilst Liverpool, St. Helens, Sefton, Knowsley, Warrington and Warrington all had a higher percentage in women aged 25 years and over.

**Table 8: Repeat abortions by age group**

Local Authority	Repeat abortions all ages (%)	Repeat abortions in women aged under 25 (%)	Repeat abortions in women aged 25 and over (%)
Cheshire East UA	36	25	45
Cheshire West and Chester UA	34	25	42
Halton	34	25	44
Knowsley	39	28	49
Liverpool	42	30	53
Sefton	41	30	50
St. Helens	38	24	51
Warrington	38	27	46
Wirral	40	30	50
Lancashire	34	26	43
North West	37	27	45
England	37.6	27.0	45.6

Source: Department of Health, 2013 Statistics

<sup>28</sup> Academy of Medical Royal Colleges (2011). Induced abortion and mental health. A systematic review of mental health outcomes of induced abortion including their prevalence and associated factors.

## 6. Antenatal period

### 6.1 Influenza vaccine amongst pregnant women

The Public Health England influenza immunisation programme<sup>29</sup> aims to offer protection to those who are most at risk of serious illness or death should they develop influenza. Preventing flu plays an important part in preventing maternal deaths - a 2014 report from MBRRACE<sup>30</sup> showed that 1 in 11 of the 357 women who died during, or within six weeks of the end of their pregnancy in the UK in 2009-12 died from flu – more than half of these deaths could have been prevented by a flu jab. As well as protecting those who are immunised, the campaign also aims to protect the remainder of the population by reducing transmission of influenza. Uptake of the influenza vaccine in pregnant women was 44.1% - Public Health England do not specify a target for uptake of the vaccine in pregnant women. Vaccine uptake in pregnant women increased from 39.8% in 2013 to 2014, to 44.1% in 2014 to 2015, as a result of a campaign following the bird flu outbreak. This increase is mostly due to the increase in vaccinations among pregnant women not in a clinical risk group, which increased from 38.2% in 2013 to 2014 to 42.5% this season. There was also an increase in uptake for pregnant women in a clinical risk group (61.5% uptake compared with 59.0% in 2013 to 2014). The table below shows that all Cheshire and Merseyside local authorities, together with West Lancashire, had levels of uptake of the influenza vaccine that were above the national average of 44.1%.

*Table 9: Uptake of influenza vaccine in pregnant women by CCG, 2015 statistics*

CCG	Flu vaccine uptake
NHS Eastern Cheshire CCG	53.6
NHS South Cheshire CCG	52.0
NHS Vale Royal CCG	54.5
NHS Warrington	52.2
NHS West Cheshire CGG	49.1
NHS Wirral CCG	47.9
NHS West Lancashire CCG	47.9
NHS Halton CCG	46.7
NHS Knowsley CCG	51.7
NHS Liverpool CCG	45.4
NHS South Sefton CCG	48.6
NHS Southport and Formby	45.9
NHS St. Helens CCG	48.8
<b>England</b>	<b>44.1</b>

Source: Public Health England 2015 data

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/428971/Seasonal\\_Flu\\_Jan15\\_acc2.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/428971/Seasonal_Flu_Jan15_acc2.pdf)

FINAL end of January 2015 cumulative uptake data for England on influenza vaccinations given from 1 September 2014 to 31 January 2015

<sup>29</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/429612/Seasonal\\_Flu\\_GP\\_Patient\\_Groups\\_Annual\\_Report\\_2014\\_15.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/429612/Seasonal_Flu_GP_Patient_Groups_Annual_Report_2014_15.pdf)

<sup>30</sup> <https://www.npeu.ox.ac.uk/downloads/files/mbrpace-uk/reports/Saving%20Lives%20Improving%20Mothers%20Care%20report%202014%20Exec%20Summary.pdf>

## 6.2 Prenatal pertussis vaccine for pregnant women

In the UK, the introduction of routine national immunisation against pertussis (whooping cough) in 1957 resulted in a marked reduction in pertussis notifications and deaths. However, despite high vaccine coverage since the early 1990s, the disease has continued to display several yearly peaks in activity. In the five years prior to 2012, on average, there were nearly 800 confirmed cases of whooping cough, 270 babies admitted to hospital and four deaths in babies each year, according to unpublished data from the [Health Protection Agency (HPA)]. A national outbreak was declared in April 2012 by the HPA to coordinate the response to increased pertussis activity. Pertussis activity in England persists at raised levels compared with the years preceding the outbreak in 2012. Overall annual vaccine coverage averaged 56.4%<sup>31</sup>. Percentages for the Merseyside Area Team (55.6%) and Lancashire Area Team (54.9%) were similar to the England average, whilst the percentage for Cheshire, Wirral and Warrington Area Team (64.0%) was higher than the England average.

## 6.3 Women with complex needs during pregnancy

According to the report 'Midwifery 2020: Delivering expectations'<sup>32</sup>, there have been a number of factors in recent years that have had an impact on the capacity of maternity services and midwives to deliver quality care. Many more women and families have complex physical and social needs including women and families living in poverty; migrant women who do not speak English as a first language; teenage mothers; women who are misusing drugs and alcohol; women who are obese and those who have long-term conditions such as diabetes. In addition the average age of first birth is now 29.4 years compared with 28.4 years in 1999<sup>33</sup> and increased use of fertility treatment has meant a higher rate of multiple births. These demographic and lifestyle challenges place additional demands on the provision of maternity care. MBRRACE 2014 and 2015 also notes that these women are more likely to suffer morbidity and mortality.

## 6.4 Early booking

It is important that women contact their GP or midwife promptly once they know that they are pregnant, in order that their health needs and preferences can be taken into account. NICE guidance on antenatal care recommends that women should have access to maternity services for a full health and social care assessment of needs, risks and choices ideally by ten weeks<sup>34</sup>. Late booking and late access to antenatal care is also identified as a risk factor in MBRRACE 2014 and 2015<sup>35</sup>.

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<sup>31</sup> <https://www.gov.uk/government/publications/pertussis-immunisation-in-pregnancy-vaccine-coverage-estimates-in-england-october-2013-to-march-2014/pertussis-vaccination-programme-for-pregnant-women-vaccine-coverage-estimates-in-england-april-to-august-2014>

<sup>32</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/216029/dh\\_119470.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216029/dh_119470.pdf)

<sup>33</sup> <http://www.statistics.gov.uk/pdfdir/births1209.pdf>

<sup>34</sup> NICE (2008) NICE Guidelines CG62: Antenatal care for uncomplicated pregnancies

<sup>35</sup> <https://www.npeu.ox.ac.uk/downloads/files/mbrance-uk/reports/Saving%20Lives%20Improving%20Mothers%20Care%20report%202014%20Exec%20Summary.pdf>



Table 10 shows the proportion of all pregnant women presenting for their first antenatal appointment at less than 10 weeks by hospital trust in 2014-15. The majority of those presenting at under 10 weeks gestation presented between five and nine weeks gestation but this varied quite substantially by trust. Over 50% of all pregnant women at Liverpool Women's NHS Foundation Trust and Countess of Chester NHS Foundation trust (where weeks gestation was known) presented for their first antenatal appointment at 5-9 weeks gestation. In contrast, just over 5% of those presenting for antenatal care at Wirral University Teaching Hospital NHS Foundation Trust attended at 5-8 weeks gestation.

**Table 10: Gestation period in weeks at first antenatal assessment 2014-15**

	0-4 weeks	%	5-9 weeks	%
<b>Countess of Chester Hospital NHS Foundation Trust</b>	<6	-	1,557	56.6
<b>East Cheshire NHS Trust</b>	<6	-	782	47.4
<b>Lancashire Teaching Hospitals NHS Foundation Trust</b>	<6	-	708	24.0
<b>Liverpool Women's NHS Foundation Trust</b>	<6	-	4,811	60.7
<b>Mid Cheshire Hospitals NHS Foundation Trust</b>	-	-	<6	-
<b>Southport and Ormskirk Hospital NHS Trust</b>	12	1.3	260	29.2
<b>St. Helens and Knowsley Hospitals NHS Trust</b>	-	-	-	-
<b>Warrington and Halton Hospitals NHS Foundation Trust</b>	-	-	<6	-
<b>Wirral University Teaching Hospital NHS Foundation Trust</b>	<6	-	157	5.4
<b>Cheshire, Warrington and Wirral Area Team</b>	<b>7</b>	0.1	<b>2,503</b>	26.1
<b>Lancashire Area Team</b>	<b>67</b>	0.5	<b>5,519</b>	43.0
<b>Merseyside Area Team</b>	<6	-	<b>4,811</b>	60.7
<b>ENGLAND</b>	<b>5,216</b>	1.2	<b>159,794</b>	36.2

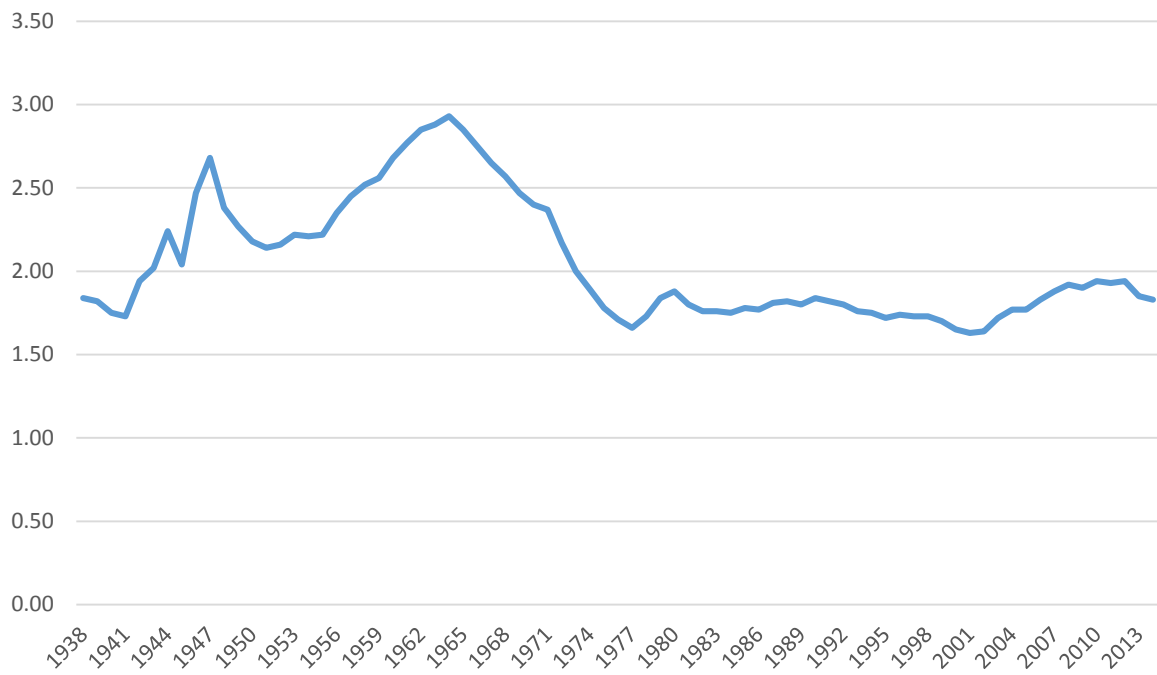
Source: Health and Social Care Information Centre, 2013-4 Statistics\*Data suppressed due to confidentiality as applies to less than 6 women

## 7. Birth

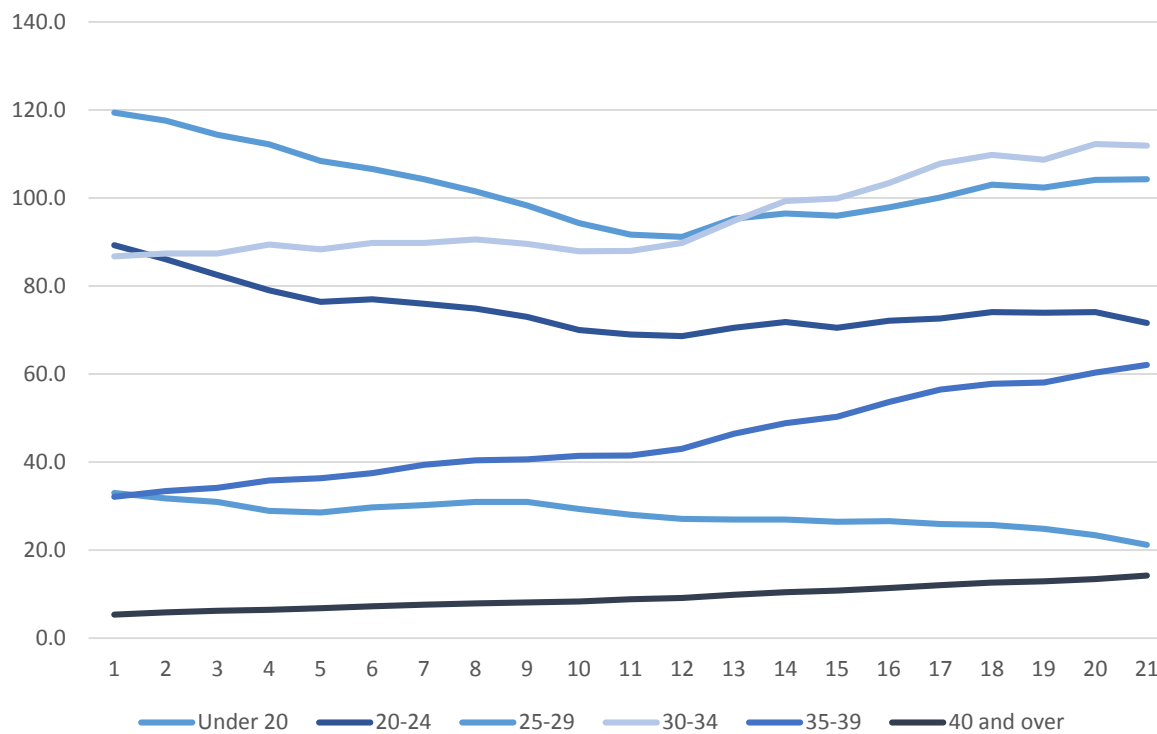
### 7.1 General fertility rates

Nationally the fertility rate declined steadily during the 1990s reaching a low of 1.63 per 1,000 population in 2001. After 2001 the birth rate began to increase once more and since 2008 the rate has been steady and fluctuating at around 1.9 per 1,000. These trends in fertility have been accompanied by changes in age specific rates; in the early 1990s the decline in fertility was largely due to women in their twenties postponing having children whilst the rise seen post 2001 has been linked to an increase in fertility in women in their twenties, coupled with an increase among women in their 30s and 40s who had perhaps postponed starting a family in their 20s. The majority of births nationally are among UK born women; however births among non-UK born women have also impacted upon this rise. The proportion of births to non-UK women has risen from 12% in 1996 to 16% in 2001, and 25% at the last census in 2011 (ONS, 2012). A review by Sobtoka et al (2010) found that periods of economic recession where support for families (e.g. maternity and paternity leave and tax credits) are reduced can result in a period of reduced fertility; however the combined effect of these and other factors mean that changes in the economic climate do not necessarily have a clear impact in a particular direction.

**Figure 5: Total fertility rate, England and Wales, 1938-2014**



**Figure 6: Age Specific Fertility Rate, England and Wales, 1991-2011**



## 7.2 Total fertility rates

The table below shows that the local authority area where birth rates were highest was Halton, with 1.94 births per 1,000 population aged 16-44, followed by Knowsley at 1.93, higher than the England average of 1.83. The local authority area with the lowest rate per 1,000 was Liverpool, with 1.62 births per 1,000 population.

*Table 11: Total fertility rate by Local Authority*

Local authority	2014
Cheshire East	1.88
Cheshire West and Chester	1.82
Warrington	1.85
Halton	1.94
Knowsley	1.93
Liverpool	1.62
Sefton	1.86
St Helens	1.83
Wirral	1.92
West Lancashire	1.68
England	1.83

Source: Office for National Statistics, August 2015

## 7.3 Age of mother at time of delivery (as a proportion of live births)

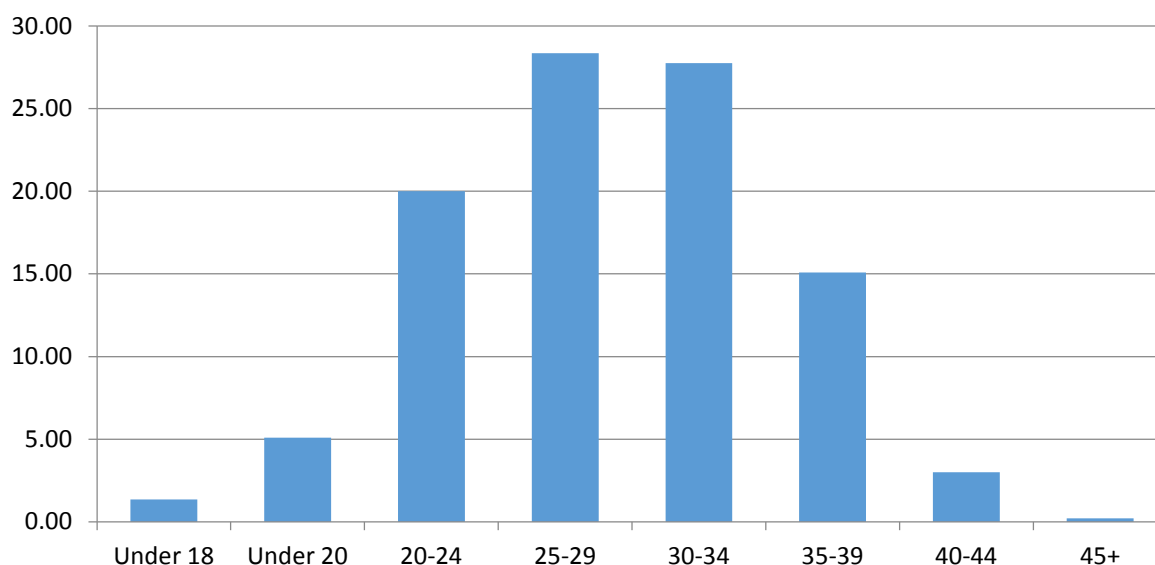
The Royal College of Midwives' State of Maternity Services Report 2015<sup>36</sup> shows that, between 2001 and 2014, there has been a 78% increase in births to mothers aged 40 and above, and these women are likely to require increased resources- older women are more at risk of preeclampsia, miscarriage and complicated pregnancies which could result in use of forceps or caesarean section, according to the Royal College of Midwives<sup>37</sup>.

Figure 7 below shows ages of mothers at the time of delivery, and percentages of women in each category (for a full breakdown by local authority see appendix 1). St. Helens was the area with the highest proportion of births to mothers under the age of 18, 2.1% compared to the national average of 1.2%, whilst Cheshire East had the lowest (0.8%). The area that had the lowest proportion of births to mothers over the age of 45 was Sefton (0.1). All of the Cheshire local authority areas, along with Wirral and West Lancashire, had higher birth rates in women over the age of 45 than the England average (0.2%).

<sup>36</sup> <https://www.rcm.org.uk/download-now-state-of-maternity-services-report-2015>

<sup>37</sup> <https://www.bpas.org/get-involved/advocacy/briefings/older-mothers/>

Figure 7: Age at delivery for females resident in Merseyside, Cheshire and West Lancashire



Source: Source: Health and Social Care Information Centre, 2013-4 Statistics

#### 7.4 Birth in different birth settings.

Despite initiatives which support choice of birth for women, the majority of women continue to give birth in a hospital environment. A qualitative study based in area in North West England explored the views and influences on women, their partners and professionals on their choice of birth place. The study found that whilst both women and professionals view the place of birth as important the majority assumed birth would take place in a hospital environment. The results suggested that both women and professionals felt more at ease when birth took place in a hospital environment, which was perceived to be safer, and fatalistic attitudes towards the birth process and acceptance of the use of intervention around the time of birth strongly influenced women's decisions to give birth in a hospital setting. This emphasises the importance of accurate information for women on birth place and addressing misconceptions among both women and health care professionals.<sup>38</sup>

Table 12a shows that the percentage of women giving birth on a consultant ward was higher, and in most cases much higher, than the England average of 42.8%. Only the figure for the Lancashire area team, 41.3%, was lower than the England average.

The number of women giving birth at home has fallen dramatically over the decades, with 33% of women giving birth at home in 1960, falling to 0.9% between 1985 and 1988. There was a slight rise in the proportion of home births between 1998 and 2008. However, the number of home births peaked in 2008 there has been another slight decline (figure 8). In 2014, 2.3% of women gave birth at home and this proportion has remained unchanged since 2012. In 2014, women aged 35 to 39 had the highest percentage of births at home (3%) whilst women 45 years over had the lowest percentage (1%). The reasons for low uptake of home births among women are

<sup>38</sup> Houghton et al (2008). Factors influencing choice in birth place – an exploration of the views of women their partners and professionals. *Evidence based midwifery* June 2008 <https://www.rcm.org.uk/learning-and-career/learning-and-research/ebm-articles/factors-influencing-choice-in-birth-place-%E2%80%93>

unclear, but a report by the Royal College of Midwives and NCT suggests that insufficient training and low confidence in home births among midwives, combined with insufficient information for women, may contribute to these low rates<sup>39</sup>.

In the North West, 1896 women gave birth at home in 2014, representing 2.2% of all maternities.

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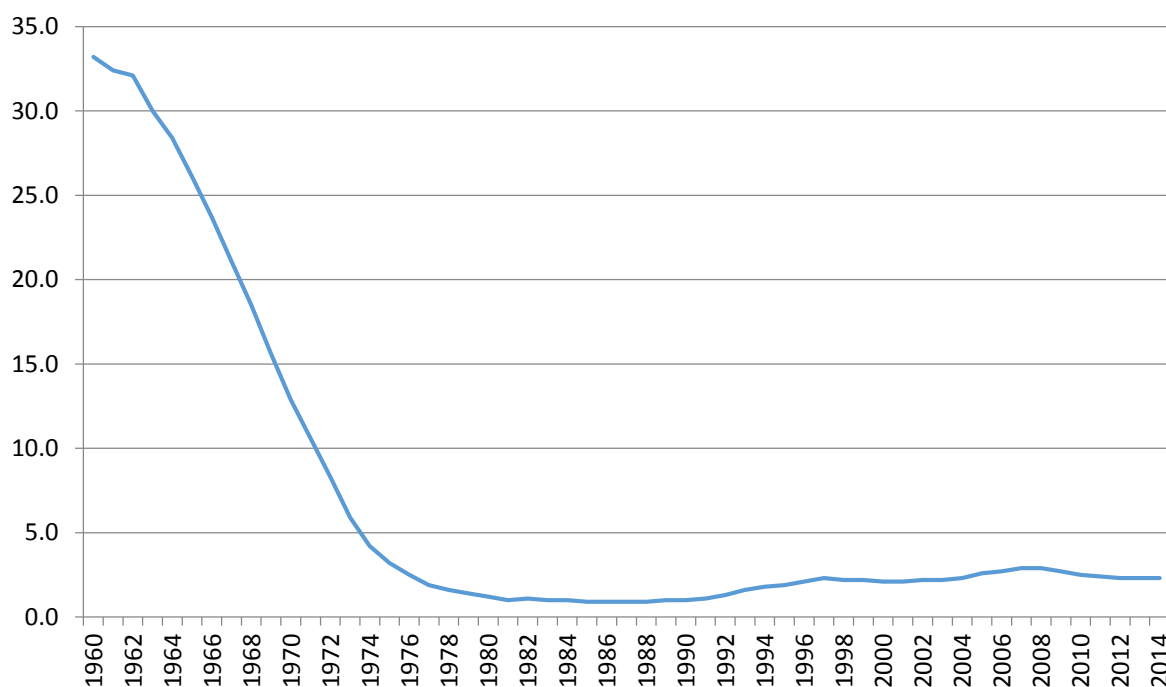
<sup>39</sup> NCT, *Location, location, location: Making choice of place of birth a reality*, October 2009.

**Table 12a: Birth by setting and NHS Trust**

	Consultant ward	%	GP Ward*	%	Consultant/Midwife/GP ward	%	Midwife/other ward	%	Unknown	%	Total
<b>Countess of Chester Hospital NHS Foundation Trust</b>	2,993	98.2	-	-	-	-	-	-	53	1.7	3,046
<b>East Cheshire NHS Trust</b>	*	-	-	-	1,823	99.5	*	-	3	0.1	1,832
<b>Liverpool Women's NHS Foundation Trust</b>	7,690	96.5	*	*	*	*	152	1.9	125	1.6	7,972
<b>Mid Cheshire Hospitals NHS Foundation Trust</b>	1,739	65.3	*	-	*	-	*	-	189	7.1	2,660
<b>Southport and Ormskirk Hospital NHS Trust</b>	*	-	-	-	2,710	98.1	*	*	45	1.6	2,761
<b>St. Helens and Knowlsey Hospitals NHS Trust</b>	*	-	*	-	*	-	*	-	22	0.6	3,527
<b>Warrington and Halton Hospitals NHS Foundation Trust</b>	2,699	86.92	71	2.3	289	9.3	10	0.3	35	1.1	3,104
<b>Wirral University Teaching Hospital NHS Foundation Trust</b>	*		*		*		1,714	8	358		3,270
<b>Wrightington, Wigan and Leigh NHS Foundation Trust</b>	*	*	*	*	2,923	99.2	8	0.3	12	0.4	2,947
<b>Cheshire, Warrington and Wirral Area Team</b>	8,620	61.9	72	0.5	2,122	15.2	2,460	17.6	638	4.6	13,912
<b>Lancashire Area Team</b>	7,599	41.3	7	0.0	5,952	32.4	2,456	13.4	2,357	12.8	18,371
<b>Merseyside Area Team</b>	11,156	97.0	*	*	*	*	158	1.3	149	1.2	11,501
<b>England</b>	277,198	42.8	2,111	0.3	184,313	28.4	86,007	13.2	97,275	15.0	646,904

Source: Health and Social Care Information Centre, 2013-4 Statistics\*Data suppressed due to confidentiality as applies to less than 5 women.

Figure 8: Percentage of women giving birth at home, England and Wales 1960-2014



Source: ONS Birth Characteristics in England and Wales, 2014

### 7.5 Person conducting delivery

Nationally, midwives conducted 55.6% of all deliveries, including 88.6% of spontaneous deliveries. Conversely, hospital doctors delivered 90% of instrumental deliveries and 93.8% of caesarean deliveries, compared with only 5.9% of spontaneous deliveries<sup>40</sup>.

Table 11 below shows that the Trust where the highest proportion of deliveries were carried out by hospital doctors was Countess of Chester NHS Foundation Trust, where 43.6% of births were conducted by a hospital doctor. The average for England was 32.5%. The lowest, other than at Wirral University Teaching Hospital NHS Trust, where 'not known' was recorded for 60.5% of births, was Warrington and Halton Hospitals NHS Foundation Trust (35.1%). The Trusts where the highest proportion of births were carried out by midwives were Wrightington, Wigan and Leigh NHS Foundation Trust (63.3) and Southport and Ormskirk Hospital NHS Trust. Other than Wirral, where data collected was incomplete, all Trusts had a higher proportion of births carried out by midwives than the England average of 45.5%.

<sup>40</sup> HSCIS Hospital Episode Statistics, NHS Maternity Statistics – England, 2013-14

Table 12b: Professional conducting each delivery (%)

	Hospital doctor	Midwife	Other	Not known	Total number
<b>Countess of Chester Hospital NHS Foundation Trust</b>	1,330 (43.6)	1,543 (50.6)	120 (3.9)	53 (1.7)	3,046
<b>East Cheshire NHS Trust</b>	691 (37.7)	1,128 (61.6)	13 (0.7)	-	1,832
<b>Liverpool Women's NHS Foundation Trust</b>	3,305 (41.4)	4,390 (55.0)	156 (1.9)	121 (1.5)	7,972
<b>Mid Cheshire Hospitals NHS Foundation Trust</b>	904 (33.9)	1,366 (51.3)	201 (7.5)	189 (7.1)	2,660
<b>Southport and Ormskirk Hospital NHS Trust</b>	1,125 (40.7)	1,580 (57.2)	6 (0.2)	50 (1.8)	2,761
<b>St. Helens and Knowsley Hospitals NHS Trust</b>	1,137 (32.2)	1,666 (47)	702 (19.9)	22 (0.6)	3,527
<b>Warrington and Halton Hospitals NHS Foundation Trust</b>	1,090 (35.1)	1,849 (50.5)	130 (41.4)	35 (1.1)	3,104
<b>Wirral University Teaching Hospital NHS Foundation Trust</b>	381 (11.6)	862 (26.3)	45 (1.3)	1,982 (60.5)	3,270
<b>Wrightington, Wigan and Leigh NHS Foundation Trust</b>	1,055 (35.7)	1,866 (63.3)	13 (0.4)	13 (0.4)	2,947
<b>Cheshire, Warrington and Wirral Area Team</b>	4,396 (35.4)	6,748 (48.5)	509 (3.6)	2,259 (16.2)	13,912
<b>Lancashire Area Team</b>	6,137 (33.4)	9,565 (52.0)	259 (1.4)	2,410 (13.1)	18,371
<b>Merseyside Area Team</b>	4,442 (38.6)	6,056 (52.6)	858 (7.4)	145 (1.2)	11,501
<b>England</b>	210,574 (32.5)	294,700 (45.5)	20,051 (3.0)	116,579 (17.9)	646,904

Source: Health and Social Care Information Centre, 2013-4 Statistics



## 7.6 Method of delivery by trust

Table 13 shows births across the ten local authorities by NHS Trust and method of delivery for 2013-14 (where method of delivery is known). Just over a quarter of all births at each hospital were by Caesarean section (including both elective and emergency caesarean), with Wirral University Hospital seeing the highest proportion of births by caesarean. Instrumental births (including breech extraction, forceps and ventouse) accounted for between 11.6% and 15.8% of births, with Liverpool Women's NHS Foundation trust reporting the highest proportion of instrumental births (15.8%). The majority of births at all NHS trusts were spontaneous vaginal births.

*Table 13: Method of delivery by NHS Trust, 2013-14.*

NHS Trust	Caesarean	Instrumental	Spontaneous
<b>Countess Of Chester Hospital NHS Foundation Trust</b>	760 (25.1%)	477 (15.8%)	1787 (59.1%)
<b>East Cheshire NHS Trust</b>	469 (25.6%)	222 (12.1%)	1141 (62.2%)
<b>Liverpool Women's NHS Foundation Trust</b>	2126 (26.8%)	1142 (14.4%)	4664 (58.8%)
<b>Mid Cheshire Hospitals NHS Trust</b>	612 (23.0%)	368 (13.8%)	1675 (62.9%)
<b>Southport and Ormskirk Hospital NHS Trust</b>	-	-	1621 (59.3%)
<b>St. Helens and Knowsley Hospitals NHS Trust</b>	-	-	2362 (67.3%)
<b>Warrington and Halton Hospitals NHS Foundation Trust</b>	839 (27.3%)	400 (13%)	1837 (59.7%)
<b>Wirral University Teaching Hospital NHS Foundation Trust</b>	811 (25.1%)	373 (11.6%)	2042 (63.3%)
<b>Wrightington, Wigan and Leigh NHS Foundation Trust</b>	736 (25.2%)	313 (10.7%)	1875 (64.1%)
<b>Cheshire, Warrington and Wirral Area Team</b>	3491 (25.3%)	1840 (13.3%)	8482 (61.4%)
<b>Lancashire Area Team</b>	4582 (25.6%)	2262 (12.6%)	11052 (61.8%)
<b>Merseyside Area Team</b>	2949 (25.8%)	1469 (12.8%)	7026 (61.4%)
<b>England</b>	166,081 (26.2%)	81,808 (12.9%)	386,937 (60.9%)

Source: Health and Social Care Information Centre, 2014 statistics

## 7.7 Costs and length of stay by type of delivery

Nationally, maternity care cost the NHS around £2.6 billion in 2012/13; around 2.8% of health care spending and the equivalent of £3,700 per birth. The proportion of healthcare spending on maternity care is the same as a decade ago.<sup>41</sup> A national study by the Birthplace in England Research Programme collected data on low risk births from maternity services in NHS Trusts across England, to consider the cost and cost-effectiveness of births across all settings<sup>42</sup>. Costs included any associated with the birth itself (e.g. midwifery care during labour and the cost of any stays after the birth by either mother or baby) and costs for planned home and midwifery unit births take into account interventions and treatment that a woman may receive if she is transferred into hospital during labour or after the birth. The average costs per setting are included in box 1 below; costs per birth were found to be highest in obstetric unit births and lowest for planned births. Obstetric units tend to be more expensive overall due to higher overheads in a hospital setting and higher levels of access to interventions such as caesarean section.

### *Box 1: Average costs per NHS birth in different settings*

- **£1,631 for a planned birth in an obstetric unit**
- **£1,461 for a planned birth in an alongside midwifery unit (AMU)**
- **£1,435 for a planned birth in a freestanding midwifery unit (FMU)**
- **£1,067 for a planned home birth**

### *Box 2: Cost effectiveness of NHS births in different settings*

- **Maternal outcomes:** planned home birth was the most cost-effective setting (*maternal outcomes defined as 'adverse maternal outcomes' avoided and 'normal birth'*)
- **Women having a first baby:** planned home births were the most cost-effective option (standard economic health criteria) despite outcomes being less good on average for the baby
- **For women having second or subsequent baby:** planned home birth was the most cost-effective option with planned home births for this group being cheaper and having broadly similar outcomes for the baby as in obstetric units.

Source: National Perinatal Epidemiology Unit, <https://www.npeu.ox.ac.uk/birthplace>

<sup>41</sup> National Audit Office & Department of Health (2013) Maternity services in England.

<sup>42</sup> Schroeder L et al (2011) Birthplace cost effectiveness analysis of planned place of birth: individual level analysis Birthplace in England research programme: final report part 5. Oxford: NIHR.

## 7.8 Full term or premature births

Table 14 shows the gestation length at delivery for women giving birth at Cheshire, Merseyside and West Lancashire hospitals. The majority of women at all trusts gave birth between 30 and 40 weeks gestation. Births under 37 weeks gestation are considered preterm with those between 28 and <32 weeks considered very preterm and those <28 weeks considered extremely preterm. Between 10-15% of births at each NHS Trust were preterm. Liverpool Women's NHS Foundation Trust saw the highest proportion of babies that were extremely preterm (59; 0.7%).

**Table 14: Gestation length at delivery (%)**

	22 or under	23-25	26-28	29-31	32-34	35-37	38-40	41-43	44 and over	Unknwn	Total
<b>Countess of Chester Hospital NHS Foundation Trust</b>	*	*	9 (0.3%)	*	40 (1.3%)	323 (10.6%)	1868 (61.3%)	732 (24%)	-	56 (1.8%)	3,046
<b>East Cheshire NHS Trust</b>	-	*	*	*	35 (1.9%)	171 (9.3)	1,112 (60.6)	413 (22.5)	*	90 (4.9)	1,832
<b>Liverpool Women's NHS Foundation Trust</b>	*	*	59 (0.7%)	65 (0.8%)	184 (2.3%)	993 (12.5%)	4880 (61.2%)	1597 (20%)	11 (0.1%)	136 (1.7%)	7,972
<b>Mid Cheshire Hospitals Foundation Trust</b>	*	*	8 (0.3%)	18 (0.6%)	29 (1.0%)	302 (11.3%)	1,518 (57.0%)	591 (22.2)	-	189 (7.1)	2,660
<b>St.Helens and Knowsley NHS Trust</b>	-	-	-	-	-	-	-	-	-	3,527 (100%)	3,527
<b>Southport and Ormskirk Hospital NHS Trust</b>	*	*	7 (0.3%)	12 (0.4%)	49 (1.8%)	245 (8.9%)	2108 (76.3%)	291 (10.5%)	-	45	2,761
<b>Warrington and Halton Hospitals NHS Foundation Trust</b>	6	*	*	23 (0.7%)	51 (1.6%)	256 (8.2%)	2045 (65.9%)	679 (21.9%)	*	35	3,104
<b>Wirral University Teaching Hospital NHS Foundation Trust</b>	*	6 (0.2%)	13 (0.4%)	19 (0.6%)	59 (1.8%)	256 (7.8%)	1769 (54.1%)	780 (23.9%)	0 (0%)	368	3,270

<b>Wrightington, Wigan and Leigh NHS Foundation Trust</b>	*	*	7 (0.2)	20 (0.7%)	63 (2.1%)	389 (13.2%)	1844 (62.6%)	588 (20%)	0(0%)	34	2,947
<b>Cheshire, Warrington and Wirral Area Team</b>	*	18 (0.1%)	36 (0.2%)	80 (0.6%)	214 (1.7%)	1,308 (9.4%)	8,312 (59.7%)	3,195 (22.9%)	*	738	13,912
<b>Lancashire Area Team</b>	*	38 (0.2%)	46 (0.2)	97 (0.5%)	266 (1.4%)	1,720 (9.3%)	10,766 (58.6%)	3,069 (16.7)	*	2,351	18,371
<b>Merseyside Area Team</b>	9 (0.1%)	38 (0.4%)	59 (0.5%)	65 (0.5%)	184 (1.6%)	993 (8.6%)	4,880 (42.4%)	1,597 (13.8%)	11 (0.1%)	3,665	11,501
<b>England</b>	841 (0.1%)	1,649 (0.2%)	5,953 (0.9%)	3,334 (0.5%)	9,035 (1,3%)	52,791 (81.6%)	339,505 (52.4%)	118,334 (18.3%)	472 (0.1%)	114,990	646,904

Source: Health and Social Care Information Centre 2015 Statistics \*Data suppressed for confidentiality reasons as less than 5 cases

## 7.9 Low birth weight

This is an important measure, as low birthweight is an important predictor of infant mortality<sup>43</sup>. Low birth weight (a weight of under 2,500 grams<sup>44</sup>) increases the risk of childhood mortality and of developmental problems for the child and is associated with poorer health in later life<sup>45</sup>. At a population level there are inequalities in low birth weight and a high proportion of low birth weight births could indicate lifestyle issues of the mothers and/or issues with the maternity services. This indicator is in line with the Government's direction for public health on starting well through early intervention and prevention<sup>46</sup>.

There are also slight variations in birth rate by ethnicity nationally. In 2013/14, 8.3% of births to Asian and Asian British mothers were low birth weight (4,790) compared with 6.3% of black and black British mothers (1,686) and 5.1% of white mothers (20,654).

The table below shows that, according to Public Health England 2014 figures<sup>47</sup> 4 of the 10 local authority areas have low birth weight rates that Public Health England describe as better than the England average of 2.9% (Cheshire East, Cheshire West and Chester, Halton and Wirral). The remaining 6 areas have rates that are described as 'similar' to the England rate.

<sup>43</sup> <http://www.ons.gov.uk/ons/rel/vsob1/child-mortality-statistics--childhood--infant-and-perinatal/2012/sty-imr.html>

<sup>44</sup> <http://www.ons.gov.uk/ons/rel/vsob1/child-mortality-statistics--childhood--infant-and-perinatal/2012/sty-imr.html>

<sup>45</sup> <http://fingertips.phe.org.uk/cyphof#page/6/gid/8000025/pat/6/par/E12000002/ati/102/are/E08000012/iid/20101/age/235/sex/4>. Low birth weight is defined as live births with a birthweight of under 2500g and a gestational age of at least 37 complete weeks as a % of live births with a recorded birth weight and a gestational age of at least 37 complete weeks.

<sup>46</sup> <http://fingertips.phe.org.uk/cyphof#page/6/gid/8000025/pat/6/par/E12000002/ati/102/are/E08000012/iid/20101/age/235/sex/4>

<sup>47</sup> <http://fingertips.phe.org.uk/cyphof#page/0/gid/8000025/pat/6/par/E12000002/ati/102/are/E08000012>

**Table 15: Low birth weight**

Local authority	%
Cheshire East	2.0
Cheshire West and Chester	2.1
Warrington	2.4
Halton	1.9
Knowsley	2.7
Liverpool	2.6
Sefton	2.6
St.Helens	2.3
Wirral	1.9
Lancashire*	2.8
England	2.9

Source: Public Health England 2014 figures. Data not available separately for West Lancashire.  
(<http://fingertips.phe.org.uk/cyphof#page/0/gid/8000025/pat/6/par/E12000002/ati/102/are/E06000008>)

## **8. Postnatal period**

### **8.1 Neonatal screening and immunisations**

According to the World Health Organisation, immunisations are one of two interventions that have had the greatest impact on health, alongside clean water. The tables below show uptake of vaccines for each of the relevant Trusts and Clinical Commissioning Groups that are included in the health needs assessment. Uptake for antenatal Sickle Cell and Thalassaemia Timeliness of Test, in particular, along with Fetal Anomaly Screening Completion of Lab Request Forms, fall short of the targets.

Tables 16a-d: Immunisations

16a

	ST1 Antenatal Sickle Cell and Thalassemia Coverage - Target 99% (%)	ST2 Antenatal Sickle Cell and Thalassemia Timeliness of Test - Target 75% (%)	ST3 Antenatal Sickle Cell and Thalassemia Completion of Family Origin Questionnaire - Target 95% (%)	ID1 HIV Test Coverage - Target 90% (%)
<b>Cheshire</b>				
<b>Countess of Chester Hospital</b>	98.9	65.2	93.7	99.2
<b>East Cheshire Trust</b>	99.5	57.6	97.2	99.3
<b>Mid Cheshire Trust</b>	99.2*	N/A	98.3	99.5
<b>One to One midwifery</b>	89.1	85.0	96.5**	91.5
<b>Warrington and Halton Hospital</b>	99.1	51.1	94.8	94.8
<b>Wirral University Hospital</b>	99.8	8.0	98.7	98.7
<b>Cheshire, Warrington &amp; Wirral Area Team</b>	98.3	48.9	96.5	96.5
<b>Merseyside</b>				
<b>Bridgewater Community Healthcare Trust</b>	99.2	51.8	97.5	98.3
<b>Liverpool Women's Foundation Trust</b>	99.7	62.8	98.1	99.0
<b>Southport and Ormskirk Hospital Trust</b>	98.3	28.6	95.7	98.8
<b>St Helens and Knowsley Hospitals Trust</b>	93.1	55.4	97.3	99.0
<b>NHS Merseyside</b>	98.2	54.7	97.5	98.9

	ID2 Antenatal Infectious Disease Screening Timely Referral of Hepatitis B Positive Women for Assessment - Target 90% (%)	FA1 Fetal Anomaly Screening Completion of Lab Request Forms - Target 100% (%)	NP1 Newborn Screening - Newborn and Infant Physical Examination Tested within 72 Hours - Target 100% (%)	NP2 Newborn and Infant Physical Examination Timely Assessment of Developmental Dysplasia of the Hip - Target 100% (%)	NB2 Newborn Bloodspot Screening Avoidable Repeat Tests - Target less than or equal to 0.5%
<b>Cheshire</b>					
<b>Countess of Chester Hospital</b>	100	98.8	99.0	100	1.54
<b>East Cheshire Trust</b>	100	98.5	96.8	100 (Q2 only)	1.40
<b>Mid Cheshire Trust</b>	50	98.1	96.3	N/A	2.39
<b>One to One midwifery</b>	N/A	92.7	97.8	N/A	3.79
<b>Warrington and Halton Hospital</b>	100	98.7	92.9	N/A	1.56
<b>Wirral University Hospital</b>	100	94.5	93.9	85.7 (Q1 only)	2.31
<b>Cheshire, Warrington &amp; Wirral Area Team</b>	85.4	97.0	95.8	96.4	2.1
<b>Merseyside</b>					
<b>Bridgewater Community Healthcare Trust</b>	N/A	95.5	100	100	100
<b>Liverpool Women's Foundation Trust</b>	76.2	97.3	N/A	N/A	N/A
<b>Southport and Ormskirk Hospital Trust</b>	50 (Q2 only)	97.9	97.9 (Q1 only)	100	100
<b>St Helens and Knowsley Hospitals Trust</b>	100	97.4	97.3	100	100
<b>NHS Merseyside</b>	76.7	97.3	97.3	100	100

## 16c

	NB1 Newborn Bloodspot Screening Coverage by CCG Target 99% (%)	NB3 Newborn Bloodspot Screening Timeliness of Result by CCG - Target 98% (%)
<b>Cheshire</b>		
<b>Eastern Cheshire CCG, South Cheshire CCG and Vale Royal CCG</b>	92.0	99.8
<b>Warrington CCG</b>	97.4	100
<b>West Cheshire CCG</b>	97.8	100
<b>Wirral CCG</b>	99.7	100
<b>Cheshire, Warrington, Wirral Area Team</b>	96.4	99.9
<b>Merseyside</b>		
<b>Halton CCG</b>	95.2	100
<b>St. Helens CCG</b>	97.6	100
<b>Knowsley CCG</b>	93.2	97.9
<b>Liverpool CCG</b>	99.0	99.8
<b>South Sefton CCG</b>	97.7	99.6
<b>Southport and Formby CCG</b>	97.8	100
<b>NHS Merseyside</b>	97.1	99.6

## 16d

	NH1 Newborn Hearing Screening - Screen Complete by 4 Weeks (Hospital)/ 5 Weeks (Community) after birth Target 95% acceptable (%)	NH2 Newborn Hearing Screening - Referral to Assessment within 4 Weeks (Achieved) - Target 90% Acceptable (%)
<b>Cheshire</b>		
<b>Chester</b>	99.3	86.4
<b>Crewe</b>	99.5	94.4
<b>Macclesfield</b>	99.1	86.9
<b>One to One</b>	N/A	N/A
<b>North Cheshire (Warrington)</b>	98.7	87.0
<b>Wirral</b>	97.4	87.2
<b>Merseyside</b>		
<b>Liverpool Women's Foundation Trust</b>	97.0	85.0
<b>Southport and Ormskirk Hospitals Trust</b>	96.5	87.9
<b>St. Helens and Knowsley Hospitals Trust</b>	98.3	84.2
<b>North West</b>	97.6	86.5
<b>England</b>	97.9	86.4

Source: Merseyside CSS, statistics from 2014/15, combined (where data from at least two quarters was available). Data incomplete – not all indicators are mandatory returns.



## 8.2 Breastfeeding initiation and 6-8 weeks

Table 17 below shows the number of women who initiated breastfeeding, and those who are still breastfeeding at 6-8 weeks, in 2014-15. Data was collected directly from maternity service providers and child health information systems, and it is possible that there may have been some variation in definition of 'initiation' of breastfeeding. Across England 471,561 women initiated breast feeding, representing 74% initiation rate. Table 15 below shows that the Trust where initiation of breastfeeding was highest was Mid Cheshire NHS Trust (72%) and the Trust where Initiation of breastfeeding was lowest was Liverpool Women's NHS Foundation Trust (52%).

**Table 17: Initiation of breastfeeding by NHS Trust, 2014-15**

	Total number	No. initiated	%	95% confidence interval
<b>Countess Of Chester Hospital NHS Foundation Trust</b>	2381	1632	69%	66.6% - 70.4%
<b>East Cheshire NHS Trust*</b>	1710	1240	71%	N/A
<b>Liverpool Women's NHS Foundation Trust</b>	8182	4290	52%	51.3% - 53.5%
<b>Mid Cheshire NHS Trust</b>	2781	1998	72%	67.5%-74.1%
<b>Southport and Ormskirk Hospital NHS Trust</b>	2654	1649	62%	60.3% - 64.0%
<b>Warrington and Halton Hospitals NHS Foundation Trust</b>	2929	1919	66%	63.8% - 67.2%
<b>Wirral University Teaching Hospital NHS Foundation Trust</b>	3211	1820	57%	55.0% - 58.4%
<b>St. Helens and Knowsley NHS Trust</b>	3833	2091	56%	51.3%-57.7%
<b>Cheshire, Warrington And Wirral Area Team</b>	12668	8471	67%	66.0% - 67.7%
<b>Lancashire Area Team</b>	16790	11545	69%	68.1% - 69.5%
<b>Merseyside Area Team</b>	13957	7533	54%	53.1% - 54.8%
<b>England</b>	634378	471561	74%	74.2% - 74.4%

Source: NHS England, September 2014:<http://www.england.nhs.uk/statistics/wpcontent/uploads/sites/2/2014/03/Breastfeeding-1314-Revised-Data.pdf>

Table 18 below shows that the CCG where initiation of breastfeeding was highest was NHS Eastern Cheshire CCG (72.9%), and the CCG where it was lowest was NHS Knowsley CCG (44.9). Rates for all CCGs were lower than the England average of 73.9%. Data for those breastfeeding at 6-8 weeks is taken from an infant 6-8 week check. At 6-8 weeks, the only CCG where breastfeeding rates were higher than the England average of 45.8% was NHS Eastern Cheshire CCG (52.6%). The CCG where breastfeeding rates were lowest was NHS Knowsley (19.9%).

*Table 18: Initiation of breastfeeding by CCG for 2013/4*

	Total number of maternities	Breastfeeding initiated (%)	Number of infants due 6-8 week check	Infants totally or partially breastfed at 6-8 weeks (%)
<b>NHS Eastern Cheshire CCG</b>	1,952	1,423 (72.9)	2,014	1,059 (52.6)
<b>NHS South Cheshire CCG</b>	1,754	1,166 (66.5)	1,738	646 (37.2)
<b>NHS Vale Royal CCG</b>	1,126	682 (60.6)	1,151	378 (32.8)
<b>NHS Warrington</b>	2,347	1,567 (66.8)	2,372	867 (36.6)
<b>NHS West Cheshire CCG</b>	2,482	1,681 (67.7)	3,550	926 (36.6)
<b>NHS Wirral CCG</b>	3,102	1,681 (67.7)	3,546	1,098 (30.9)
<b>NHS West Lancashire CCG</b>	1,039	666 (64.1)	1,070	342 (31.9)
<b>NHS Halton CCG</b>	1,468	666 (45.5)	1,512	329 (21.7)
<b>NHS Knowsley CCG</b>	1,756	789 (44.9)	1,776	353 (19.9)
<b>NHS Liverpool CCG</b>	5,645	3,007 (53.1)	5,280	1,656 (31.4)
<b>NHS South Sefton CCG</b>	1,717	868 (50.6)	1,859	410 (22.0)
<b>NHS Southport and Formby CCG</b>	1,014	693 (68.3)	1,047	376 (35.9)
<b>NHS St. Helens CCG</b>	2,069	1,181 (57.1)	388	1769 (21.9)
<b>England</b>	614,346	454,317 (73.9)	629,012	288,219 (45.8)

Source : NHS England

### 8.3 Infant mortality

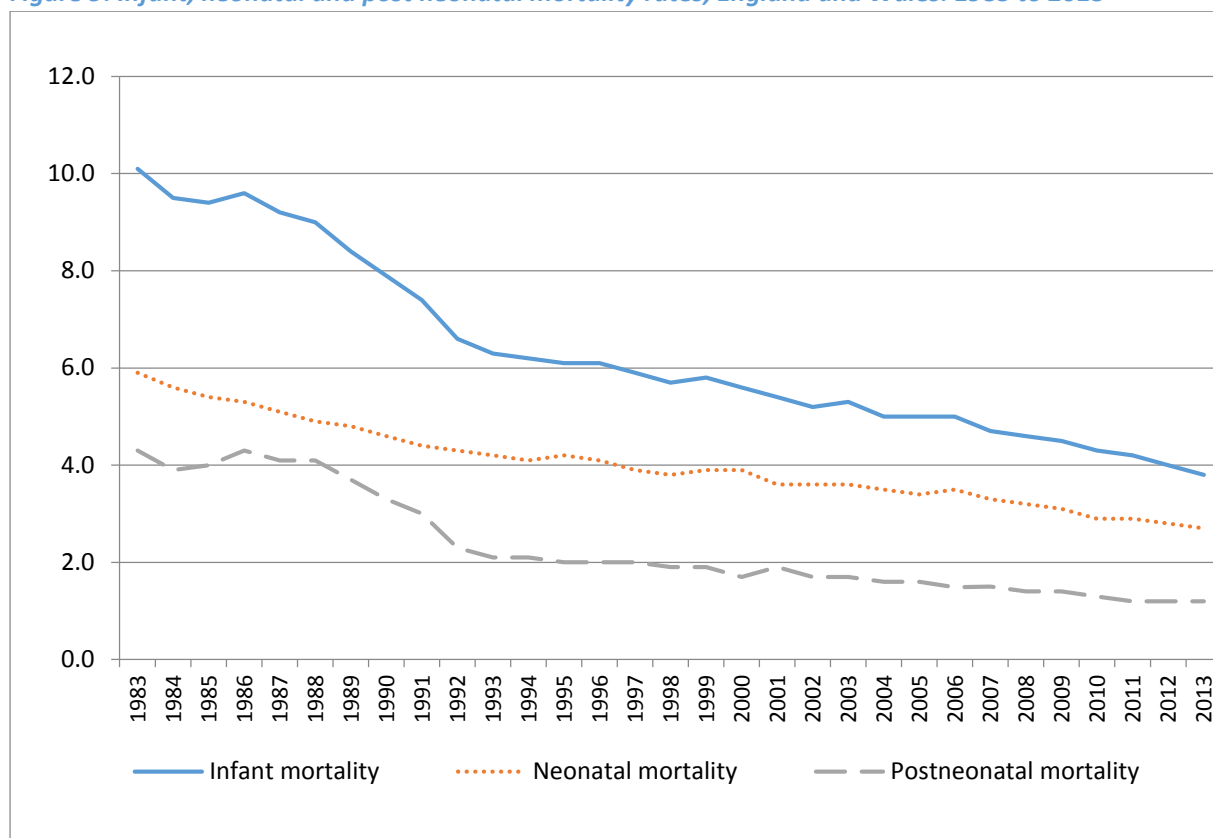
In England and Wales in 2013 there were 2,686 infant deaths (deaths in infants aged under 1 year). This is a decline on the previous year (2,912 in 2012) and continues the overall downward trend seen over the past 30 years, with deaths falling from 6,381 in 1983 (figure 10). However, despite this overall decline, Marmot (2010) observes that certain factors were independently associated with increased risk of infant mortality including births outside marriage, maternal age under 20 years and deprivation. The Marmot review also suggests that poorer long term health outcomes are associated with low birth rate and that maternal health is related to socio-economic status<sup>48</sup>.

The rate of infant mortality in England and Wales in 2013 was 3.8 deaths per 1,000 live births (the lowest rate ever recorded). Infant mortality rates were highest among babies of mothers aged under 20 years (6.1 per 1,000) and lowest for mothers aged 25-29 years (3.4 per 1,000). Among babies with a very low birth rate the rates were

<sup>48</sup> Marmot et al (2010) Fair Society, Healthy Lives. London: DH.

substantially higher at 164 deaths per 1,000 for babies under 1,500 grams and 32.4 deaths per 1,000 for babies under 2,500 grams.

Figure 9: Infant, neonatal and post neonatal mortality rates, England and Wales: 1983 to 2013



The table below shows infant mortality, defined as deaths in infants aged under 1, and neonatal mortality, deaths in infants aged under 28 days, in the 10 Cheshire and Merseyside local authority areas. Nationally, infant mortality is decreasing – in 2015, there were 2,611 deaths in infants aged under 1 year, compared to 2,686 in 2013, and 6,831 in 1983<sup>49</sup>. Neonatal mortality has also continued to fall over the last two decades. The table below shows that five of the local authority areas had infant mortality rates that were lower than the England average – 1 was the same as the England average, and four were higher. Four of the areas had neonatal mortality rates that were lower than the England average, and five were higher.

<sup>49</sup> <http://www.ons.gov.uk/ons/rel/vsob1/child-mortality-statistics--childhood--infant-and-perinatal/2013/stb-child-mortality-stats-2013.html>

**Table 19: Infant and neonatal mortality by local authority**

Local authority	Infant (under 1 year)	Infant mortality rate (per 1,000 live births)	Neonatal (under 4 weeks)	Neonatal mortality rate (per 1,000 live births)
Cheshire East	16	4.2	12	3.2
Cheshire West and Chester	9	2.5	7	2.0
Warrington	10	4.2	8	3.4
Halton	6	3.8	5	3.1
Knowsley	6	3.3	*	1.7
Liverpool	22	3.9	13	2.3
Sefton	14	4.9	11	3.9
St Helens	*	2.0	*	
Wirral	13	3.7	9	2.5
West Lancashire	7	6.1	6	5.3
England	2,611	3.9	1,799	2.7

Source: Office for National Statistics, March 2015 \*Data suppressed for confidentiality as less than 5  
<http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcn%3A77-327606>

#### 8.4 Perinatal mental health: postnatal depression and other forms

According to a 2013 report compiled by the Boots Family Alliance Trust<sup>50</sup>, snapshot surveys show that around one in three report women report some level of depression or anxiety during the perinatal period, which is the period between conception and the baby reaching the age of one<sup>51</sup>.

According to a 2015 Department of Health and NHS England report<sup>52</sup>, NHS England is working with partner organisations to reduce the incidence and impact of postnatal depression, through earlier diagnosis and better intervention and support. By 2017, every birthing unit should have access to a specialist perinatal mental health clinician. Mental health training is being updated for health visitors and developed for midwives. A waiting standard is being considered for rapid access to mental health services for women in pregnancy or in the postnatal period with a known or suspected mental health problem.

#### 8.5 Unexplained deaths in infancy

Data from the Office for National Statistics<sup>53</sup> shows that there were 249 unexplained infant deaths (deaths in infants aged under one) in England and Wales in 2013, a rate of 0.36 deaths per 1,000 live births. This is the first rise in unexplained infant deaths since 2008. Before 2013, the rate had fallen steadily from 0.41 in 2008 to 0.32 in 2012. The North West rate was 0.45 per 1000 live births, slightly higher than the England rate of 0.36. Almost two thirds (65%) of these deaths were recorded as sudden infant deaths, and 35% were recorded as unascertained (where no other cause of death is

<sup>50</sup> [http://www.tommymys.org/file/Perinatal\\_Mental\\_Health\\_2013.pdf](http://www.tommymys.org/file/Perinatal_Mental_Health_2013.pdf). the Boots Family Trust Alliance is a collaboration amongst those who have a particular interest and role to play in addressing maternal mental health issues, and includes Netmums, the Institute for Health Visiting, Tommy's, and the Royal College of Midwives

<sup>51</sup> Netmums (2013) Parents views of Children's Centres, Netmums; Tommy's (2011) Word of Mum panel hosted by Bounty. [www.bounty.com/Word\\_of\\_Mumpanel/](http://www.bounty.com/Word_of_Mumpanel/) home

<sup>52</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/414024/Childrens\\_Mental\\_Health.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414024/Childrens_Mental_Health.pdf)

<sup>53</sup> <http://www.ons.gov.uk/ons/rel/child-health/unexplained-deaths-in-infancy--england-and-wales/2013/stb-unexplained-deaths--2013.html>

recorded). The rate of infant deaths rose from 0.92 to 1.27 for mothers aged under 20. Although numbers are very small, this was four times greater than the combined categories of babies born to mothers aged 20 and over (0.32).

Most (70%) infant deaths are likely to occur in the first four weeks after birth (neonatal period) but unexplained infant deaths are more likely to happen after the first four weeks.

The main risk factors for unexplained infant deaths include gender - boys made up 56% of all infant deaths in 2013, although they accounted for 51% of live births. Low birthweight is also associated with infant mortality, premature birth and factors affecting foetal growth during pregnancy, such as maternal smoking. In 2013, the rate of unexplained infant deaths for low birthweight babies (less than 2,500 grams) was 1.04 deaths per 1,000 live births. This is more than 3 times higher than babies whose birthweight was 2,500 grams and over (0.3 deaths). Maternal age is also a risk factor –deaths were more common where mothers were aged under 20, as well as marital status of parents - in 2013 the unexplained infant death rate for babies born within marriage/civil partnership was 0.14 deaths per 1,000 live births.

In comparison, the rate for babies born outside marriage/civil partnership was more than 4 times higher, at 0.59 deaths per 1,000 live births. The final main risk factor is socio-economic classification. Other risk factors include sleeping position, sleep environments including unplanned bed-sharing and sleeping with a baby on a sofa, not breastfeeding, temperature and exposure to tobacco smoke<sup>54</sup>.

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<sup>54</sup> Ostfeld, B.M., Esposito, L., Perl, H., et al (2010) [Concurrent risks in sudden infant death syndrome](#). *Pediatrics*, 125: pp 447-453, accessed on 30 July 2015.

## 8.6 Maternal deaths

Maternal deaths across the area are, thankfully, exceptionally rare, and rates of maternal deaths are decreasing nationally<sup>55</sup>.

According to a 2014 report published by MBRRACE<sup>56</sup> in 2009-12, 357 women died during, or within six weeks of the end of their pregnancy in the UK. This represents a statistically significant decrease in the maternal mortality rate, which is now 10.12 per 100,000 maternities. The decrease is mainly due to a reduction in deaths due to direct (obstetric) causes. The report showed that two thirds of mothers died from medical and mental health problems in pregnancy and only one third from direct complications of pregnancy such as bleeding. Three quarters of women who died had medical or mental health problems before they became pregnant.

A recent report<sup>57</sup>, led by the national perinatal epidemiology unit at the University of Oxford, found that the most important risk factors for maternal deaths in the UK were medical co-morbidities<sup>58</sup>, followed by previous pregnancy problems, hypertensive disorders of pregnancy, inadequate use of antenatal care, substance misuse and Indian ethnicity. Suicide is also a risk factor – according to MBRRACE UK 2015 data<sup>59</sup>, 1 in 7 women who died between six weeks and one year of pregnancy died from suicide. The authors found that uptake of antenatal care was poorer among women with medical co-morbidities, which could increase adverse effects associated with these conditions, and highlighted the importance of these women receiving pre-conception counselling and extra support throughout their pregnancy. Overall, more than two thirds of women who died did not receive the nationally recommended level of antenatal care; a quarter did not receive a minimum level of antenatal care<sup>60</sup>.

## 8.7 Foetal Alcohol Syndrome Disorder (FASD)

According to MENCAP<sup>61</sup>, the term FASD describes a spectrum of structural, behavioural and neurocognitive impairments that are caused by alcohol consumption during pregnancy. It is an umbrella term which covers Foetal Alcohol Syndrome (FAS), Alcohol Related Neurodevelopmental Disorder (ARND), Alcohol Related Birth Defects (ARBD), Foetal Alcohol Effects (FAE) Partial FAS (PFAS). There are currently no reliable prevalence figures for FASD in the UK. International studies state it is estimated that 1 in 100 babies are born with FASD<sup>62</sup>.

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<sup>55</sup> <https://www.rcm.org.uk/news-views-and-analysis/news/risk-factors-for-direct-maternal-deaths-revealed>.

<sup>56</sup> <https://www.npeu.ox.ac.uk/downloads/files/mbrance-uk/reports/Saving%20Lives%20Improving%20Mothers%20Care%20report%202014%20Exec%20Summary.pdf>

<sup>57</sup> <https://www.rcm.org.uk/news-views-and-analysis/news/risk-factors-for-direct-maternal-deaths-revealed>.

Data from the recent MBRRACE Confidential Enquiry into Maternal Deaths was used as well as data on women who survived severe complications during pregnancy and childbirth from the UK Obstetric Surveillance System

<sup>58</sup> Co-morbidity describes 2 or more illnesses occurring in the same person, and the interaction between the two that can worsen both illnesses: <https://www.drugabuse.gov/related-topics/comorbidity>

<sup>59</sup> <https://www.npeu.ox.ac.uk/downloads/files/mbrance-uk/reports/MBRRACE-UK%20Maternal%20Report%202015.pdf>

<sup>60</sup> <https://www.npeu.ox.ac.uk/downloads/files/mbrance-uk/reports/Saving%20Lives%20Improving%20Mothers%20Care%20report%202014%20Full.pdf>

<sup>61</sup> <https://www.mencap.org.uk/about-us>

<sup>62</sup> <https://www.mencap.org.uk/about-learning-disability/information-professionals/health/information-gps-about-fasd/advice-gps/what-foetal-a>

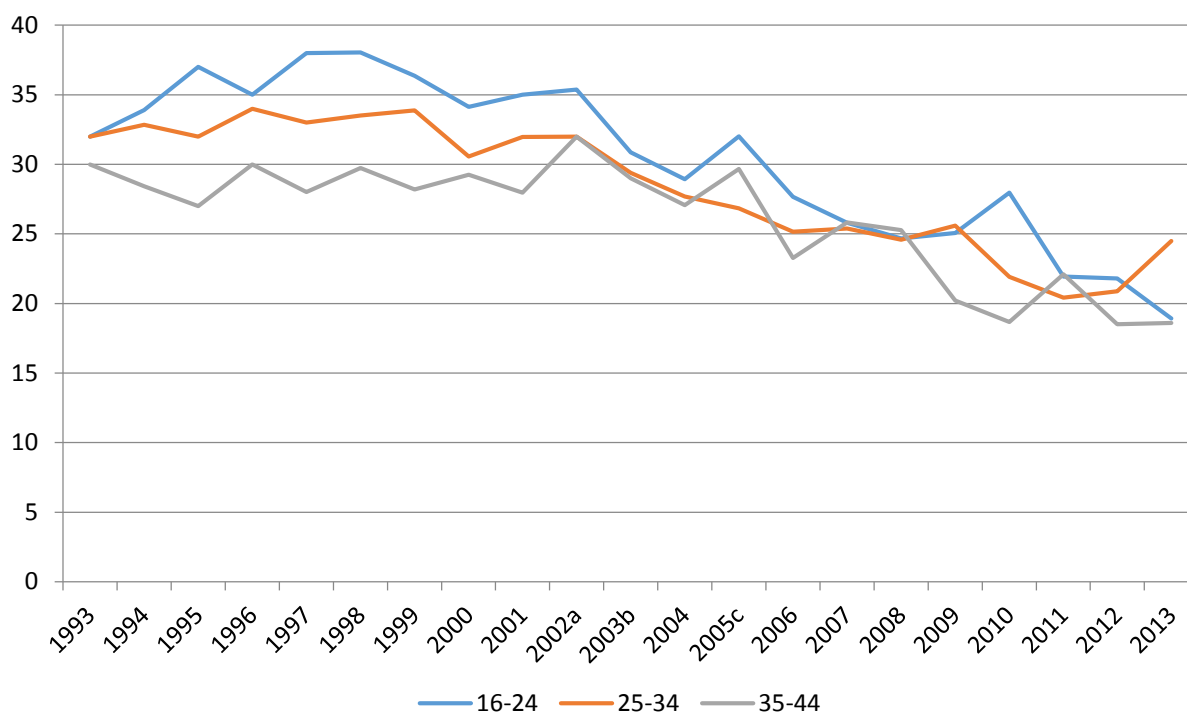
## 9. Lifestyle factors before, during and after pregnancy

### 9.1 Smoking: overall prevalence

According to a 2014 report by the Health and Social Care Information Centre<sup>63</sup>, 20% of adults aged 16 and over were smokers in 2012, a rate that has remained largely unchanged in recent years, compared to 26% in 2002. Unemployed people (39%) were around twice as likely to smoke as those either in employment (21%) or economically inactive people (17%) such as students or retired people.

Figure 11 shows the proportion of women aged 16-44 who are current smokers according to the health survey for England. The proportion of women who are current smokers has decreased across all age groups since 1993. The largest increase has been in women aged 16-24 where current smoking has fallen from 32% in 1993 to 19% in 2013 (the same rate as for women aged 35-44 years). Women aged 25-34 years had the highest rate of smoking with 24% of women surveyed current smokers.

*Figure 10: Proportion of women aged 16-44 who are current smokers, England*



Source: Health Survey for England, 2014

<sup>63</sup> <http://www.hscic.gov.uk/catalogue/PUB14988/smok-eng-2014-rep.pdf>

## 9.2 Smoking: at time of booking

According to 2014 report from the Health and SOCIAL Care Information Centre<sup>64</sup>, in England in 2010, 26% of women smoked in the 12 months before or during their pregnancy, a fall from 33 per cent in 2005. Of the mothers who smoked before or during their pregnancy over half (55%) gave up at some point before the birth. Twelve per cent of mothers continued to smoke throughout their pregnancy, down from 17 per cent in 2005. The highest levels of smoking before or during pregnancy were found among mothers in routine and manual occupations (40%) and among those aged under 20 (57%). Mothers aged under 20 were also the least likely to have given up smoking at some point before or during pregnancy (38 per cent) but by socio-economic group mothers who had never worked were the least likely to have done so (29%).

## 9.3 Smoking at time of delivery

The Health and Social Care Information Centre provide a measure of the prevalence of smoking among pregnant women at Commissioning Region, Region and Clinical Commissioning Group level<sup>65</sup>. National data for 1<sup>st</sup> April 2014 to 31<sup>st</sup> March 2015 shows that 11.4 per cent of mothers were recorded as smokers at the time of delivery for 2014/15, which is lower than 2013/14 (12.0 per cent) and continues the steady year-on-year decline in the percentage of women smoking at the time of delivery from 15.1 per cent in 2006/07. Smoking is associated with increased complications in pregnancy, requiring increased resources, increased risk of stillbirth, premature delivery and low birthweight, as well as unexplained infant death.

The percentage of women smoking at the time of delivery was lower in NHS Eastern Cheshire (8.9%) and NHS West Cheshire (8.5%) than the national average. The percentage in NHS Southport and Formby (11.2%), NHS Warrington (11.0%) NHS West Lancashire (11.5) and NHS Wirral (11.4%) was similar to the national average, with percentages in the remaining CCGs higher than the national average.

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<sup>64</sup> <http://www.hscic.gov.uk/catalogue/PUB14988/smok-eng-2014-rep.pdf>

<sup>65</sup> <http://www.hscic.gov.uk/catalogue/PUB17668p>



**Table 20: Smoking at time of delivery by Clinical Commissioning Group (CCG)**

Clinical Commissioning Group (CCG)	Smokers at time of delivery (%)	95% confidence interval
NHS Eastern Cheshire	8.9	11.1-12.2
NHS Halton	18.3	16.4-20.4
NHS Knowsley	19.4	17.7-21.2
NHS Liverpool	16.2	15.3-17.2
NHS South Cheshire	16.3	14.6-18.1
NHS South Sefton	17.0	15.3-17.2
NHS Southport and Formby*	11.2	9.5-13.3
NHS St. Helens	17.3	15.7-19.0
NHS Vale Royal	18.3	16.0-20.8
NHS Warrington	11.0	9.8-12.4
NHS West Lancashire**	11.5	9.6-13.7
NHS West Cheshire	8.5	7.5-9.7
NHS Wirral***	11.4	10.3-12.5
England	11.4	11.3-11.5

Source: Health and Social Care Information Centre, 2015 statistics

\*A large number of maternities had an unknown smoking status for Southport and Formby (Q4 34.2%, this was due to issues that the trust had in collecting data in Q4).

\*\*A large number of maternities had an unknown smoking status for West Lancashire (Q4- 38.6%)

\*\*\*A large number of maternities had an unknown smoking status for Q2 for Wirral (20.3%).

#### 9.4 Obesity: general population prevalence

High BMI is associated with an increase in all pregnancy complications, including reduced fertility, increased rates of miscarriage, fetal congenital abnormalities, fetal growth restriction (smaller babies, impaired glucose tolerance and gestational diabetes, hypertensive disorders of pregnancy, difficulty monitoring the baby, still birth and maternal death<sup>66</sup>. Increased resources are needed to care for these mothers. In addition, children born to obese mothers are twice as likely to be obese themselves in later life<sup>67</sup>.

According to a report by the Health and Social Care Information Centre<sup>68</sup>, the proportion of adults with a normal Body Mass Index (BMI) decreased between 1993 and 2012 from 49.5% to 40.6% among women. The proportion of adults that were obese increased between 1993 and 2012 from 16.4% to 25.1% among women. The proportion of adults that were overweight including obese increased between 1993 and 2012 from 48.6% to 57.2% among women.

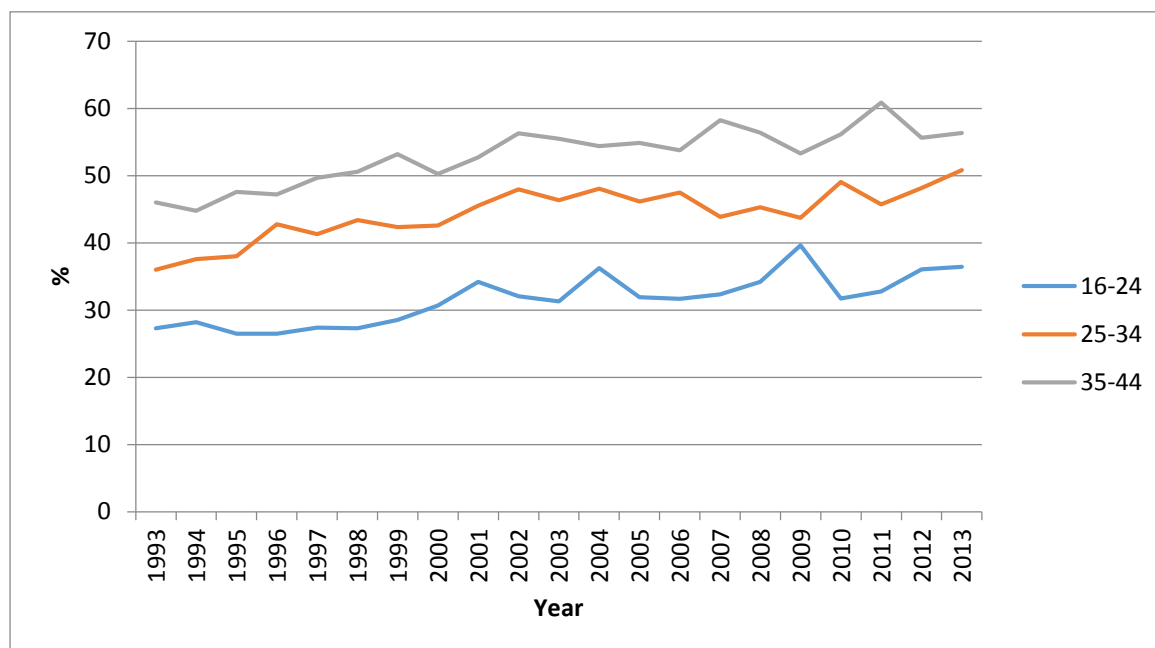
Figure 12 displays data from the Health Survey for England showing the proportion of women aged 16-44 who are overweight and obese at each age band. Across all age groups the proportion of women who are overweight or obese has increased with the greatest increase in the 25-34 years age group (from 36% in 1993 to 51% in 2013). The proportion of women classed as overweight or obese increases with age with 37% of women aged 16-24 years classed as overweight or obese compared with 56% of women aged 35-44 years.

<sup>66</sup> [http://www.britishjournalofobesity.co.uk/resources/article\\_pdfs/2015-1-3-96.pdf](http://www.britishjournalofobesity.co.uk/resources/article_pdfs/2015-1-3-96.pdf)

<sup>67</sup> [http://www.britishjournalofobesity.co.uk/resources/article\\_pdfs/2015-1-3-96.pdf](http://www.britishjournalofobesity.co.uk/resources/article_pdfs/2015-1-3-96.pdf)

<sup>68</sup> <http://www.hscic.gov.uk/catalogue/PUB13648/Obes-phys-acti-diet-eng-2014-rep.pdf>

Figure 11: Prevalence of overweight including obese among women aged 16-44 years, England, 1993-2013



Source: Health Survey for England, 2014

The following figures were taken from Sport England's<sup>69</sup> 'Active People', which was a national survey. Percentages of people who are underweight, healthy weight and overweight are provided for each of the local authority areas that are included in this needs assessment. Table 20 below shows that, when the categories of overweight and obese were combined, to calculate 'excess weight', percentages for all local authority areas apart from Cheshire East and West Lancashire were higher than the England figure of 63.8%.

<sup>69</sup> <http://www.sportengland.org/research/>

**Table 21: Prevalence of underweight, healthy weight, overweight, obesity, and excess weight<sup>70</sup> among adults at local authority level for England, January 2012-13, percentages**

Local authority	Underweight	Healthy weight	Overweight	Obese	Excess weight
Cheshire East	0.2	38.5	37.5	23.8	61.2
Cheshire West and Chester	1.0	30.5	43.0	25.5	68.5
Warrington	1.4	28.7	48.3	21.7	70.0
Halton	1.4	28.4	35.6	35.2	70.2
Knowsley	N/A	N/A	N/A	N/A	N/A
Liverpool	2.5	30.3	41.3	25.9	67.2
Sefton	0.7	30.6	45.1	23.6	68.7
St Helens	1.7	30.3	38.2	29.3	67.5
Wirral	0.5	33.1	47.9	18.6	66.4
West Lancashire	1.3	35.6	31.0	22.5	63.1
North West	1.3	32.7	41.7	24.3	66.0
England	1.2	35.0	40.8	23.0	63.8

Source: Active People Survey, Public Health England: <http://www.noo.org.uk/>  
 Figures were not available for Knowsley

**Underweight:** BMI less than 18.5kg/m<sup>2</sup>

**Healthy weight:** BMI greater than or equal to 18.5 but less than 25kg/m<sup>2</sup>

**Overweight:** BMI greater than or equal to 25 but less than 30kg/m<sup>2</sup>

**Obese:** BMI greater than or equal to 30kg/m<sup>2</sup>

**Excess weight:** BMI greater than or equal to 25kg/m<sup>2</sup> (overweight including obese)

### 9.5 Obesity at time of booking/during pregnancy

The Centre for Maternal and Child Enquiries (CMACE) conducted an audit of maternal obesity in the UK in 2010. They estimated that the prevalence of Class II and Class III obesity (BMI less than or equal to 35) in mothers who gave birth between 24-0 weeks gestation was 4.99%; the equivalent of approximately 38.478 maternities each year. The prevalence of Class III obesity (BMI greater or equal to 40) is 2.01% whilst the prevalence of super morbid obesity (BMI equal or greater than 50 among women giving birth is 0.19%.

### 9.6 Diabetes: type 1, type 2 and gestational

Data from the most recent Diabetes in Pregnancy Audit (HSCIC, 2014) captured information on 1,614 pregnant women with diabetes in England of which 313 (19%) were accessing care in the North West of England. The largest proportion of pregnant women with diabetes had Type 1 diabetes (48%) with a further 36% having Type two diabetes. Seventeen percent of women were recorded in the other category which includes maturity onset diabetes of the young (MODY), other diabetes types and women whose diabetes type was not recorded.

<sup>70</sup> **Underweight:** BMI less than 18.5kg/m<sup>2</sup>

**Healthy weight:** BMI greater than or equal to 18.5 but less than 25kg/m<sup>2</sup>

**Overweight:** BMI greater than or equal to 25 but less than 30kg/m<sup>2</sup>

**Obese:** BMI greater than or equal to 30kg/m<sup>2</sup>

Pregnant women with diabetes in the North West of England reached pregnancy completion at a slightly lower average age (30.9 years) than England and Wales as a whole (31.4 years) women with type 1 diabetes had a lower mean age (28.9 years) compared with women with type 2 diabetes (33.3). Similarly women with type 1 diabetes had were younger at diabetes diagnosis (mean age 15.3 years) and reported a lower body mass index (BMI; 26.9 km/m<sup>2</sup>) than women with type 2 diabetes (28.7 years and BMI 33.2 km/m<sup>2</sup> ).

Women with diabetes have an increased risk of a neural tube defect during pregnancy, and the NICE guidelines for diabetes during pregnancy recommend that women take 5mg of folic acid while planning pregnancy and up to 12 weeks gestation (ref NICE). Table 22 shows the use of folic acid supplements for women during their last menstruation period; in the North West of England 34% of women were taking a known dose of folic acid; lower than the average for England and Wales (40%). A higher proportion of women with type 1 diabetes were taking folic acid (39%) than women with type 2 diabetes (31%) and whilst this pattern conforms to variations seen nationally; the proportion of women taking folic acid in all groups was lower than the national average.

**Table 22: Use of folic acid supplement prior to pregnancy, 2013**

	All pregnancies (%)		Pregnancies in women with Type 1 diabetes (%)		Pregnancies in women with Type2 diabetes (%)	
	North West	England and Wales	North West	England and Wales	North West	England and Wales
<b>Dose 400 mcg</b>	5.3	7.1	3.1	4.6	6.6	9.7
<b>Dose 5mg</b>	29.0	33.0	36.0	42.6	24.0	24.7
<b>All doses</b>	34.3	40.1	39.1	47.3	30.6	34.4
<b>Not taken</b>	54.1	44.4	49.1	38.4	58.7	49.0
<b>Not known*</b>	11.5	15.6	11.8	14.3	10.7	16.6

\* Not known includes women who were recorded as taking folic acid but with an unknown dose

(Source: HSCIC, National Pregnancy in Diabetes Audit, 2013)

NICE also recommend that women aim to establish good glycaemic control (below 43 mmol/mol (6.1%) where safely achievable) before conception and through pregnancy to reduce the risk of miscarriage, congenital anomalies, stillbirth and neonatal death. Table 22 shows the proportion of women that met the NICE target within the first trimester. Overall 8.1% of women in the North West of England met the NICE recommended level; lower than the England and Wales average (10.9%). A further 10.8% of women in the North West of England exceeded 86mmol/mol; NICE recommend that women be strongly advised to avoid pregnancy.

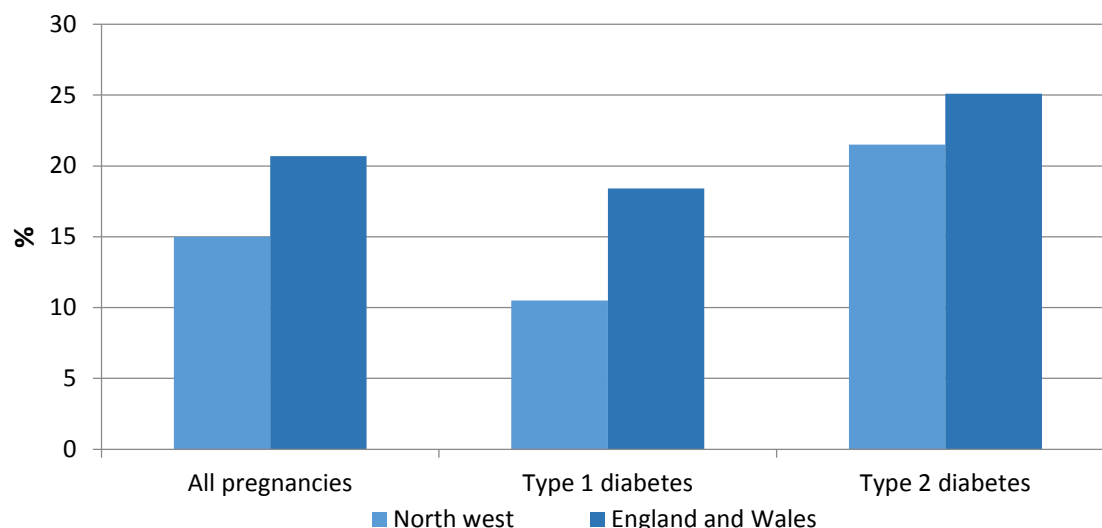
**Table 23: First trimester HbA1c measurement among pregnant women with diabetes, 2013**

	All pregnancies (%)		Pregnancies in women with Type 1 diabetes (%)		Pregnancies in women with Type 2 diabetes (%)	
	North West	England and Wales	North West	England and Wales	North West	England and Wales
<b>Result &lt; 43 mmol/mol (6.1%)</b>	8.1	10.9	2.9	5.1	13.6	18.5
<b>Result &lt; 53 mmol/mol (7.0%)</b>	27.3	34.7	17.4	25.1	37.5	45.9
<b>Result &gt; 86 mmol/mol (10.0%)</b>	10.8	10.2	13.0	10.8	8.0	8.6

(Source: HSCIC, National Pregnancy in Diabetes Audit, 2013)

The National Pregnancy in Diabetes audit combines the measures to identify the proportion of women who are prepared for pregnancy. They define “adequately prepared for pregnancy” as taking 400mcg or 5mg of folic acid prior to pregnancy and having a first trimester HbA<sub>1c</sub> measurement <53 mmol/mol. Figure 13 below shows that in 2013 15% of women with diabetes were considered ready for pregnancy; lower than the England and Wales average (21%). In line with national trends, women with type 2 diabetes were more likely to be prepared for pregnancy (22%) than women with type 1 diabetes (11%) but the proportion of women in the North West was lower than the national average for all groups.

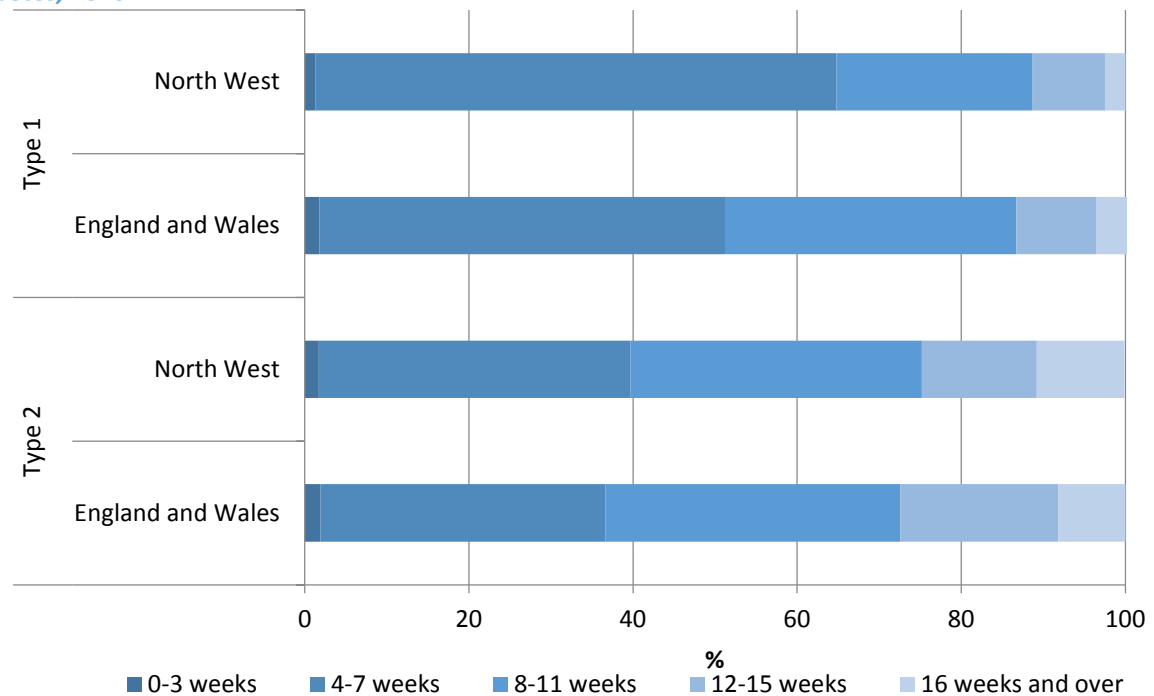
**Figure 12: Preparedness for pregnancy in women with diabetes, 2013**



As women with diabetes are at higher risk of adverse outcomes during pregnancy including miscarriage, congenital abnormality, stillbirth and neonatal death it is vital that contact with a specialist diabetes antenatal team takes place as early as possible in the pregnancy. Figure 11 shows the timing of first contact with specialist antenatal teams by weeks of gestation for women with type 1 and type 2 diabetes. The majority of women with type 1 diabetes (65%) have contact with a specialist team between 0-7 weeks gestation; higher than the proportion for England and

Wales as a whole (51%). For women with type 2 diabetes this proportion is lower (40%) although it remains higher than the England and Wales average (37%).

**Figure 13: Gestation (completed weeks) at first contact with specialist antenatal team for women with diabetes, 2013**

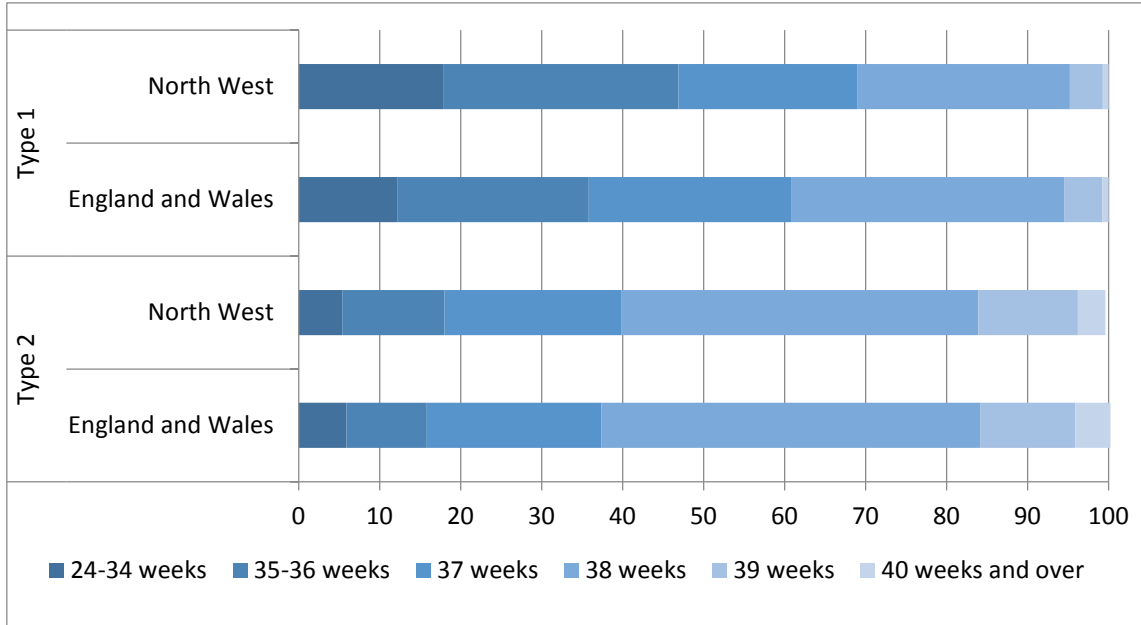


(Source: HSCIC, National Pregnancy in Diabetes Audit, 2013)

NICE also recommend that women with diabetes who have a normally grown foetus should be offered either elective caesarean or elective birth through induction after 38 completed weeks. Figure 15 shows the gestation length of pregnancies for women with type 1 and type 2 diabetes. Among mothers with type 1 diabetes the majority of women completed between 35 and 38 weeks gestation (77%) with a higher proportion of women at 35-36 weeks (29%) and a lower proportion at 38 weeks (26%) when compared with the national average (24% and 34% respectively). The largest proportion of women with type 2 diabetes completed at 38 weeks (47%) and this was higher than the England and Wales average (44%).

Overall a third (33.3%) of births were preterm deliveries (delivered before 37 weeks completed gestation) and the proportion of preterm deliveries was much higher among women with type 1 diabetes (48%) than women with type 2 diabetes (18%). Among babies delivered before 37 completed weeks 33.3% were reported to be receiving normal neonatal care (not special or intensive care) and this is lower than the proportion seen in England and Wales (40%).

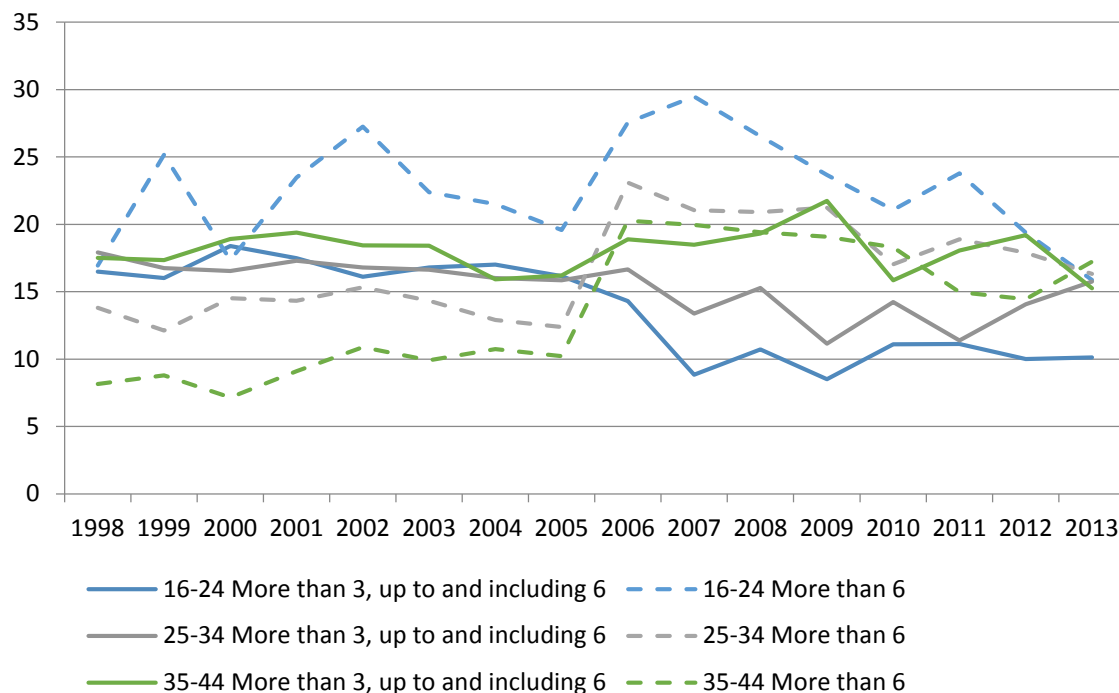
Figure 14: Gestation length for singleton live and stillbirth pregnancies to women with diabetes, 2013



(Source: HSCIC, National Pregnancy in Diabetes Audit, 2013)

## 9.7 Alcohol: prevalence by age and gender

Figure 15: National picture: Estimated alcohol consumption on the heaviest drinking day in the last week, by survey year and age



Source: Health Survey for England (2013)

Figure 16 above shows alcohol consumption on the heaviest drinking day of the last week. The chart shows that consumption had been steadily falling since a peak in 2007, although consumption for those aged 25-34 rose between 2011 and 2013.

## 9.8 Prevalence of giving up drinking during pregnancy: Infant Feeding Survey 2010

The most recent data on drinking during pregnancy comes from the 2010 infant feeding survey. The survey reported that in 2010 80% of mothers drank before their pregnancy and 41% drank during pregnancy. Amongst responding mothers 48% stated that they gave up drinking during pregnancy, 47% drank less and 2% reported that either did not change their drinking behaviour or they drank more. Twenty nine percent of mothers drank less than one unit per week with a further 4% drinking 1-2 units and 3% drinking 3-7 units. Amongst women who gave up or reduced their alcohol consumption the main reason for doing so was that alcohol might harm their baby (86%).

Nationally, 71% of mothers who drank alcohol before their pregnancy received information about drinking during pregnancy. The most common information received was about the effects of drinking alcohol on their baby (61%) with 36% receiving information on limiting the amount of alcohol they drank and 28% received information about stopping drinking alcohol in pregnancy. Twenty nine percent of mothers said they received no information on drinking during pregnancy and a further 15% received information on continuing to drink alcohol with no information about limits. Midwives were the main source of information about drinking and pregnancy (80%) with



books/leaflets and magazines representing the next highest proportion (35%). Thirteen percent of women received information about drinking in pregnancy from their GP.

Twenty nine percent of mothers nationally said that they received information on alcohol after their child was born with 23% stating the received information on the effects of drinking alcohol whilst breastfeeding. Seventy one percent of mothers did not received any information on alcohol after their child was born. The most common source of information on alcohol after birth was health visitors (54%) followed by midwives (45%). Fourteen percent of women received information from their GP.

## 10. Quality

The 2013 Care Quality Commission Survey looked at the experiences of women receiving maternity services<sup>71</sup>. It looked at women aged 16 and over, and involved over 23,000 participants from 137 NHS Trusts, including all women who had a live birth in a hospital, birth centre, maternity unit or at home.

The survey found evidence of improvements since the maternity survey was carried out in 2010. Compared to the last survey:

- There has been an increase in the proportion of women who said that they were always spoken to in a way they could understand during antenatal care and labour and birth.
- More women felt that they were always involved during antenatal care and labour and birth
- More women felt that they were treated with kindness and understanding and had confidence and trust in the staff caring for them during labour and birth.

For both antenatal and postnatal care, women who saw the same midwife each time tended to report more positively on some areas of the survey. Women who saw different midwives but didn't mind this also tended to report positive experiences. Women who had not seen the same midwife but wanted to reported more negative experiences, however.

Performance in other areas had not improved since 2010;

- Information and support are being provided inconsistently - and in some cases, basic knowledge such as medical history was not known.
- Information needed to make choices was not consistently provided and the choices themselves were not universally offered to women.
- Fewer women reported that they were not left alone during labour or birth at a time that worried them.
- Almost one in five women felt that their concerns during labour were not taken seriously and some women felt that hospital wards, toilets and bathrooms are not clean enough, especially toilets and bathrooms.

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<sup>71</sup> <http://www.cqc.org.uk/content/maternity-services-survey-2013>

## 11. Interviews with women who have used maternity services within the last year

### 11.1 Summary

A total of 45 interviews were carried out in the 10 local authority areas – Cheshire East, Cheshire West and Chester, Halton, Knowsley, Liverpool, Sefton, St. Helens, Warrington, West Lancashire and Wirral<sup>72</sup>. The study was approved by Liverpool John Moores University ethics committee. Women were recruited via children's centres across Cheshire, Merseyside and West Lancashire. At least 2 women were recruited in each local authority area.

The vast majority of these women had given birth in hospital, with a small minority of home births. Overall, the majority of women interviewed were happy with the care that they received. When asked which aspects of care could be improved, women were more likely to mention care in the days following the birth prior to their discharge from hospital, rather than care during pregnancy or during the birth.

### 11.2 Pre-pregnancy

Apart from women who had more complex health needs, the majority of women had not accessed health services for advice before becoming pregnant, either because they had got information from elsewhere, such as from the internet or from friends and family, or because the pregnancy was not planned, or they had got pregnant more quickly than they thought they would.

Several women mentioned that they had got information from the internet on healthy eating, physical activity, folic acid use etc., as well as getting advice from family members. Women who were already accessing services, such as a miscarriage clinic for women who had had several previous miscarriages, rated this very highly. They were also more likely to have received lifestyle advice prior to becoming pregnant.

### 11.3 Care in pregnancy

The majority of women felt that they had received good advice from the midwife or midwives who looked after them whilst they were pregnant. Midwives provided verbal and written advice, as well as signposting to other agencies as appropriate. As well as the information they received from midwives, women also used a variety of other sources of information, including telephone apps and the internet, as well as advice from friends and family. A minority of women felt anxious that they would have to go into hospital to have babies, particularly where they had not been an inpatient in hospital before, but they often felt reassured after talking to midwives.

Generally, women felt that the number of antenatal appointments that they had was about right, and that they would have been able to access further support from the midwife if they had needed to.

*“If I needed help, it was there”*

However, several mothers had been given fewer appointments than she had for a first baby, because she was a second time mum, but felt she still needed the same amount.

Other parents mentioned that they had generally been offered less advice when they were not first time mums – in most cases they were happy with this, but a minority felt that it should not just be assumed that they did not need any advice just because they had older children – they may have forgotten some things, advice may have changed, and every baby is different, so there may still be a need for advice.

A minority said that accessing appointments was expensive, with one mum saying that public transport was not available which meant she paid £10 for a taxi to each scan, which was hard for her to afford. A minority mentioned that getting time off work during the day to attend appointments could be difficult – although they were legally entitled to do this, it was difficult in practice. Several people had used One to One<sup>73</sup>, an independent company providing care that is free at the point of contact, and found this beneficial because they were able to have antenatal appointments in the evening, in their own homes, to fit around work or child-care, although a couple of people mentioned that the agency seemed short staffed, whilst another mum suggested that there could be more liaison between agencies such as One to One and hospital wards, suggesting that a ‘point of contact’ for One to One midwives could be introduced in maternity wards. Another mum suggested that communication between One to One and community midwives could be improved, after a midwife from both services arrived on the same day, following her discharge from hospital after the birth of her baby.

A minority mentioned that they found their initial midwife consultation ‘brisk’, where they had expected it to be more of a happy experience.

*“I expected it to be a nice experience”*

Women were more likely to mention being told which foods to avoid, rather than advice about healthy eating, or other lifestyle advice – many mothers could not recall being given any advice on alcohol use etc., although one mum mentioned being signposted to a Stop Smoking clinic, which did help her to stop smoking. A minority of mums mentioned that advice on drinking alcohol in pregnancy seemed to have changed, with one mum saying that she was almost ‘encouraged’ to have a glass of wine when pregnant with her first child, to ‘help her relax’, but with her most recent pregnancy she was told that the advice had changed, and pregnant women were now advised not to drink at all. Again, mums who already had at least one child sometimes mentioned that it was assumed that they did not need any lifestyle advice, but they would have liked more advice. A minority of mothers also mentioned that, although it was not their first baby, it was their partner’s first baby, and they may have additional support needs that were not always picked up.

Several women mentioned having pelvic girdle pain (PGP) during pregnancy. In most cases they felt that this was managed well by health professionals, although people mentioned long waiting lists to see a physiotherapist for this. Several women also mentioned not being able to get a scan at the weekend, which had made them feel very anxious and worried about the health of their baby.

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<sup>73</sup> <http://www.onetoonemidwives.org/>

### 11.3.1 Midwifery teams

Both women who had been cared for predominantly by one midwife, and those who had been cared for by a team of midwives, were interviewed as part of the project. The vast majority of the women who just had one midwife for most of their appointments were very happy with this. Most of the women who were looked after by a team of midwives were also happy with the care, but they were more likely to mention issues that could be improved. They were more likely to report that they felt that they had to explain their health issues at each appointment, and this was especially the case for women who had more complex health care needs. Several women who were cared for by a team did not feel that they had the opportunity to build a bond with their midwife, with a minority reporting that the midwife who came to see them at home after the birth was one who they had never met before. However, several women reported positive experiences of being cared for by a team of midwives, such as being cared for by midwives with a wide range of different experience. A minority of women had also seen the same midwife prior to the birth, and whilst in labour, which they reported as being a positive experience.

*“In a perfect world, it would be nice to have the same midwife”*

*“It was quite nice seeing different people in a way”*

Where women had pre-existing health conditions, or complex health needs, particularly where they had already been in contact with health care staff before becoming pregnant, they were likely to report excellent care – one woman reported having scans every 4 weeks, for example, which helped her to feel reassured.

Several mothers had been signposted by midwives to aqua-natal classes, which they found beneficial.

A small minority of women had been admitted to hospital prior to being admitted to have their babies, and they generally seemed happy with the care they had received.

### 11.3.2 Antenatal classes

Nearly all the first time mothers also attended antenatal classes, either NHS or through other agencies, as well as most of the mothers interviewed who already had older children. Interviewees reported finding these useful, both in terms of finding out information, and meeting other parents to be. Many mums had found that a tour of the labour ward, so they could see where they would have their baby, was particularly useful, although several mothers who had given birth at the Countess of Chester said that they had not been offered this, although they would have found it useful. Several mothers mentioned that the private classes they attended (primarily National Childbirth Trust- NCT) were most useful in terms of meeting other parents, who they had quite often stayed in contact with after the birth, whilst NHS antenatal classes were seen as most useful for finding out more practical information, about labour for example. Several mothers also mentioned learning other practical skills which they had found useful, such as First Aid. Most mums who were not first time mums said that they had been offered the opportunity to attend antenatal classes. A small minority of mums who had older children said that they had not had the opportunity to attend antenatal classes.

A minority of women said that they would have liked to see increased facilitation of interaction between parents at NHS antenatal classes, although several did mention meeting other mums as one of the most beneficial aspects of NHS classes.

There was a lot of variation of antenatal classes offered throughout the area covered by the needs assessment, even within the same local authority area. Several mothers reported that they were unable to access NHS classes because they were held during the day, and they were still at work – although they knew that they were legally entitled to have time off for classes, this was difficult in practice. NCT classes were more likely to be at weekends, or in the evenings. Partners were also unlikely to be able to attend classes during the day. A minority mentioned that they had not been able to get to know other parents before giving birth, due to these issues.

*“We sat around and she talked at us” (the midwife)... “I’d expected to make friends”*

#### **11.4 Labour and birth**

In general, women felt that they had been able to make an informed choice about where they gave birth, although a minority said that they didn’t really feel they had a choice, as only their nearest hospital was easy for them to access, especially if they didn’t drive. Several mums mentioned that midwives tried to dissuade them from using hospitals other than the nearest one. Several mothers had mentioned ‘feeling pressured’ to have a home birth, where others were happy to make this decision. A small number of mothers mentioned feeling anxious whilst waiting for it to be confirmed that they were able to have a planned Caesarean Section – in some cases this was not confirmed until they were 37 weeks pregnant.

Women were generally happy with the type of birth that they had.

*“I felt that they were led by me, and listened to me”*

*“I don’t know what we would have got better if we’d gone private”*

*“It was like having private care”*

*“I’d definitely use Arrowe Park again”*

*“If I had another one, I’d definitely use the Women’s”*

*“I’d definitely go back to Whiston”*

Many mums praised the care that they had received, with several saying that they had been surprised how good the care was – they had expected the midwives to be really busy, but they were happy to answer any queries.

*“I was expecting them to be really busy, but they do have time for you”*

*“My poor midwife – there was only her and another midwife on the ward...I don’t know how she does it...it wasn’t as if she didn’t have enough time for me”*

*“I felt I could go to them with anything”*

### *“They need more midwives”*

Several mothers mentioned that they had been keen to be admitted to hospital earlier than they were, but were sent home, which had sometimes caused them anxiety. Many mums had spoken to the labour ward to ask for advice, but some suggested that there could be some other form of support during this time. A minority mentioned that there was not then time for the type of pain relief that they had wanted, by the time they got to hospital. A small minority of second and third time mums had felt that they were ‘pushed’ to have a home birth. Several mothers who had given birth at Whiston Hospital said that they were worried that the maternity ward would be closed for admissions, as had happened in the past.

The vast majority of women who were interviewed had given birth in hospital – a minority had given birth at home, with several mothers saying that this helped them to continue to care for older children, and that it helped to facilitate family bonding. One person who had given birth at home said that the midwives had telephoned a consultant at Arrowse Park Hospital for advice, because there were concerns about the baby following the birth, but had been told that the baby did not need to be admitted to hospital. One person who had given birth at home felt that the gap before they saw a midwife again was too long – it was 3 days after the birth before a midwife visited again.

One person mentioned issues with communication when she was admitted to hospital – staff assumed she was more weeks pregnant than she was, without reading her notes. However, she assumed that the staff knew what they were doing, saying;

*“It was my first so I didn’t question anything”*

A minority felt that they had been given insufficient information about the risks and side-effects of various treatments, e.g. one person was given oxytocin so speed up delivery, but wasn’t told about some of the potential side-effects, such as impact on heart rate. Several women said that the birth had been too ‘intervention heavy’, where they felt it would have been better to let nature take its course, or that the risks of not agreeing to interventions had been overstated, and when they later did more research, the risks were less than they had been led to believe.

#### **11.5 Support immediately after the birth**

Several women interviewed reported that there was a great deal of variation in the support that they received from the midwives whilst they were in hospital. They felt that this was dependant on a range of factors, including how busy the ward was, but also which staff were on duty. Several women reported that they felt that the wards were ‘short staffed’, especially at night, and they felt that midwives would have liked to have done more to help, but they were unable to due to time constraints, and due to midwives having a lot of ‘paperwork’ that they had to complete.

When asked what was positive about their experiences, several women reported midwives coming to their room to ask if everything was OK, rather than them having to push the buzzer to ask for help. Others reported being connected to monitoring equipment, so midwives who were outside the room could monitor their condition, but they would still have appreciated someone coming into the room to ask if they were

OK. Other women felt that they always had to press the buzzer in order to get help, with a minority saying that buzzers took a long time to be answered. A minority reported feeling under pressure to give consent for their baby to have the Vitamin K injection.

Several women who had had a single room reported that this had been beneficial in facilitating bonding between themselves and their partner and the baby, and for older children to bond with the new baby, as well as meaning that they were able to get more sleep. Several people in shared wards reported that it was difficult to get to sleep, with someone saying that there was 'always a baby crying'. A minority of women, mainly those who already had older children, mentioned that they were happy to be left alone to bond with their partner and the baby.

#### *11.5.1 Care after a Caesarean Section*

Women who had not had a caesarean were generally happy with the amount of time that they stayed in hospital after the birth. Several women who had Caesarean Sections mentioned feeling that they were discharged after a very short time in hospital, with several women saying that they were discharged after 2 days, and one woman being asked if she would like to go home after only 1 day, following a Caesarean. One mother had been readmitted 2 days after the birth, because she was concerned about her caesarean wound.

When asked which aspects of care could be improved, several women mentioned care and support following a caesarean. Several women would have liked more support from midwives or other health professionals whilst they were still in hospital, including help caring for the baby whilst they were still recovering from the operation, or help in accessing bottles for the baby. Someone who had had an episiotomy and stitches also reported feeling pressure to be 'up and about' before she felt well enough, whilst others had to walk down corridors to get medication, and were told to come and find midwives when medication such as antibiotics was due. Some mums said that staff had cared for their babies in the night to allow them to sleep, but a minority of others had asked for this and been told that it wasn't available.

Several women mentioned that they would have liked more advice on what they could physically do following a caesarean section. This included the need for more verbal advice from midwives prior to discharge, as well as the need for more written information, such as a pack –several women also mentioned that a phone app would be useful. Women would have liked more advice on the maximum weights that they should be lifting, and how much exercise they should be doing, on wound care, and on how soon they could drive, for example. Several were told 'do what you feel you can', but then later received conflicting advice from parents or other health professionals.

Several women, mainly those who had had a Caesarean Section, also reported that they did not have a physical examination prior to leaving the hospital, including their wound being checked, although they would have liked this. One woman was discharged with a pack of fragmin, which is used to prevent blood clots, and told that her partner could give her the fragmin injections, but he was given very little training and advice on how to do this.

### 11.5.2 Feeding

Generally women felt that they were well-supported in their choice of breast, bottle, or mixed (a combination of breast and bottle feeding), feeding. Several women who were breastfeeding reported staying in hospital for longer than they would otherwise have done, in order for breastfeeding to become established. Mothers were supported both by midwives in the hospital and, where they were breastfeeding, by other agencies such as Bambis<sup>74</sup> or Bosom Buddies<sup>75</sup> – staff from the agency visited them in hospital or at home;

*“Breastfeeding support would come round all the time”*

Many agencies also offered home visits. However, in some areas, mums reported that agencies were not able to come and see them at the weekends. The minority of women who had accessed breastfeeding support via Home Start<sup>76</sup>, a national charity, also said that they found that support very useful, sometimes opting to get support from them rather than from midwives. However, several women who were not first time mothers said that they had found out about services such as Home Start by accident, or wondered if they would still be breastfeeding now if they hadn't already been aware of services because of previous pregnancies;

*“If he had been my first, I don't know if I would still be breastfeeding”*

Several women mentioned that they had not been prepared for how hard breastfeeding was going to be, and several had wanted to breastfeed but had had to bottle feed or mixed feed in some cases due to difficulty in the baby latching on, or because the baby was failing to put on weight. Participants mentioned difficulties in managing to leave the house as they were breastfeeding for long periods of time. A small minority also reported being given conflicting advice from different professionals on any challenges that they had in breastfeeding. A minority also mentioned that midwives and agencies seemed to be 'competing' to offer breastfeeding advice, where mums would have found it more useful for them all to work together.

The infant feeding clinic in Heswall, part of the infant feeding team which offers support to breastfeeding mothers, was praised highly by the small minority of women who had used it<sup>77</sup>.

### 11.5.3 Partners

When asked about support for partners, several women said that health professionals such as midwives had been happy to answer any questions their partner had, and several mums felt that their partners had good support, with one mum who had a Caesarean section saying;

*“They were great with my husband as well... he gets very anxious...they took him to one side into a room”*

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<sup>74</sup> [http://www.liverpoolwomens.nhs.uk/Our\\_Services/Maternity/BAMBIS.aspx](http://www.liverpoolwomens.nhs.uk/Our_Services/Maternity/BAMBIS.aspx)

<sup>75</sup> <http://www.5boroughspartnership.nhs.uk/infant-breastfeeding/-/peer-support/>

<sup>76</sup> [http://www.home-start.org.uk/about\\_us/what\\_we\\_do/support\\_services](http://www.home-start.org.uk/about_us/what_we_do/support_services)

<sup>77</sup> <http://www.wirralct.nhs.uk/services/lifestyle/infant-feeding-team>



Partners were often out at work when mothers attended antenatal appointments, and after the birth;

*“I probably felt quite detached from it..he wasn’t coming with me to antenatal appointments”*

*“It was just about me and her”* (the mother and baby)

A couple of mums mentioned that their partners had felt ‘in the way’ when they were talking to health professionals, before and after the birth. This was ameliorated when parents were able to see the same midwife several times, allowing fathers to build a relationship with the midwife, which meant that they felt that they could ask more questions.

Many women mentioned that, when they had been transferred to postnatal wards, their partners had been asked to go home if it was outside normal visiting hours. In some cases this was fairly soon after the delivery, and also happened when women were still recovering from the delivery, and would have welcomed help from their partner in looking after the baby. Several women reported that visiting hours were 9am-9pm, for example, so partners whose babies were born in the evening were asked to leave the ward soon after the babies had been born. This was reported more frequently by women who were in shared ‘bays’, rather than in single rooms. Many mums, especially those with older children, enjoyed the privacy of a single room, although a couple of first time mothers said that they had enjoyed being in a shared bay, and had been able to get to know other mothers in the bay. Other hospitals did not allow visitors until 11am, which some women felt was too late for their partners to wait to visit. A limit on the number of visitors per bed was also problematic for a small minority of women.

#### *11.5.4 Preparation for discharge*

In general, the majority of parents felt sufficiently prepared prior to discharge, and had had time and support to master skills such as dressing, bathing and feeding their baby. Partners tended to be involved in learning these skills too, although mums who had older children sometimes reported not having help with this, although they sometimes felt that they would have benefitted from this, perhaps because they had forgotten some things, advice had changed since they had had previous children, or just because it was a different baby;

*“A refresher would be good...They are all different”*

A minority of parents whose babies were born in winter reported being anxious about what to dress them in so that they were sufficiently warm, but without overheating them. One mother, who was medically fit for discharge, reported staying on a hospital hotel ward overnight, which made her feel more confident, as she knew that help would be there if she needed it.

Communication was again mentioned by a minority of parents as something that could be improved, with mums reporting that they had to ask if they could be discharged. A minority reported the staff asking them if they had seen a doctor prior to discharge, but

they felt that doctors should have directly communicated this to the midwifery teams, or written in the patient notes, rather than having to ask the patient what was going on.

## 11.6 Support after discharge from hospital

### 11.6.1 Care after discharge

Mothers were generally happy with the support that they received from midwives and when they were discharged from hospital. The majority felt that they knew who to contact if they had any concerns about their own health, or about the baby, although a couple of mums felt that they would have liked to have the name of someone to contact if they had any concerns following discharge, rather than just a number for the ward;

*“We had a nightmare on the first night, it all fell apart...it was good to know that someone was coming” (the next day)*

A small number of participants also mentioned getting a call from the hospital to check that everything was OK, which they found reassuring;

*“We had a phone call from the hospital on the first night”*

A couple of parents mentioned that they would have preferred the relationship with the midwife to go on for longer – they had established a relationship with a professional which was then ‘cut off’ after they had their baby, sometimes after only one or two visits.

Many mums mentioned that they had been given advice on how to wash, dress, or feed the baby, although a minority of second time mothers mentioned that it would be assumed that they would know this already, but some of them would have liked more support. A minority of women felt that help with these skills had decreased over the years, reporting that they had been observed bathing/dressing the baby before they were discharged with previous children, but not with this one.

A small number of women felt that communication between midwives and health visitors could be improved, with one mum saying that her health visitor was not aware that she had had an extended stay in hospital, and had called at the house while she was in hospital, and another saying that the health visitor arrived at her house on the day she was discharged from hospital after an extended stay.

The majority also felt that signposting to other organisations, such as children’s centres, was good. Several mums reported that they received a phone call on the first night after they were discharged from hospital, to check that everything was OK, which they found reassuring.

Several mums reported that they preferred midwives who gave them information but allowed them to make their own decisions, rather than midwives who would ‘scold’ them – several mums reported that they had been ‘scolded’ for letting their babies sleep for more than 5 hours without waking them up to feed them – there appeared to be a lot of confusion around whether this was necessary. Other parents mentioned feeling ‘judged’ by midwives or other health professionals;

*“You’d feel judged as a parent”*

*“You’d say something and feel judged”*

Generally, the minority of mothers who had experienced postnatal depression felt that this had been quickly identified by health professionals, and relevant support had been put in place for them, although one person did mention that the waiting time for counselling via the NHS was very long, and that she had had to access counselling privately because of this. Several parents said that they were very happy with support that they received from the health visitor, with many mums describing an ongoing relationship with the health visitor, who they could contact if they had any concerns. Many mums that were interviewed were still accessing baby clinics, where they could have their baby weighed by a health visitor, and raise any concerns;

*“Twice a week there is a clinic, so if you want to physically speak to someone, you can”*

However, a couple of mums mentioned that they felt that the health visitor was just going through a standard checklist, rather than each visit being tailored to the needs of each individual family. One young mother had found the family nurse very helpful.

#### *11.6.2 Vaccines*

Whilst the majority of mothers were happy for their babies to have all available vaccines, a minority again reported feeling under pressure to give consent for vaccines.

#### *11.6.3 Children’s centres*

Mothers were very positive about the groups that they attended at the children’s centres. They felt that attending the centres gave them the opportunity to have contact with other mums, which made them feel less isolated, and the opportunity to try out many activities, some of which they may not have been able to afford otherwise, such as baby yoga and baby massage. Most of these classes were free in many areas, although there tended to be waiting lists for the most popular classes, such as baby massage, in some areas. Other mothers said that they had benefitted from support that was targeted towards certain groups, such as a group for young mothers, where they had also been able to learn skills such as cooking skills. In some areas, someone from the children’s centre had come to see them prior to the birth of their baby, which they found very useful;

*“They make me feel like I’m not alone with a baby”*

Women who had attended antenatal classes at children’s centres found this beneficial after the birth, both because they found out about classes and activities that were taking place at the centre, and because they felt more confident in coming to a place that they were more familiar with.

#### **11.7 Needs of partners**

During the interviews, women were asked if they had any comments on how well the support that they received met the needs of their partner, if they had one, and their families’ needs. Many women felt that their partners had been well supported during pregnancy— many had had the opportunity to attend antenatal classes, although they very often missed out on attending antenatal appointments, often because they were

working. Where mums saw one midwife on several occasions, fathers were more likely to be able to build a relationship with the midwife;

*“My partner was happy to ask questions, and she (the midwife) was happy to answer them”*

The majority of mums interviewed said that their partners were present at the birth, where a small number of mums mentioned that their partners had benefitted by being given a ‘role’ by the midwife, e.g. passing gas and air to the mother where necessary. A minority mentioned that their partners had felt ‘in the way’ during the birth

*“There wasn’t a place for him to be”*

Fathers had been able to stay with their partners for most of the day if they wanted, and had been able to learn skills to help them take care of the baby, such as dressing and bathing the baby. Several mums who had been in a single hospital room, rather than a ‘bay’ with other mums, felt that this helped to facilitate family bonding. This option was only available at a charge in some areas, however, which was prohibitive for some families. A minority of mothers also mentioned that there was nowhere for fathers to stay overnight – even if mothers had a single room, and partners were permitted to stay, partners sometimes had to sleep on the floor.

However, several women felt that, after the baby was born, support was targeted very much at the mother and baby, with the needs of partners not being considered as fully, which resulted in some mothers then also having to try to support their partners, at a time when they were in need of support themselves. Two mothers suggested that men should be screened for post-natal depression as well as women.

A minority of women said that their partners had not been able to attend the birth, although they wanted to, because nobody was available to look after older children, with one woman consequently not having anyone to support her during the birth, other than health care staff. One lady who attended Accident and Emergency 2 days after the birth due to being concerned about her Caesarean wound also reported having to leave her baby at home with her husband, as she felt that there would be no facilities to have a baby with her – this impacted on her breastfeeding the baby, as she was out of the house for more than 12 hours, and her husband had to give the baby a bottle during that time. One lady was later told that someone from the children’s centre would have helped to arrange child-care, but the parent was not aware that this service was available.

Only one or two mums said that their partners had received health advice too, for example one father had been given leaflets about testicular cancer when the health visitor came out to visit.

Several of the women suggested that it would be useful to talk to fathers directly, to gain a better understanding of their needs, and how well needs are being met by current provision.

### **11.8 Other**

A minority of women mentioned that the food in the hospital had not been very appealing.

## 12. Discussion

A wide range of quantitative data was collected as part of this needs assessment, and a total of 45 interviews and focus groups were carried out with women who had used maternity services within the last year. Due to time constraints, the needs assessment did not include a detailed review of which services are available across Cheshire, Merseyside and West Lancashire, and this would be a recommendation for future research.

The quantitative data highlights a range of issues that need to be taken into account in planning maternity services. It shows that teenage pregnancy rates in several of the Merseyside local authority areas are much higher than the national average, and research may be needed on the reasons behind this. Abortion rates are much higher than the national average, particularly in Merseyside local authority areas, and action, targeted towards specific age groups, must be taken to address this.

Rates of women aged over 45 giving birth were higher than the national average in all the Cheshire local authorities, along with Cheshire and West Lancashire, and it is important that planning for future maternity provision reflects this.

The interview data suggests that there is variation across each county, across providers of maternity services and even within wards at a local authority level. A recommendation would be to carry out a thorough review of what provision is currently available in order to inform future provision. Where initiatives are working well in certain geographical areas, there may be scope to expand the provision across the whole of Cheshire, Merseyside and West Lancashire.

Although interviews and focus groups were carried out across a wide geographical area, and with women who had had a wide range of different experiences, some clear themes emerged.

The quantitative data shows that rates of smoking during pregnancy were much higher in several local authority areas than the national average, along with obesity rates. Many women had not accessed any sort of lifestyle advice or other advice until they were already pregnant, although certain women were more likely to have accessed this – women who had had previous miscarriages and were attending a miscarriage clinic at Liverpool Women's Hospital, for example. In order to increase the proportion of women who receive relevant advice before they become pregnant, for example on the need for folic acid supplementation, or other dietary advice, there may be opportunities to discuss any future plans to have children when women engage with family planning services, and for there to be increased liaison between family planning services and midwifery services. Early contact with specialist antenatal teams is also important for women who have diabetes, and there may be opportunities to increase awareness of this.

Although most women that were interviewed felt that they were able to access midwifery services easily once they became pregnant, there was a great deal of variation across different providers around timing of the booking in appointment. NICE guidance suggests that this should ideally be carried out before the woman is

10 weeks pregnant<sup>78</sup> For example, more than 60% of women who gave birth at Liverpool Women's Hospital attended before 10 weeks, whilst only around 24% of women who used services provided by Lancashire Teaching Hospitals attended before 10 weeks. There may be a need to raise awareness that women should have a booking in appointment before they are 10 weeks pregnant.

Women placed a high value on the first initial 'booking in' appointment with the midwife, although several women mentioned that they felt that the appointment was 'rushed', or brief, where they may have expected it to be a more pleasant experience. Some mothers who had older children felt that they had not been given as much information as they would have liked, perhaps because it was assumed that they would already know the information. Other women who were interviewed felt that appointments that were carried out in GP surgeries were more likely to be 'brisk'. It is important that midwives have sufficient time to carry out these appointments, and that all topics are covered, in line with NICE guidance<sup>79</sup>. NICE guidance recommends that these appointments should cover a wide range of topics, including advice on exercise, diet and nutrition, antenatal screening, pregnancy care pathway, place of birth, breastfeeding, antenatal classes and maternity benefits.

As well as receiving advice from midwives, women also reported getting information and advice from family and friends, and from the internet. There may be opportunities to develop technology at a local level, e.g. phone applications, to help support women who are using maternity services, or providing women with the opportunity to book antenatal appointments or classes online, for example.

Most women who were interviewed felt that they had been able to make an informed choice about where to give birth. This included choosing between home and hospital births – both are supported by NICE where appropriate<sup>80</sup>. Women who had home births often felt that partners were more able to be involved antenatally, as midwives visited them at home, sometimes in the evenings, as well as during labour and immediately afterwards. Some women felt that organising child-care for older children was more straightforward when they had a home birth.

It could be argued that there is a need for a 'cultural shift' in order to ensure that home birth is considered as an option by women, in order for them to make an informed decision which is best for them and their families. Several trusts are actively trying to improve opportunities for women to choose home births, which is a complex issue, with many influencing factors, where appropriate. At Liverpool Women's Hospital, community midwives wear badges with "ask me about homebirth" on them.

Women generally also felt that they had the opportunity to choose between different hospitals, although several women felt that their choice of hospital was limited by how easy, or otherwise, they were to access.

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<sup>78</sup> <https://www.nice.org.uk/guidance/cg62/chapter/appendix-d-antenatal-appointments-schedule-and-content>

<sup>79</sup> <https://www.nice.org.uk/guidance/cg62/chapter/appendix-d-antenatal-appointments-schedule-and-content>

<sup>80</sup> <https://www.nice.org.uk/news/press-and-media/midwife-care-during-labour-safest-women-straightforward-pregnancies>

Accessing antenatal classes was difficult for some parents who were working, as they were often held during the day on weekdays. Parents who did attend classes valued the opportunity to get to know other parents in antenatal classes, as well as gaining knowledge. Women that we spoke to sometimes felt that their partners' needs could be more fully addressed. Several women suggested that there was a need for further research with fathers/partners, in order to determine how their needs could be met more fully. Where women had used services such as One to One midwives, an independent midwifery provider, they were usually able to have antenatal appointments in their own home, and at times that were convenient for them.

Several women reported phoning the hospital once they were in labour, and being told to stay at home for longer, or going to hospital and being sent home, and in some cases they had felt anxious whilst waiting to be admitted. There may be a need for women to be given more information antenatally about when to go to hospital. Or, women suggested that further support should be available at this time, perhaps in the form of a mobile phone application.

Women who had had a caesarean section said that they would have liked more advice, as well as more practical help following the birth of the baby. They would like more advice on rehabilitation following the caesarean, for example on how soon they can return to activities such as driving or exercising. This was another area where technology such as a mobile phone application could be used to help support families.

Women in most areas that were interviewed felt that visiting hours could be too restrictive -visiting was often restricted to 9am-9pm, or in one case 11am-9pm, which meant that partners would have to leave. Women would have liked them to stay for longer, particularly on the first night after their baby had been born. They would have liked their partners to stay, in many cases because they would have liked their partner to help them care for the baby, particularly if they had had a caesarean, or other interventions such as epidural or episiotomy, for example.

Many women mentioned that they felt midwives were very busy, especially at night, or that there was a need for more midwives, as they would like to have spent more time with the midwife. There is a need for providers to ensure that they conform to safe staffing levels recommended by NICE<sup>81</sup> - NICE recommends one midwife to each woman during birth.

Midwifery care was organised differently across the area – some women predominantly saw only one midwife, whilst others were seen by different members of a midwifery team. Those who saw one midwife were in general fairly happy with their care, although it is important to note that interviews were conducted with a relatively small group of women. Some women who saw a team of midwives also found positives from the experience, such as being able to speak to midwives with various areas of expertise.

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<sup>81</sup> <https://www.nice.org.uk/news/press-and-media/one-midwife-to-each-woman-during-birth-says-nice-in-safe-staffing-advice>

Infant feeding was another area where there was a great deal of variation across Cheshire, Merseyside and West Lancashire, and across the different providers of maternity services. For example, around 69% of women who used maternity services provided by Countess of Chester NHS Foundation Trust initiated breastfeeding, compared to 57% at Wirral University Teaching Hospital NHS Foundation Trust, both lower than the England average of around 74%. The definition of initiation is problematic in itself, as it is differently defined by different trusts and organisations. The number of infants who were totally or partially breastfed at 6-8 weeks also varied, from 19.9% for NHS Knowsley CCG, to 52.6% for NHS Eastern Cheshire CCG, compared to the England average of 45.8%.

In the interviews, there was also a great deal of variation in women's experiences of feeding. Many women felt that they had had good support with breastfeeding, particularly from agencies such as Bambis in Liverpool<sup>82</sup>, who would visit them whilst they were in hospital and again once they had been discharged home, although again provision varied according to area, and breastfeeding support services in hospitals were not always available at the weekend. There may be an opportunity to look at the areas where rates of breastfeeding are high, or services are working well, and extend these to other areas, although breastfeeding is affected by a wide range of factors in addition to available services. UNICEF UK Baby Friendly Initiative Standards are available to use when planning services<sup>83</sup>.

There was variation in a wide range of measures across the area covered by the needs assessment, and there is a need to compare support services, as well as to provide increased support in areas where rates are worse than average. The percentage of women who were recorded as smokers at the time of delivering their baby varied from 8.5% in West Cheshire, to 19.4%, more than double, in Knowsley, for example, compared to the England average of 11.4%.

The interviews were conducted with a relatively small sample of women across the 10 local authority areas, and there is a need for further research with a larger sample. Women interviewed were predominantly white, and, because the interviews were conducted in children's centres, they were more likely to be with women who were already engaging with services. Further research could be carried out with a more diverse group of women, perhaps through recruiting them directly through midwifery services. Further research should also take into account the socio-demographic context of each maternity trust area – trusts have issues specific to the area they serve, for example Liverpool Women's covers an area which includes relatively higher numbers of refugees and asylum seekers. Any changes to services and care needs to be considered in a holistic way for women and families so that any local needs are taken into account, and should also involve consultation with service users. It is important that community services are sufficiently resourced to deliver changes, as the community midwifery service is the hub of many improvements and changes.

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<sup>82</sup> [http://www.liverpoolwomens.nhs.uk/Our\\_Services/Maternity/BAMBIS.aspx](http://www.liverpoolwomens.nhs.uk/Our_Services/Maternity/BAMBIS.aspx)

<sup>83</sup> [http://www.unicef.org.uk/Documents/Baby\\_Friendly/Guidance/Baby\\_Friendly\\_guidance\\_2012.pdf](http://www.unicef.org.uk/Documents/Baby_Friendly/Guidance/Baby_Friendly_guidance_2012.pdf)



### **13. Evidence based recommendations**

The following recommendations have been produced based upon the national and local evidence, as well as best practice of what is effective in improving maternity health care. This needs assessment included a wide range of quantitative data, and 45 interviews with women, but due to time constraints did not include an in-depth review of services that were available across the area.

#### **13.1 Recommendations for commissioners;**

- Conduct a detailed review of services that are currently available across Cheshire, Merseyside and West Lancashire.
- The in depth review of services should also take into account the socio-demographic context of each maternity trust area – it is difficult to generalise results as some trusts have issues specific to the area they serve. Any changes to services and care needs to be considered in a holistic way for women and families, so that any local needs are taken into account.
- Ensure the most vulnerable groups who are at increased risk of morbidity and mortality, are identified, and have access to an enhanced level of service.
- Facilitate greater involvement of service users in the development and improvement of local services.

#### **13.2 Recommendations for acute trusts and midwifery teams;**

- Use developing technology in provision of care – for example, mobile phone applications to provide information and advice, Twitter and WhatsApp.
- Consider co-commissioning family planning and maternity services for a holistic ‘family focussed’ approach, and address abortion rates where these are higher than the national average.
- Look into the reasons why teenage pregnancy rates are high in Merseyside local authority areas, and take steps to address this where appropriate.
- Ensure that women are aware of where to book in when they find out that they are pregnant, and that they are aware of the need to do this as soon as possible. Local information sources and access mechanisms should be available so that women can access maternity services as early as possible in the pregnancy.
- Early in the pregnancy, midwives should provide women with information and opportunities to discuss their views on what their options are about where they will give birth, so women are able to discuss this with their families and make an informed choice.
- Ensure that parents are able to make informed choices on how they would like to feed their baby, in line with UNICEF UK Baby Friendly Initiative Standards.
- Allow sufficient time for the first ‘booking in’ appointment, and ensure that it covers all relevant topics, even when women already have older children. Lifestyle advice should be provided at this appointment.
- Ensure there is flexibility in when parents can attend antenatal classes, offer classes in the evenings and at weekends where possible, to meet the needs of working families.

- At antenatal classes, facilitate interaction between parents, so that they can get to know other parents and access crucial peer support.
- Ensure that fathers have adequate opportunities to raise issues that are concerning them, and that they have the advice that they need.
- Ensure that all parents are offered adequate advice at all stages of the childbearing continuum, even if they already have older children.
- Ensure that the whole family has opportunities to bond following the birth of the baby – this is a crucial time to consider family mental health. Consider more open visiting hours for partners.
- Ensure that women know where to access child-care for older children, when they are attending antenatal classes, and when they are in labour.
- Ensure that women are supported to understand the labour process and that they know where to access the support that they need when they are in labour, including in the early stages of labour before they are admitted to hospital (if applicable).
- Provide parents with sufficient information about the risks and benefits of interventions during labour, so that they are able to make an informed decision.
- Provide more information for women who have had a Caesarean section. This might include verbal information from midwives or other relevant health professionals, both before (in the case of a planned caesarean) or after the birth. Consider developing, or signposting women to, an app providing advice, and provide a written pack giving information, although literacy levels must always be taken into account.
- If the birth is difficult, provide mental and emotional support.
- Ensure that community services are resourced to deliver the above, as the community midwifery service is the hub of many improvements and changes.

### **13.3 Recommendations for University/Champs;**

- Conduct interviews with new fathers, to fully understand their health needs, and how well these are met by current provision.
- Conduct interviews with midwives, to gain a better understanding on what would help them to carry out their roles.
- Facilitate greater emphasis and support for public health issues as part of maternity, and increased awareness of the public health role of the midwife.

## 14. Conclusion

In conclusion, the interviews and data show that there is a need for additional breastfeeding support, perhaps by adopting models of good practice from areas where breastfeeding rates are higher. Rates of smoking during pregnancy are higher than the national average in several local authority areas, and it is important that initiatives are put in place in order to address this. Teenage pregnancy rates, as well as abortion rates, which are also higher than the national average in several Merseyside local authority areas, should be addressed. There is also a need to ensure that adequate mental health support is available to both parents during the perinatal period.

The interviews showed that there was a great deal of variation in women's experiences of using maternity services, both across and within local authority areas. Many women were very happy with the care that they had received, although there were several areas suggested for improvement. These included improving access to antenatal classes, ensuring support for women is in place immediately before the birth of their baby, increased support for women who have had a caesarean section, and ensuring that the whole family has adequate opportunities to bond following the birth of the baby.

## Appendices

### Appendix 1: Fertility rates by age group and Local Authority

Local authority	All ages	Under 18 (%)	Under 20 (%)	20-24 (%)	25-29 (%)	30-34 (%)	35-39 (%)	40-44 (%)	45 + (%)
<b>Cheshire East</b>	4,112 (100.0)	36 (0.8)	180 (4.3)	670 (16.2)	1,004 (24.4)	1263 (30.7)	786 (19.1)	194 (4.7)	15 (0.3)
<b>Cheshire West and Chester</b>	3,700 (100.0)	48 (1.2)	154 (4.1)	691 (18.6)	983 (26.5)	1060 (28.6)	656 (17.7)	144 (3.8)	112 (2.8)
<b>Warrington</b>	2,484 (100.0)	33 (1.3)	106 (4.2)	431 (17.3)	700 (28.1)	735 (29.5)	420 (16.9)	84 (3.3)	8 (0.3)
<b>Halton</b>	1,661 (100.0)	25 (1.5)	111 (6.6)	386 (23.2)	504 (30.3)	424 (25.5)	193 (11.6)	*	*
<b>Knowsley</b>	1,971(100.0)	25 (1.2)	111 (5.6)	425 (21.5)	667 (33.8)	521 (26.4)	196 (9.9)	*	*
<b>Liverpool</b>	5,942 (100.0)	80 (1.3)	313 (5.2)	1,243 (20.9)	1,801 (30.3)	1,632 (27.4)	764 (12.8)	177 (2.9)	12 (0.2)
<b>Sefton</b>	2,795 (100.0)	35 (1.2)	120 (4.2)	560 (20.0)	819 (29.3)	759 (27.1)	420 (15.0)	112 (4.0)	5 (0.1)
<b>St.Helens</b>	2,131 (100.0)	46 (2.1)	148 (6.9)	484 (22.7)	607 (28.4)	543 (25.4)	294 (13.7)	*	*
<b>Wirral</b>	3,816(100.0)	62 (1.6)	216 (5.6)	831 (21.7)	1,037 (27.1)	1,016 (26.6)	577 (15.1)	134 (3.5)	5 (0.6)
<b>West Lancs</b>	1,168 (100.0)	14 (1.2)	56 (4.7)	239 (20.4)	320 (27.3)	313 (2.6)	189 (16.2)	47 (4.0)	4 (0.3)
<b>England</b>	694,24(100.0)	8,583 (1.2)	31,566 (4.5)	124,531 (17.9)	192,183 (27.7)	206,788 (29.8)	110,325 (15.8)	26,941 (3.8)	1,907 (0.2)



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