BREASTFEEDING IN WIRRAL

HEALTH NEEDS ASSESSMENT

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Contents

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Abbreviations

APH	Arrowe Park Hospital
BFI	Baby Friendly Initiative
BME	Black and Minority Ethnic
CCG	Clinical Commissioning Group
LA	Local Authority
PCT	Primary Care Trust
PHE	Public Health England
SCBU	Special Care Baby Unit
WHO	World Health Organization
WUTH	Wirral University Teaching Hospital

Glossary

Breastfeeding initiation	Any breast milk given with the first 48 hours of birth.
Exclusive breastfeeding	Infant receives only breast milk (including expressed breast milk).
Mixed feeding	Infant receives both breast milk and any other food or liquid before 6 months of age.
Partial breastfeeding	Another term for mixed feeding.

Executive Summary

Introduction and background

Breastfeeding is known to be beneficial to the health of mothers and babies in both the short and long term. National and international guidelines recommend that all babies are exclusively breastfed for at least six months. However, only 74% of women in England start breastfeeding at birth and this figure drops to 47% by the time the baby is 6 weeks old. In Wirral, these numbers are even lower at 57% and 31% respectively. Compared to statistical neighbours, Wirral performs poorly for breastfeeding rates and local figures have been static since 2009.

Aim

The aim of this health needs assessment is to explore the prenatal and postnatal needs of women in Wirral with regard to breastfeeding, and to assess the current service provision in order to inform a strategic action plan to increase the rates of breastfeeding locally.

Methodology

This health needs assessment utilised both qualitative and quantitative analysis. Service data and data from the Department of Health were used to draw local, regional and national comparisons. In depth, qualitative data had recently been collected within Wirral so it was not necessary to undertake further primary data collection. A rapid literature review was conducted within Cochrane database, Medline and a general search engine.

Findings

In 2012/13, 57% of mothers in Wirral started breastfeeding at birth. By 6-8 weeks breastfeeding had reduced to just 31%. Over recent years the local breastfeeding rates have not reflected the increase that's been seen nationally, resulting in a widening disparity between Wirral and the rest of England. Within Wirral the breastfeeding rates follow the pattern of deprivation, with the more deprived eastern wards having significantly lower levels of breastfeeding. The lowest breastfeeding rates are amongst young, white mothers from deprived areas.

Insight work highlighted the need for more practical and honest information about breastfeeding to be given to mothers in the antenatal period. It also identified the importance of the first few breastfeeds in the maintenance of breastfeeding, with some women wanting intensive 1:1 support during this time. Women who stopped breastfeeding reported feelings of guilt and anxiety associated with stopping and some felt they had a lack of information to allow them to bottle feed safely.

Locally, there are a large number of breastfeeding services and initiatives made available to parents. Wirral spends more per birth than the national average and yet has poorer outcomes in terms of breastfeeding initiation. The evidence base is far from conclusive as to which interventions are likely to be most effective, however some studies advocate taking a targeted, needs-led approach to breastfeeding support as oppose to providing more generic services.

Conclusions and recommendations

Encouraging more women to breastfeed involves action across three key areas; establishing breastfeeding as the social norm, providing intense support in the first few hours and days after delivery, giving longer term support in the weeks and months that follow. In order to ensure a coordinated, consistent approach is taken to increasing breastfeeding, a Wirral strategy should be developed in collaboration with key partners.

The evidence base surrounding effective interventions is inconsistent and therefore detailed evaluations should be undertaken on all local services to ensure they are effective at delivering against outcomes. It should be considered whether current resources could be re-distributed to increase the support available at certain key time-points and to certain target groups. This should be driven by further consultation work with those groups who have the lowest breastfeeding rates. Antenatal classes need to consider how to make the practicalities of breastfeeding more explicit and information also needs to be provided on safe bottle feeding practices. Work with local businesses and local schools should be further developed to promote and normalise breastfeeding within Wirral.

1.0 Introduction

Breastfeeding is known to be beneficial to the health of mothers and babies in both the short and long term. Consequently, national and international guidelines recommend that all babies are exclusively breastfed for at least six months. Breastfeeding rates in England are among the lowest in the world.[1] Only 74% of women in England start breastfeeding at birth and this figure drops to 47% by the time the baby is 6 weeks old.[2] In Wirral, these numbers are even lower at 57% and 31% respectively. Compared to statistical neighbours, Wirral performs poorly for breastfeeding rates.

Wirral has an established breastfeeding steering group, with good multi-disciplinary representation, which has been working for a number of years to increase breastfeeding initiation and duration within the borough. Despite the innovative work done by the steering group, local rates remain low compared to national figures. There is a need to take a strategic overview of the work being done, to ensure that services are meeting local needs. This health needs assessment aims to explore and identify the needs of women in Wirral with regard to breastfeeding in order to inform a strategic action plan for the borough.

2.0 Background

2.1 Breastfeeding in the UK

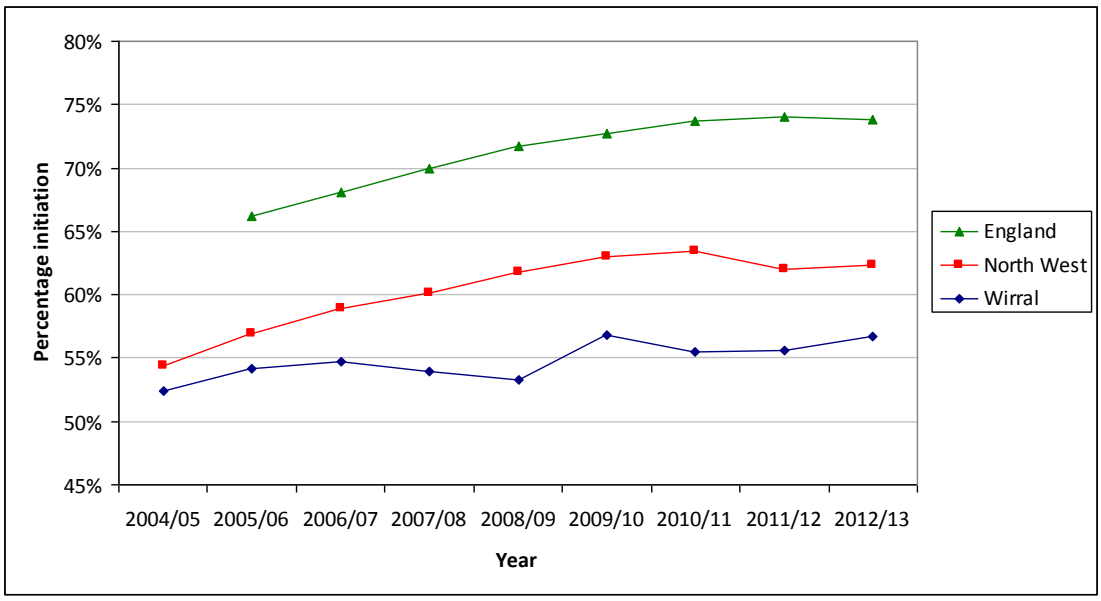
Breastfeeding attitudes and behaviours in Britain have changed dramatically over the past century; from previous universal breastfeeding, a strong bottle-feeding culture has emerged.[3] Breastfeeding has been associated with improved health outcomes for both the baby and the mother. Human breast milk is thought to be protective against infections such as gastroenteritis, respiratory infection, middle ear infection and urinary tract infection.[4] Studies have also suggested there may be longer term health benefits, such as reductions in the risk of allergic disease, type I diabetes and even obesity in infants.[4] Breastfeeding mothers have a lower risk of developing ovarian cancer and breast cancer compared to mothers who don't breastfeed.[4]

In 2001, the World Health Organization recommended women breastfeed exclusively until their baby is six months of age.[5] Thereafter, breastfeeding should continue, alongside other complementary foods, until the child is two years of age or older. The Department of Health adopted these recommendations in 2003.[6]

2.2 Breastfeeding initiation and duration

The breastfeeding status of mothers is recorded at birth and at the 6 week baby check. Breastfeeding initiation is defined as any breast milk given within the first 48 hours after birth.[4] In 2012/13 England had a breastfeeding initiation rate of 73.9%. This figure masked significant variation in rates between local areas, with 94.7% of women in Haringey breastfeeding compared to just 40.8% in Knowsley.[2] In 2012/13 Wirral had a breastfeeding initiation rate of just 56.7%, putting it in the lowest 15 PCTs (now Local Authorities) in England. Figure 1 (below) shows breastfeeding initiation rates for Wirral, the North West and England from 2004/05 onwards. In 2004 Wirral had a similar initiation rate to the North West as a whole, but that gap has grown over time. Over the past 9 years Wirral has increased breastfeeding initiation by just 4.3%. This is compared to the 7.7% increase seen nationally.

Figure 1: Breast feeding initiation rates for Wirral, North West and England; 2004/05 – 2012/13



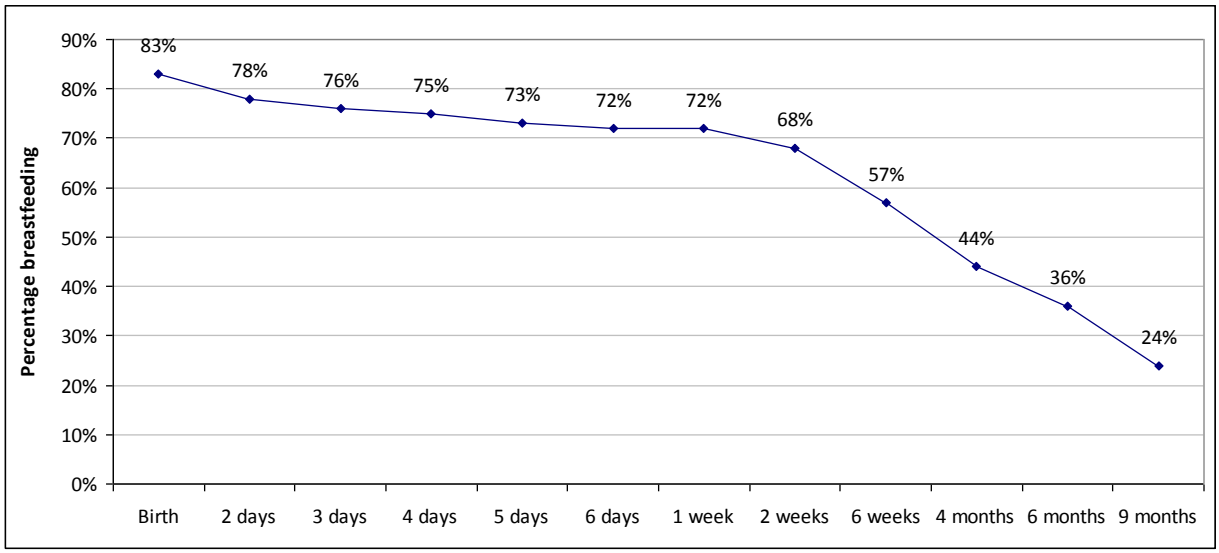
Source: Data from the Department of Health (2013)[2]

Breastfeeding rates at 6-8 weeks were significantly lower than initiation at just 47.2% across England and 34.3% in the North West. Again, breastfeeding at 6-8 weeks varied significantly between areas, ranging from 83.3% in City and Hackney to just 17.5% in Knowsley. In 2012/13 Wirral had a 6-8 week breastfeeding rate of 31.0% placing it in the bottom 20 PCTs (now Local Authorities) in the country. This figure had increased 3% since 2008/09, which has narrowed the gap marginally between Wirral and the North West. However, there remains a significant disparity between local and national figures.

Data from the Infant Feeding Survey in 2010 demonstrated how breastfeeding rates varied from birth to 9 months of age.[7] Figure 2 below shows how breastfeeding numbers fell dramatically after the baby reached 2 weeks of age. By 6 months, only 36% of women surveyed were breastfeeding, despite national guidance that all women should exclusively breastfeed for the first 6 months. By 9 months only 24% of mothers were still breastfeeding. It should be noted that these figures were based on women who completed all three stages of the Infant Feeding Survey and

therefore the proportion of women breastfeeding at birth and at 6 weeks differed slightly from the recorded national average.

Figure 2: Prevalence of breastfeeding at ages up to 9 months: England, 2010



Source: Adapted from the Infant Feeding Survey (2010)[7]

2.3 Factors affecting breastfeeding

A number of factors have been identified which may affect the decision of a mother to breastfeed. Understanding which groups of people are more or less likely to breastfeed can help to target services more effectively. These factors include:

- *Birth order:* First-time mothers tend to have higher breastfeeding initiation rates compared to mothers of second or later babies.[7]

- *Age of mother:* Older mothers (>30 years) are more likely to breastfeed than younger mothers (<20years). Not only are initiation rates lower amongst younger mothers, but the drop off rate is also higher.[7] This means a 30% disparity in breastfeeding at birth, becomes a 40% disparity by 6 weeks.

- *Ethnicity:* Mothers from all other ethnic minority groups are more likely to breastfeed compared to white mothers.[7] However, women from Black and Asian ethnic groups still have low rates of *exclusive* breastfeeding.[4] Not only does the

mother's ethnicity affect decisions made about breastfeeding, but the ethnicity of partners and the surrounding community have been found to influence infant feeding decisions.[4]

- *Occupation:* Breastfeeding rates are highest amongst women in managerial and professional occupations.[7] Women in routine and manual occupations, and those who have never worked, have the lowest levels of breastfeeding. However, between 2005 and 2010 there were significant increases in breastfeeding among mothers in routine and manual occupations (67% to 76%) and amongst those who have never worked (68% to 74%).[7] This has narrowed the gap between occupational groups.

- *Education:* Breastfeeding is correlated with age of leaving full-time education. Mothers who leave full-time education after the age of 18 have higher rates of breastfeeding than mothers who leave education aged 16 or under.[7]

- *Deprivation:* The incidence of breastfeeding decreases with increasing deprivation. In England there is a 13% difference in breastfeeding rates between the least deprived and the most deprived quintiles.[7] Given the long term health benefits of breastfeeding, this highlights a significant health inequality.

Overall, the lowest breastfeeding rates are seen amongst young, white mothers from deprived areas.[4] This represents a key group to target breastfeeding support towards.

2.4 Health and economic burden

As outlined in section 2.1, breastfeeding is thought to be associated with improved health outcomes for both babies and their mothers. In 2012 UNICEF commissioned a study to examine the economic implications of increasing breastfeeding rates in the UK.[3] They identified four different categories of health outcomes, based on the level of evidence available to support their association with breastfeeding. These outcomes are shown below in Table 1. Whilst acknowledging the level of evidence

available varies, Table 1 indicates the potential impact of breastfeeding on both infant and maternal health.

Table 1: Categories of health outcomes identified by UNICEF as associated with *not* breastfeeding

	Category One (Economic analysis)	**Category Two** (Narrative analysis)	**Category Three** (Plausible association)	**Category Four** (Some evidence of association)
Babies	Gastrointestinal disease, Respiratory disease, Otitis media, Necrotising enterocolitis (NEC)	Cognitive outcomes, Early years obesity, Sudden Infant Death Syndrome (SIDS)	Asthma, Diabetes, Leukaemia, Coeliac disease, Cardiovascular disease, Sepsis in the child	45 further outcomes identified, to provide an agenda for future research.
Mothers	Breast cancer		Ovarian cancer Type II diabetes	

Source: Adapted from UNICEF (2012)[3]

Only the 'category one' health outcomes had sufficient evidence available to allow an economic analysis to be undertaken. UNICEF used modelling to predict how these health outcomes would change if 45% of women exclusively breastfed for four months and if 75% of babies in neonatal units were breastfed at discharge. They predicted that £17 million could be saved each year in the UK through reductions in treatment costs for gastrointestinal infection, lower respiratory tract infection, otitis media and necrotising enterocolitis (NEC) in infants.[3]

UNICEF also estimated the economic impact of the reduced risk of breast cancer among breastfeeding mothers. Their model was based on half of women currently bottle-feeding, breastfeeding for 18 months in their entire lifetime. Through a reduction in the number of breast cancer cases, a saving of £31 million could be achieved over the lifetime of each annual cohort of first-time mothers.[3]

2.5 Policy context

The Public Health Outcomes Framework[8] outlines the key indicators for understanding and measuring the public's health. It has two overarching indicators; improving healthy life expectancy, and reducing differences in life expectancy and healthy life expectancy between communities. Breastfeeding is addressed directly by outcomes 2.02i (breastfeeding initiation) and 2.02ii (breastfeeding prevalence at 6-8 weeks after birth). Increasing breastfeeding may also contribute indirectly to other outcomes within the framework, for example, childhood obesity (2.06). Given the association between breastfeeding initiation/duration and deprivation, addressing breastfeeding rates would contribute towards reducing inequalities in Wirral.

The Marmot Review (2010)[9] outlines the on-going inequalities which exist in the UK and draws attention to the fact that disadvantage starts before birth. The Marmot Review argues that tackling inequalities needs to begin before birth and interventions need to focus on the earliest years of a child's life. Breastfeeding affects both the immediate and future health of babies, and therefore improving breastfeeding initiation is part of ensuring every child has the best possible start in life.[9]

2.6 Rationale for a health needs assessment

Breastfeeding rates in the UK are low compared to the rest of Europe, and the initiation and duration rates in Wirral are lower still. The purpose of this health needs assessment is to improve understanding of the local needs of parents and the factors influencing their decision to breastfeed in order to identify effective strategies to increase breastfeeding in Wirral.

2.7 Aims and objectives

2.7.1 Aim

The aim of this health needs assessment is to explore the prenatal and postnatal needs of women in Wirral with regard to breastfeeding, and to assess the current service provision in order to inform a strategic action plan to increase the rates of breastfeeding locally.

2.7.2 Objectives

1. Explore the variation in breastfeeding rates within Wirral using local service data.
2. Analyse qualitative data from service users to explore their perceived needs from local services.
3. Map out the current service provision locally.
4. Explore the needs identified from the qualitative and quantitative data in view of the current service provision.
5. Conduct a literature review to identify relevant evidence based interventions to increase breastfeeding rates.
6. Make recommendations for local action based on the above intelligence, to feed into a local breastfeeding strategy.
7. Ensure the needs identified are reflected within the JSNA in order to influence and guide commissioning priorities.

3.0 Methodology

This health needs assessment utilised both qualitative and quantitative analysis. Local service data were used to explore breastfeeding rates within Wirral, whilst data from the Department of Health were used to draw local, regional and national comparisons. In depth, qualitative data had recently been collected by local service providers and the findings were considered in this health needs assessment. Due to the wealth of information available, it was not necessary to undertake further primary data collection.

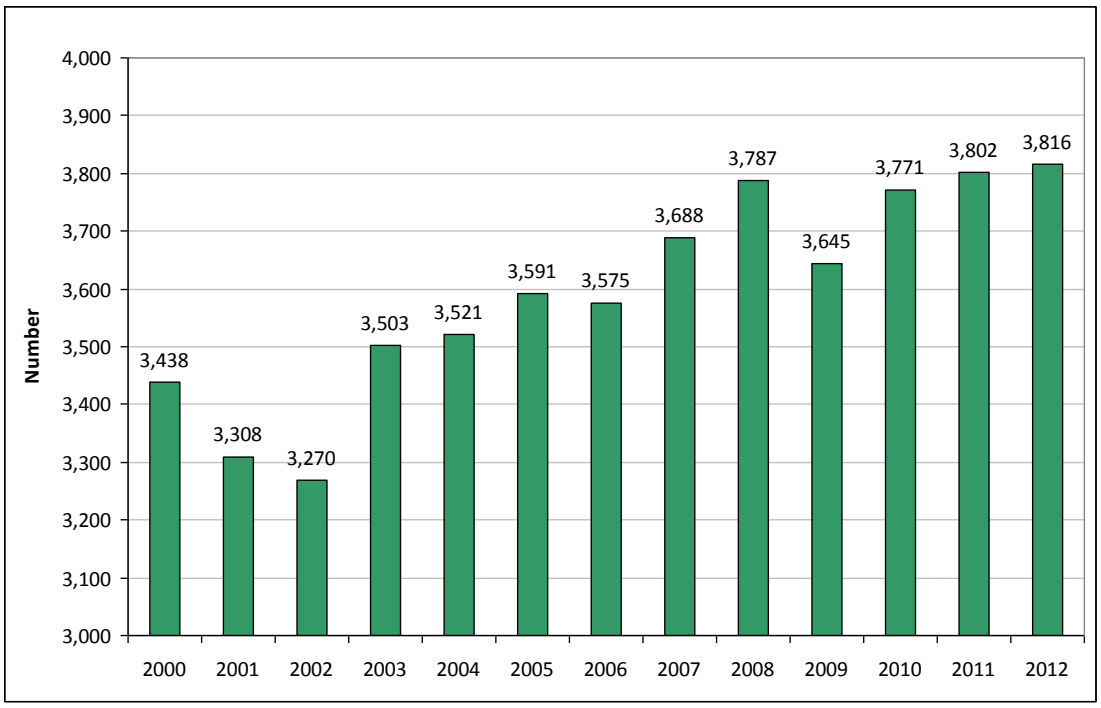
The rapid literature review was conducted within Cochrane database, Medline and a general search engine. Studies were limited to human studies, English language, and conducted within OECD counties. The literature review included both published literature and policy documents. The recommendations were developed in partnership with local service providers.

4.0 Breastfeeding in Wirral

4.1 Local demographics

Compared to England as a whole, Wirral has a relatively low proportion of women of child-bearing age (15-44 year olds).[10] In 2011 the general fertility rate in Wirral was 65 live births per 1,000 women aged 15-44 years, which was similar to the national average.[11] This corresponded to 3,802 live births locally (Figure 3). Although the general fertility rate has been rising since 2002, the number of women aged 15-44 years is predicted to fall in Wirral over coming years, which is likely to lead to a reduction in the total number of births.

Figure 3: Trend in number of live births, Wirral 1999-2011

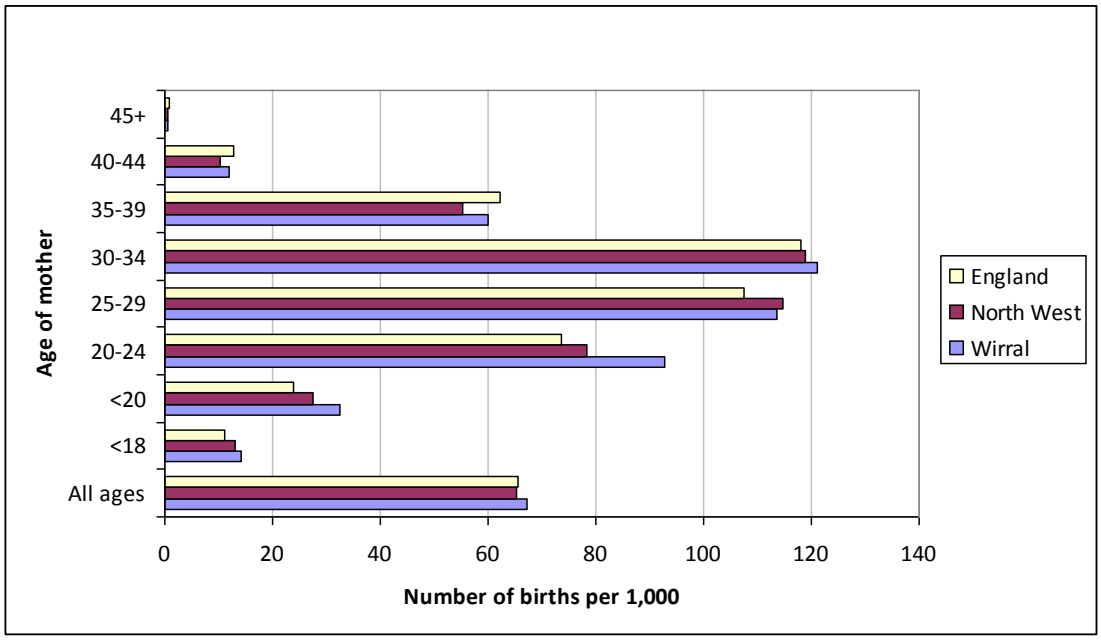


Source: Adapted from Wirral Joint Strategic Needs Assessment (JSNA)[11]

The highest fertility rates are seen in the east of Wirral, which corresponds to the more deprived areas of the borough.[11] These areas of Wirral also have a higher proportion of babies born to lone mothers and low birth weight (<2,500g) babies. This has implications for breastfeeding since mothers with low birth weight babies may be encouraged to bottle feed or give 'top-up' feeds. In Wirral, there are a

greater number of live births among young mothers (<18 years, <20 years and 20-24 years) compared to regional and national averages (see Figure 4 below).

Figure 4: Number of live births per 1,000 by age of mother; England, North West and Wirral, 2010



Source: Adapted from Wirral Joint Strategic Needs Assessment (JSNA)[11]

4.2 The epidemiology of breastfeeding

In 2012/13, 57% of mothers in Wirral started breastfeeding at birth.[2] By 6-8 weeks breastfeeding had reduced to just 31%. As discussed in section 2.2, breastfeeding rates have been increasing in Wirral, but at a slower pace than the national average. This has resulted in a widening disparity between Wirral and the rest of England.

The proportion of babies who are breastfed in Wirral varies greatly at ward level, as shown in Figure 5 (below). Initiation rates vary from 33% in Bidston and St James, to 81% in Heswall.[a] By 6-8 weeks, only 15% of mothers in Bidston and St James are breastfeeding, compared to 69% in Heswall. The breastfeeding rates follow the pattern of deprivation in the borough, with the more deprived eastern wards having significantly lower levels of breastfeeding.

[a] Data provided by Wirral Community NHS Trust

Figure 5: Breastfeeding rates by Wirral ward, 2012/13

Figure 5a. Percentage of babies breastfeeding at birth by Wirral wards, 2012/13

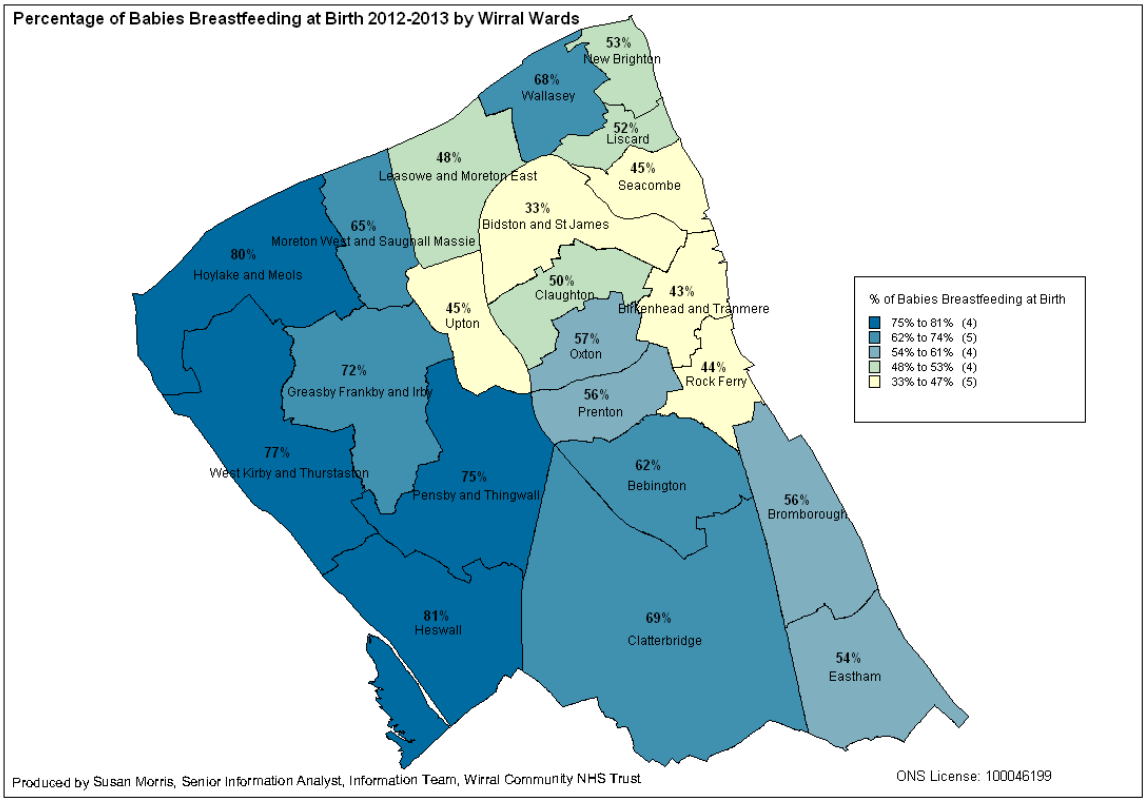
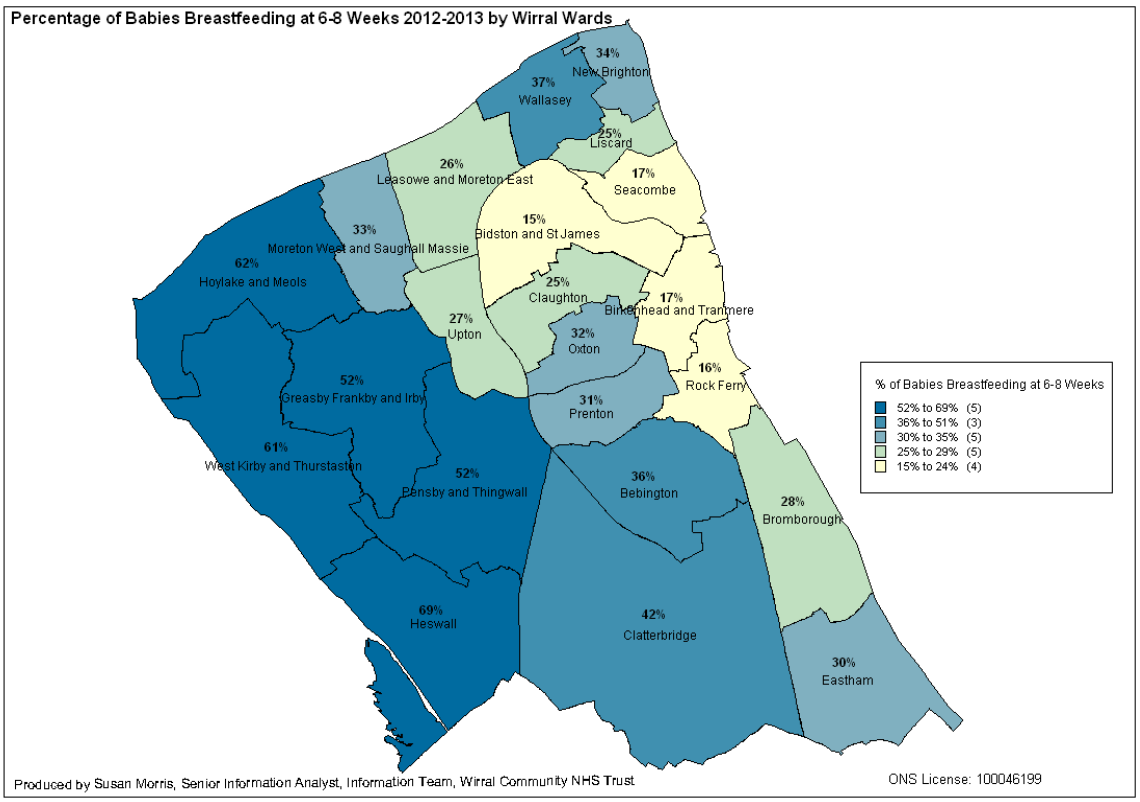


Figure 5b. Percentage of babies breastfeeding at 6-8 weeks by Wirral wards, 2012/13



A Mosaic profile of breastfeeding can be used to gain a deeper insight into the characteristics of individuals who live within areas of low breastfeeding. Mosaic is a tool which uses data from a range of sources to build a picture of the likely beliefs and behaviours of people, based on the neighbourhood they live in. Therefore, it should not be assumed that the profile will apply to all individuals who live within each area. However, there are some important themes that emerge from the 2012/13 Mosaic profile for Wirral.[12] In line with national and local data, the areas with the lowest breastfeeding rates tend to be more deprived neighbourhoods. In some areas there are unlikely to be many positive role models for breastfeeding, although role models which do exist may be an effective way of reaching other families. All of the Mosaic groups with the lowest breastfeeding rates live in areas where there is limited access to cars, making them reliant on public transport. This needs to be considered in terms of service provision, for example, the location of antenatal classes. For some people, health will be less of a priority and focusing on the long term health benefits of breastfeeding is unlikely to impact on infant feeding decisions. Emphasising the more immediate benefits of breastfeeding may be a better way to engage people. Face-to-face contact has been identified as the most effective way of communicating with individuals within these communities and this should be considered when raising awareness of breastfeeding and supporting mothers antenatally and postnatally. Mobile messaging may also be a good tool to utilise in breastfeeding support.

There is limited data available on other individual characteristics of women who do or do not breastfeed. Local health visiting data records maternal ethnicity, and in 2013 just over 60% of mothers from non-white British ethnic groups were exclusively breastfeeding or mixed feeding at 6-8 weeks.[b] This was compared to just 29% of white British mothers, which mirrored the trend seen nationally. Deprivation is also recorded but is solely based on area of residence, which has been discussed above. Routine data was not available for maternal age, education, occupation or birth order.

[b] Data from Wirral Health Visiting Service

4.3 Current service provision

Approximately 92% of Wirral mothers deliver at Wirral Women's and Children's Hospital, which is part of Arrowe Park Hospital (APH) site.[c] The remaining 8% of women deliver at Liverpool Women's Hospital (7%), the Countess of Chester Hospital (<1%), or the Manchester Hospitals (<1%). The proportion of women who opt for a home delivery varies between maternity providers; the One-to-One midwifery service delivers 35% of their women at home, whereas only 1% of women under the care of WUTH (Wirral University Teaching Hospital) midwifery team have a home birth.[d]

Breastfeeding support is provided through a variety of initiatives, which are commissioned by the Public Health England Area Team, NHS England, the Clinical Commissioning Group (CCG) or the Public Health team of Wirral Council. A brief overview of each service is outlined below.

One-to-One Midwifery Service: This service is provided by a private company but is NHS funded, so it is free at the point of access for women. One-to-One midwives can be accessed via GPs, or directly by women. In contrast to other midwifery services, each midwife carries a case load of mothers, which provides continuity of care from referral, through labour (if home birth is chosen) and postnatally. Mothers are able to access their midwives at any time for advice and support with infant feeding. The One-to-One Service also offers support from Mother and Midwife Assistants (MaMas) in addition to the care provided by the midwife. All breastfeeding women are referred to MAMAs and offered an initial home visit and follow up visits/phone support as necessary. There are two MAMAs who work across Merseyside and so current capacity is limited. They run a monthly antenatal class in Wirral and facilitate a breastfeeding support group with meets twice a month.

WUTH Infant Feeding Team: The Acute Trust in Wirral (WUTH) employs an Infant Feeding Coordinator, who leads the Infant Feeding team. The Infant Feeding

[c] Data from Wirral Clinical Commissioning Group (CCG)
[d] Data from Wirral Clinical Commissioning Group (CCG)

Coordinator provides specialist knowledge and training to others as well as having responsibilities for producing guidelines and policies, and undertaking audits. They work closely with the Community Trust, Home-Start, Dietetics, Neonatal and Paediatric staff as well as working on initiatives to promote breastfeeding and the acquisition of Baby Friendly status for the Trust.

The Infant Feeding team can engage with women at any point during their pregnancy and up to 28 days postnatally, depending on their individual needs. Once a woman has delivered her baby and she is within the hospital environment the Infant Feeding Team will offer support, advice and information. They provide postnatal ward-cover 7 days a week and 3 nights per week. The team are able to assist women during the establishment of breastfeeding and are also involved with women whose babies are on the Neonatal Unit; assisting and advising on the establishment of breastfeeding and the continuation of an ongoing milk supply in often difficult circumstances. They see any baby or mum re-admitted to the hospital that requires feeding support.

The Infant Feeding team have an ongoing relationship with the Family Nurse Partnership (FNP), to reach those most in need of extra support. The FNP forward a regular list of young women who will be using maternity services at WUTH and who have expressed an interest in breastfeeding. The Infant Feeding Team will offer as much support as is required. They also offer a drop in service at the Mums and Midwife shop in Birkenhead.

Mums and Midwife Shop: The WUTH midwifery team lead a community midwife service based within a shop in the main shopping centre of Birkenhead. The shop is open five days a week and is staffed by community midwives. It aims to provide a local, easily accessible place where women can seek advice for pregnancy and postnatal issues. This project has been well received by local women and in 2011 it was awarded the Innovation in Midwifery Award by the Royal College of Midwives.

Health Visitors: Health visitors offer to visit all parents during the final weeks of pregnancy, or sooner if additional needs are identified, to discuss the parents' feelings about parenthood. They also visit immediately following the birth and at 4-8 weeks. These visits all incorporate discussions about infant feeding. Postnatally, breastfeeding mothers are offered a feeding assessment to review the effectiveness of their feeding technique, and provided with information and support about issues that may influence the continuation of breastfeeding. A package of care is agreed with the mother which may involve regular telephone support, clinic attendance, home visits, attendance at breastfeeding groups, and referrals to other services such as Home-Start. A further visit is often carried out by a member of the health visiting team between 3-4 months which is an opportunity to discuss the progression towards the addition of solid foods to the baby's diet, which is recommended from 6 months of age. The Health Visiting service are currently in the process of developing more targeted antenatal and postnatal support in the more deprived areas of the borough.

Community Infant Feeding Lead: Wirral has a designated Community Infant Feeding Lead who is responsible for the Infant Feeding Team, and is managed within the Health Visiting service. Part of their role is to coordinate and implement the UNICEF Baby Friendly Initiative (BFI) programme and ensure that all of the community services comply with and achieve BFI accreditation. The Infant Feeding Lead is also responsible for chairing the breastfeeding steering group, which brings representatives from the different services together to ensure coordinated action is taken to improve breastfeeding rates.

The Infant Feeding Team work to develop and manage key support services for breastfeeding women on Wirral, such as A-Z Breastfeeding groups, the Baby Welcome scheme, the Breast Pump Loan scheme and the Breast Start App. They provide advice, support and training for health professionals working in Wirral as well as having responsibilities around policy development and audit. The Infant Feeding Team works closely with WUTH, Home-Start, Dietetics, the Milk Bank and other organisations involved with Infant Feeding.

Home-Start: Home-Start is Wirral's Breastfeeding Peer Support Service and they provide parent-to-parent support from a trained helper from the breastfeeding network. The support is needs-led and tailored to each individual family. Home-Start provides information, signposting, friendship, and a positive role model through their volunteers who are breastfeeding or have breastfed. Volunteers are supervised and supported, working within their boundaries and the World Health Organization (WHO) code.[13]

Currently Home-Start is based seven days a week on the postnatal ward at Arrowe Park Hospital and will contact postnatal women within 48hrs of referral or discharge. Home-Start provide a range of support including home visits, phone calls, texts, breastfeeding groups, SCBU (special care baby unit) support, pump loan pathway to the infant feeding team, and condensed support (at least once a week) for first 6-8 weeks and then for as long as mum needs.

Home-Start also undertake more targeted work with teenage mums and those in the 20% most deprived areas in Wirral, such as the Birkenhead district, where parents-to-be receive additional antenatal support. They also work with mums with disabilities and mental health disorders. They provide support for women in Wirral's Refuge centre, babies in the neonatal unit and Ronald McDonald house (which provides home-from-home accommodation for parents with sick children and premature babies being treated at APH).

Paediatric Dietetics: The paediatric dietetic team engage with women postnatally if maternal breast milk supply is low and/or the baby is faltering in growth. They support mums to achieve maximum maternal milk supply and their babies to achieve optimum growth. This support is provided for as long as it necessary to achieve the desired outcomes. The dietetic team also assist in the delivery of UNICEF training.

The paediatric dietetic team are currently undertaking a pilot study exploring the provision of donated breast milk to mothers in the community who are temporarily unable to breastfeed. As the supply of donated breast milk is limited, access is only

via referral from the paediatric dieticians. Strict eligibility criteria exist for referral based on identifying mothers and babies who are most likely to benefit from donated breast milk.

Milk Bank: The North West Human Milk Bank uses donated breast milk to support premature and sick babies across the North West region. Breastfeeding mothers can enrol to donate milk to the milk bank before their baby reaches 6 months of age. Once enrolled, mothers can donate surplus breast milk up to the baby's first birthday. Donated breast milk is tested and pasteurised in the milk bank then despatched to children's hospitals and neonatal units. Mothers who donate need to agree to blood screening and medical history questionnaire. The milk bank aims to recruit mothers during pregnancy or soon after the birth as expressing surplus milk is easier to achieve in the first 3 months of breastfeeding. Milk bank staff are qualified to give breastfeeding advice and support to mothers during their episode of donation.

Lactation clinic: A specialist lactation clinic has been developed jointly between Home-Start, paediatric dietetics and the community Infant Feeding Lead. This clinic aims to take a multidisciplinary approach to supporting women and babies who have complex medical issues and persisting difficulties breastfeeding. This clinic also allows women to be signposted on to other services, such as Consultant Paediatricians, if necessary.

Neonatal unit: The neonatal unit has an important role in supporting breastfeeding for babies who are either premature or experiencing medical problems. A transitional care unit has recently been developed, which provides individual side rooms where mums can stay with babies who require only minimal neonatal support. The neonatal unit also hosts volunteers from Home-Start who help support mothers with premature babies to breastfeed.

Family Nurse Partnership (FNP): Family Nurse Partnership is a national initiative which provides home-based support for first time mothers under the age of 19

years. A family nurse visits the mother regularly from early pregnancy up until the child is two years old. The aim is to support young mothers to have a healthy pregnancy and to help them plan for their own futures as well as that of their child. The Family Nurse Partnership has been funded across England since 2012. Wirral, however, adopted this scheme earlier and has been running the programme since 2010.

Children's Centres: The Children's Centres in Wirral currently provide a 0-19 service and can therefore engage with families for as long as is needed, however they predominantly focus on families with children under the age of five. They host breastfeeding support groups, drop-in support, antenatal education and a variety of other groups and courses to support families.

Others:

National Childbirth Trust (NCT): NCT is a national charity which provides pre- and post-natal care to women and families. In Wirral, NCT runs antenatal classes every 4-6 weeks based in two different locations; Oxton and Heswall. Whilst expectant parents have to pay to attend NCT, the cost is on a sliding scale based on income, and so varies from £10 to £200. Breastfeeding is discussed as part of these antenatal classes and NCT hosts a dedicated breastfeeding counsellor. There is also a breast pump hire service for women in the community and a national feeding line which is open every day and provides infant feeding advice and support.

The Livewell Team: The Livewell Team are based within Wirral Community Trust and provide specialist advice, training and resources on areas of lifestyle which are linked to ill health. Their work includes the promotion of breastfeeding and the Livewell team work closely with nurseries, primary and secondary schools to provide training and education to both staff and pupils about the benefits of breastfeeding. The aim is to establish breastfeeding as the norm among the next generation of parents. The Livewell team also refer into breastfeeding support services from the other areas of work they deliver, such as obesity services.

Teenage Pregnancy Group: A local multi-agency teenage pregnancy group has designed and established tailored antenatal classes for teenage mothers in Wirral. The classes follow a similar structure to mainstream antenatal classes but have been adapted following an in-depth consultation with local teenage parents. Evaluations from the pilot have indicated that these classes are having a significant impact on the breastfeeding decisions made by parents who attend.

Me Time, Fun Time: This local service is run for pregnant smokers and aims to take a holistic approach to improve confidence and resilience amongst this group of women. It covers areas such as emotional wellbeing, healthy eating and exercise. Breastfeeding is included as one of the topics covered and women who want extra information or support are signposted to other local services, such as Home-Start.

Child Poverty Group: Wirral is part of the Liverpool City Region Child Poverty and Life Chances Commission which has a breastfeeding sub-group. The aim of the sub-group is to look for ways to improve breastfeeding rates across the whole of Cheshire and Merseyside and to provide support for local breastfeeding leads.

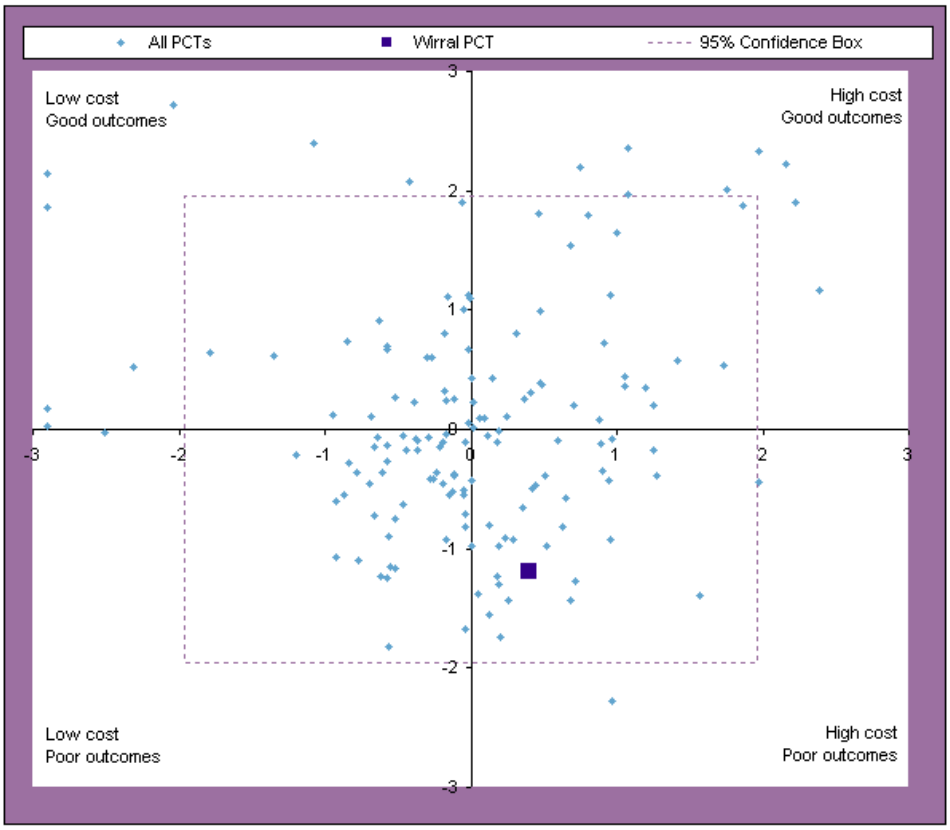
Local campaigns: The breastfeeding steering group arranges local events in support of national initiatives such as the National Breastfeeding Month. Events are delivered across the borough and include a milk-trail, the Big Feed and a breastfeeding road-show. In addition, Wirral has been involved in developing the 'Breast Milk it's Amazing' campaign in collaboration with other areas across Merseyside.[14] In 2013 this campaign was rolled out across Cheshire and Merseyside.

4.4 Expenditure verses outcomes

The Child and Maternal Health Intelligence Network (Chi Mat) have produced a tool to compare the cost spent on maternity services at PCT level (now Local Authorities), with the outcomes achieved by that area.[15] Figure 6 below shows the cost spent per birth in Wirral compared to the breastfeeding outcomes. This is compared with other PCTs (light blue diamonds) and the national average, which is represented by the

intersection of the two solid lines at the centre of the figure (point 0, 0). The dotted box represents the 95% significance level.

Figure 6: Programme budgeting per birth compared to percentage of women initiating breastfeeding, 2010/11



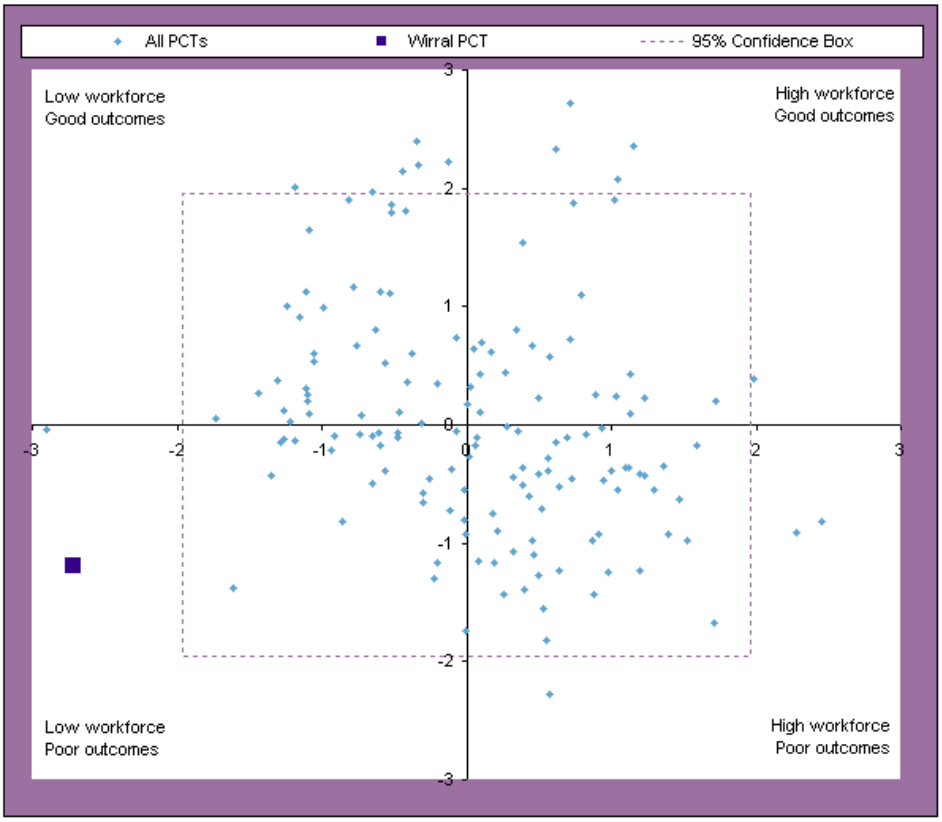
Source: Taken from the Child and Maternal Health Intelligence Network[15]

Figure 6 shows that Wirral spends more per birth than the national average and yet achieves poorer breastfeeding outcomes. This result, however, is not statistically significant (as it falls within the dotted box). The data which informs Figure 6 is from 2010/11 and when this was compared to the previous year (2009/10) Wirral had reduced costs whilst improving breastfeeding initiation. Whilst this result is encouraging, it was not statistically significant when compared to the change that occurred at a national level.

A comparison of breastfeeding initiation against the number of registered midwives per 1,000 births showed that in 2010/11 Wirral had significantly lower numbers of

midwives compared to the national average (see Figure 7). This result was statistically significant and Wirral was one of only two areas in the country with significantly lower numbers of midwives per 1,000 births.

Figure 7: Registered midwives (Full Time Equivalent) per 1,000 births compared to percentage of women initiating breastfeeding, 2010/11



Source: Taken from the Child and Maternal Health Intelligence Network[15]

The Chi Mat tool can be used to draw a direct comparison between Wirral and other local authority areas. Table 2 below shows expenditure and outcome values for Wirral and four statistical neighbours in 2010/11. Wirral had a higher programme budget compared to the other areas, whilst having a significantly lower number of midwives per 1,000 births. The breastfeeding rates were one of the lowest, comparable only to Sefton. Breastfeeding had, however, increased within Wirral whilst some other areas had seen a reduction. Bury had the highest breastfeeding initiation rates, whilst having the lowest programme budget of the comparison areas.

Table 2: Comparison of maternity indicators in Wirral compared to statistical neighbours, 2010/11.

Primary Care Trust (now Local Authority)	Programme budget per birth	Midwives (FTE) per 1,000 births	Breastfeeding initiation	Change in breastfeeding initiation: 2009/10 – 2010/11
Wirral	£5536	21.0	56.74%	1.08%
Sefton	£4526	35.3	56.17%	0.18%
Darlington	£5127	32.0	60.19%	3.18%
Telford and Wrekin	£4671	36.6	65.59%	0.11%
Bury	£4382	34.8	69.64%	-1.41%

Source: Adapted from the Child and Maternal Health Intelligence Network[15]

It should be remembered that this data is from 2010/11 and is, therefore, four years out of date. Expenditure and outcomes may have changed in that time for both Wirral and comparison areas. Unfortunately more recent data is not available for use within the Chi Mat tool.

5.0 Local insight

Nationally, the Infant Feeding Survey has provided valuable insight into the reasons why mothers may choose not to breastfeed.[7] In the 2010 Infant Feeding Survey, 75% of mothers said they had intended to breastfeed their babies. Mothers were more likely to intend to breastfeed if they had been breastfed themselves, if the majority of their friends breastfed, or if they had breastfed a previous child. One in five women who had initially intended to formula feed, initiated breastfeeding at birth. For women who stopped breastfeeding in the first couple of weeks, the most common reasons were painful breasts or nipples, concern over milk supply and difficulties latching the baby on. Overall, one third of mothers who stopped breastfeeding gave 'insufficient milk' as the reason for stopping.[7]

Insight work has been undertaken locally to explore the attitudes of women towards breastfeeding and the perceptions mothers have of the services provided in Wirral. This section will outline the findings from two local qualitative studies. Qualitative research does not aim to provide a 'representative sample' of women, and so the findings of these studies should not be assumed to apply to all women in Wirral. However, such work enables us to gain a deeper insight into some of the issues faced by women who may have had difficulties breastfeeding, or problems engaging with services. This can help identify where they may be gaps in the current service provision.

5.1 Voice of Birkenhead Mothers

In 2012/13, The Foundation Years Trust (Birkenhead Project) undertook a review of mothers' experiences from early pregnancy to when their baby was 3 months of age.[16] The review was intended to consider all areas of health and health care, and breastfeeding was a key aspect of the report. Thirty women from the Birkenhead area were included, which represents one of the most deprived parts of Wirral. The women took part in one of five focus groups and nine individual interviews.

Of the mothers included, nine of the women had been, or were, teenage mothers; eleven women were aged in their 20s; nine were between 30 and 34; and the oldest

was aged 42 years. Fifteen of the women were first time mothers. At the time of the focus groups/interviews, fifteen of the women were still breastfeeding, five started but had not sustained breastfeeding, and ten were bottle feeding. The breastfeeding rate for the sample was much higher than for the Birkenhead area as whole, which may reflect the high numbers of participants who were contacted via the Home-Start peer support service.

Only a minority of the women explicitly said they did not consider breastfeeding. Of those who bottle-fed, two were on medication which made breastfeeding unsafe. Others reported struggling to cope with the emotions and feeling under-supported to breastfeed. However, the views of women towards breastfeeding support varied greatly. Whilst some women reported feeling isolated and unsupported, others were content with just a short demonstration of positioning. At the other extreme at least one women described the telephone support offered as 'an onslaught and very intrusive'. This highlights the challenge faced by service providers in ensuring an appropriate level of support is given to each individual mother and emphasises the importance of exploring the specific needs of women. It should be noted that the ability of providers to adapt their services to meet individual needs is dependent on time and staffing resources.

Some of the other key themes that emerged from this study which impact on breastfeeding initiation and duration are summarised below:

1) Antenatal care

- Few of the women in this study were aware that they had any choice in who provided their maternity care. This could prevent women from identifying and accessing the most appropriate support for them, and increases the need for professionals to ensure women are fully informed about the options available.
- Only a minority of women had attended any form of antenatal class. Antenatal classes are one way of ensuring all women are aware of the benefits and the practicalities of breastfeeding. In this study, some of the older women (aged over 30) reported feeling that they either did not need to attend as it was not their

first child, or they were having a caesarean section, or the classes were inconvenient in terms of distance to travel or clashes with work. Younger women were less able to give clear reasons for not attending antenatal classes, although one young mother said that she had thought it would all come naturally to her and therefore she didn't need to attend a class.

- The Mums and Midwife shop was used by a fifth of the women, all of whom gave positive feedback:

"I've got to say the best thing was that drop in shop down town because I was working full time, I used to pop in there for my antenatal if I couldn't get to my doctors. I'd go down there with my file and they'd do my tests… I had a couple of sweeps there as well… that is such a good idea."

2) Postnatal support in hospital

- A small number of women reported a perceived pressure to bottle feed low weight or poorly babies.
- Low staffing levels were frequently mentioned as an issue, particularly at night, leaving mothers feeling isolated and unsupported in the first few hours after birth.

3) Postnatal support in the community

- Ten of the fifteen women still breastfeeding were receiving postnatal support at home. There were positive reports of Home-Start volunteers and health visitors who visited and advised women on infant feeding, including weaning. Several of the mothers reported wanting longer term support and more availability from health visitors. This may be a particularly relevant for women without local support from family members.
- The message of breastfeeding as the healthy option had a negative impact on some mums when they decided to stop. The interviewer reported women feeling distress which was 'out of proportion to the impact on the child's health':

"The first time they gave me formula [for him] I felt like the worst person in the world. I really thought I was poisoning him, honestly. And I just felt awful for that."

- Information on mixed feeding was generally not explained to women.
- Approximately a quarter of mothers reported experiencing postnatal depression. Some felt that this problem was not always identified as the mother's needs received less attention than the baby's. Several women reported 'putting on a bit of a show' to appear that they were coping better than they were. This highlights the need for women to be given the opportunity and the time to explore their feelings. Postnatal depression had a bearing on breastfeeding, with one woman describing her dilemma of starting treatment or continuing breastfeeding.

Whilst this work provides valuable insight into some of the issues faced by women, it is limited in its report of the aspects of the service provision that women found most valuable. This makes it difficult to determine which aspects of services could be enhanced to improve breastfeeding support.

5.2 Exploring infant feeding decisions: a small-scale qualitative study

A qualitative study has been undertaken locally exploring the reasons behind mother's infant feeding decisions.[17] This study, which was the basis for a Masters dissertation, involved in-depth interviews which were conducted with eight mothers who had babies between six weeks and six months of age. Purposive sampling was used to identify women who lived in areas of low breastfeeding rates who either bottle-fed from birth or started breastfeeding but stopped within the first few weeks. All of the women involved were first time mothers and were aged between 24 years and 38 years. They were all in long-term relationships, were in employment during their pregnancy and had expressed an intention to breastfeed at some point during their pregnancy. The data was analysed within five main themes:

1) Influence and information

Friends, family, health professionals and promotional materials had both positive and negative impacts on women's decision to breastfeed. Whilst six out of eight women attended antenatal classes, the majority reported feeling 'ill-prepared' for breastfeeding. Whilst it was acknowledged that it is difficult to be fully equipped for something that you cannot practice beforehand, it was felt there was more health professionals could do to prepare women for the realities of breastfeeding. One woman thought a more 'truthful' account of the difficulties and challenges involved in breastfeeding would have been beneficial.

All the women were familiar with the health promotion messages surrounding breastfeeding, such as 'Breast is Best'. Whilst two women reported that promotional materials had influenced their determination to breastfeed, others felt it put additional pressure on women, particularly when they decided to stop:

> *"A health visitor was sort of going on about the benefits but said like if you don't breastfeed your child they could get leukaemia and I wish I had said 'stop, there is no medical research for that' but this strong arming and I was like I want to do it, but now I can't and I've got those words ringing in my ear which I know isn't true".*

Whilst this quote does not necessarily reflect the evidence base surrounding the health benefits of breastfeeding, it does highlight the care that is needed when discussing infant feeding decisions with parents. It is not known exactly what was said by the health visitor, but this comment reflects how the mother has heard and interpreted that information. It is important that the health benefits of breastfeeding are communicated appropriately to parents so as not to lead to undue anxiety, or conversely reassurance, regarding the future health of their baby.

2) Support to breastfeed post-birth

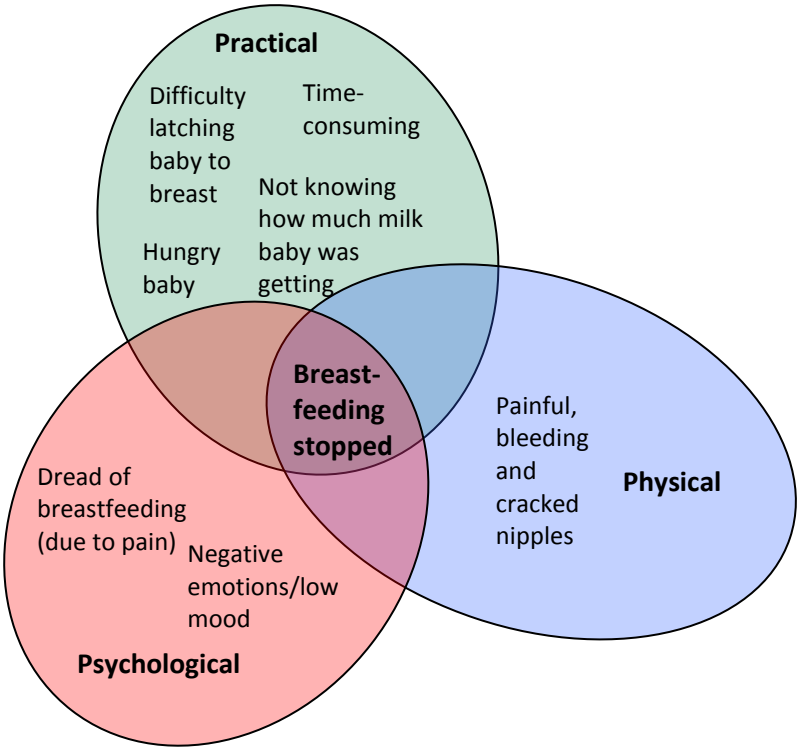
Women's experiences of support immediately post-birth were very mixed. Whilst some felt well supported and had help with positioning for breastfeeding, others felt

help was not easily available. In particular, some women said they would have liked the midwife to stay with them during the first few feeds. Whilst this may not always be possible due to other ward commitments, health professionals need to be aware of the different levels of support required by women and that some may need more intensive help during these early feeds. Women who either chose to bottle-feed or who stopped breastfeeding reported a lack of support in the community. These women described feeling neglected and expressed their need for information and advice to ensure they were bottle feeding correctly.

3) Experience of breastfeeding and reasons for stopping

The reasons for stopping breastfeeding were often a combination of practical, physical and psychological factors (see Figure 8 below).

Figure 8: Reasons given by women for stopping breastfeeding



Source: Adapted from Tattersall A (2013)[17]

Whilst for some women the decision to stop breastfeeding came as a welcome relief, for others it was associated with feelings of shame, failure and stigma. One woman described avoiding phone calls from her peer support volunteer:

> "*because I felt ashamed because I hadn't been able to do it. And they'd been so lovely …. but I was so ashamed*'.

This highlights the need to provide active support and reassurance for women who decide to stop breastfeeding, taking into consideration the wider issues surrounding their decision making process.

4) Suggestions for improvement

The main suggestion for improvement from women was the need for more realistic information about breastfeeding, particularly with regard to the time commitment required and the difficulties associated with it. Women did not want to feel pressured to breastfeed and wanted to be supported if they decided to stop. The period immediately after the birth was highlighted as the most important for intensive support. All the mothers interviewed expressed their wish to try breastfeeding again if they had another baby in the future.

5.3 Key themes from the insight work

It should be remembered that the experiences and opinions that inform this section come from thirty eight women and are not, therefore, representative of all women in Wirral. However, there were some key themes that emerged across the two studies:

- **The first few feeds are crucial** – Women need the most intensive emotional and practical support in the hours following birth. For some women, advice on positioning may be sufficient, but others may require someone with them for the duration of the feed.

- **The promotion of breastfeeding** - The promotion of breastfeeding needs to include practical and honest information, and should also give mothers the space to explore mixed and bottle feeding methods.

- **Maternal wellbeing** – Some women who stop breastfeeding experience guilt and distress, even if their own health and wellbeing has been affected by trying to breastfeed. Health professionals need to support women in this decision making process ensuring that maternal health, particularly mental health, is prioritised. Women also require active support if they decide to transition to bottle feeding.

6.0 Evidence review

6.1 Benefits of breastfeeding

UNICEF report multiple health benefits to breastfeeding (or alternatively harms avoided by not bottle feeding) including reduced gastrointestinal, respiratory, ear and urinary tract infections, and reduced risk of developing allergic diseases, insulin-dependent diabetes, obesity and childhood leukaemia.[18] However, the evidence surrounding these health outcomes is far from straightforward. Whilst numerous studies have demonstrated a positive health benefit to breastfeeding,[19-21] there are multiple studies which have failed to detect these associations.[22-25] Furthermore, there are inherent weaknesses in many of the study designs, which fail to adequately control for confounding factors such as socioeconomic status. Across the evidence base, different definitions of breastfeeding are used, with comparison groups varying between exclusive, partial and non-breastfed babies. Alternatively, some studies compare different durations of exclusive or partial breastfeeding. This makes it difficult for systematic reviews and meta-analyses to combine studies and develop a robust estimate of the true benefits of breastfeeding.

The inconsistencies in the literature also make it difficult to determine what the 'optimal' duration of breastfeeding is. Since the WHO recommendation that all babies should be exclusively breastfed for six months, further reviews have been undertaken comparing breastfeeding for 3-4 months with exclusive breastfeeding for 6 months.[26,27] Longer breastfeeding is associated with a reduced risk of infection.[26] But whilst some report no adverse impact of breastfeeding for 6 months,[26] others suggest infants' nutritional requirements will not be met and suggest an increased risk of iron deficiency anaemia among babies exclusively breastfed for longer.[27]

Consequently, it is easy for pro-breastfeeding and anti-breastfeeding groups to find and select the evidence that supports their argument. This presents a challenge for women considering whether to breastfeed in terms of what and who to believe. There is a role for professionals to ensure they remain impartial and are able to discuss the strengths and the weaknesses of the evidence base in light of the current guidance from WHO. This should include taking into account women's individual

circumstances and risk factors. Despite the debates over the exact nature of the benefits of breastfeeding, it is important to note that no health benefits have been found of giving babies formula milk.

6.2 Interventions to increase breastfeeding

In 2006, the National Institute for Health and Clinical Excellence (NICE) undertook a review of the evidence base to explore the most effective ways to promote breastfeeding across England.[4] The review identified eight key evidence-based areas for action:

1. Baby Friendly Initiative (BFI) in maternity and community services:
   - All maternity hospital should be encouraged to attain the BFI Full Accreditation Award.
2. Education and/or support programmes:
   - An appropriate mix of education and support programmes should be routinely delivered in accordance with local population needs.
3. Changes to policy and practice within the community and hospital settings should:
   - Support effective positioning and attachment
   - Encourage baby-led breastfeeding
   - Provide teaching, support and reassurance to women
4. Hospital and community care policy should abandon:
   - Restriction of the timing and/or frequency of breastfeeds.
   - Restriction of mother-baby contract immediately following birth.
   - Giving supplemental feeds routinely or without medical reason.
   - Separation of babies from their mothers in the treatment of jaundice.
   - The provision of any promotional materials for formula or follow on formula milks.
5. Complementary telephone peer support:
   - Telephone support should be offered by peer or volunteer support in additional to face-to-face support.
6. Education and support from one professional:

- For women on low incomes, breastfeeding education and support should be delivered by a single professional.

7. Education and support for one year:
   - Education and support surrounding breastfeeding should be provided during the antenatal period and continue through the first year, in order to increase intention, initiation and duration rates.
8. Media programmes:
   - Local media programmes should be developed to target teenagers in order to change attitudes towards breastfeeding.

This review informed the NICE clinical guidance on the postnatal care of women and their babies.[28] Since this guidance was published, a number of systematic reviews and studies have been undertaken exploring the effectiveness of different interventions to increase breastfeeding rates.

Education and support programmes

Renfrew et al (2012)[29] conducted a systematic review of support programmes to identify effective interventions. They found that all types of breastfeeding support were associated with improved breastfeeding outcomes as compared to no additional support. There was no difference in effectiveness between programmes which offered support from professionals verses peer supporters. However, face-face support was more effective than either telephone support, or a mix of the two. This is consistent with other systematic reviews which have failed to demonstrate significant benefits from telephone support.[30,31]

Renfew et al (2012)[29] also found no difference between interventions which offered both antenatal and postnatal support, as compared to postnatal support alone. However, formal antenatal classes have been found to be effective at increasing breastfeeding rates,[32] although no specific type of antenatal breastfeeding education has been found to be the most effective.[33] It has been proposed that needs-based informal sessions are likely to deliver larger increases in breastfeeding as compared to more generic antenatal classes.[32]

Baby Friendly Initiative

The UNICEF Baby Friendly Initiative provides a framework for organisations to increase the initiation and duration of breastfeeding.[4] There have been multiple studies which have supported its impact on breastfeeding initiation,[34] but it's impact on duration is less clear. A UK based study found that mothers who delivered in accredited units were 10% more likely to initiate breastfeeding but not more likely to be breastfeeding at 1 month.[35] A recent study conducted in Australia compared breastfeeding initiation and duration rates in hospitals with and without BFI accreditation.[36] Initiation rates in all hospitals were over 96%, and the researchers found that in hospitals where initiation rates were already high, BFI accreditation gave no additional benefit. There was also no significant difference in breastfeeding duration at one or four months. Brodribb and colleagues[36] identified four hospital practices which had a significant impact on breastfeeding; early skin-to-skin contact, attempted breastfeeding within the first hour, rooming-in and no in-hospital supplementation. They concluded that in hospitals where these practices are in place, BFI accreditation had little effect on breastfeeding rates.

This study emphasises the importance of the underlying principles of the Baby Friendly Initiative, but challenges the contribution of the process of accreditation to breastfeeding rates. This should be carefully considered in light of the substantial costs of achieving official accreditation.[37] However, it must be noted that this study was conducted outside of the UK, within a country with a more established breastfeeding culture. In areas of the UK where breastfeeding rates are low, it may be that the process of external audit which is undertaken to gain accreditation is still necessary to ensure effective practices are in place locally.

Peer Support

A systematic review conducted by Jolly et al (2012)[38] explored the impact of peer support programmes and found evidence that it is most effective in low and middle income countries, but less effective in high income countries. In countries where peer support was effective, it was only intensive support (>5 contacts planned) which seemed to influence breastfeeding continuation. The review included two UK

based studies, neither of which demonstrated a statistically significant improvement in breastfeeding. Ingram et al (2010)[39] found that universal antenatal peer support was not effective at increasing breastfeeding, but targeted support may be beneficial. When interpreting these studies it should be remembered that peer-support services are not standardised and these findings cannot, therefore, be extrapolated to all areas. However, these findings do highlight the need to ensure that local peer support services are thoroughly evaluated with regard to their impact on breastfeeding outcomes in different target groups.

Incentive schemes

As of yet, there is limited evidence to support the use of incentives to increase breastfeeding duration. Locally, four areas in the North West have piloted an incentive scheme; Blackpool; Ashton, Leigh and Wigan; Halton and St Helens; and Tameside and Glossop.[40] Each PCT was given £15,000 to target local areas with the lowest breastfeeding rates. The aim was to see a 5% increase in breastfeeding at 6-8 weeks by the end of one year. The main finding from Blackpool identified the benefits of the scheme in terms of psycho-social factors, but found that incentives did not influence women's intentions or motivations to breastfeed.[41] Ashton, Leigh and Wigan targeted their incentive scheme to the three LSOAs with the lowest breastfeeding rates. Whilst the number of women who continued breastfeeding increased in these areas, this was not reflected in an overall increase for the borough.[40] There is also a study currently underway at the University of Sheffield exploring a voucher based system within areas which have a low 6-8 week breastfeeding rate, although the results from this study are not yet available.[42]

There is, however, a more fundamental debate around whether or not it is right to use financial incentives to influence individual behaviours. A study is being conducted by the Wellcome Trust which aims to address this question, considering the philosophical, psychological and economic arguments for and against incentives.[43] The research is due to conclude this year.

Summary of the literature

It should be noted that the literature review conducted for this health needs assessment, whilst systematic, is not exhaustive. It has not been possible to capture all of the literature which exists around breastfeeding and the manifold interventions to improve rates. Systematic reviews have been utilised to capture a wide range of studies. A common theme in these systematic reviews is the inconsistency of the evidence, which makes it difficult to identify evidence-based interventions which will be effective locally. The evidence surrounding some of the possible interventions is limited to just one or two studies. This highlights the importance of ensuring robust evaluations are undertaken on local initiatives, both to ensure their effectiveness at addressing breastfeeding initiation and duration, but also to contribute to the wider evidence base and help inform practice in other areas.

6.3 Case studies

This section will consider examples of work done which may have an implication for local practice.

Knowsley Strategy

Knowsley developed and implemented an Infant Feeding Strategy from 2008 to 2011.[44] They adopted a multifaceted approach which included incorporating the UNICEF BFI into local organisations, training staff, strengthening peer support, improving coordination between hospitals and community settings, creating supportive environments and changing attitudes and behaviours. The target was to increase breastfeeding initiation by 7% over two years and breastfeeding at 6-8 weeks by 2% over 3 years. In 2007/08 at the start of the strategy, Knowsley had an initiation rate of 32.5%, which rose to 41.8% by 2011/12. The 6-8 week breastfeeding rates rose from 13.4% in 2008/09 to 20.7% in 2011/12, significantly exceeding the target set. This is just one example of the many local breastfeeding strategies which have been developed across England and demonstrates the value and potential benefits which can be gained by ensuring a strategic view is taken on breastfeeding.

Antenatal classes for teenage mums (Wirral)

A local initiative has recently been piloted around a tailored antenatal class for teenage mums in Wirral. The antenatal classes came about following an in-depth consultation with young mums. They followed a similar structure to mainstream antenatal classes, but were adapted in terms of language and practical demonstrations. The classes were not specifically designed to address breastfeeding, although they had a breastfeeding component. The evaluation showed that the breastfeeding session appeared to have the biggest impact on young parents' decision making. In the second group that was run, only one person said they were planning to breastfeed at the start of the antenatal classes, but by the end all but one mum were either breastfeeding or intending to. This example shows the importance of ensuring antenatal support is appropriately tailored to the needs of women. This reflects the literature which suggests that needs-based classes have a greater impact on breastfeeding than a generic approach to antenatal support. It should be considered whether this approach could be developed for other groups of women in Wirral.

Bosom Buddies (Knowsley) and Breast Start (Sefton)

An evaluation has been conducted of the peer support services in Knowsley and Sefton, with the aim of improving understanding of the views of local women, assessing the effectiveness of peer support and making recommendations for improvements. The evaluation was based on qualitative research involving mothers, peer supporters and clinical stakeholders. They identified several elements of antenatal, postnatal and longer term support which were particularly valued by mothers, for example, antenatal workshops and one-to-one practical teaching, contact with mums within 24 hours of delivery, in-home visits, and signposting to local Children's Centres. However, some aspects of the programmes were recognised as needing further development namely, giving pregnant women the opportunity to come into contact with mums currently breastfeeding (for example by bringing breastfeeding mums to workshop sessions), providing in-hospital peer support in the hours following delivery, and ensuring a smooth transition when peer support ends. Whilst this evaluation provides valuable insight into the potential role of peer

support, it does not consider the impact these services had on breastfeeding rates. It is important to include qualitative and quantitative outcomes in service evaluations to ensure that they are contributing to overall improvements in breastfeeding outcomes.

7.0 Gap Analysis

There is a large amount of breastfeeding work and initiatives which are being delivered locally, including some unique innovative projects. However, the overall breastfeeding initiation and duration rates in Wirral have been static since 2009. The evidence base is far from conclusive as to which interventions are likely to have the greatest impact on breastfeeding rates. Therefore there is a need to ensure that all of the services provided locally are thoroughly evaluated in terms of their impact on breastfeeding initiation and duration. The services need to have clear objectives and targets in terms of breastfeeding outcomes and need to be monitored and evaluated against these.

The lowest breastfeeding rates in Wirral are seen among young mums and those who live in the most deprived areas. These women represent the main target groups for our services. Needs-led interventions need to be developed in response to consultation with local women, to ensure services are tailored to the needs of these groups. For example, initiatives such as the Mums and Midwife shop have been found to be effective at engaging with mums in more deprived areas. In part, this may reflect the easy access to the shop for local women who do not own a car and therefore struggle getting to other services or classes. A pilot could be established to extend the role of the shop to include breastfeeding peer support, with a subsequent evaluation plan to assess its impact on breastfeeding rates within the local area.

A common theme from the insight work is the need for accurate, practical and honest information about breastfeeding. Much of the information available about breastfeeding focuses on the health benefits and does not reflect the discrepancies and uncertainties in the evidence base. This approach can lead to excessive guilt and anxiety amongst mothers who decide to stop breastfeeding, out of proportion to the likely impact on their child's health. There is a need for the information to be delivered in a more impartial way that helps women explore and make sense of the factors surrounding their decision to breastfeed. The Mosaic profile for Wirral suggests that the groups with the lowest breastfeeding rates are unlikely to engage

or be influenced by the long term health benefits of breastfeeding. A focus on the shorter term, practical benefits may be more constructive. This could also shift the focus onto the benefits gained by breastfeeding, as oppose to the benefits lost by stopping. In addition, the insight work highlights the need for parents-to-be to get more 'real-life' insight into breastfeeding and consideration should be given to the feasibility of inviting breastfeeding mums to antenatal classes.

8.0 Conclusion and recommendations

A women's decision to breastfeed is based on physical, psychological and social factors. Women need to be supported in their individual choices around infant feeding, and in the practicalities of feeding their baby. Encouraging more women to breastfeed involves action across three key areas; establishing breastfeeding as the norm, providing intense support in the first few hours and days after delivery, and giving longer term support in the weeks and months that follow. The support needs to be delivered in a holistic, non-judgemental way, which takes into consideration the mental and physical wellbeing of both the mother and baby.

The following recommendations are proposed for consideration:

1. A Wirral-wide strategy should be developed to direct the work of commissioners and local services to increase breastfeeding initiation and duration within the borough.
2. Detailed evaluations should be undertaken on all local services to explore the impact they have on breastfeeding rates, and whether they need to be adapted or re-aligned to make them more efficient.
3. All initiatives need to have clear aims and objectives, which should inform their subsequent evaluation. Interventions must be able to demonstrate an impact against their objectives or they should be discontinued.
4. The current resource distribution should be reviewed and consideration given to the most appropriate balance between antenatal, hospital postnatal and community postnatal support.
5. Further consultation should be done with those groups who have low breastfeeding uptake (such as mothers in deprived areas) with the view to developing needs-led antenatal and postnatal support.
6. Antenatal classes need to consider how they can make the practicalities of breastfeeding more explicit within their classes, for example, through the involvement of women who are currently breastfeeding.
7. The information provided to women about breastfeeding should be reviewed to ensure it provides a balanced view of infant feeding options.

8. A focus needs to be given to supporting women in the hours after birth and providing intensive, one-on-one support with the first few breastfeeds.
9. Local cafes, restaurants etc. should be encouraged to become breastfeeding friendly to allow more women to breastfeed in public.
10. The work done in local schools should be supported and developed further to establish breastfeeding as the norm amongst the next generation of parents.
11. Further insight work should be done to explore the decision making process underlying women's intention to breastfeed or bottle feed, in order to inform interventions to address cultural attitudes to breastfeeding.
12. The benefits of BFI accreditation, including the value of external audit and evaluation, should be carefully balanced against the financial costs involved. Consideration should be given to whether benefits could be obtained by incorporating the practices and processes involved in achieving BFI accreditation into service specifications.
13. There is a need to further develop the evidence base with regard to effective interventions to increase breastfeeding rates. In collaboration with local partners, research opportunities should be explored, for example, trialling of interventions targeted towards areas of deprivation or teenage parents.

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