

Infant feeding in Derby and Derbyshire

A systemwide strategy

2022-2027

Outcome

Improved maternal and infant health outcomes and reduced health inequalities through improved nutrition for babies and infants

Aims

1. Families are empowered to make informed choices
2. Equitable access to quality and timely infant feeding support
3. Breastfeeding is protected, normalised and supported in our communities
4. Partners work collaboratively across the system to maximise health and wellbeing
5. Reduction in inequality in breastfeeding prevalence

Priorities

Co-ordinate our system approach :
- align policies
- share resources
- champion breastfeeding at the highest level

Normalise breastfeeding within communities and workplaces
Foster enabling environments

Ensure equitable access to timely and high quality infant feeding support

Develop a fully enthused, well trained, and supported workforce systemwide

Decisions and actions are informed by understanding our population and inequalities across our communities

List of contents

1. Introduction and scope	3
2. Governance	3
3. Co-production	4
4. The Infant Feeding Steering Group	4
5. Breastfeeding.....	4
5.1 The benefits of breastfeeding.....	4
5.1.1 Health and wellbeing benefits	5
5.1.1.1 Benefits to preterm infants.....	5
5.1.2 Economic benefits.....	6
5.1.3 Environmental benefits.....	6
5.2 Breastfeeding prevalence	7
5.2.1 Derby City	7
5.2.2 Derbyshire County	9
5.3 Understanding challenges for families and communities.....	10
5.3.1 Inequalities in breastfeeding prevalence	11
5.3.2 Parents who are separated from their infants.....	11
5.3.3 Non-sustainment	11
5.3.4 Tongue-tie	11
5.3.5 Infant feeding for LGBTQI+ families.....	12
6. Formula Feeding.....	12
6.1 Formula feeding advice	12
6.2 Prescribing of specialist infant formula milks	13
6.3 Emergency provision of formula milk pathway	13
7. The safe introduction of solid foods	14
8. Links to other local health and wellbeing priorities.....	15
8.1 Childhood obesity.....	15
8.2 Maternal mental health.....	15
8.3 Oral Health	15
8.4 Healthy Start Scheme.....	15
8.5 Family Hubs	16
8.6 Climate Change.....	16
9. Key opportunities.....	16
9.1 UNICEF Baby Friendly Initiative and Accreditation.....	16
9.2 Maximising the Breastfeeding Welcome Here Award schemes	17
9.3 Improving the tongue tie pathway.....	18
9.4 Working with education settings to normalise breastfeeding	18
9.5 Improving uptake of the Healthy Start Scheme.....	18
9.6 Working with Primary Care	18
9.7 Family Hubs	19
10. Priority actions	20
11. Progress review	21
References.....	22

List of figures

Figure 1 UNICEF Call to Action	5
Figure 2 Breastfeeding prevalence at 6-8 weeks between 2015-16 and 2021-22	7
Figure 3 Proportion of infants totally or partially breastfed at 10-14 days in Derby City by Ward 2021-22	8
Figure 4 Proportion of infants totally or partially breastfed at 6-8 weeks in Derby City by Ward 2021-22	8
Figure 5 Breastfeeding (BF) prevalence Derbyshire County 2021/22	9
Figure 6 Breastfeeding prevalence Derbyshire County 2018/19 to 2021/22	9
Figure 7 Derbyshire County Breastfeeding prevalence 2021/22, MSOA level comparison...	10
Figure 8 Take up of Breastfeeding Welcome Here Awards in Derbyshire September 2022 .	17
Figure 9 Breastfeeding Welcome Here logo	18

List of tables

Table 1 UNICEF accreditation status held by organisations in Derbyshire (As of January 2023)	16
Table 2 Priority actions	20
Table 3 Key indicators and population outcomes	21

Infant feeding in Derby and Derbyshire

A systemwide strategy 2022-2027

1. Introduction and scope

Infants have the right to good nutrition. Nutrition during the first two years of life impacts lifelong health and wellbeing and development.

This strategy is a shared commitment for partners across the system to work collaboratively to optimise infant nutrition for families in Derby and Derbyshire. Our work will consider infant feeding in the first two years of life; including: protecting and supporting breastfeeding, supporting safe and responsive bottle feeding, and healthy eating. It outlines a commitment to work together to improve maternal and infant health and wellbeing, building on the work already taking place across our organisations, and the previous Breastfeeding Strategy '*Welcoming Breastfeeding in Derbyshire Strategy*' (2019/20). The ambitions of this strategy are equity of access to and experience of infant feeding services, and equity of health and wellbeing outcomes. This strategy supports key elements of 'A vision for the 1,001 critical days: The Early Years Healthy Development Review Report' (1) including that '*infant feeding support is always available as part of the Universal offer to all parents and carers, including help for breastfeeding, advice and early diagnosis of issues such as tongue-tie, and help with formula feeding where that is more appropriate*'.

This strategy seeks to ensure that services support families to foster close and loving relationships, early skin to skin contact and responsive feeding practices in line with current guidance. In supporting families, services will acknowledge parents and carers' emotional, social, financial, and environmental concerns about feeding options and be respectful of choices, in line with the 2021 Postnatal Care NICE guidance (2). The support parents and carers have around them can make a huge difference to experiences of infant feeding. This strategy will support services to include partners and other family members in their role in establishing healthy infant feeding practices, recognising the important role that partners and significant others play.

This strategy will compliment other work within Joined Up Care Derbyshire on key public health priorities that relate to infant feeding including oral health, healthy eating, childhood obesity, and maternal mental health, and aims to provide a framework to work together effectively as a system to meet national and local aims on this agenda.

2. Governance

This strategy has been developed by the Derbyshire Infant Feeding Steering Group and will support the Derbyshire Local Maternity and Neonatal System (LMNS) Equity and Equality Action Plan, with reporting to the Derbyshire LMNS Board via the LMNS Operational Delivery Group.

3. Co-production

Crucial to the membership of our Infant Feeding Steering Group are representatives from the Derbyshire Maternity and Neonatal Voices Partnership. It is imperative that the group regularly gains the views of parents and carers to hear their experiences of infant feeding and to ensure they influence and steer our priorities. As a group we are committed to gaining regular feedback from local families via the Maternity and Neonatal Voices Partnership, Healthwatch and other partners to improve our understanding of the issues that are most important to families. We will also explore existing connections to engage with communities via our place-based programmes. A key issue repeatedly highlighted in feedback from families in Derbyshire is the local pathway for tongue-tie division. The Infant Feeding Steering Group are committed to supporting systemwide action to improve this pathway.

4. The Infant Feeding Steering Group

The footprint for this strategy includes the populations of Derby City and Derbyshire County local authorities and the Integrated Care System - Joined Up Care Derbyshire. This strategy has been developed by the Infant Feeding Steering Group, which meets quarterly, and includes representation from:

- Public Health Nursing (including Intensive home visiting services)
- Derbyshire Maternity and Neonatal Voices Partnership
- Primary Care
- Children's Centres
- Office for Health Improvement and Disparities (OHID)
- Local Authority Public Health
- Maternity and Midwifery services including Neonatal
- Local Maternity and Neonatal System Programme Team
- Healthwatch Derbyshire
- The Breastfeeding Network
- Connected Perinatal Support (previously Derby Community Parent Programme)

A summary of local support services is provided in Appendix A.

5. Breastfeeding

5.1 The benefits of breastfeeding

"Breastfeeding is a natural "safety net" against the worst effects of poverty..... It is almost as if breastfeeding takes the infant out of poverty for those first few months in order to give the child a fairer start in life" James P. Grant, former Executive Director of UNICEF 1980-1995) (3).

With well-established evidence of improved health outcomes for mothers and babies, and the potential to reduce health inequalities, breastfeeding is an important public health priority. The World Health Organization recommends all infants are exclusively breastfed for the first six months and that from six months infants can start eating solid foods as well as being breastfed for up to two years or longer (4). Breastmilk can continue to provide up to

half or more of a child's nutritional needs during the second half of the first year, and up to one third during the second year of life (5).

5.1.1 Health and wellbeing benefits

Breastfeeding improves infant and maternal health and wellbeing in both the short and long term, and provides some protection against illness, and more time breastfeeding will provide a greater protective effect (6). The evidenced health benefits of breastfeeding are substantial, lasting well beyond the period of breastfeeding itself, and research into the mechanisms through which breastfeeding may improve lifelong outcomes through immunology, epigenetics, and the gut microbiome is emerging (7). Some of the key evidenced health benefits described by UNICEF are outlined in Figure 1, and the list below:

Infant health: Breastfeeding provides protection from a vast range of illnesses, including:

- Infections (including respiratory infections, gastroenteritis, and ear infections)
- Diabetes
- Asthma
- Heart disease
- Obesity
- Sudden Infant Death Syndrome (SIDS)

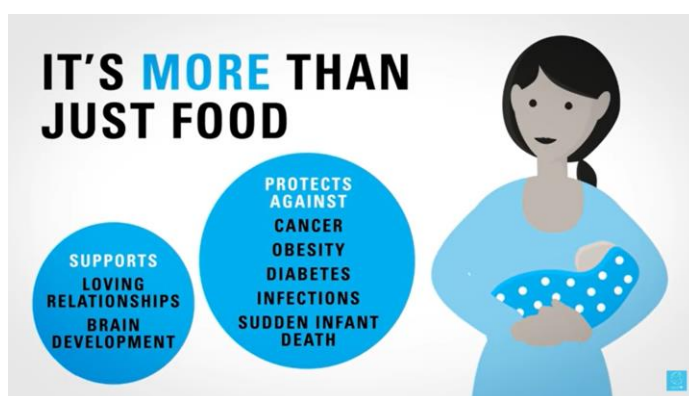
Maternal health: Breastfeeding also provides protection from:

- Breast and ovarian cancers
- Heart disease

Relationship-building: Breastfeeding supports the mother-baby relationship and the mental health of both baby and mother

(Source: ©UNICEF The benefits of breastfeeding- 2022)

Figure 1 UNICEF Call to Action



(Source: ©UNICEF UK Baby Friendly Initiative: A Call to Action, 2022)

5.1.1.1 Benefits to preterm infants

There is a large body of evidence supporting the benefits of maternal breastmilk for preterm infants born at low birth weight. Benefits of maternal breastmilk for preterm infants includes:

- reduced rates of infections particularly of the gut (8)

- reduced rates of mortality and sepsis (9) (10)
- is associated with lower incidence of necrotizing enterocolitis (NEC) (11) (10)
- improved neurodevelopmental outcomes (12) (13)
- longer duration of breastmilk intake is associated with reduced rates of respiratory complications such as bronchopulmonary dysplasia (BPD) (14)
- reduced rates of retinopathy of prematurity (ROP) (15)
- reduced hospital readmissions for up to one year post discharge (16)

Despite these evidenced benefits many preterm infants in the UK are not receiving a diet of exclusive maternal breastmilk (17). Providing breastmilk to preterm infants often presents with multiple challenges. Factors influencing this are complex and multifaceted and each family's experience will be unique.

Information for services on how to optimise breastmilk and breastfeeding in preterm infants can be found in the British Association of Perinatal Medicine (BAPM) Optimising Maternal Breast Milk for Preterm Infants Quality Improvement Toolkits (18), the Bliss Baby Charter - Principle 6: Feeding (19) and the UNICEF Neonatal Standards (20).

5.1.2 Economic benefits

Breastfeeding produces cost savings to the NHS, families, and society. Increasing long-term breastfeeding rates could result in substantial cost-savings for the NHS related to breast cancer (mother), gastroenteritis, respiratory infections, middle ear infections and necrotising enterocolitis in the baby (21). Moderate increases in breastfeeding in the UK would translate into cost savings for the NHS with tens of thousands fewer hospital admissions and GP consultations (21). The Lancet Series on Breastfeeding (2016) estimated that the health benefits of increasing breastfeeding could reduce annual healthcare costs by around \$29.5 million in the UK (22). Additionally, in times of emergencies, breastfeeding communities are more resilient in the context of food insecurity (23). Anecdotally, early in the COVID-19 pandemic there were reports locally of a lack of availability of infant formula in shops.

5.1.3 Environmental benefits

“Breastfeeding protection, support and promotion helps to safeguard planetary and human health by minimising environmental harm” (23 p. 49).

There is increasing understanding of the important environmental benefits of breastfeeding with substantial reductions in waste and carbon emissions. Breastfeeding uses less resources and is associated with minimal or zero waste (24). The Infant Feeding Steering Group will explore opportunities to support the Greener NHS programme and local climate change strategies and will learn from other local authority areas who are progressing this area of the agenda.

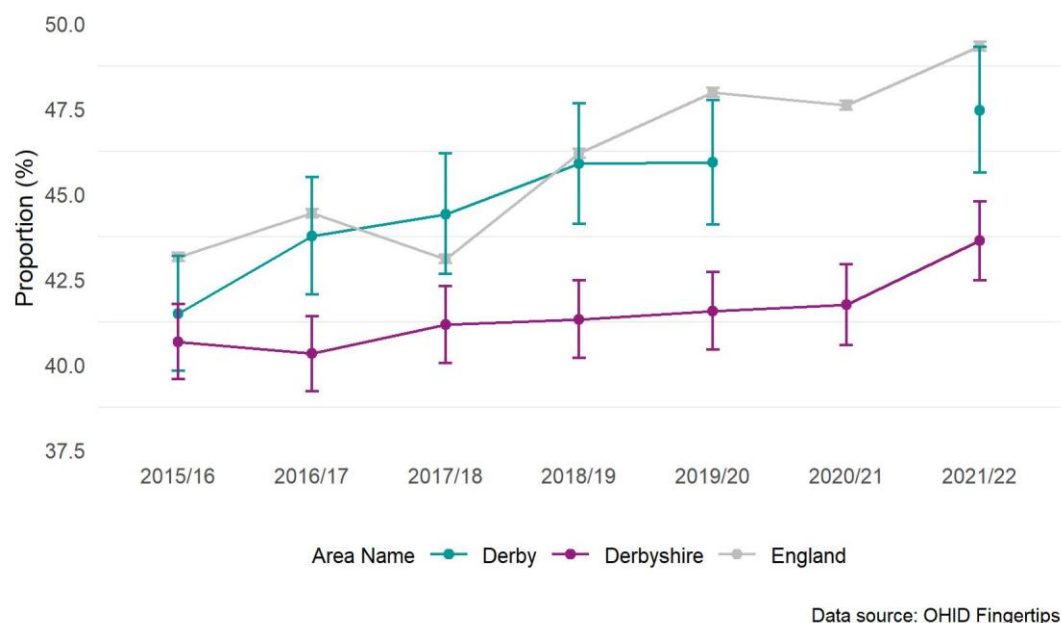
5.2 Breastfeeding prevalence

Breastfeeding rates in the UK are some of the lowest in the world. In Derby and Derbyshire, the prevalence of breastfeeding is worse than for England. Data from OHID illustrated in Figure 2 below, shows breastfeeding prevalence at 6-8 weeks for Derby and Derbyshire compared to England.

Breastfeeding prevalence at 6-8 weeks was 43.6% in Derbyshire for 2021/22, significantly worse than for England (49.3%), with no significant change between 2017/18-2021/22 (25).

Breastfeeding prevalence at 6-8 weeks in Derby was significantly worse than for England for 2021/22 (47.5%), compared to 49.3% for England (25), as illustrated in Figure 2, below, with an increasing trend between 2017/18-2021/22 (25).

Figure 2 Breastfeeding prevalence at 6-8 weeks between 2015-16 and 2021-22



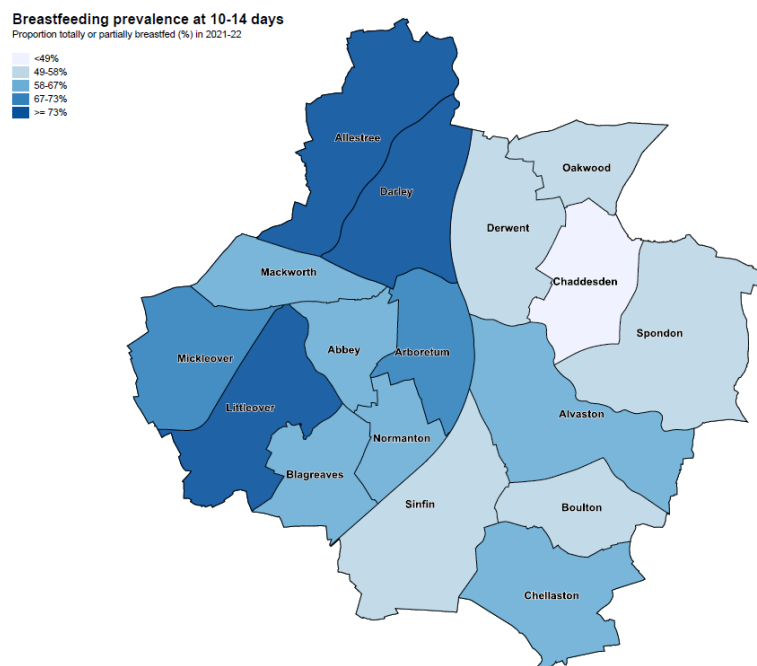
* 2020/21 value for Derby not published due to data quality issues.

Source: Office for Health Improvement and Disparities. Public health profiles. 2022 <https://fingertips.phe.org.uk>
© Crown copyright 2022

5.2.1 Derby City

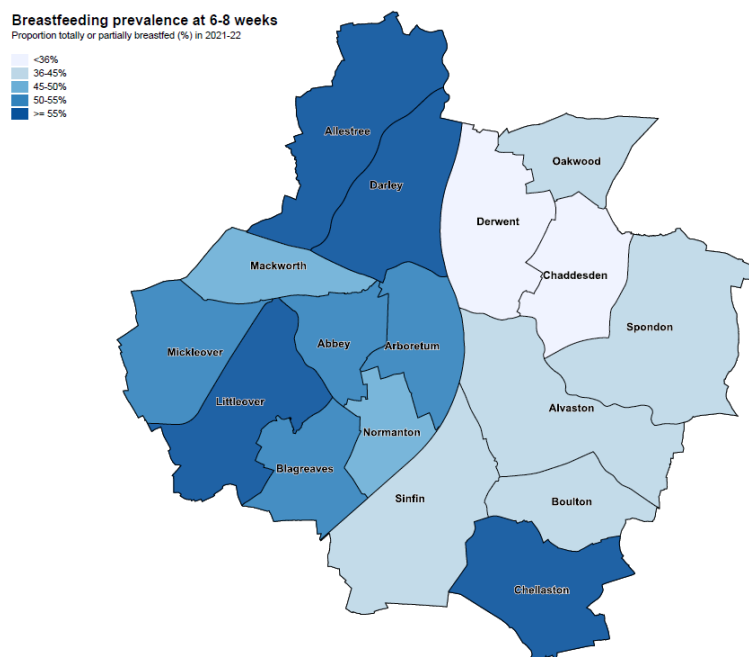
In Derby City, during 2021/22, 62.4% of babies were totally or partially breastfed at 10-14 days. Prevalence was highest in Darley (77.9%), Allestree (77.1%) and Littleover (73.9%), and lowest in Chaddesden (47.0%), Derwent (49.1%) and Oakwood (53.7%) (Figure 3).

Figure 3 Proportion of infants totally or partially breastfed at 10-14 days in Derby City by Ward 2021-22



At 6-8 weeks, 47.5% of babies were totally or partially breastfed in Derby City during 2021-22. Despite a significant improvement in this proportion in recent years, this figure for 2021-22 remained significantly lower than the England average of 49.3% (*Figure 2*). At ward level, prevalence remained highest in Darley (67.5%), Allestree (65.9%) and Littleover (61.3%), and lowest in Chaddesden (35.6%), Derwent (35.6%) and Oakwood (36.0%) (*Figure 4*).

Figure 4 Proportion of infants totally or partially breastfed at 6-8 weeks in Derby City by Ward 2021-22

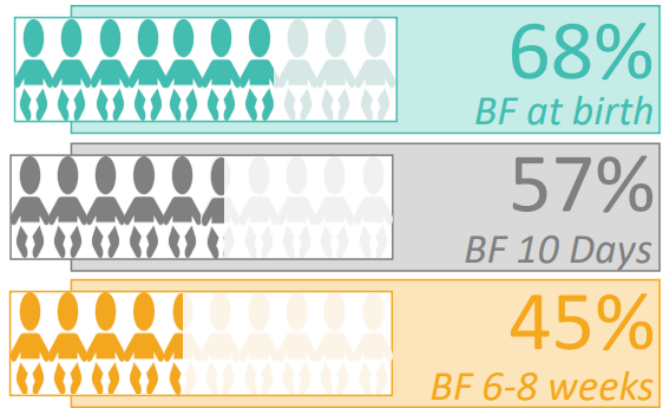


Data source: Derbyshire Healthcare NHS Foundation Trust 2021/22.

5.2.2 Derbyshire County

Figure 5, below, illustrates breastfeeding prevalence in Derbyshire County in 2021/22 (Data source: DCHS).

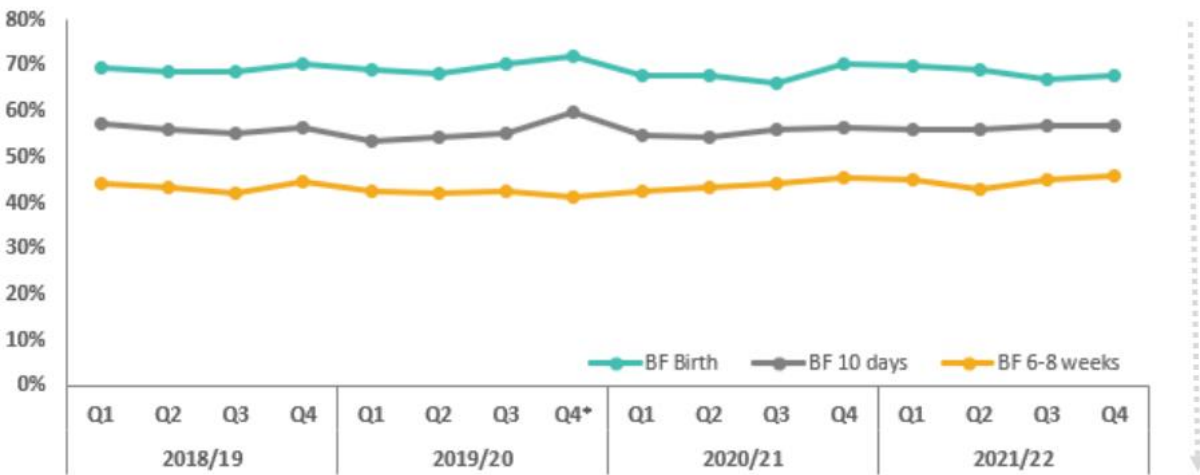
Figure 5 Breastfeeding (BF) prevalence Derbyshire County 2021/22



Source: DCHS data (2021/22), Infographic produced by Derbyshire Public Health Knowledge and Intelligence Team. Data excludes maternities that were processed by Ripplez (2017 onwards) | Derbyshire total is the sum of districts | % rounded to the nearest whole number

Breastfeeding rates in Derbyshire County showed no significant change over the four years from 2018/19 to 2021/22, as illustrated in figure 6 below.

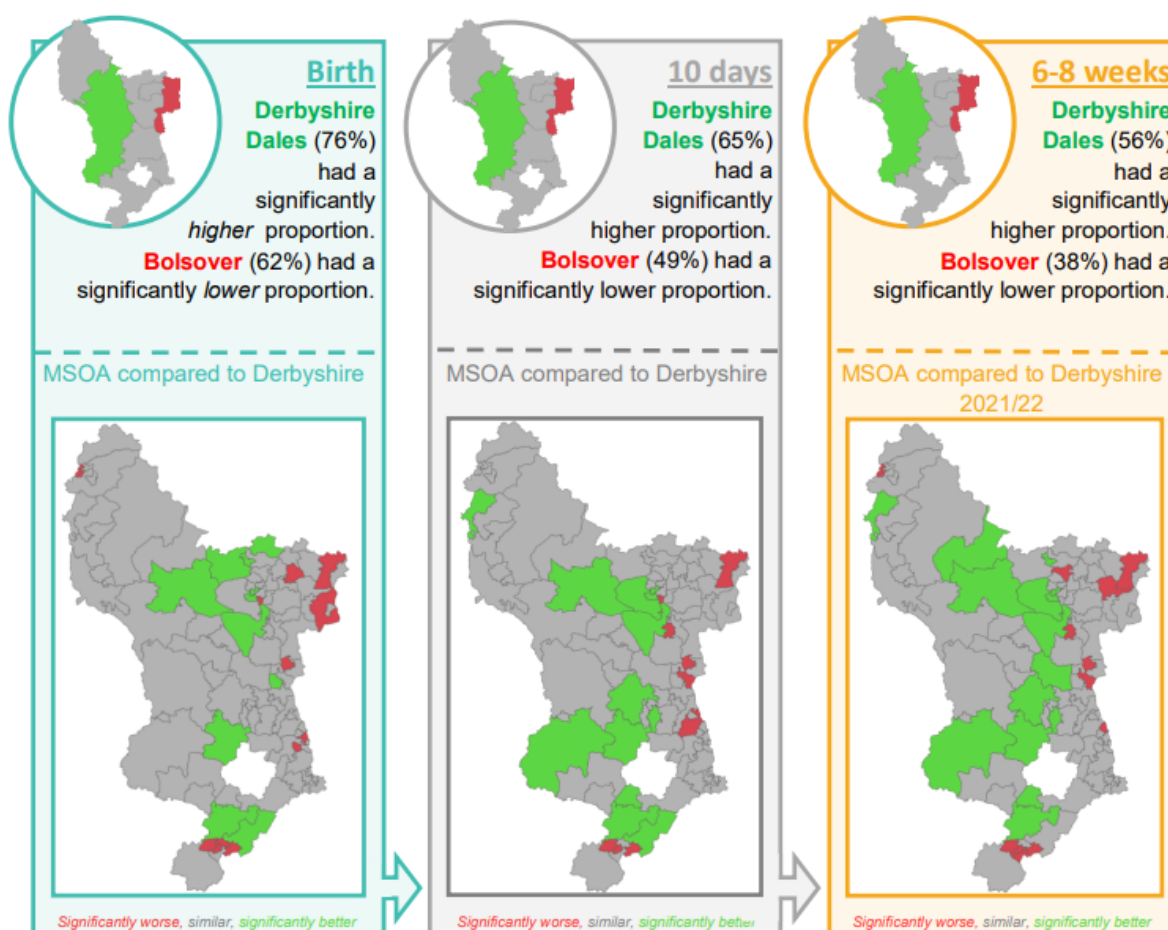
Figure 6 Breastfeeding prevalence Derbyshire County 2018/19 to 2021/22



Source: DCHS data (2021/22), Infographic produced by Derbyshire Public Health Knowledge and Intelligence Team. Data excludes maternities that were processed by Ripplez (2017 onwards) | Derbyshire total is the sum of districts | % rounded to the nearest whole number

There is also variation in breastfeeding prevalence across the County, with Bolsover District having significantly lower prevalence compared to Derbyshire, and Derbyshire Dales having significantly higher prevalence compared to Derbyshire (Data source: DCHS), as shown in Figure 7, below.

Figure 7 Derbyshire County Breastfeeding prevalence 2021/22, MSOA level comparison



Source: DCHS data (2021/22), Infographic produced by Derbyshire Public Health Knowledge and Intelligence Team. Data excludes maternities that were processed by Ripplez (2017 onwards) | Derbyshire total is the sum of districts | % rounded to the nearest whole number

Breastfeeding data at Middle Layer Super Output Area (MSOA) level for Derbyshire County is available to inform planning and targeting of support, and further analysis of prevalence for different population groups is provided in Appendix B.

5.3 Understanding challenges for families and communities

Early challenges with breastfeeding are common, and as breastfeeding isn't a social norm in many communities in the UK, some areas of Derby and Derbyshire will have less experience of breastfeeding. To deliver the aims of this strategy to protect, normalise and support breastfeeding, and reduce inequalities, the Infant Feeding Steering Group must better understand barriers and enablers and deliver sensitive services that reflect lived experiences.

The group will seek to understand the experiences of families from communities where breastfeeding prevalence is lower, those who have additional vulnerabilities or complex social factors, and those who have babies born prematurely or unwell who may experience additional challenges in a more complex care pathway. Infants born prematurely are at greater risk of feeding and communication difficulties in the neonatal period and beyond (26).

The group will work with partners and communities to develop a local understanding of challenges, regularly reviewing inequalities intelligence and feedback from families. This increased understanding will help to ensure services are accessible, that families are supported to make informed choices, and that families have positive experiences of feeding their infants.

5.3.1 Inequalities in breastfeeding prevalence

Breastfeeding rates vary significantly across Derby and Derbyshire. Younger women and those living in areas of higher deprivation are less likely to initiate breastfeeding, while infants of non-White British groups are more likely to be breastfed. In England, there is a lower prevalence of babies receiving their first feed as breastmilk for babies born before 37 weeks gestation, and where complex social factors have been recorded at booking (25). Deprivation (IMD score) is a good predictor of breastfeeding duration and can be used as a proxy measure to identify those most at risk of low breastfeeding rates, to support services in effectively targeting provision to areas of highest need (27). Analysis of inequalities in breastfeeding prevalence locally and nationally is provided in Appendix B.

5.3.2 Parents who are separated from their infants

Further work is required to understand how women in prison, women whose infants are in care, and women whose infants are in the care of neonatal units (NNU) can be supported with their infant feeding experiences. Services should work in partnership with parents to maximise the short and long-term health benefits of breastmilk including providing comfort and support to the mother emotionally during a potentially traumatic time. Current HM Prison & Probation Service policy relating to pregnancy, mother and baby units, and maternal separation is clear that mothers must be supported to breastfeed (or express breastmilk) if they wish to, and that prisons must support needs associated with lactation (28).

5.3.3 Non-sustainment

Feedback from women in Derbyshire County in 2016 showed that, regardless of age or level of deprivation, 50% of those who stopped breastfeeding before six weeks stopped because of physical difficulties with the process of breastfeeding and the production of breastmilk (29). Breastfeeding cessation before a woman is ready can have a significant impact on maternal mental health, and women can be left with feelings of guilt, frustration, anger, and loss (30). Breastfeeding can be a highly emotive subject for some families who didn't breastfeed or may have experienced trauma through trying to breastfeed and not managing to do so (31). The pain felt by some can lead to barriers for future conversations and disengagement with campaigns or promotional messages (30). As many as eight out of ten women in the UK stop breastfeeding before they want to (3).

5.3.4 Tongue-tie

One known cause of breastfeeding difficulty is ankyloglossia, more commonly known as tongue-tie. Tongue-tie is a congenital anomaly where there is an abnormally short lingual frenulum which restricts tongue function. Nationally, it is estimated that between 0.2% and 10.7% of children will be born with tongue tie. Local analysis, using data from 2020,

estimated that between 20 and 1,075 children under the age of one year in Derby and Derbyshire may have tongue-tie, and around 3.2% of children under the age of one have been treated for tongue-tie in an outpatient setting in the period 2018/19-2020/21 (32).

Many tongue-ties are asymptomatic and cause no problems and a visible frenulum is not always indicative of a restricted frenulum, therefore careful assessment using a recognised screening tool as part of a holistic feeding assessment is required prior to referral for a frenulotomy. In 25%–44% of infants with tongue-tie, feeding difficulties have been reported (both breast and bottle) (33) and frenulotomy can reduce these issues (32).

Tongue-tie services in Derby and Derbyshire are not clearly defined, there are gaps in detection, treatment, and support. These gaps in service can result in maternal distress, bottle and breast-feeding difficulties, early cessation of breastfeeding, paying for private treatment and referrals out of area. This is inequitable, impacts breast feeding rates, and maternal mental health. These gaps in the pathway have been raised in various parts of the system via Healthwatch Derbyshire and Derbyshire Maternity and Neonatal Voices Partnership (DMNVP). Local analysis of tongue-tie prevalence is available in the 2022 Derbyshire County Council report: *'Hospital outpatient attendances for the treatment of ankyloglossia (tongue-tie) for children under the age of one year living in Derby and Derbyshire'*.

5.3.5 Infant feeding for LGBTQI+ families

The Infant Feeding Steering Group are committed to further understanding inequalities and any challenges that communities may experience in Derby and Derbyshire. Nationally, our understanding of LGBTQI+ families experiences of infant feeding is growing. McCann et al (2021) highlights the need for midwifery policies and practice to be reflective of the needs of LGBTQI+ families (34), and a recent study by Jackson et al (2021) highlighted the challenges that some LGBTQI+ parents face in establishing feeding practices that align with their values (35). This is an area that the Infant Feeding Steering Group intend to explore locally. Information is available on chestfeeding for trans and non-binary parents on the NHS website (34).

6. Formula Feeding

Formula feeding is common in many communities in the UK. Ensuring the best possible outcomes for all infants regardless of feeding method is vital and the group are committed to supporting all family's whatever decisions are made throughout the infant feeding journey. This strategy aims to support families who formula feed by encouraging infant feeding practices that promote optimal health for the child and family. Provision of quality support and evidence-based information for parents and carers who formula feed is crucial in supporting optimal nutrition and attachment.

6.1 Formula feeding advice

Formula feeding advice should be in line with the 2021 NICE Postnatal Care guidance, which stipulates that information for parents who formula feed should include:

- the differences between breast milk and formula milk

- that first infant formula is the only formula milk that babies need in the first year of life, unless there are specific medical needs
- how to sterilise feeding equipment and prepare formula feeds safely
- for women who are trying to establish breastfeeding and considering supplementing with formula feeding, the possible effects on breastfeeding sustainment.

(Source: ©NICE Postnatal Care guidance 2021 All rights reserved. Subject to [Notice of rights](#)).

The 2021 NICE Postnatal Care guidance also stipulates that face-to-face formula feeding support should include:

- advice about responsive bottle feeding and help to recognise feeding cues
- positions for holding a baby for bottle feeding and the dangers of 'prop' feeding
- advice about how to pace bottle feeding and how to recognise signs that a baby has had enough milk (because it is possible to overfeed a formula-fed baby), and advice about ways other than feeding that can comfort and soothe the baby
- how to bond with the baby when bottle feeding, through skin-to-skin contact, eye contact and the potential benefit of minimising the number of people regularly feeding the baby.

(Source: ©NICE Postnatal Care guidance 2021 All rights reserved. Subject to [Notice of rights](#)).

The full guidance is available from [Overview | Postnatal care | Guidance | NICE](#).

6.2 Prescribing of specialist infant formula milks

High expenditure and inequitable prescribing of infant formula is a local concern. The Derbyshire Joint Area Prescribing Committee guidance on the appropriate use and prescribing of specialist infant formula in primary care should be referred to for guidance on diagnosis, referral and treatment on lactose intolerance, cow's milk protein allergy and information on specialist led areas including faltering growth, premature and low birth weight infants (35).

Further analysis of local data is required to understand the extent to which specialist infant formula milks are being prescribed in primary care and whether data is in line with expected rates of diagnosis. Further work with primary care and dietetics in this area may be beneficial to ensure the appropriate use and prescribing of specialist infant formula.

6.3 Emergency provision of formula milk pathway

In October 2022 UNICEF UK published a guide for local authorities and health boards on 'Supporting families with infants under 12 months in food insecurity' (36). The guidance provides a framework of principles for local systems to develop pathways for the emergency distribution of infant formula to support vulnerable families with children under one who are unable to afford or access infant formula. This agenda is increasingly relevant in the context of the rising cost of living and the increasing number of families experiencing food insecurity and accessing food banks and pantries (36).

The Infant Feeding Steering Group have identified a need to develop and agree a pathway and update Derby and Derbyshire Food Bank guidance regarding the supply of infant formula milk in line with the updated UNICEF UK guidance.

7. The safe introduction of solid foods

Introducing solid foods should start around 6 months. At this age infants will still be getting much of their nutritional needs met from breast or infant formula milk. Introducing a variety of nutritious foods alongside breast or infant formula milk will help to establish lifelong healthy eating habits (37). Families have the support of their health visitor and should receive advice from the 6-8 week health visitor appointment on when and how to safely introduce a variety of nutritious foods to complement breast or infant formula milk (38). The NICE Guidance: *Nutrition: improving maternal and child nutrition, 2015*, stipulates that this advice should include, but not be limited to:

- the reasons for starting solid food at around 6 months
- the possible effects on the baby of starting solid food earlier or later
- the reasons for continuing breastfeeding
- maximising breastmilk or increasing infant formula feeds for babies under 6 months who are feeding more frequently.

(Source: ©NICE *Nutrition: improving maternal and child nutrition 2015* All rights reserved. Subject to [Notice of rights](#)).

The early introduction of solid foods, before six months of age has been shown to reduce the intake of breast milk and formula milk without increasing calorie intake, improving sleep, or settling an infant's behaviour (39) (40). Introducing solid foods early may affect breastfeeding and, in some cases, cause breastfeeding to stop and with it the health and wellbeing benefits of breastfeeding for the infant and mother (41). Breastfeeding has been shown to reduce the incidence of overweight and obesity in a child's life (42). After starting solid foods, breast milk or formula milk will still be the main source of energy and nutrition until 12 months old (40). A variety of tastes and textures are to be introduced at six months, alongside breast or formula milk to ensure nutritional needs are met (40).

A responsive approach to introducing complementary foods is crucial in supporting healthy weight gain and reducing the risk of obesity (43). Infants who are introduced to solids when they are developmentally ready will be more able to feed themselves (40). Avoiding the introduction of processed, manufactured and snack type foods and drinks which may be higher in salt and sugar content will also support healthy weight gain. These ultra-processed foods rarely support a good diet for young children (44). A healthy diet along with the promotion of a free-flowing cup at six months for small amounts of water will help to promote good oral health (45).

The latest NHS advice on the safe introduction of solids is available from the NHS website *Your baby's first solid foods* (40), and NHS Start For Life weaning hub (46) which advises on the following three signs which show a baby is ready:

They'll be able to:

- stay in a sitting position and hold their head steady
- co-ordinate their eyes, hands, and mouth so they can look at the food, pick it up and put it in their mouth by themselves

- swallow food (rather than spit it back out)

(Source: © Crown copyright NHS Your baby's first solid foods)

8. Links to other local health and wellbeing priorities

8.1 Childhood obesity

Breastfeeding has been found to reduce a child's current and future risk of overweight and obesity, with one study by the WHO European Childhood Obesity Surveillance Initiative finding that breastfeeding can reduce the chances of a child becoming obese by up to 25% (42). Longer term breastfeeding and age-appropriate introduction of solids are associated with lower body mass indexes (BMIs) in children up to five years of age (47). Responsive infant feeding also plays a role in the prevention of childhood obesity. Childhood obesity increases the risk of obesity during adulthood (48). The Infant Feeding Steering Group will link with work taking place as part of the Derby and Derbyshire Childhood Obesity Plan – 'Time For Action' (2020-2030).

8.2 Maternal mental health

Breastfeeding supports the mother-baby relationship and the mental health of both baby and mother (3). Mothers who plan to breastfeed and are unable to may be more likely to experience post-natal depression, and mothers who cease breastfeeding because of physical difficulties or pain have an increased risk of experiencing depressive symptoms (49). Research also indicates that women experiencing depression soon after birth could be at higher risk of breastfeeding difficulties (50).

It is important that the group effectively links with developments in maternal mental health services, as high-quality breastfeeding support and early identification and treatment for women who are experiencing mental health problems or postpartum depression is needed to give women the best chance of sustaining breastfeeding if they wish to.

8.3 Oral Health

Breastfeeding up to 12 months is associated with reduced risk of dental decay, and dental teams should support and encourage breastfeeding (51). The Infant Feeding Steering Group will link with the Derbyshire Oral Health Steering Group to explore opportunities which support both agendas.

8.4 Healthy Start Scheme

Healthy Start is a national scheme providing help to buy healthy food and milk for eligible families, as well as vitamins for pregnant women and for children aged under four.

Government guidelines recommend that all children aged 6 months to 5 years are given a supplement of Vitamin A, C and D daily, and that babies who are being exclusively breastfed are given a daily Vitamin D supplement (52). Guidance for vitamin supplements for pregnant and breastfeeding women and children aged 6 months to 5 years is available via the NHS Healthy Start webpage on getting vitamins (53).

8.5 Family Hubs

Family Hubs aim to bring together services for families with key principles of accessibility, being better connected, and being relationship centred. In 2022 Derby City were identified as one of the 75 local authorities eligible for funding to create new Family Hubs. These hubs will provide parenting and breastfeeding support. It is important that the delivery of this Strategy supports this work locally.

8.6 Climate Change

The Infant Feeding Steering Group will seek to establish shared outcomes and actions in line with the climate change strategies of partner organisations.

9. Key opportunities

9.1 UNICEF Baby Friendly Initiative and Accreditation

“Achieving UNICEF UK Baby Friendly Initiative accreditation in all maternity services will help ensure women receive consistent information on feeding options and get breastfeeding off to a good start.” (54 p. 29)

The NHS Long-Term Plan (2019) includes a commitment that: ‘*All maternity services that do not deliver an accredited, evidence-based infant feeding programme, such as the UNICEF UK Baby Friendly Initiative, will begin the accreditation process*’ with an intention for all maternity services to achieve full accreditation by March 2024 (55).

The UNICEF Baby Friendly Initiative (BFI) champions a range of interventions to support breastfeeding. This nationally recognised, evidence-based accreditation sets best practice standards to support Maternity, Neonatal, Health Visiting and Children’s Centres. Maintenance of UNICEF BFI accreditations helps to ensure that services work to set standards to ensure families get the right support and information; and, that services work hard to foster enabling environments which protect breastfeeding (56). Table 1, below, illustrates the UNICEF BFI accreditation status of local services in January 2023.

Table 1 UNICEF accreditation status held by organisations in Derbyshire (As of January 2023)

Setting	UNICEF Accreditation status	(Date last re-accredited)
Maternity	University Hospital of Derby and Burton NHSFT - Full Accreditation	(Oct 2022)
	Chesterfield Royal Hospital Maternity & Gynae - Full Accreditation	(May 2021)
Neonatal	Royal Derby Hospital - Stage 1 Accreditation awarded	(Oct 2018)
	Chesterfield Royal - Registered intention	(Sept 2019)
Public Health Nursing	Derbyshire Community Health Services (DCHS) - Full accreditation	(Dec 2022)
	Derbyshire Healthcare Foundation Trust (DHFT) - Further Assessment Required	(Jun 2022)
Children’s Centres	Derbyshire Children’s Centres – supporting accreditation with DCHS	(Dec 2022)
	Derby City Children’s Centres – none registered	
Universities	Derby University - Midwifery and SCPHN - Certificate of Commitment	(Aug 2021)

Source: ©UNICEF UK Baby Friendly Initiative: <https://unicefbfi.secure.force.com/Events/Awards>

To achieve UNICEF Baby Friendly accreditation, services are required to implement the requirements of the International Code of Marketing of Breastmilk Substitutes. The International Code of Marketing of Breastmilk Substitutes is a policy framework which regulates the marketing of breastmilk substitutes to protect breastfeeding and provides standards for the labelling and quality of products. It is important because advertising can influence behaviour. The code aims to make sure that choices can be made based on impartial information. UK legislation incorporates some, but not all, of the code into law (57).

9.2 Maximising the Breastfeeding Welcome Here Award schemes

Derby and Derbyshire have a Breastfeeding Welcome Here Award scheme to encourage venues such as cafés, libraries, GP surgeries, leisure services, schools, and cinemas to make their spaces breastfeeding friendly. Venues are required to actively support staff to make premises breastfeeding welcome and to know and understand the law that protects the rights of breastfeeding mothers. This initiative is designed to have a positive impact on ensuring that women feel confident and able to breastfeed in public, and to normalise breastfeeding in communities.

In September 2022, Derbyshire had 256 venues signed up to the scheme. Figure 8 below illustrates take up of the scheme in Derbyshire County by district, with the highest uptake currently in South Derbyshire and the lowest in North East Derbyshire (*Source: Derbyshire County Council*). Derby City's Breastfeeding Welcome Here scheme was introduced in July 2019. The group have identified a need to review the existing schemes and increase the number of venues signed up in areas of low breastfeeding prevalence. Key partners will support the review and development of the schemes to increase uptake in areas of highest need.

Venues that take part are required to display the award scheme logo. Figure 9 shows the Breastfeeding Welcome Here Logo.

Figure 8 Take up of Breastfeeding Welcome Here Awards in Derbyshire September 2022

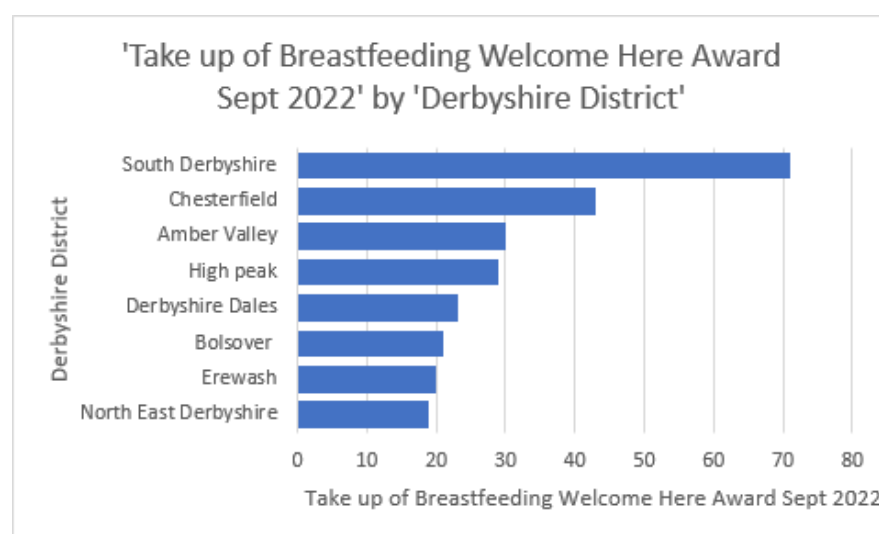


Figure 9 Breastfeeding Welcome Here logo



9.3 Improving the tongue tie pathway

Families and professionals have highlighted a need for improvements to local pathways. In response to this need the system is committed to improving the pathway and is working with stakeholders to develop and appraise options. The aim is to establish an integrated infant feeding and tongue tie treatment pathway where families receive infant feeding support alongside frenulotomy. This will reduce maternal distress and prevent infant feeding difficulties if a tongue tie is affecting feeding and will help to increase breastfeeding prevalence.

9.4 Working with education settings to normalise breastfeeding

Partners have highlighted breastfeeding education as a gap in efforts to normalise breastfeeding in communities. A longer-term priority for the Infant Feeding Steering Group is to scope opportunities in early years and school settings, including the local implementation of the relationships and sex education (RSE) and health education statutory guidance. The group intends to review how the current curriculum supports the normalisation of breastfeeding, review existing resources for education settings, and learn from other local authorities in the UK who are progressing this area of the agenda.

9.5 Improving uptake of the Healthy Start Scheme

Across Derby and Derbyshire there appears to have been a decline in uptake of the Healthy Start scheme in recent years. In 2022 the scheme moved from a paper voucher to a digital card, uptake data is not available for the digital scheme as of December 2022. Healthcare professionals play a key role in supporting families to access the scheme (58). The group will support local efforts to increase uptake for eligible families for the scheme and review uptake data once available.

9.6 Working with Primary Care

As a trusted source of information and support for families, it is vital that that primary care colleagues champion the infant feeding agenda, providing evidenced based, up to date advice and support including advice around prescribed medicines and breastfeeding to prevent unnecessary discontinuation of breastfeeding. Locally feedback from families has identified a need to improve consistency of advice, and feedback from local General Practitioners has identified the need to review the training offer for primary care colleagues. This will be a priority action within this strategy. The Infant Feeding Steering Group will work to promote infant feeding training and resources to General Practitioners and other health

professionals in primary care to ensure they are well equipped to support the infant feeding agenda and know where to access evidence-based information and signpost to support.

Nationally, a new Safer Medicines in Pregnancy and Breastfeeding Consortium has been established to address the lack of accessible and reliable information on medication use during breastfeeding. The Consortium will develop a long-term programme of work that will ensure clear and consistent guidance on medicines for pregnant and breastfeeding women (59).

9.7 Family Hubs

Derby City is one of the 75 local authorities who are eligible for funding to create Family Hubs in their areas, which will include breastfeeding support. The Infant Feeding Steering Group will inform the development of the approach for Family Hubs in line with the aims of this strategy.

10. Priority actions

Table 2, below, outlines the priority actions identified to deliver the aims of this strategy.

Table 2 Priority actions

	Action	Strategy aims	Lead	Timescale
1	Progress & maintain UNICEF Baby Friendly Accreditations for local services, including Neonatal Units (NNU)	1,2,3,4	Maternity 0-19s Children's Centres	Ongoing
2	Inform targeting of infant feeding support with inequalities intelligence, providing annual inequalities data analysis for Derby and Derbyshire	5	Public Health Infant Feeding Steering Group	Ongoing
3	Review and improve infant feeding training for Primary Care colleagues	4	Infant Feeding Specialists	2023
4	Analyse and interpret local intelligence relating to prescribing of specialist infant formula	1,3,4	Public Health, and ICS Medicines Management	2024
5	Develop and agree systemwide tongue tie pathway improvements	2,4,5	ICS Public Health	2024
6	Review the evidence base for and scope local opportunities to support normalisation of breastfeeding in education settings	3	Public Health	2025
7	Review and develop the Breastfeeding Welcome Here Award Schemes, targeting increased uptake in areas of lower prevalence	3	Public Health 0-19s	2023
8	Access and analyse local Healthy Start uptake data to inform targeted action to increase uptake and reduce inequality	4	Public Health	2023
9	Deliver targeted promotion of Healthy Start Scheme, raising awareness among key stakeholders	4	Public Health Children's Centres 0-19s, Maternity	2023
10	Align actions across the Childhood Obesity, Oral Health, and Maternal Mental Health workstreams	4	Public Health	2023/24
11	Champion Infant Feeding agenda and align actions with the Family Hubs programme and the LMNS Equity and Equality plan	4,5	LMNS Public Health	Ongoing
12	Develop and agree local pathway for the provision of emergency formula milk in line with the updated UNICEF guidance	3	Public Health Infant Feeding Specialists	2023
13	With ongoing cross cutting actions for the Steering Group identified as: <ul style="list-style-type: none"> • ensure activity is driven by regular feedback from families and stakeholders • maintain appropriate systemwide representation for the group • engage with wider stakeholders not traditionally engaged in the infant feeding agenda, for example oral health, perinatal/ maternal mental health, education • regular review of intelligence to inform actions to reduce inequalities • coordinate communications to support consistency of message • coproduce messaging with groups more likely to experience poorer outcomes 			

11. Progress review

This strategy has been developed and an associated work plan will be coordinated by the Infant Feeding Steering Group. Progress on action plan delivery will be reported annually within the Derbyshire LMNS governance structure. Performance monitoring will include the following key indicators set out in table 3, below:

Table 3 Key indicators and population outcomes

Key indicator	Description	Reporting Timescale
Breastfeeding prevalence	Available from 0-19's at first feed, 10 days, and 6-8 weeks	Annual, including inequalities analysis
UNICEF accreditations	Status of and feedback from UNICEF BFI accreditations for services including 0-19's, maternity, NNU's and children's centres	Timescale specific to each service
Breastfeeding Welcome Here Awards	Uptake of Breastfeeding Welcome Here Awards	Annual, including inequalities analysis
Healthy Start Scheme	Uptake of Healthy Start Scheme	Annual, including inequalities analysis (where available)

The group will explore additional measures available from the Maternity Services Dashboard and datasets relating to preterm infants, including data available on early breastmilk feeding and breastmilk feeding at discharge, from the National Neonatal Audit Programme.

Review date: December 2024

References

1. **HM Government.** The best start for life: a vision for the 1,001 critical days. [Online] 25 March 2021. [Cited: 19 Dec 2022.] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/973085/Early_Years_Report.pdf.
2. **NICE.** Postnatal care NICE guideline [NG194]. [Online] April 2021. [Cited: 29 September 2022.] <https://www.nice.org.uk/guidance/ng194>.
3. **UNICEF.** Benefits of Breastfeeding. [Online] [Cited: 29 September 2022.] <https://www.unicef.org.uk/babyfriendly/about/benefits-of-breastfeeding/>.
4. **World Health Organisation.** Breastfeeding. [Online] 2018. [Cited: 29 September 2022.] <https://www.who.int/news-room/facts-in-pictures/detail/breastfeeding>.
5. —. *WHO.* [Online] 2022. [Cited: 29 September 2022.] https://www.who.int/health-topics/breastfeeding#tab=tab_1.
6. **NHS.** Benefits of breastfeeding. [Online] 2020. [Cited: 29 September 2022.] <https://www.nhs.uk/conditions/baby/breastfeeding-and-bottle-feeding/breastfeeding/benefits/>.
7. *Breastfeeding in the 21st century: epidemiology, mechanisms, and life long effect.* **Victora, C., et al.** s.l. : The LANCET, 2016, The Lancet Breastfeeding Series group, Vol. 387, pp. 475-490.
8. **NHS.** Breastfeeding your premature baby. [Online] 2022. [Cited: 04 January 2023.] <https://www.nhs.uk/conditions/baby/breastfeeding-and-bottle-feeding/breastfeeding/premature-baby/>.
9. *Impact of early human milk on sepsis and health-care costs in very low birth weight infants.* **A.L, Patel, et al.** 7, s.l. : J Perinatol, 2013, Vol. 33.
10. *Is Mother's Own Milk Lactoferrin Intake Associated with Reduced Neonatal Sepsis, Necrotizing Enterocolitis, and Death?* **Ochoa T, J., et al.** 2, 2020, Neonatology, Vol. 117, pp. 167-174.
11. *The Impact of Human Milk on Necrotizing Enterocolitis: A Systematic Review and Meta-Analysis.* **Altobelli, E., et al.** 5, 2020, Nutrients, Vol. 12, p. 1322.
12. *Nutrition in the preterm infant: what's new?* **Cleminson J, S., Zalewski S, P. and Embleton N, D.** 3, 2016, Current Opinion in Clinical Nutrition and Metabolic Care, Vol. 19, pp. 220-5.
13. *Breast Milk Feeding, Brain Development, and Neurocognitive Outcomes: A 7-Year Longitudinal Study in Infants Born at Less Than 30 Weeks' Gestation.* **Belfort M, B., et al.** 2016, Journal of Pediatrics, Vol. 177, pp. 133-139.
14. *Impact of breast milk on respiratory outcomes in infants with bronchopulmonary dysplasia.* **Kim L, Y., McGrath-Morrow S, A. and Collaco J, M.** 3, 2019, Pediatr Pulmonol, Vol. 54, pp. 313-318.
15. *Systematic review and meta-analysis of human milk intake and retinopathy of prematurity: a significant update.* **Bharwani S, K., et al.** 2016, J Perinatol, Vol. 36, pp. 913–920.

16. *Persistent beneficial effects of breast milk ingested in the neonatal intensive care unit on outcomes of extremely low birth weight infants at 30 months of age.* **Vohr B, R., et al.** 4, 2007, *Pediatrics.*, Vol. 120, pp. e953-9.

17. **British Association of Perinatal Medicine.** Optimising Early Maternal Breast for Preterm Infants-A quality Improvement Toolkit. *BAMP.* [Online] Nov 2020. [Cited: 05 January 2023.] https://hubble-assets.s3.amazonaws.com/bapm/redactor2_assets/files/755/BAPM_Preterm_MBM_Toolkit_Final_for_publication.pdf.

18. **British Association of Perinatal Medicine.** Maternal Breast Milk Toolkit-Optimising Maternal Breast Milk for Preterm Infants: A two-part Quality Improvement Toolkit. [Online] Sept 2022. [Cited: 05 January 2023.] <https://www.bapm.org/pages/196-maternal-breast-milk-toolkit>.

19. **BLISS.** The Bliss Baby Charter. [Online] 2019/20. [Cited: 05 January 2023.] <https://s3.eu-west-2.amazonaws.com/files.bliss.org.uk/images/Baby-Charter-booklet-2020.pdf?mtime=20210104142806&focal=none>.

20. **UNICEF UK.** Guide to the UNICEF UK Baby Friendly Initiative Neonatal Standards. . [Online] March 2022. [Cited: 05 January 2023.] <https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2022/03/UNICEF-UK-Baby-Friendly-Initiative-Guide-to-the-Neonatal-Standards.pdf>.

21. **Renfrew, M J, et al.** *Preventing disease and saving resources: the potential contribution of increasing breastfeeding rates in the UK.* s.l. : UNICEF, 2012.

22. *Why invest, and what it will take to improve breastfeeding practices?* **Rollins, NC, et al.** 10017, 2016, *The Lancet*, Vol. 504, p. 491.

23. *A commentary on the carbon footprint of milk formula: harms to planetary health and policy implications.* **Smith, Julie.** 1, 2019, *International Breastfeeding Journal*, Vol. 14, p. 49.

24. *Support for breastfeeding is an environmental imperative.* **Joffe, N., Webster, F. and Shenker, N.** I5646, 2019, *BMJ*, Vol. 367.

25. **OHID @Crown Copyright.** Public Health Profiles. [Online] 2022. [Cited: 3 October 2022.] <https://fingertips.phe.org.uk/>.

26. **Royal College of Speech and Language Therapists.** Neonatal Care Overview. [Online] 2023. [Cited: 02 Feb 2023.] <https://www.rcslt.org/speech-and-language-therapy/clinical-information/neonatal-care/>.

27. *Indices of Multiple Deprivation predict breastfeeding duration in England and Wales.* **Brown, A., et al.** 2, 2010, *Eur J Public Health*, Vol. 20, pp. 231-5.

28. **HM Prison & Probation Service.** *Pregnancy, Mother and Baby Units (MBUs), and Maternal Separation Policy Framework.* 2021.

29. **King, A.** *Why do some mothers discontinue breastfeeding by 6 weeks in Derbyshire, England? Secondary analysis of health visiting data'. Dissertation.* Derbyshire : A King, 2016.
30. **Brown, A.** *Why Breastfeeding Grief and Trauma Matter.* London : Pinter & Martin Ltd, 2019.
31. **UNICEF.** Breastfeeding in the UK. [Online] [Cited: 29 September 2022.] <https://www.unicef.org.uk/babyfriendly/about/breastfeeding-in-the-uk/>.
32. **Derbyshire County Council .** Hospital outpatient attendances for the treatment of ankyloglossia (tongue-tie) for children under the age of one year living in Derbyshire and Derby City. [Online] 27 05 2022. [Cited: 29 09 2022.] https://observatory.derbyshire.gov.uk/wp-content/uploads/reports/documents/health/specialist_reports_and_assessments/2022/Ankyloglossia-Hospital-Episode-Statistics-Report-FINAL-270522.pdf.
33. *The development and evaluation of a picture tongue assessment tool for tongue-tie in breastfed babies (TABBY).* **Ingram, J., et al.** 2019, International Breastfeeding Journal, Vol. 14.
34. *The views and experiences of LGBTQ+ people regarding midwifery care: A systematic review of the international evidence.* **McCann, E., et al.** 2021, Science Direct, Vol. 103.
35. *What are LGBTQI+ parental experiences of healthcare support and decision-making regarding infant feeding options? A grounded theory study.* **Jackson, R., et al.** 2021, Journal of Perinatology.
36. **NHS.** Chestfeeding if you're trans or non-binary. [Online] 2022. [Cited: 29 09 2022.] Chestfeeding if you're trans or non-binary - NHS (www.nhs.uk).
37. —. Derbyshire Medicines Management. [Online] February 2022. [Cited: 3 October 2022 2022.] http://www.derbyshiremedicinesmanagement.nhs.uk/assets/Clinical_Guidelines/Formulary_by_BNF_chapter_prescribing_guidelines/BNF_chapter_9/Infant_feeding_guideline.pdf.
38. **UNICEF UK .** Supporting families with infants under 12 months experiencing food insecurity. [Online] October 2022. [Cited: 04 January 2023.] <https://www.unicef.org.uk/babyfriendly/local-authorities-guide/>.
39. **NHS.** Your baby's first solid foods. [Online] 2022. [Cited: 4 January 2023.] <https://www.nhs.uk/conditions/baby/weaning-and-feeding/babys-first-solid-foods>.
40. **NICE.** Nutrition: improving maternal and child nutrition. [Online] 2015. [Cited: 04 January 2022.] <https://www.nice.org.uk/guidance/qs98/chapter/Quality-statement-5-Advice-on-introducing-solid-food>.
41. **Department of Health & Social Care.** Gov.Uk-New campaign promotes advice to introduce babies to solid food. [Online] 2022. [Cited: 19 Jan 2023.] <https://www.gov.uk/government/news/new-campaign-promotes-advice-to-introduce-babies-to-solid-food>.
42. **NHS.** NHS Your Baby's First Solid foods. [Online] 2022. [Cited: 19 Oct 2023.] <https://www.nhs.uk/conditions/baby/weaning-and-feeding/babys-first-solid-foods/>.

43. *Does early introduction of solid feeding lead to early cessation of breastfeeding?* . **Lessa, A., et al.** 4, 2020, *Maternal Child Nutrition*, Vol. 16.
44. *Association between Characteristics at Birth, Breastfeeding and Obesity in 22 Countries: the WHO European Childhood Obesity Surveillance Initiative - COSI 2015/2017.* **Rito, A, et al.** 2019, *The European Journal of Obesity*, Vol. 12, pp. 226-243.
45. *Barriers and enablers to caregivers' responsive feeding behaviour: A systematic review to inform childhood obesity prevention.* **Redsell, S.A, et al.** 2021, *Obesity Reviews*, Vol. 22.
46. **First Steps Nutrition Trust.** First Steps Nutrition Trust-Children's Food. [Online] [Cited: 19 Jan 2023.] <https://www.firststepsnutrition.org/childrens-food>.
47. **Public Health England.** Health matters: child oral health. [Online] 2017. [Cited: 19 January 2023.] <https://www.gov.uk/government/publications/health-matters-child-dental-health/health-matters-child-dental-health>.
48. **NHS.** What is weaning? [Online] [Cited: 02 February 2023.] https://www.nhs.uk/start4life/weaning/?gclid=EAlaIQobChMI6vWPjef2_AIVhrTtChOisAZcEAAAYASAAEgLOHPD_BwE&gclidsrc=aw.ds.
49. *Early Infant Feeding and BMI Trajectories in the First 5 Years of Life.* **Zheng, M, et al.** 2, 2020, *Obesity*, Vol. 28, pp. 339-346.
50. **Office for Health Improvement and Disparities.** Childhood obesity; applying All Our Health. *GOV.UK.* [Online] 7 April 2022. [Cited: 16 February 2023.] <https://www.gov.uk/government/publications/childhood-obesity-applying-all-our-health/childhood-obesity-applying-all-our-health#:~:text=In%20addition%3A-,children%20living%20with%20obesity%20are%20more%20likely%20to%20become%20adults,causal%20factors%20of%20>
51. *Understanding the relationship between breastfeeding and postnatal depression; the role of pain and physical difficulties.* **Brown, A, Rance, J and Bennett, P.** 2, 2016, *Journal of Advanced Nursing*, Vol. 72, pp. 273-282.
52. *The relationship between infant-feeding outcomes and postpartum depression: a qualitative systematic review.* **Dennis, C. L. and McQueen, K.** 4, 2009, *Pediatrics*, Vol. 123, pp. 736-751.
53. **Public Health England.** *Guidance: Breastfeeding and dental health.* 2019.
54. **NHS.** Vitamins for children. *NHS.uk.* [Online] 16 April 2021. [Cited: 16 February 2023.] <https://www.nhs.uk/conditions/baby/weaning-and-feeding/vitamins-for-children/>.
55. **NHS .** Getting Vitamins. *Healthy Start.* [Online] 2023. [Cited: 16 January 2023.] <https://www.healthystart.nhs.uk/getting-vitamins/>.
56. **NHS.** Equity and equality: Guidance for local maternity systems. [Online] 6 September 2021. [Cited: 29 September 2022.] <https://www.england.nhs.uk/publication/equity-and-equality-guidance-for-local-maternity-systems/>.

57. —. Online version of the NHS Long Term Plan: Chapter 3 Further progress on care quality and outcomes: A strong start in life for children and young people. *NHS*. [Online] 7 January 2019. [Cited: 29 September 2022.] <https://www.longtermplan.nhs.uk/online-version/chapter-3-further-progress-on-care-quality-and-outcomes/a-strong-start-in-life-for-children-and-young-people/maternity-and-neonatal-services/>.

58. **UNICEF**. The Baby Friendly Initiative: Accreditation. [Online] [Cited: 3 October 2022.] <https://www.unicef.org.uk/babyfriendly/accreditation/>.

59. —. The International Code of Marketing of Breastmilk Substitutes. [Online] [Cited: 6 October 2022.] <https://www.unicef.org.uk/babyfriendly/baby-friendly-resources/international-code-marketing-breastmilk-substitutes-resources/the-code/>.

60. **NHS**. Get help to buy food and milk (Healthy Start). [Online] 2022. [Cited: 29 September 2022.] <https://www.healthystart.nhs.uk/healthcare-professionals/>.

61. **The Safer Medicines in Pregnancy and Breastfeeding Consortium**. Guidance: Safer Medicines in Pregnancy and Breastfeeding Consortium information strategy. [Online] 11 January 2021. [Cited: 6 October 2022.] <https://www.gov.uk/government/publications/safer-medicines-in-pregnancy-and-breastfeeding-consortium>.

62. **UNICEF**. Breastfeeding and Climate Change. [Online] 2022. [Cited: 22 Dec 2022.] [https://www.unicef.org.uk/babyfriendly/breastfeeding-and-climate-change/#:~:text=Research%20shows%20that%20breastfeeding%20influences,emissions%20\(Long%2C%202021\)..](https://www.unicef.org.uk/babyfriendly/breastfeeding-and-climate-change/#:~:text=Research%20shows%20that%20breastfeeding%20influences,emissions%20(Long%2C%202021)..)

63. *Human Milk Feeding as a Protective Factor for Retinopathy of Prematurity: A Meta-analysis*. **Zhou, J., et al.** 6, 2015, *Pediatrics*, Vol. 136, pp. e1576–e1586.

64. **NHS Start For Life**. NHS Start for Life -Safe weaning. [Online] [Cited: 17 Jan 2023.] <https://www.nhs.uk/start4life/weaning/>.

65. **Scientific Advisory Committee on Nutrition**. Feeding in the first year of life: SACN report. [Online] 17 July 2018. [Cited: 19 Jan 2023.] <https://www.gov.uk/government/publications/feeding-in-the-first-year-of-life-sacn-report>.

66. **UNICEF**. Call to action video. *UNICEF UK*. [Online] 2022. [Cited: 29 September 2022.] <https://www.unicef.org.uk/babyfriendly/about/call-to-action/call-to-action-video/>.

Appendix A – Summary of Infant Feeding service provision as of 2022

Service	Universal	Specialist Support	Group Support
Maternity Services	Community Midwife (Chesterfield/Derby) Royal Derby Hospital have a small inpatient infant feeding team to support initiation	Chesterfield Royal Hospital setting up a specialist clinic soon.	Royal Derby Hospital offer virtual antenatal classes
Health Visiting Service (Derby City)	<u>Health visiting (0 to 5 years): Derbyshire Healthcare NHS Foundation Trust</u> (derbyshirehealthcareft.nhs.uk) Tel: 0300 1234586 Option 3 Parents can text <u>Chat Health</u> on 07507 327754	Infant feeding team within the 0-19 service offer support for feeding issues. Email dhcft.infantfeedingderbycity@nhs.net or 'Task' them on System One under 'Infant Feeding Advisors'	Antenatal infant feeding sessions run by the infant feeding team Breastfeeding support groups run at Children's Centres, contact Infant feeding team to book
Health Visiting Service (Derbyshire County)	<u>Derbyshire Family Health Service</u> DCHS SPA Tel: 01246 515100 Parents can text <u>Chat Health</u> on 07507 327769 1-2-1 support and live web chat with Healthy Family Peer Support workers available via <u>0-5 years page</u>	Infant feeding specialists (DCHS) offer support for feeding issues Referral via SPA Tel: 01246 515100.	Breastfeeding support groups across the County run by Breastfeeding Network Volunteers. Details of local groups: <u>What's happening in Derbyshire - The Breastfeeding Network</u>
National helpline (Available out of hours)	<u>National Breastfeeding Helpline</u> Tel: 0300 100 0212 Open 9.30am to 9.30pm every day of the year		

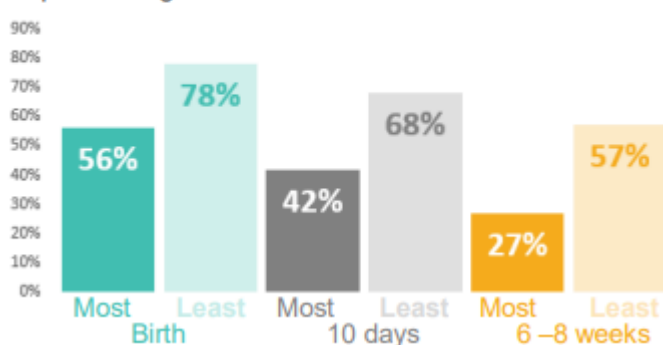
Appendix B – Analysis of local and national inequalities in breastfeeding prevalence

1. Deprivation

Breastfeeding prevalence is lower in areas of higher deprivation. 2021/22 data for the County (*Source: DCHS*) in figure 1 below illustrates that 78% of babies in least deprived areas (IMD quintile 5) were breastfed at birth, compared to 56% in the most deprived (IMD quintile 1), and 57% of babies were breastfed at 6-8 weeks in the least deprived (IMD quintile 5), compared to 27% in the most deprived (quintile 1).

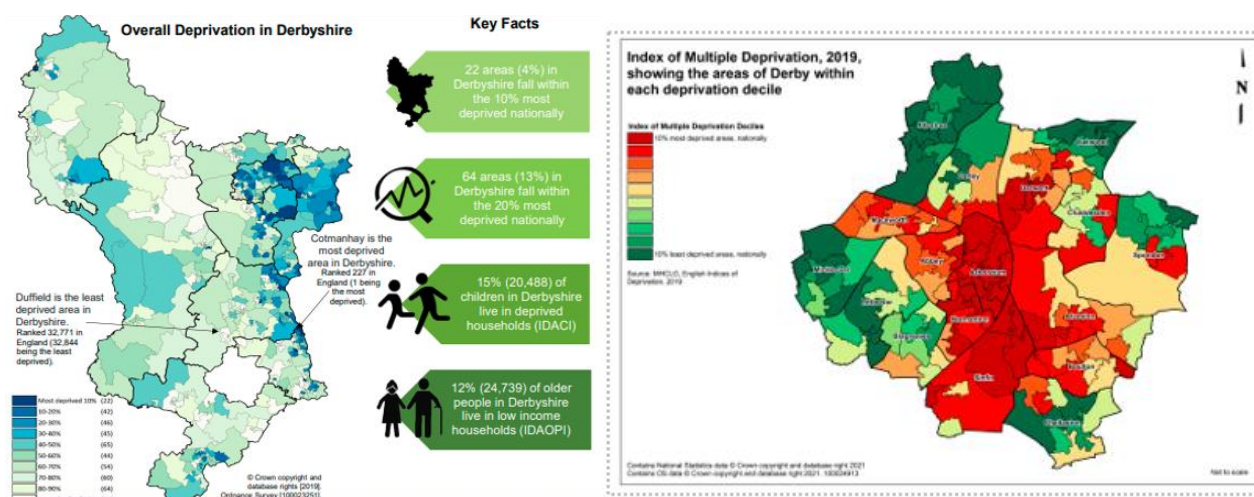
Figure 1: Breastfeeding Prevalence in Derbyshire comparing most deprived to least deprived using the latest IMD data (2021/2022)

Breastfeeding prevalence comparing most deprived to least deprived using the latest IMD data.



Source: DCHS data (2021/22), Infographic produced by Derbyshire Public Health Knowledge and Intelligence Team. Data excludes maternities that were processed by Ripplez (2017 onwards) | Derbyshire total is the sum of districts | % rounded to the nearest whole number

Figure 2: Maps showing index of multiple deprivation in Derbyshire and Derby City



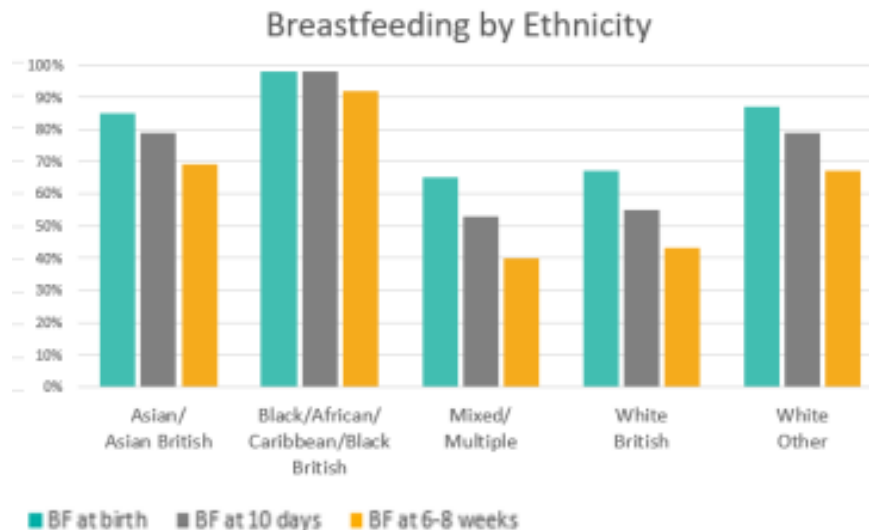
Source: [Derbyshire Observatory – Deprivation](#) Source: [Info4Derby – Welcome to Info4Derby](#)

Figure 2 above highlights the scale of deprivation in Derby, with 15.9% of areas within the 10% most deprived nationally; and pockets of deprivation in Derbyshire with 4% of areas falling within the 10% most deprived nationally.

2. Ethnicity

In Derbyshire, breastfeeding prevalence in 2021/22 was highest in Black/African/Caribbean/Black British groups at birth, 10 days and 6-8 weeks and lowest in the White British and Mixed/Multiple groups (Source: DCHS). This data suggests a higher sustainment rate for the Black African/Caribbean/Black British groups. As illustrated in Figure 3 below.

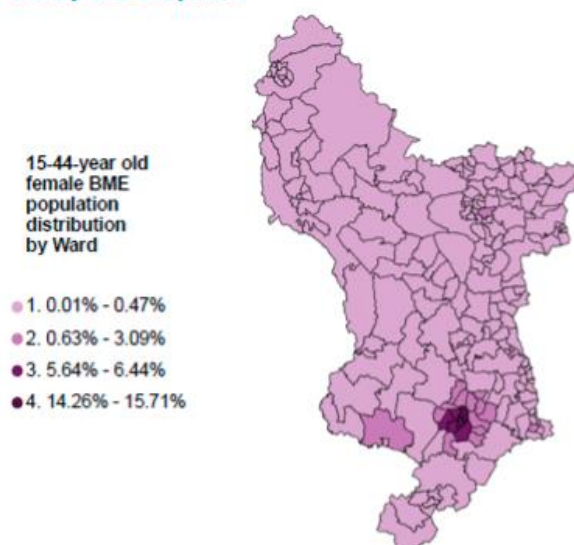
Figure 3: Exclusive or partial breastfeeding mothers by ethnic group, Derbyshire 2021/22



Source: DCHS data (2021/22), Infographic produced by Derbyshire Public Health Knowledge and Intelligence Team. Data excludes maternities that were processed by Ripplez (2017 onwards) | Derbyshire total is the sum of districts | % rounded to the nearest whole number. Ethnicity categorised according to Office for National Statistics (ONS) categories.

Figure 4: Distribution of all Black and Minority Ethnic (BME) females aged 15-44 across Derby and Derbyshire

Distribution of all BME females aged 15-44 across Derby & Derbyshire



Source: 1. Office for National Statistics (2011) Ethnic group by age, 2. UK Data Service (2018) Boundary Data Selector

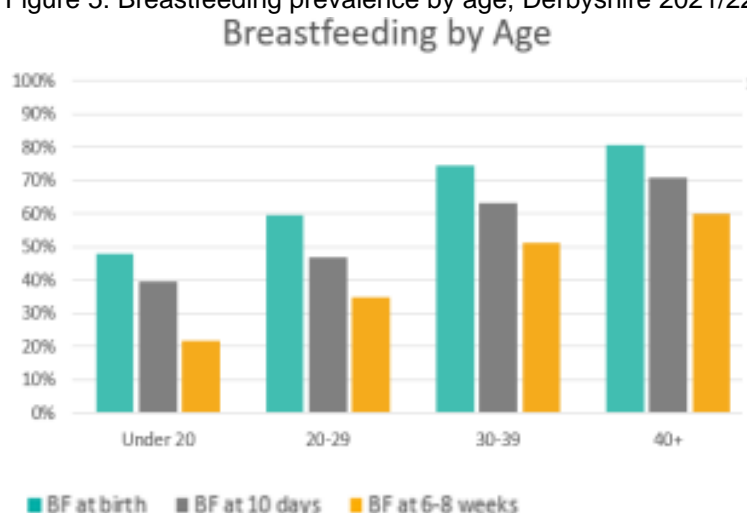
Figure 4 above illustrates the distribution of all BME females aged 15-44 across Derby and Derbyshire. Further mapping of the population distribution of ethnic groups is available as

part of the current LMNS Equity and Equality Analysis. This mapping is based on 2011 census data, further analysis is needed once 2021 census data is available.

3. Age of mother

Younger mothers are less likely to breastfeed. In Derbyshire, prevalence of breastfeeding is lowest for those under 20, and highest for those aged over 30 in 2021/22 (Source: DCHS) as illustrated in Figure 5 below.

Figure 5: Breastfeeding prevalence by age, Derbyshire 2021/22

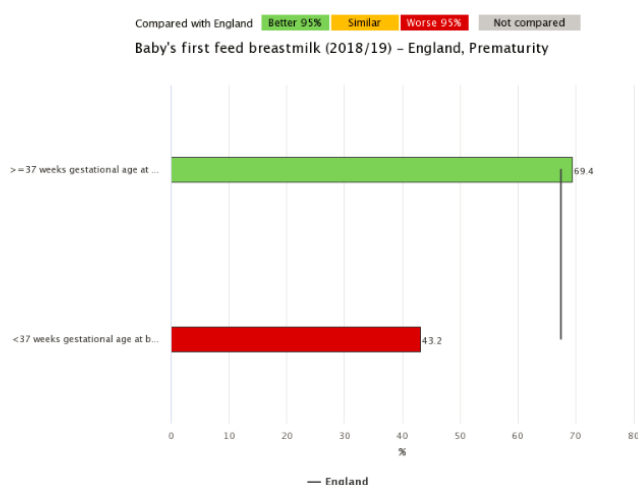


Source: DCHS data (2021/22), Infographic produced by Derbyshire Public Health Knowledge and Intelligence Team. Data excludes maternities that were processed by Ripplez (2017 onwards) | Derbyshire total is the sum of districts | % rounded to the nearest whole number

4. Prematurity

2018/19 data from the OHID Public Health Profiles highlights the difference in the proportion of babies receiving their first feed as breastmilk in England in 2018/2019 by gestational age, as illustrated in Figure 6, with 69.4% of babies born at 37 weeks or more receiving breastmilk as their first feed, compared to 43.2% for babies born before 37 weeks.

Figure 6: Baby's first feed breastmilk (2018/19) – England, Prematurity

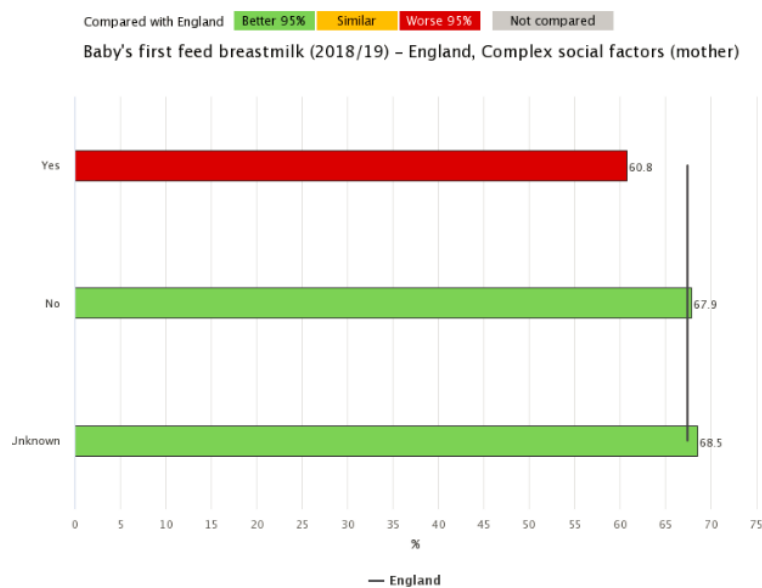


Source: Office for Health Improvement and Disparities. Public health profiles. 2022 <https://fingertips.phe.org.uk> © Crown copyright 2022

5. Complex social factors

Figure 7 below illustrates that in England, where women are recorded as having complex social factors at booking there is a lower prevalence of babies receiving a first feed of breastmilk (60.8%) compared to mothers who didn't have complex social factors recorded (67.9%) or where this information was unknown (68.5%) (Source: OHID 2018/19). Examples of complex social factors include substance misuse, recent arrival as a migrant, asylum seeker or refugee status, difficulty speaking or understanding English, age under 20, domestic abuse, poverty, homelessness (NICE Guidance, 2010 [Overview | Pregnancy and complex social factors: a model for service provision for pregnant women with complex social factors | Guidance | NICE](#)).

Figure 7: Baby's first feed breastmilk (2018/19) – England, Complex social factors (mother)



Source: Office for Health Improvement and Disparities. Public health profiles. 2022 <https://fingertips.phe.org.uk> © Crown copyright 2022