

BMJ Open Association between breastfeeding support and breastfeeding rates in the UK: a comparison of late preterm and term infants

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ABSTRACT

Objective: To explore the association between breastfeeding support and breastfeeding among late preterm (gestation 34–36 weeks) and term (gestation ≥ 37 weeks) infants.

Methods: Secondary analysis of the UK 2010 Infant Feeding Survey. Logistic regression was used to determine the association of breastfeeding support with breastfeeding at 10 days and 6 weeks in late preterm and term infants.

Results: The study included 14 525 term and 579 late preterm infants. A total of 11 729 infants initiated breastfeeding (11 292 (81.1%) term, 437 (79.4%) late preterm infants, $p=0.425$). Of these, 9230 (84.3%) term and 365 (85.6%) late preterm infants were breastfeeding at 10 days ($p=0.586$); of these 7547 (82.0%) term and 281 (75.4%) late preterm infants were still breastfeeding at 6 weeks ($p=0.012$). Mothers who reported receiving contact details for breastfeeding support groups had a higher likelihood of breastfeeding late preterm (adjusted ORs, aOR 3.14, 95% CI 1.40 to 7.04) and term infants (aOR 2.24, 95% CI 1.86 to 2.68) at 10 days and term infants at 6 weeks (aOR 1.83, 95% CI 1.51 to 2.22). Those who reported that they did not receive enough help with breastfeeding in hospital had a lower likelihood of breastfeeding late preterm at 10 days and term infants at 10 days and 6 weeks, compared to those who reported having enough help.

Conclusions: Receiving sufficient help with breastfeeding in hospital and the contact details for breastfeeding support groups is associated with breastfeeding term infants up to 6 weeks and late preterm infants at 10 days.

INTRODUCTION

Infants born between 34+0 and 36+6 weeks gestation are increasingly described as ‘late preterm’.¹ This highlights that despite their size and weight often being similar to term infants, they are physiologically relatively immature,² with higher rates of morbidity and mortality^{2–4} compared to term infants. Breastfeeding protects against gastrointestinal^{5–10} and respiratory illnesses^{9–12}

Strengths and limitations of this study

- Secondary data analysis of a large national survey and one of the first studies to specifically compare the role of breastfeeding support, as perceived by the mother, in late preterm and term infants.
- Mothers were oversampled from the most deprived quintile of the Index for Multiple Deprivation in the original survey. The use of survey weights in this study allowed for the over-sampling and also non-response, thereby ensuring adequate representation of this difficult to reach group.
- An extensive range of confounding factors were considered and adjusted for in the analysis including ethnicity, socioeconomic status, marital status and age mother left full time education. This is important as breastfeeding is known to be associated with a number of socio-demographic factors.
- This study is retrospective in design with the Infant Feeding Survey being completed by parental self-report of both breastfeeding support and breastfeeding duration when the infants were approximately 6 weeks old, therefore, the results of this analysis may be limited by recall bias or potentially a socially desirable response bias and it is not possible to infer causality.
- Infants classified as breastfeeding in this study are likely to represent a very heterogeneous group, ranging from primarily breastfed infants to infants receiving minimal breastmilk.

and is associated with better cognitive development in childhood, particularly in preterm infants.¹³ Despite potential benefits for this group, late preterm infants experience lower rates of breastfeeding initiation and continuation compared to term infants.^{14 15}

The WHO and UK Departments of Health recommend exclusive breastfeeding for the first 6 months.¹⁶ Although 81% of UK mothers initiate breastfeeding, this rapidly

drops to 55% at 6 weeks and 34% at 6 months, with less than 1% of infants exclusively breastfeeding at 6 months.¹⁷ Predictors of breastfeeding success in high-income countries include non-white ethnicity,^{18–19} increasing maternal age^{20–22} and higher age of leaving full time education.^{20–22} Similar sociodemographic patterns have been shown in late preterm infants²³ although in general, evidence regarding breastfeeding in late preterm infants is limited.

Breastfeeding support is recommended in the Baby Friendly Hospital initiative (BFHI)²⁴ and can comprise professional or lay support, educational or supportive interventions, or any combination of these. Breastfeeding support is more likely to be effective if it is proactive, delivered face to face and provided on an ongoing basis.²⁵ However, the majority of studies evaluating the effects of breastfeeding support are restricted to healthy term infants or they evaluate the impact of breastfeeding given in the neonatal unit (NNU) to preterm infants.²⁶ In the UK, at the time of the survey, support and advice about breastfeeding is usually provided initially by midwives during pregnancy. Advice may also be offered during antenatal classes, either provided through the NHS, or by third sector organisations. After the birth of an infant, breastfeeding support would initially be provided by midwives or midwife care assistants within a hospital setting. Most hospitals offer breastfeeding support sessions including breastfeeding counsellors. At around day 10 of life, care of the mother and infant is transitioned from midwifery to the health visiting team who continue to care for the child until the age of 5 years. Health visitors can offer guidance and support with breastfeeding. In addition, breastfeeding support groups including counsellors and peer support are often provided in children's centres or by third sector organisations the details of which would be provided to the mother by either the midwife or health visitor.

Given the increased vulnerability in the late preterm population and higher likelihood of breastfeeding difficulties, it is particularly necessary to understand which breastfeeding support is the most effective for this group. The objective of this study was to investigate the association between different forms of breastfeeding support on breastfeeding rates at 10 days and 6 weeks in late preterm and term infants.

METHODS

Study design

This was a cross-sectional study involving secondary analysis of data from the UK 2010 Infant Feeding Survey (IFS).¹⁷ The IFS is undertaken every 5 years in order to monitor breastfeeding prevalence and infant feeding practices. In 2010, it comprised a nationally representative unclustered sample of 30 760 infants with oversampling of mothers from the most deprived quintile of the Index for Multiple Deprivation (IMD). The use of weights in the survey analysis allowed for this

oversampling and differential non-response according to mother's age and IMD, and aims to make the survey representative of the UK population. The IFS included three postal questionnaires assessing feeding status of the infant at 6–10 weeks, 4–6 months and 8–10 months. They were completed by self-report, usually by the mother of the infant. The IFS questionnaire in 2010 was based on the previous version and was piloted in all four countries of the UK prior to being rolled out. The original survey was approved by the Ethics committee, Department of Health Sciences at the University of York.

This study primarily used data from the first questionnaire, which a total of 15 724 mothers responded to (51% response rate). This questionnaire contained 150 questions over 39 pages (see web appendix 1: Questionnaire) including questions on breastfeeding duration and breastfeeding support accessed. For infants who were less than 6 weeks at the first questionnaire, data were also used from the second questionnaire (3382 infants). The analysis was restricted to singleton births born at more than 34+0 weeks gestation (15 104 infants) (see web appendix 2: flow chart). Only those infants who initiated breastfeeding were included in the analysis of breastfeeding at 10 days. Only those still breastfeeding at 10 days were included in the subsequent analysis at 6 weeks.

Measures

Breastfeeding support variables were identified from questions in the stage 1 questionnaire²⁷ (box 1). Specific variables were chosen to reflect different times at which support was given, from antenatal and immediately following delivery, to subsequent support given at home. To fully explore the association of breastfeeding support, these variables were also chosen to reflect the different nature of support ranging from direct support such as skin to skin contact to provision of information. Outcomes included the prevalence of breastfeeding at 10 days and 6 weeks. Infants were classified as having initiated breastfeeding if any breastmilk (direct or expressed) was received after birth, even if only once.²⁸ Subsequently, infants were classified as breastfed if they were receiving any breastmilk as part of their nutrition, regardless of other fluids or solids. This included infants who were regarded as 'partial breastfeeding', but also those who were exclusively breastfed (when no other food or drink, not even water, except breastmilk is received). Outcome timepoints were chosen as the transition from midwife care to the health visiting team occurs at 10 days postpartum and it is accepted that breastfeeding can take 6 weeks to be fully established.

Potential confounding factors were divided into sociodemographic characteristics and pregnancy and delivery characteristics. Sociodemographic characteristics included the infant's ethnicity, maternal age, marital status, age at leaving full time education, socioeconomic status (as defined by maternal occupation using the NSSEC system²⁹), and IMD³⁰ as a measure of area-based

Box 1 Breastfeeding support questions*

- ▶ During pregnancy, were you taught how to position your baby for breastfeeding and how to attach your baby to your breast?
- ▶ Did you receive 'skin to skin' contact with your baby immediately after delivery?
- ▶ How soon following delivery was your baby put to your breast?
- ▶ In the days after birth, were you given advice on how to recognise if your baby was getting enough milk?
- ▶ Were you offered support for feeding problems encountered in the hospital or birth centre?
- ▶ While you were in the hospital, birth centre or unit, did you get enough help and support with feeding your baby?
- ▶ Since leaving the hospital, birth centre or unit, were you given details of voluntary organisations or community support groups which helps new mothers with infant feeding?
- ▶ Are you aware of the National Breastfeeding helpline?
- ▶ Since leaving the hospital, birth centre or unit, were you given help or information for any feeding problems encountered at home?
- ▶ In the first 6 weeks, did you receive breastfeeding support from a voluntary organisation, peer supporter, national breastfeeding helpline or breastfeeding support group?
- ▶ In the first 6 weeks, did you receive breastfeeding support from a health professional (midwife, midwife support worker, nurse, nursery nurse, health care assistant, health visitor, children's health clinic or doctor)?
- ▶ In the first 6 weeks, did you receive breastfeeding support from a media source (books, leaflets, magazines, television, radio or the internet)?

*Answers were based on parental recall at approximately 6 weeks postpartum.

deprivation. Pregnancy and delivery characteristics included parity (subdividing multiparous women by previous breastfeeding experience of more or less than 6 weeks), type of delivery, admission to the NNU, length of stay in hospital, gestation at delivery, antenatal feeding intention and peer feeding behaviour (whether they had known other mothers during pregnancy and which feeding methods they had used).

Statistical analysis

Logistic regression was used to calculate ORs for the association between breastfeeding support and breastfeeding at 10 days and 6 weeks. Analysis of the factors associated with breastfeeding at 10 days was based on those who initiated breastfeeding. Similarly, the analysis of breastfeeding at 6 weeks was based on those who were breastfeeding at 10 days. The analysis was conducted separately for late preterm (34+0–36+6 weeks) and term (>37+0 weeks) infants and was performed in stages due to large numbers of variables: first the sociodemographic variables (model A), then the antenatal and delivery characteristics (model B), and finally the breastfeeding support variables (model C). At each stage, variables that were not statistically significant ($p > 0.05$) were removed from the model. The remaining statistically significant variables within models A and B were combined

with model C with further dropping of variables that were not statistically significant as necessary. Antenatal feeding intention and the peer feeding variables were included in the model as a priori confounders, regardless of their p value as they are recognised as being highly predictive of subsequent feeding behaviour.^{21 31–33}

The final multivariable model for breastfeeding at 10 days included any remaining statistically significant variables from each of models A, B and C in addition to these two variables.

These final regression models for the late preterm and term infants at 10 days were then used as the respective models for breastfeeding at 6 weeks. Outcomes are presented as adjusted ORs (aOR), with 95% CIs. STATA V.13 was used to conduct the analysis with 'survey commands' to take account of the weighted sample. All percentages and ORs are presented as weighted values, whereas frequencies are unweighted values.

RESULTS

There were 15 104 singletons born at more than 34 weeks gestation, of which 14 525 (95.9%) were full term and 579 (4.1%) were late preterm. Overall, mothers of late preterm infants had a younger age distribution, were more likely to be from a non-white ethnic group and were more deprived than mothers of full-term infants (table 1). In addition, late preterm infants were less likely to have been born by normal vaginal delivery (NVD), were more likely to be admitted to the NNU (43.4% vs 4.4% of term infants, $p < 0.001$) and had a longer length of stay in hospital when compared to term infants (table 1).

Overall, 11 729 mothers initiated breastfeeding, including 11 292 (81.1%) term infants and 437 (79.4%) late preterm infants ($p = 0.425$). The rates of breastfeeding declined rapidly in both groups: 9230 (68.4%) term infants and 365 (67.9%) late preterm infants were still being breastfed at 10 days; and 7547 (56.1%) term infants and 281 (51.2%) late preterm infant were still being breastfed at 6 weeks. Of those who initiated breastfeeding, 9230 (84.3%) term infants and 365 (85.6%) late preterm were still breastfeeding at 10 days ($p = 0.586$). Of those breastfeeding at 10 days, late preterm infants were significantly less likely to be breastfeeding at 6 weeks than term infants (281 (75.4%) versus 7547 (82.0%), unadjusted OR 0.67, 95% CI 0.49 to 0.92, $p = 0.012$).

Among term and late preterm infants, breastfeeding at 10 days was higher among mothers in managerial professions and in those living in the least deprived areas (table 2). In term infants there were clear patterns of increasing rates of breastfeeding with increasing maternal age and with increasing levels of maternal education. White mothers had the lowest rates of breastfeeding at 10 days and 6 weeks among all infants, whereas mothers with previous breastfeeding experience consistently had the highest rates (table 3).

Table 1 Comparison between late preterm and term population†

Variable	Late preterm infants (34–36+6)		Term infants (37+)		p Value
	N	Per cent	N	Per cent	
Total	579	4.1	14 525	95.9	
Maternal age					
<20	40	8.7	546	5.2	0.027*
20–24	97	21.5	2095	18.3	
25–29	155	26.9	4051	28.1	
30–34	158	24.2	4691	29.0	
35+	126	18.6	3092	19.5	
Ethnicity					
White	488	81.5	12 882	86.2	0.026*
Asian/Asian British	40	11.3	615	6.8	
Black/Black British	13	4.0	362	4.1	
Other	13	3.2	291	2.9	
Marital status					
Single	91	16.4	2046	15.1	0.526
Married/living together	482	83.6	12 334	84.9	
Age mother left full time education					
<16	124	24.1	2447	19.0	0.056
17–18	158	29.2	4088	29.6	
>18	291	46.7	7869	51.5	
NSSEC					
Managerial	199	30.0	5643	35.2	<0.001***
Intermediate	103	18.3	2942	19.9	
Routine + manual	159	25.2	3759	27.2	
Never worked/not classified	118	26.6	2181	17.7	
IMD quintile					
Most deprived	172	36.4	3297	27.1	<0.001***
2	113	22.4	2930	22.4	
3	101	13.6	2914	18.7	
4	100	14.9	2748	16.4	
Least deprived	92	12.5	2262	15.4	
Parity					
Primiparous	321	58.6	7050	51.3	0.002**
Multiparous who breastfed <6 weeks	142	22.1	3480	21.3	
Multiparous who breastfed >6 weeks	16	19.3	3995	27.4	
Type of delivery					
NVD	322	61.2	8808	63.5	<0.001***
Instrumental	51	7.9	2066	13.8	
Caesarean	204	31.0	3620	22.6	
Neonatal unit admission					
Yes	258	43.4	658	4.4	<0.001***
No	321	56.6	13 867	95.5	
Length of stay in hospital					
<12 h	16	3.3	1849	14.6	<0.001***
12–24 h	52	8.9	3690	26.7	
1–2 days	83	14.7	3829	24.8	
3–7 days	309	51.3	3918	24.6	
>7 days	89	15.6	143	1.0	
Not born in hospital	3	0.9	390	3.0	

*p<0.05; **p<0.005; ***p<0.001.

†Per cent rounded to 1 decimal point (weighted). Frequencies (n) are unweighted values.

IMD, Index of Multiple Deprivation; NVD, normal vaginal delivery.

Breastfeeding support in term infants

In univariable analysis, all of the breastfeeding support questions in [box 1](#) were significantly associated with breastfeeding term infants at 10 days and all except

questions 10 and 11 were significantly associated with breastfeeding at 6 weeks. In multivariable analysis, mothers of term infants who reported being given advice on recognising if their infant was getting enough milk

Table 2 Descriptive analysis* of sociodemographic characteristics

Variable	Breastfeeding at 10 days (%)		Breastfeeding at 6 weeks (%)	
Gestation	34–36+6	37+	34–36+6	37+
N (sample size)	365 (437)	9230 (11 292)	281 (365)	7547 (9230)
Maternal age (years)				
<20	85.7	64.7	61.2	63.0
20–24	76.3	76.1	68.1	70.7
25–29	82.5	82.9	69.1	80.7
30–34	92.2	88.8	84.1	85.9
35+	92.6	89.1	84.0	87.0
Ethnicity				
White	84.5	82.1	70.1	79.4
Asian/Asian British	80.8	93.2	87.1	89.8
Black/Black British	98.1	98.9	88.2	95.7
Other	100	91.0	90.8	88.4
Marital status				
Single	88.0	75.8	62.2	71.4
Married/living together	85.7	85.4	77.0	83.1
Maternal age at leaving full time education				
<16	85.1	71.9	64.8	71.8
17–18	74.2	79.0	65.4	74.5
>18	92.9	90.0	82.9	87.0
NSSEC				
Managerial	92.3	89.4	82.6	85.9
Intermediate	81.9	81.7	58.8	80.2
Routine+manual	88.4	78.2	72.7	74.8
Never worked/not classified	77.3	84.5	79.6	84.4
IMD quintile				
Most deprived	80.2	80.3	73.0	82.4
2	87.6	84.2	82.5	81.1
3	87.2	82.8	67.8	80.8
4	88.9	88.6	76.4	82.9
Least deprived	91.2	87.7	80.4	83.0

*Per cent rounded to 1 decimal point (weighted). Frequencies (n) are unweighted values.
IMD, Index of Multiple Deprivation.

were more likely to be breastfeeding at 10 days (aOR 1.24, 95% CI 1.05 to 1.46) (table 4) compared to mothers reporting that they were not given this advice. They were also more likely to be breastfeeding at 10 days if they reported being given the contact details of community support groups (aOR 2.24, 95% CI 1.86 to 2.68), if they were aware of the national breastfeeding helpline (aOR 1.29, 95% CI 1.08 to 1.53), or if they used support from community support groups (aOR 1.30, 95% CI 1.01 to 1.68) when compared to mothers who did not report each of these breastfeeding support activities. Mothers who reported no feeding problems in hospital were more likely to be breastfeeding at 10 days (aOR 1.57, 95% CI 1.29 to 1.91) than women who reported feeding problems and had received help in hospital; among the women who experienced feeding problems in hospital, maternal report of receiving help was not associated with breastfeeding at 10 days. In contrast, breastfeeding at 10 days was less likely in mothers who reported either no feeding problems at home (aOR 0.62, 95% CI 0.50 to 0.77) or feeding problems with no support (aOR 0.58, 95% CI 0.42 to 0.80) compared with mothers who reported receiving help for feeding problems at home.

Mothers who used support from healthcare professionals were less likely to be breastfeeding at 10 days (aOR 0.63, 95% CI 0.50 to 0.79 and 6 weeks (OR 0.71, 95% CI 0.57 to 0.88) compared to those who did not use support. Out of those who had encountered feeding problems, term infants were less likely to be breastfed at 6 weeks if their mother felt they had not received help at home (aOR 0.45, 95% CI 0.35 to 0.64) compared to those who felt they had received help at home for feeding problems. Mothers who reported that they were given the contact details of community support groups were more likely to be breastfeeding at 6 weeks (aOR 1.83, 95% CI 1.51 to 2.22) compared to those who reported that they were not given the contact details.

Breastfeeding support in late preterm infants

In univariable analysis, only questions 6, 7, 8, 9 and 12 from box 1 were significantly associated with breastfeeding late preterm infants at 10 days and only questions 2, 3 and 12 were significantly associated with breastfeeding at 6 weeks. In multivariable analysis, as with term infants, late preterm infants were less likely to be breastfeeding at 10 days if their mother felt they did not receive

Table 3 Descriptive analysis* of antenatal and delivery characteristics

Variable	Breastfeeding at 10 days (%)		Breastfeeding at 6 weeks (%)	
Gestation	34–36+6	37+	34–36+6	37+
N (sample size)	365 (437)	9230 (11 292)	281 (365)	7547 (9230)
Parity				
Primiparous	86.9	83.0	73.6	79.7
Multiparous who breastfed <6 weeks	62.9	65.4	63.6	69.5
Multiparous who breastfed >6 weeks	96.9	94.9	84.8	89.1
Aware of the health benefits of breastfeeding				
No	77.7	79.6	72.1	80.4
Yes	88.0	85.1	75.5	82.1
Antenatal feeding intention				
Breastfeeding	90.9	88.2	82.4	84.7
Infant formula	68.3	39.2	31.6	54.4
Combination feed	75.6	81.6	58.2	74.5
Not decided	69.8	69.8	61.0	72.8
Knew other mothers with young infants during pregnancy and their feeding methods				
Mothers who formula fed	79.6	74.9	59.6	75.5
Mothers mixed fed	85.7	85.3	80.4	81.1
Mothers who breastfed	99.2	94.3	92.0	91.2
Did not know other mothers	81.1	84.9	79.4	82.7
Type of birth				
NVD	85.0	85.0	76.1	82.4
Instrumental	97.1	83.5	71.7	82.7
Caesarean	83.4	83.1	75.4	80.3
Neonatal unit admission				
No	86.2	84.4	81.7	82.2
Yes	84.7	83.2	67.8	78.6
Length of stay in hospital				
<12 h	81.1	83.7	96.8	81.1
12–24 h	75.2	85.9	91.8	82.7
1–2 days	87.0	84.4	76.7	83.2
3–7 days	87.2	81.7	75.7	79.5
>7 days	85.5	85.8	67.9	80.2
Not born in hospital	93.9	93.9	35.1	90.9
Gestation (weeks)				
34	85.6	–	71.8	–
35	85.9	–	71.5	–
36	85.4	–	78.1	–
37	–	81.3	–	81.0
38	–	83.3	–	83.3
39	–	84.1	–	81.5
40	–	86.1	–	82.4
41	–	83.5	–	81.1
42+	–	84.4	–	83.1

*Per cent rounded to 1 decimal point (weighted). Frequencies (n) are unweighted values.

NVD, normal vaginal delivery.

enough help with feeding in hospital (aOR 0.23, 95% CI 0.09 to 0.60, $p=0.003$) compared to mothers who did feel they had enough help (table 5) and more likely to be breastfeeding at 10 days if their mother reported that she was given contact details for community support groups (aOR 3.14, 95% CI 1.40 to 7.04, $p=0.006$) compared to mothers who reported that they were not given these details. The late preterm infants who reported no feeding problems at home were significantly less likely to be breastfeeding at 10 days compared to those who had experienced problems with feeding at home and had received help for them (aOR 0.08, 95% CI 0.02 to 0.33).

In contrast to term infants, no types of breastfeeding support were associated with breastfeeding late preterm infants at 6 weeks.

DISCUSSION

Our study found a statistically significantly lower prevalence of breastfeeding at 6 weeks among late preterm infants compared to term infants. When mothers reported they had received enough help in hospital and were given contact details for support groups in the community, this was associated with a higher likelihood

Table 4 Adjusted ORs† for breastfeeding support in term infants

Variable	Breastfeeding at 10 days				Breastfeeding at 6 weeks			
	N‡ (%)§	aOR ⁵	95% CI	p Value	N ⁶ (%)¶	aOR ⁵	95% C.I	p Value
Q4††: Received advice on how to recognise if the infant is receiving enough milk								
No	5665 (81.3)	1			4367 (80.4)	1		
Yes	5536 (88.0)	1.24	1.05 to 1.46	0.013*	4809 (83.7)	1.04	0.89 to 1.22	0.608
Q5: Received help or support in hospital for feeding problems								
Help received	3052 (80.9)	1			2380 (77.1)	1		
No help received	545 (72.6)	1.07	0.75 to 1.53	0.717	357 (71.3)	0.99	0.67 to 1.45	0.943
No problems	7089 (86.4)	1.57	1.29 to 1.91	<0.001***	5973 (83.9)	1.27	1.05 to 1.53	0.015*
Not born in hospital	502 (89.4)	0.51	0.24 to 1.09	0.082	447 (88.8)	1.18	0.56 to 2.47	0.660
Q6: Received enough help and support in hospital								
Yes	7891 (86.3)	1			6636 (83.4)	1		
No	2795 (78.2)	0.61	0.50 to 0.74	<0.001***	2064 (76.0)	0.75	0.62 to 0.90	0.003**
Not born in hospital	502 (89.4)	1.00			447 (88.8)	1.00		
Q7: Received contact details of community support groups for breastfeeding								
No	2818 (71.6)	1			1812 (74.5)	1		
Yes	8408 (88.3)	2.24	1.86 to 2.68	<0.001***	7366 (83.9)	1.83	1.51 to 2.22	<0.001***
Q8: Aware of the National Breastfeeding Helpline								
No	3550 (77.3)	1			2596 (75.9)	1		
Yes	7675 (87.3)	1.29	1.08 to 1.53	0.004**	6581 (75.2)	1.01	0.85 to 1.21	0.884
Q9: Received help or information for feeding problems‡‡ encountered at home								
Yes	3433 (89.6)	1			3023 (81.2)	1		
No	673 (75.3)	0.58	0.42 to 0.80	0.001**	492 (64.6)	0.45	0.35 to 0.64	<0.001***
No problems	7175 (82.8)	0.62	0.50 to 0.77	<0.001***	5707 (84.0)	1.26	1.04 to 1.52	0.018*
Q10: Used support from community support groups								
No	9588 (83.3)	1			7721 (81.9)	1		
Yes	1702 (89.4)	1.30	1.01 to 1.68	0.043*	1509 (82.7)	1.22	0.97 to 1.53	0.086
Q11: Used support from healthcare professionals								
No	2807 (87.2)	1			2403 (86.6)	1		
Yes	8483 (83.3)	0.63	0.50 to 0.79	<0.001	6827 (80.2)	0.71	0.57 to 0.88	0.002**

*p<0.05; **p<0.005; ***p<0.001.

†Adjusted ORs with 95% CIs and p values. Adjusted for: Ethnicity, marital status, age mother left full time education, socioeconomic status, IMD, parity with previous breastfeeding experience, antenatal feeding intention, knowing other mothers while pregnant and how they fed their infants, given advice on how to recognise if infant receiving enough milk, receiving help in hospital for feeding problems, receiving enough help in hospital, given contact details of voluntary organisation or community support group, being aware of the national breastfeeding helpline, receiving support or information for feeding problems at home, using voluntary support, using support from healthcare professionals. IMD, Index of Multiple Deprivation.

‡Total Sample size of women with term infants with each individual response to each question.

§Weighted percentage of women responding to each question who were breastfeeding at 10 days.

¶Weighted percentage of women responding to each question who were breastfeeding at 6 weeks.

††Question numbers refer to breastfeeding support questions in box 1.

‡‡Feeding problems at home could include feeding problems related to either formula feeding or breastfeeding.

of breastfeeding in late preterm and term infants at 10 days and also term infants at 6 weeks. Successfully breastfeeding term infants at 10 days was also associated with being given advice to recognise if the infant was receiving enough milk, awareness of the national breastfeeding helpline and using community support groups.

Strengths of this study include the use of a national, population-based survey. The analysis employed survey weights which allowed for non-response and oversampling of mothers from the lowest quintile of the IMD ensuring adequate representation of this group. Using IFS data enabled simultaneous evaluation of a wide range of breastfeeding support among late preterm and term infants. As such, this study is one of the first to compare effectiveness of support between these two groups thereby addressing a gap in current literature. However, it is of note that the original survey findings

are now 5 years old. A further strength is measuring outcomes at both 10 days and 6 weeks to identify support factors impacting on clinically important postnatal time points. The most rapid decline in breastfeeding rates occurs in the first 10 days after birth,¹⁷ indicating that breastfeeding support could have the most to offer mothers during that time. The risk of recall bias was limited as the questionnaire was intended for when the infant was 6 weeks old. However, given the sensitive and emotive nature of breastfeeding duration, responses may have been influenced by a socially desirable response bias with mothers perhaps overestimating the length of time they achieved breastfeeding, or underplaying the support received. The IFS questionnaire is long (150 questions) potentially presenting a challenge for a parent with a newborn infant. This may have introduced a bias in those who may have been more likely to

Table 5 Adjusted ORs† for breastfeeding support in late preterm infants

Variable	Breastfeeding at 10 days				Breastfeeding at 6 weeks			
	N‡ (%)§	aOR ⁸	95% CI	p Value	N ¹² (%)¶	aOR ⁸	95% C.I	p Value
Q6††: Received enough help and support with feeding in hospital								
Yes	321 (89.2)	1			277 (77.0)	1		
No	102 (73.6)	0.23	0.09 to 0.60	0.003**	76 (71.0)	0.57	0.24 to 1.33	0.190
Not born in hospital	12 (98.0)	2.73	0.25 to 29.9	0.411	11 (66.3)	0.27	0.07 to 1.05	0.059
Q7: Received contact details for community support groups for breastfeeding								
No	140 (73.9)	1			102 (69.2)	1		
Yes	293 (91.3)	3.14	1.40 to 7.04	0.006**	260 (77.9)	1.86	0.87 to 3.95	0.106
Q9: Received help or information for feeding problems‡‡ encountered at home								
Had help	103 (97.6)	1			100 (81.2)	1		
No help given	31 (86.6)	0.41	0.04 to 4.08	0.449	25 (76.9)	0.86	0.18 to 3.99	0.845
No problems	302 (81.8)	0.08	0.02 to 0.33	0.001**	239 (73.1)	0.69	0.29 to 1.64	0.402

*p<0.05; ** p<0.005; ***p<0.001.

†aOR with 95% CIs and p values. Adjusted for: antenatal feeding intention, knowing other mothers while pregnant and their feeding methods, type of delivery, parity with previous breastfeeding experience, receiving enough help/support in hospital, being given contact details for voluntary organisations/community support groups, receiving help/information for feeding problems at home.

‡Sample size of women with each individual response to each question.

§Weighted percentage of women responding to each question who were still breastfeeding at 10 days.

¶Weighted percentage of women responding to each question who were still breastfeeding at 6 weeks.

††Question numbers refer to Breastfeeding support questions in [table 1](#).

‡‡Feeding problems at home could include feeding problems related to either formula feeding or breastfeeding.

aOR, adjusted ORs.

respond. In addition, this study investigated the association between the parental perception of support given, rather than the actual support given and was limited by the wording of the original survey questions. For example while we have shown that receiving enough help with breastfeeding in hospital is associated with breastfeeding term and late preterm infants at 10 days, it was not possible to further delineate what support had been received by those who felt they had received 'enough'. However, it may be the perception that breastfeeding support is available combined with the provision of information in case of feeding problems, is important in enabling successful breastfeeding. Finally, although the overall sample size was large (n=15 104), a further potential limitation is the relatively small number of late preterm infants in the study (n=579).

Although a large number of potential confounding factors were included in the analysis, it is not possible to exclude residual confounding by unmeasured factors, for example medical problems of mother or infant. Another limitation is the likely heterogeneous nature of the breastfeeding groups, ranging from primarily breastfed infants to infants receiving minimal breastmilk. However, it was not possible to subdivide by amount of breastmilk being received. Nonetheless, given the current low rates of breastfeeding in the UK, establishing interventions which may improve any breastfeeding remains important.

Previous studies have also identified late preterm infants as having lower rates of breastfeeding than term infants^{14 15} which is likely due to a combination of factors, including delayed lactogenesis³⁴ and physiological immaturity resulting in a reduced sucking ability.^{35 36} While late preterm infants often do not fit

criteria for NNU admission, postnatal wards may not offer the additional support required to ensure successful breastfeeding. The Infant Feeding Survey report¹⁷ found the main reasons women stopped breastfeeding in the first weeks after birth were due to the baby not sucking, the mother having painful breasts or feeling she had insufficient milk. For women who stopped in the first 2 weeks, the factors they felt could have helped them breastfeed for longer included more support and guidance from hospital staff, midwives and families (23% of respondents), if the baby had latched on the breast easier (19%) and if there had been less pain (14%). This study found receiving enough help in hospital was associated with breastfeeding late preterm infants at 10 days and term infants at 10 days and 6 weeks. This type of support may have been delivered via a number of different mechanisms. Both Oakley *et al*³³ and Henderson and Redshaw³² had previously noted associations between initial midwifery support and breastfeeding at 6 weeks and 4 months respectively, support which is likely to have taken place in the hospital. Renfrew *et al*²⁵ found all forms of 'breastfeeding support' to have a positive impact on breastfeeding in term infants. Those results are borne out by the wide variety of support associated with breastfeeding at 10 days in the term infants in our study. The vast majority of previous studies only included healthy term infants although Henderson and Redshaw³² observed lower rates of breastfeeding initiation in preterm than term infants (77.2% vs 80.5%). However, they did not differentiate between the two groups when analysing the impact of breastfeeding support.

In this study, term infants whose mothers used support from health professionals were less likely to be

breastfeeding at 10 days and 6 weeks. This finding is in contrast to existing evidence such as the Cochrane review,²⁵ which found that breastfeeding support was associated with increasing breastfeeding duration. However, our result is likely to be confounded by the fact that those experiencing feeding problems are more likely to cease breastfeeding, but also more likely to be accessing professional support—41% of those using health professional support had also stated they had experienced feeding problems in hospital, compared to only 5% who had not used this support. Late preterm and term infants were less likely to be breastfeeding at 10 days if they had not experienced feeding problems at home. However, this may be the result of mothers who stopped breastfeeding early, potentially prior to discharge from hospital as mothers were classified as having initiated breastfeeding, even if the infant only had one breastfeed after birth. Among the late preterm infants, 37% of those with no feeding problems had already stopped breastfeeding by 5 days, compared to only 7% of those who had help for feeding problems. By 6 weeks of age, term infants were more likely to be breastfeeding if they had not encountered feeding problems at home as this analysis only included infants who were still breastfeeding by 10 days.

This study identified that late preterm and term infants were more likely to be breastfeeding at 10 days if their mother had received the contact details for a community support group, compared to women who did not receive these details. However, it was not possible to determine whether these women actually attended a support group or not and at what age of the infant. A cluster randomised trial³⁷ of a policy to provide breastfeeding groups in primary care found increased provision of breastfeeding groups did not improve breastfeeding rates at 6–8 weeks for the intervention group compared to the control group. The median infant age for attending such a group in this trial was 5 weeks, which would be counter to the fact that receiving this information was associated with breastfeeding at 10 days in our study. It is of note, however, that the trial was introducing breastfeeding support groups into relatively deprived areas of Scotland which may have impacted the results as it is well recognised that increasing deprivation is associated with lower rates of breastfeeding.

Previous studies have demonstrated strong associations between sociodemographic factors and breastfeeding^{21 22 31–33 38} which our study replicated among term infants. Demirci *et al.*²³ with a large sample of 7012 late preterm infants found breastfeeding initiation was associated with maternal education, marital status and ethnicity. In our study no sociodemographic characteristics were statistically significant in late preterm infants which was in contrast to the findings for term infants. Although our sample size was relatively small, and may not have had sufficient power to identify particular effects, this finding may also suggest that

sociodemographic factors may be less relevant in determining continuation of breastfeeding in late preterm infants compared to term infants.

Breastfeeding rates in the UK have a long way to go before reaching the WHO recommendations and it is clear that providing breastfeeding support will be part of this. This study has identified that while a similar proportion of term and late preterm infants initiated breastfeeding, the late preterm infants were significantly less likely to be breastfeeding by 6 weeks. Relatively simple breastfeeding support methods, such as the provision of contact details for community breastfeeding support groups has been demonstrated by this study as being associated with successful breastfeeding for term and late preterm infants. Mothers who felt they had received enough help and support with breastfeeding while in hospital were also more likely to be breastfeeding late preterm and term infants at 10 days. Support for breastfeeding should be at the forefront of maternity practice in hospital, and community services need to ensure that basic information on how to obtain help and support is visibly given to all mothers while instituting a culture of easily accessible breastfeeding support for mothers if and when they need it.

In conclusion, our study found breastfeeding support to be positively associated with breastfeeding at 10 days in late preterm and term infants and at 6 weeks in term infants, in particular receiving the contact details for community support groups and receiving enough help with breastfeeding in hospital. Increasing rates of breastfeeding should be a public health priority globally, but especially in the UK where exclusive breastfeeding rates are particularly low. Late preterm infants are likely to require additional support, given their even lower rates of breastfeeding. Further research is required on breastfeeding continuation in late preterm infants in order to understand the complex interplay of factors determining breastfeeding success for this population.

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Contributors All authors conceived the study and contributed to the design of the study. SR conducted the analysis with guidance from MAQ. All authors were involved in the interpretation of the data. SR wrote the initial draft of the manuscript, and all authors contributed to revising consecutive drafts. All authors approved the final version of the manuscript. All authors had full access to all of the data in the study and can take responsibility for the integrity of the data and the accuracy of the data analysis.

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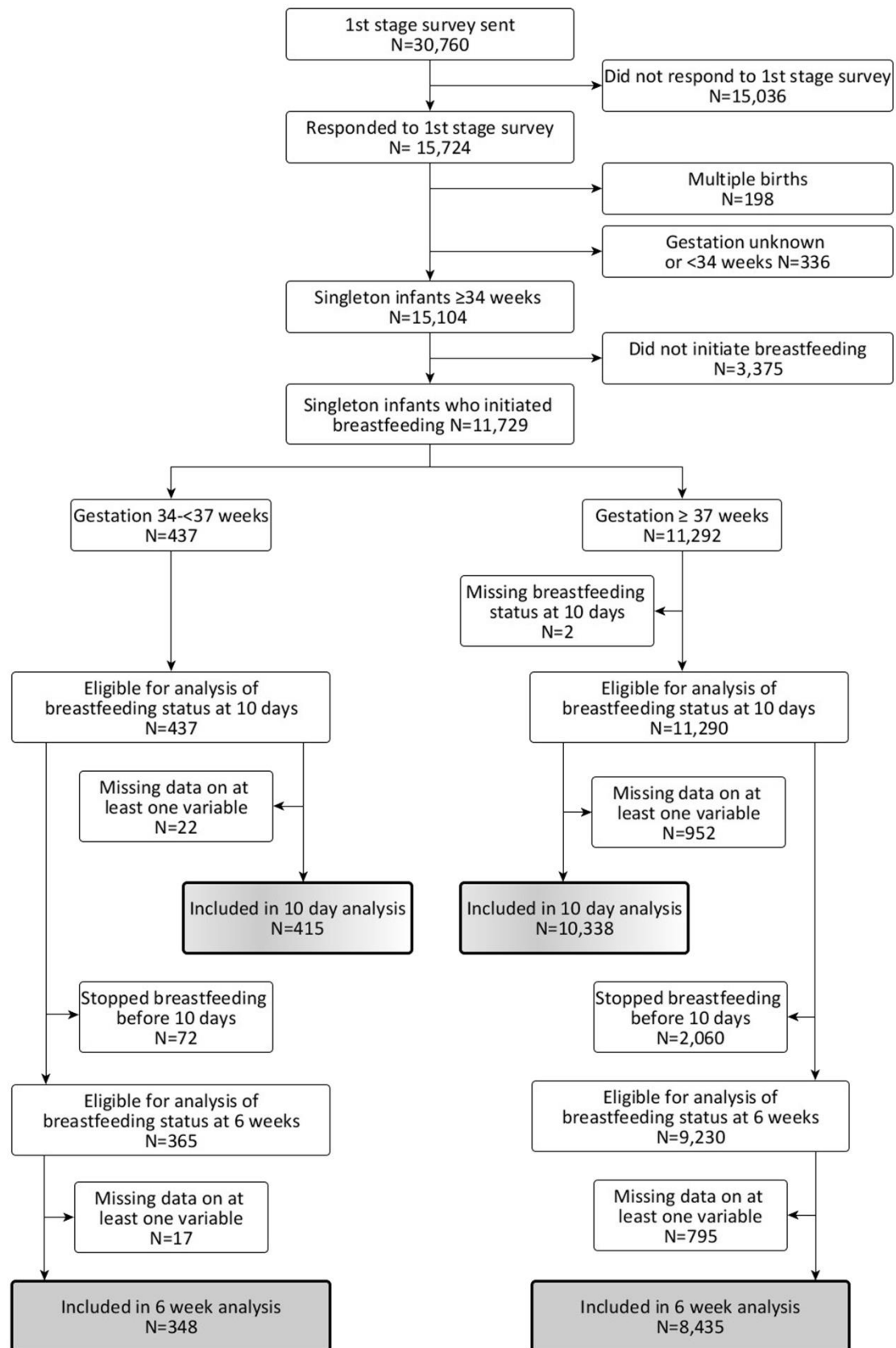
Data sharing statement No additional data are available.

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REFERENCES

- Raju TN, Higgins RD, Stark AR, *et al.* Optimizing care and outcome for late-preterm (near-term) infants: a summary of the workshop sponsored by the National Institute of Child Health and Human Development. *Pediatrics* 2006;118:1207–14.
- Wang ML, Dorer DJ, Fleming MP, *et al.* Clinical outcomes of near-term infants. *Pediatrics* 2004;114:372–6.
- Radtke JV. The paradox of breastfeeding-associated morbidity among late preterm infants. *J Obstet Gynecol Neonatal Nurs* 2011;40:9–24.
- Escobar GJ, McCormick MC, Zupancic JA, *et al.* Unstudied infants: outcomes of moderately premature infants in the neonatal intensive care unit. *Arch Dis Child Fetal Neonatal Ed* 2006;91:F238–44.
- Quigley MA, Cumberland P, Cowden JM, *et al.* How protective is breast feeding against diarrhoeal disease in infants in 1990s England? A case-control study. *Arch Dis Child* 2006;91:245–50.
- Howie PW, Forsyth JS, Ogston SA, *et al.* Protective effect of breast feeding against infection. *BMJ* 1990;300:11–16.
- Kramer MS, Guo T, Platt RW, *et al.* Infant growth and health outcomes associated with 3 compared with 6 mo of exclusive breastfeeding. *Am J Clin Nutr* 2003;78:291–5.
- Kramer MS. "Breast is best": the evidence. *Early Hum Dev* 2010;86:729–32.
- World Health Organisation. Effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analysis. WHO collaborative study team on the role of breastfeeding on the prevention of infant mortality. *Lancet* 2000;355:451–5.
- Duijts L, Jaddoe VW, Hofman A, *et al.* Prolonged and exclusive breastfeeding reduces the risk of infectious diseases in infancy. *Pediatrics* 2010;126:e18–25.
- Lopez-Alarcon M, Villalpando S, Fajardo A. Breast-feeding lowers the frequency and duration of acute respiratory infection and diarrhea in infants under six months of age. *J Nutr* 1997;127:436–43.
- Cushing AH, Samet JM, Lambert WE, *et al.* Breastfeeding reduces risk of respiratory illness in infants. *Am J Epidemiol* 1998;147:863–70.
- Quigley MA, Hockley C, Carson C, *et al.* Breastfeeding is associated with improved child cognitive development: a population-based cohort study. *J Pediatr* 2012;160:25–32.
- Donath SM, Amir LH. Effect of gestation on initiation and duration of breastfeeding. *Arch Dis Child Fetal Neonatal Ed* 2008;93:F448–50.
- Ayton J, Hansen E, Quinn S, *et al.* Factors associated with initiation and exclusive breastfeeding at hospital discharge: late preterm compared to 37 week gestation mother and infant cohort. *Int Breastfeed J* 2012;7:16.
- Department of Health. Infant feeding recommendation. London. 2003. [14th September 2014]. http://Webarchive.Nationalarchives.Gov.Uk/+www.Dh.Gov.Uk/En/Publicationsandstatistics/Publications/Publicationspolicyandguidance/Dh_4097197.
- Health and Social Care Information Centre Ir. Infant Feeding Survey 2010. Health and Social Care Information Centre, 2012. 20 November 2012; Report No.: 1.
- Agboado G, Michel E, Jackson E, *et al.* Factors associated with breastfeeding cessation in nursing mothers in a peer support programme in Eastern Lancashire. *BMC Pediatr* 2010;10:3.
- Santorelli G, Petherick E, Waiblinger D, *et al.* Ethnic differences in the initiation and duration of breast feeding—results from the born in bradford birth cohort study. *Paediatr Perinat Epidemiol* 2013;27:388–92.
- Al-Sahab B, Lanes A, Feldman M, *et al.* Prevalence and predictors of 6-month exclusive breastfeeding among Canadian women: a national survey. *BMC Pediatr* 2010;10:20.
- Tarrant RC, Younger KM, Sheridan-Pereira M, *et al.* The prevalence and determinants of breast-feeding initiation and duration in a sample of women in Ireland. *Public Health Nutr* 2010;13:760–70.
- Van Rossem L, Oenema A, Steegers EA, *et al.* Are starting and continuing breastfeeding related to educational background? The generation R study. *Pediatrics* 2009;123:e1017–27.
- Demirci JR, Sereika SM, Bogen D. Prevalence and predictors of early breastfeeding among late preterm mother-infant dyads. *Breastfeed Med* 2013;8:277–85.
- World Health Organisation / UNICEF. Protecting, promoting and supporting breastfeeding: the special role of maternity services. Geneva: World Health Organisation, 1989.
- Renfrew MJ, McCormick FM, Wade A, *et al.* Support for healthy breastfeeding mothers with healthy term babies. *Cochrane Database Syst Rev* 2012;5:CD001141.
- Renfrew MJ, Dyson L, McCormick F, *et al.* Breastfeeding promotion for infants in neonatal units: a systematic review. *Child Care Health Dev* 2010;36:165–78.
- Health and Social Care Information Centre Ir. Infant Feeding Survey 2010: Appendix E. Survey Documents. Health and Social Care Information Centre, 2012. 20 November 2012; Report No.
- World Health Organisation. Indicators for assessing infant and young child feeding practices: part 1—definitions. Geneva: World Health Organisation, 2008.
- Office for National Statistics. The national statistics socioeconomic classification: origins, development and use. The Office for National Statistics, 2005.
- Department for Communities and Local Government. English Indices of Deprivation 2010. Neighbourhoods Statistical Release. 2011.
- Donnan PT, Dalzell J, Symon A, *et al.* Prediction of initiation and cessation of breastfeeding from late pregnancy to 16 weeks: the Feeding Your Baby (FYB) cohort study. *BMJ Open* 2013;3:pil: e003274.
- Henderson J, Redshaw M. Midwifery factors associated with successful breastfeeding. *Child Care Health Dev* 2011;37:744–53.
- Oakley LL, Henderson J, Redshaw M, *et al.* The role of support and other factors in early breastfeeding cessation: an analysis of data from a maternity survey in England. *BMC Pregnancy Childbirth* 2014;14:88.
- Dewey KG. Maternal and fetal stress are associated with impaired lactogenesis in humans. *J Nutr* 2001;131:3012S–15S.
- Meier PP, Furman LM, Degenhardt M. Increased lactation risk for late preterm infants and mothers: evidence and management strategies to protect breastfeeding. *J Midwifery Womens Health* 2007;52:579–87.
- Hellmeyer L, Herz K, Liedtke B, *et al.* The underestimation of immaturity in late preterm infants. *Arch Gynecol Obstet* 2012;286:619–26.
- Hoddinott P, Britten J, Prescott GJ, *et al.* Effectiveness of policy to provide breastfeeding groups (BIG) for pregnant and breastfeeding mothers in primary care: cluster randomised controlled trial. *BMJ* 2009;338:a3026.
- Oakley LL, Renfrew MJ, Kurinczuk JJ, *et al.* Factors associated with breastfeeding in England: an analysis by primary care trust. *BMJ Open* 2013;3:pil: e002765.

Web Appendix: Figure 1





IFF Research



England / Wales / Scotland

Ref:

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Survey of Infant Feeding 2010

September / October / November 2010

What is the questionnaire about?

This questionnaire asks about you and your new baby. If you have twins or triplets, please answer the questionnaire in relation to the baby who was born first.

If your baby is no longer with you, please cross the box below and return the questionnaire to us so we do not trouble you further.

My baby is no longer with me ☐

Our guarantee of confidentiality

All information collected will be treated in the strictest confidence. Results will be reported in the form of statistics and your responses will not be linked back to you.

How to fill in the questionnaire

1. Please fill in the questionnaire in **black biro**.
2. Most questions on the following pages can be answered simply by putting a cross in the box next to the answer that applies to you.

Example:

Yes ☒

No ☐

Sometimes you are asked to write in a number or the answer in your own words. Please enter numbers as figures rather than words.

3. Occasionally you may have more than one answer to a question. Please cross all the boxes next to the answers that apply to you if the instruction '**Please cross one or more boxes**' is printed on top of the boxes.

4. Sometimes you are asked to give an age or a length of time in weeks and days, or days and hours. Please follow the instructions very carefully.

Example:

How old is your baby?

If your baby is 6 weeks and 2 days old enter the number of whole weeks plus any additional days

Please enter numbers in both boxes:

<div>6</div>	and	<div>2</div>
weeks		days

5. Usually after answering each question you go on to the next one unless a box you have crossed has an arrow next to it with an instruction to go to another question.

Example:

Yes	<input checked="" type="checkbox"/>	⇒	Go to Q8
No	<input type="checkbox"/>		

By following the instructions carefully you will miss out questions which do not apply, so the questionnaire will be shorter than it looks.

6. If you cannot remember, do not know, or are unable to answer a particular question please write that in.

7. If you would like to give any further information on any of your answers you can write this in at the end of the survey.

8. When you have finished, please post the questionnaire to us as soon as possible in the reply-paid envelope provided, even if you were not able to answer all of it.

We are very grateful for your help.

Section 1: About your baby

First of all we would like to ask some general questions before finding out how you feed your baby at present.

Q1. What is your baby's first name?

Please write in below – one letter per box

--	--	--	--	--	--	--	--	--	--	--	--

Q2. How old is your baby?

Please write numbers in both boxes

Write in how many whole weeks plus any additional days:

<input type="text"/>	and	<input type="text"/>
weeks		days

Q3. Is this your first baby?

Yes	<input type="checkbox"/>	⇒	Go to Q5
No	<input type="checkbox"/>	⇒	Go to Q4

Q4. How many children do you have in total?

Please exclude stepchildren or foster children.

Write in number:

Q5. Is your baby one of twins, triplets or other multiple birth?

No	<input type="checkbox"/>
Yes, twin	<input type="checkbox"/>
Yes, triplets or other multiple birth	<input type="checkbox"/>

If you have twins or triplets:

- Please complete this questionnaire with respect to the baby who was born first.
- We are also interested in your other baby or babies and will ask you a few questions about them at a later date.

Section 2: About the milk that you give your baby

Please note that when we ask about 'breastfeeding' we also mean 'giving your baby expressed breast milk'.

Q6. Thinking about the milk that your baby has received over the last 7 days, has he/she had...

Please cross one box only

Only breast milk	<input type="checkbox"/>	⇒	Go to Q7
Only infant formula	<input type="checkbox"/>	⇒	Go to Q8
Breast milk and infant formula	<input type="checkbox"/>	⇒	Go to Q13

Q7. Has your baby EVER been given infant formula, even if this was only once?

Yes (even if only once)	<input type="checkbox"/>	⇒	Go to Q13
No	<input type="checkbox"/>	⇒	Go to Q15

Q8. Has your baby EVER been given breast milk (via syringe, bottle or cup etc) or have you put your baby to the breast, even if this was only once?

Yes (even if only once)	<input type="checkbox"/>	⇒	Go to Q9
No	<input type="checkbox"/>	⇒	Go to Q15

Q9. How old was your baby when he/she was LAST given breast milk or you put them to your breast?

Please write the age in the appropriate box

Either in days:

OR

In whole weeks plus any additional days:

<input type="text"/>	and	<input type="text"/>
weeks		days

Q10. What were your reasons for stopping breastfeeding?

Please write in the reasons

Q11. Which of the following best describes how long you breastfed for?

Please cross one box only

- | | | | |
|---------------------------------------------|--------------------------|---|------------------|
| I would have liked to breastfeed for longer | <input type="checkbox"/> | ⇒ | Go to Q12 |
| I breastfed for as long as I intended | <input type="checkbox"/> | } | Go to Q13 |
| I breastfed for longer than I intended | <input type="checkbox"/> | | |

Q12. What would have helped you breastfeed for longer?

Please write in the reasons

If you have only ever breastfed your baby, please go to Q15

Q13. How old was your baby when he/she FIRST received infant formula?

Please write the age in the appropriate box

Either in days:

OR

In whole weeks plus any additional days:

<input type="text"/>	and	<input type="text"/>
weeks		days

Q14. Since your baby was born, how often has he/she been fed infant formula?

If your pattern of using infant formula has varied please select the answer you feel comes closest to describing your situation.

Please cross one box only

- | | |
|------------------------------------------------------|--------------------------|
| All or almost all feeds | <input type="checkbox"/> |
| About half of all feeds | <input type="checkbox"/> |
| One or two feeds a day | <input type="checkbox"/> |
| A few feeds a week, but not every day | <input type="checkbox"/> |
| A few feeds since they were born, but not every week | <input type="checkbox"/> |
| Only once or twice since they were born | <input type="checkbox"/> |

Q15. Have you ever seen an advertisement on television, radio or in a magazine or newspaper for baby milks?

- | | | | |
|-----|--------------------------|---|-------------------------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q16 |
| No | <input type="checkbox"/> | ⇒ | Go to instruction before Q17 |

Q16. What did you see advertised?

Please cross one or more boxes

- | | |
|---------------------------------------------------|--------------------------|
| First Stage milks | <input type="checkbox"/> |
| Follow on milks (sometimes known as stage 2/3) | <input type="checkbox"/> |
| Other (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

- | | |
|------------|--------------------------|
| Don't know | <input type="checkbox"/> |
|------------|--------------------------|

If you currently use infant formula AT ALL, please answer the following questions.

If not, please go to Q23

The following questions are about how you make up infant formula feeds for your baby. Please try and think about how you usually make up the feeds. If this varies think about the way you do it most often.

Q17. When making infant formula feeds do you USUALLY...

Please cross one box only

- | | | | |
|---------------------------------------------|--------------------------|---|------------------|
| Only make one feed at a time as you need it | <input type="checkbox"/> | } | Go to Q18 |
| Make several feeds at a time and store them | <input type="checkbox"/> | | |
| Only ever use ready to feed formula | <input type="checkbox"/> | ⇒ | Go to Q23 |

Q18. When making infant formula feeds for your baby do you USUALLY...

Please cross one box only

- | | |
|---------------------------------------------------------------------------------|--------------------------|
| Use water that has just boiled | <input type="checkbox"/> |
| Use water that has boiled and been left to cool for 30 minutes | <input type="checkbox"/> |
| Use water that has boiled and been left to cool between 30 and 45 minutes | <input type="checkbox"/> |
| Use water that has boiled and been left to cool for more than 45 minutes | <input type="checkbox"/> |

Q19. When making infant formula feeds do you USUALLY...

Please cross one box only

- | | |
|-----------------------------------------------------------|--------------------------|
| Put the powder in the bottle first and then add the water | <input type="checkbox"/> |
| OR | |
| Put the water in the bottle first and then add the powder | <input type="checkbox"/> |

Q20. If you need to feed your baby when you are out do you USUALLY...

Please cross one box only

- | | | |
|----------------------------------------------------|--------------------------|--------------------|
| Make up an infant formula feed before leaving home | <input type="checkbox"/> | ⇒ Go to Q21 |
| Make up an infant formula feed whilst you are out | <input type="checkbox"/> | ⇒ Go to Q22 |
| Take a ready to feed formula with you | <input type="checkbox"/> | } Go to Q23 |
| Take expressed breast milk with you | <input type="checkbox"/> | |
| Breastfeed | <input type="checkbox"/> | |
| Never feed your baby away from home | <input type="checkbox"/> | |

Q21. When you are out, do you USUALLY keep the feeds you have made chilled?

Yes ☐ }
No ☐ } **Go to Q23**

Q22. When you are out do you USUALLY...

Make feeds with cold or cooled water ☐

OR

Make feeds with hot water (e.g. ask for hot water or use hot water from a flask) ☐

Q23. Have you ever used a bottle to feed your baby?

Yes ☐ ⇒ **Go to Q24**

No ☐ ⇒ **Go to Q25**

Q24. What methods do/did you USUALLY use to sterilise the bottle?

Please cross one box only

Hot soapy water ☐

Boiling water ☐

Soaking in sterilising solution e.g. Milton ☐

Steam steriliser ☐

Dishwasher ☐

Microwave ☐

Other (***Please cross and write in***) ☐

.....

Section 3: About Healthy Start

The Healthy Start scheme provides pregnant women and children under 4 years old with vouchers which can be spent on milk, infant formula, fresh fruit or vegetables. Coupons are also available for free vitamins for pregnant women, mothers and babies.

You are eligible for the scheme if you or your family receive ONE of the following:

- Income support
- Income-based Job Seeker's Allowance
- Income-related Employment and Support Allowance
- Child Tax Credit, without working Tax Credit (except Working Tax run-on)
and an annual family income of £16,190 or less

Q25. Based on the list above, are you eligible for the Healthy Start scheme?

Yes	<input type="checkbox"/>	⇒	Go to Q26
No	<input type="checkbox"/>	}	Go to Q32
Don't know	<input type="checkbox"/>		

Q26. Are you on the Healthy Start scheme?

Yes	<input type="checkbox"/>	⇒	Go to Q28
No	<input type="checkbox"/>	⇒	Go to Q27

Q27. Were you aware of the Healthy Start scheme before reading the description at the beginning of this section?

Yes	<input type="checkbox"/>	⇒	Go to Q28
No	<input type="checkbox"/>	⇒	Go to Q32

Q28. How did you find out about the Healthy Start scheme?

Please cross one or more boxes

- | | |
|-------------------------------------------------------------------------------------------------------|--------------------------|
| Local benefit office / Jobcentre Plus | <input type="checkbox"/> |
| SureStart or Children's Centre / Children's Health Clinic | <input type="checkbox"/> |
| Partner, friend or relative | <input type="checkbox"/> |
| Voluntary or charitable organisation | <input type="checkbox"/> |
| Peer supporter (a mum who has breastfed themselves
and been trained to give support to other mums) | <input type="checkbox"/> |
| Breastfeeding support group | <input type="checkbox"/> |
| Start4Life | <input type="checkbox"/> |
| Books / leaflets / magazines | <input type="checkbox"/> |
| Television / radio | <input type="checkbox"/> |
| The internet / web based resources | <input type="checkbox"/> |
| Doctor / GP | <input type="checkbox"/> |
| Health visitor | <input type="checkbox"/> |
| Midwife (including at antenatal sessions) | <input type="checkbox"/> |
| Nurse | <input type="checkbox"/> |
| Somewhere else (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Q29. Since the birth, have you used any 'Healthy Start vouchers' to buy milk, infant formula or fresh fruit and/or vegetables?

- | | | | |
|-----|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q30 |
| No | <input type="checkbox"/> | ⇒ | Go to Q31 |

Q30. What did you spend your Healthy Start vouchers on?

Please cross one or more boxes

- | | | |
|------------------------------------------------------------------|--------------------------|--------------------|
| Infant formula | <input type="checkbox"/> | } Go to Q32 |
| Cow's milk | <input type="checkbox"/> | |
| Fresh fruit | <input type="checkbox"/> | |
| Fresh vegetables | <input type="checkbox"/> | |
| Something else (<i>Please cross and write in below</i>) | <input type="checkbox"/> | |

.....

Q31. Why haven't you spent your Healthy Start vouchers?

Please write in the reasons

Section 4: About other drinks and food that you may give to your baby

Q32. Over the last 7 DAYS has your baby had anything else to drink apart from milk, such as water, fruit juice, squash, or herbal drink?

Yes ☐ ⇒ **Go to Q34**
No ☐ ⇒ **Go to Q33**

Q33. Has your baby EVER had anything else to drink apart from milk, such as water, fruit juice, squash or herbal drink?

Yes (even if only occasionally) ☐ ⇒ **Go to Q34**
No ☐ ⇒ **Go to Q36**

Q34. How old was your baby when he or she was FIRST given something apart from milk to drink, such as water, fruit juice or herbal drink?

Please write the age in the appropriate box

Either in days

OR

In whole weeks plus any additional days

weeks and days

Q35. Apart from milk, do you give your baby drinks mainly...?

Please cross one or more boxes

- | | |
|---------------------------------------------------------------|--------------------------|
| Because he/she is thirsty | <input type="checkbox"/> |
| To give him/her extra vitamins | <input type="checkbox"/> |
| To help his/her colic/wind | <input type="checkbox"/> |
| To help his/her constipation | <input type="checkbox"/> |
| To settle him/her | <input type="checkbox"/> |
| Some other reason (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Q36. Has your baby ever had any foods such as cereal, rusks, baby rice, fruit, vegetables or any other kind of solid food?

- | | | | |
|-----|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q37 |
| No | <input type="checkbox"/> | ⇒ | Go to Q40 |

Q37. How old was your baby when he/she first had any food apart from milk?

Please write a number in the box

Please write in the age to the nearest whole week

<input type="text"/>	<input type="text"/>	weeks old
----------------------	----------------------	-----------

Q38. At present, are you regularly giving your baby cereal, rusks, baby rice or any other solid food?

- | | |
|-----|--------------------------|
| Yes | <input type="checkbox"/> |
| No | <input type="checkbox"/> |

N.B. There is no Q39.

Section 5: About vitamins for your baby and yourself

Q40. Do you give your baby any vitamin drops?

Yes ☐ ⇒ **Go to Q41**
No ☐ ⇒ **Go to Q42**

Q41. How do you usually get the vitamin drops for your baby?

Please cross one box only

Get free Healthy Start vitamins ☐
Buy Healthy Start vitamins ☐
Buy other vitamins from a supermarket, pharmacy or health food shop ☐
Get vitamins on prescription ☐
Other (***Please cross and write in***) ☐

.....

Q42. Are you taking any vitamin or iron supplements yourself?

Yes ☐ ⇒ **Go to Q43**
No ☐ ⇒ **Go to Q44**

Q43. What type of supplements are you taking?

Please cross one or more boxes

Iron only ☐
Multi -vitamins only ☐
Multi-vitamins and iron combined ☐
Vitamin D supplement ☐
Single vitamin supplement- other ☐
Healthy Start vitamins ☐
Something else (***Please cross and write in***) ☐

.....

Section 6: About when you were pregnant

Q44. Did you take folic acid before or during your pregnancy?

Please cross one or more boxes

- | | |
|---------------------------------------------|--------------------------|
| Yes, before I was pregnant | <input type="checkbox"/> |
| Yes, during first three months of pregnancy | <input type="checkbox"/> |
| Yes, later on in pregnancy | <input type="checkbox"/> |
| No, did not take folic acid | <input type="checkbox"/> |

Q45. Do you know why increasing your intake of folic acid is recommended, either when planning or during pregnancy?

- | | | | |
|-----|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q46 |
| No | <input type="checkbox"/> | ⇒ | Go to Q47 |

Q46. Why do you think pregnant women are recommended to increase their intake of folic acid?

Please write in the reasons

Q47. When you were pregnant, did you take any vitamin or iron supplements either in tablet, drop or liquid form (apart from folic acid)?

- | | | | |
|-----|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q48 |
| No | <input type="checkbox"/> | ⇒ | Go to Q49 |

Q48. What type of supplements did you take?

Please cross one or more boxes

- | | |
|------------------------------------------------------------|--------------------------|
| Iron only | <input type="checkbox"/> |
| Multi-vitamins only | <input type="checkbox"/> |
| Multi-vitamins and iron combined | <input type="checkbox"/> |
| Vitamin D supplement | <input type="checkbox"/> |
| Single vitamin supplement- other | <input type="checkbox"/> |
| Healthy Start Vitamins | <input type="checkbox"/> |
| Something else (<i>Please cross and write in</i>) | <input type="checkbox"/> |
-

Q49. Thinking back to before you had your baby, how did you plan to feed him/her?

Please cross one box only

- | | | | |
|-----------------------------------|--------------------------|---|------------------|
| Infant formula | <input type="checkbox"/> | } | Go to Q50 |
| Breastfeed | <input type="checkbox"/> | | |
| Breastfeed and use infant formula | <input type="checkbox"/> | | |
| Had not decided | <input type="checkbox"/> | ⇒ | Go to Q51 |

Q50. Why did you think you would feed your baby by that method?

Please give all your reasons and explain

Q51. While you were pregnant did you have any antenatal check ups?

- | | | | |
|-----|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q52 |
| No | <input type="checkbox"/> | ⇒ | Go to Q54 |

Q52. At the checkups did anyone discuss feeding your baby with you?

Yes ☐ ⇒ **Go to Q53**
No ☐ ⇒ **Go to Q54**

Q53. At the checkups, who discussed feeding your baby with you?

Please cross one or more boxes

Doctor ☐
Health visitor ☐
Midwife ☐
Nurse ☐
Peer supporter (a mum who has breastfed themselves
and been trained to give support to other mums) / Volunteer ☐
Someone else (***Please cross and write in***) ☐

.....

Q54. While you were pregnant with this baby, did you go to any sessions to prepare you for having the baby?

Yes ☐ ⇒ **Go to Q55**
No ☐ ⇒ **Go to Q57**

Q55. Where were the sessions held?

Please cross one or more boxes

In hospital / birth centre / midwifery led unit ☐
Clinic / doctor's surgery / health centre ☐
Children's Centre ☐
Voluntary or charitable organisation ☐
Somewhere else (***Please cross and write in***) ☐

.....

Q56. During this pregnancy did you attend any sessions that included talks or discussions about feeding babies?

Yes ☐ ⇒ **Go to Q57**
No ☐ ⇒ **Go to Q57**

Q57. During this pregnancy were you taught how to position your baby for breastfeeding and how to attach your baby to your breast?

Yes ☐
No ☐

Q58. During this pregnancy did you get any information about your diet during pregnancy?

Yes ☐
No ☐

Q59. During this pregnancy did you get any information about smoking during pregnancy?

Yes ☐ ⇒ **Go to Q60**
No ☐ ⇒ **Go to Q62**

Q60. What information did you get?

Please cross one or more boxes

Information on...

...the effects of smoking on your baby	<input type="checkbox"/>
...how to stop smoking	<input type="checkbox"/>
...how to cut down smoking	<input type="checkbox"/>
... how your partner could stop smoking	<input type="checkbox"/>
...the risks of continuing to smoke in pregnancy	<input type="checkbox"/>
...the dangers of sharing a bed with your baby and smoking	<input type="checkbox"/>

Some other advice or information **(Please cross and write in)** ☐

.....

Q61. Where did you get this information?

Please cross one or more boxes

- | | |
|-------------------------------------------------------------------------------------------------------|--------------------------|
| Specialist smoking advisor | <input type="checkbox"/> |
| NHS Pregnancy Smoking Helpline | <input type="checkbox"/> |
| SureStart or Children's Centre / Children's Health Clinic | <input type="checkbox"/> |
| Partner, friend or relative | <input type="checkbox"/> |
| Voluntary or charitable organisation | <input type="checkbox"/> |
| Peer supporter (a mum who has breastfed themselves
and been trained to give support to other mums) | <input type="checkbox"/> |
| Breastfeeding support group | <input type="checkbox"/> |
| Start4Life | <input type="checkbox"/> |
| Books / leaflets / magazines | <input type="checkbox"/> |
| Television / radio | <input type="checkbox"/> |
| The internet / web based resources | <input type="checkbox"/> |
| Doctor / GP | <input type="checkbox"/> |
| Health visitor | <input type="checkbox"/> |
| Midwife (including at antenatal sessions) | <input type="checkbox"/> |
| Nurse | <input type="checkbox"/> |
| Somewhere else (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Q62. When you were pregnant did you get any information about drinking alcohol during pregnancy?

- | | | | |
|-----|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q63 |
| No | <input type="checkbox"/> | ⇒ | Go to Q65 |

Q63. What information did you get?

Please cross one or more boxes

- | | |
|------------------------------------------------------------------------------|--------------------------|
| Information on... | |
| ...the effects of drinking alcohol on your baby | <input type="checkbox"/> |
| ...stopping drinking alcohol in pregnancy | <input type="checkbox"/> |
| ...limiting the amount of alcohol you drank | <input type="checkbox"/> |
| ...continuing to drink alcohol with no information about limit | <input type="checkbox"/> |
| ...the dangers of sharing a bed with your baby and drinking alcohol | <input type="checkbox"/> |
| Some other advice or information (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Q64. Where did you get this information?

Please cross one or more boxes

- | | |
|-------------------------------------------------------------------------------------------------------|--------------------------|
| SureStart or Children's Centre / Children's Health Clinic | <input type="checkbox"/> |
| Partner, friend or relative | <input type="checkbox"/> |
| Voluntary or charitable organisation | <input type="checkbox"/> |
| Peer supporter (a mum who has breastfed themselves
and been trained to give support to other mums) | <input type="checkbox"/> |
| Breastfeeding support group | <input type="checkbox"/> |
| Start4Life | <input type="checkbox"/> |
| Books / leaflets / magazines | <input type="checkbox"/> |
| Television / radio | <input type="checkbox"/> |
| The internet / web based resources | <input type="checkbox"/> |
| Doctor / GP | <input type="checkbox"/> |
| Health visitor | <input type="checkbox"/> |
| Midwife (including at antenatal sessions) | <input type="checkbox"/> |
| Nurse | <input type="checkbox"/> |
| Somewhere else (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Q65. While you were pregnant with this baby, did you get any information about the HEALTH benefits of breastfeeding?

- | | | | |
|-----|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q66 |
| No | <input type="checkbox"/> | ⇒ | Go to Q67 |

Q66. Where did you get this information?

Please cross one or more boxes

- | | |
|-------------------------------------------------------------------------------------------------------|--------------------------|
| SureStart or Children's Centre / Children's Health Clinic | <input type="checkbox"/> |
| Partner, friend or relative | <input type="checkbox"/> |
| Voluntary or charitable organisation | <input type="checkbox"/> |
| Peer supporter (a mum who has breastfed themselves
and been trained to give support to other mums) | <input type="checkbox"/> |
| Breastfeeding support group | <input type="checkbox"/> |
| Start4Life | <input type="checkbox"/> |
| Books / leaflets / magazines | <input type="checkbox"/> |
| Television / radio | <input type="checkbox"/> |
| The internet / web based resources | <input type="checkbox"/> |
| Doctor / GP | <input type="checkbox"/> |
| Health visitor | <input type="checkbox"/> |
| Midwife (including at antenatal sessions) | <input type="checkbox"/> |
| Nurse | <input type="checkbox"/> |
| Somewhere else (<i>Please cross and write in</i>) | <input type="checkbox"/> |
-

Q67. Did you know any mothers with young babies before you had your baby?

- | | | | |
|-----|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q68 |
| No | <input type="checkbox"/> | ⇒ | Go to Q69 |

Q68. Would you say that most of these mothers with young babies breastfed or gave infant formula?

Please cross one box only

- | | |
|------------------------------------------------|--------------------------|
| Most of them gave infant formula only | <input type="checkbox"/> |
| Most of them breastfed only | <input type="checkbox"/> |
| Most of them breastfed and gave infant formula | <input type="checkbox"/> |
| There was a real mixture of the above methods | <input type="checkbox"/> |
| Don't know | <input type="checkbox"/> |

Q69. Do you know whether you were breastfed or fed with infant formula when you were a baby?

Please cross one box only

- | | |
|--------------------------------------------|--------------------------|
| Breastfed entirely | <input type="checkbox"/> |
| Fed entirely with infant formula | <input type="checkbox"/> |
| Both breastfed and fed with infant formula | <input type="checkbox"/> |
| Don't know | <input type="checkbox"/> |

Section 7: About the birth of your baby

Q70. How many weeks pregnant were you when your baby was born?

weeks

Q71. Where was your baby born?

- | | | |
|--------------------------------------------------------------|--------------------------|--------------------|
| In hospital – in a midwife-led unit | <input type="checkbox"/> | } Go to Q72 |
| In hospital – in a consultant-led unit | <input type="checkbox"/> | |
| In a midwife-led unit or birth centre separate from hospital | <input type="checkbox"/> | |
| At home | <input type="checkbox"/> | } Go to Q74 |
| Somewhere else (<i>Please cross and write in</i>) | <input type="checkbox"/> | |

.....

Q72. Which hospital, birth centre or unit was your baby born in?

Name of the hospital and/or unit

Town where this is located

Q73. How long after the baby was born did you stay in the hospital, birth centre or unit?

Please enter number in one box only

Either:

How many **hours** did you spend in the hospital, birth centre or unit?

hours

OR

How many **days** did you spend in the hospital, birth centre or unit?

days

Q74. Thinking about the birth of your baby, what kind of delivery did you have?

- | | |
|---------------------------------------------------------|--------------------------|
| Normal (vaginal) birth | <input type="checkbox"/> |
| A caesarean (through a cut in the abdomen) | <input type="checkbox"/> |
| Delivery using forceps | <input type="checkbox"/> |
| Delivery using vacuum cap on the baby's head (ventouse) | <input type="checkbox"/> |

Q75. During your labour, did you use any of the following to relieve the pain?

Please cross one or more boxes

- | | |
|------------------------------------------------------------|--------------------------|
| Natural methods (e.g. breathing, massage) | <input type="checkbox"/> |
| Water or a birthing pool | <input type="checkbox"/> |
| TENS machine (with pads on your back) | <input type="checkbox"/> |
| Gas and air (breathing through a mask) | <input type="checkbox"/> |
| Injection of pethidine or a similar painkiller | <input type="checkbox"/> |
| Epidural (injection in your back) | <input type="checkbox"/> |
| Something else (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Q76. How much did your baby weigh when he/she was born?

Either in pounds and ounces:

<input type="text"/>	<input type="text"/>	lb	<input type="text"/>	<input type="text"/>	oz
----------------------	----------------------	----	----------------------	----------------------	----

Or in kilograms:

<input type="text"/>	.	<input type="text"/>	<input type="text"/>	kg
----------------------	---	----------------------	----------------------	----

Q77. Did you have skin-to-skin contact with your baby within the first 24 hours after he/she was born? (By skin-to-skin contact we mean you were holding the baby so that his/her bare skin was next to your bare skin.)

- | | | | |
|-----|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q78 |
| No | <input type="checkbox"/> | ⇒ | Go to Q80 |

Q78. Were you able to have this skin-to-skin contact with your baby for as long as you wanted?

Yes ☐
No ☐

Q79. About how long after your baby was born did you first have skin-to-skin contact?

Please cross one box only

Immediately / within a few minutes ☐
Within an hour ☐
More than 1 hour, up to 12 hours ☐
More than 12 hours later ☐

Q80. After the birth did you have any health problems that affected your ability to feed your baby the way you wanted to?

Yes ☐
No ☐

Q81. Was your baby put into special care at all, or put under a lamp for jaundice?

Please cross one or more boxes

Yes, put into special care	<input type="checkbox"/>	}	Go to Q82
Yes, put under a lamp	<input type="checkbox"/>		
No, neither	<input type="checkbox"/>	⇒	Go to Q84

Q82. For how long was your baby in special care or put under a lamp?

One day or less ☐
Two or three days ☐
Four days to one week ☐
More than one week up to one month ☐
More than one month ☐

Q83. Did having your baby in special care or under a lamp affect your ability to feed your baby the way you wanted to?

Yes ☐
No ☐

Q84. During the first few days, did anyone help you put your baby to the breast?

Yes ☐ ⇒ **Go to Q85**
No ☐ ⇒ **Go to Q87**

Q85. Who was this?

Please cross one or more boxes

Midwife	<input type="checkbox"/>
Midwifery Support Worker	<input type="checkbox"/>
Nurse	<input type="checkbox"/>
Nursery Nurse	<input type="checkbox"/>
Healthcare assistant	<input type="checkbox"/>
Health visitor	<input type="checkbox"/>
Doctor / GP	<input type="checkbox"/>
Voluntary or charitable organisation	<input type="checkbox"/>
Peer supporter (a mum who has breastfed themselves and been trained to give support to other mums)	<input type="checkbox"/>
Breastfeeding support group	<input type="checkbox"/>
Partner, friend or relative	<input type="checkbox"/>
Someone else (<i>Please cross and write in</i>)	<input type="checkbox"/>

.....

Q86. Did he/she stay with you while you were first breastfeeding?

Please cross one box only

Left before baby had started feeding	<input type="checkbox"/>
Left once baby had started feeding	<input type="checkbox"/>
Left once baby was feeding but came back to check on you	<input type="checkbox"/>
Stayed the whole time until the baby finished feeding	<input type="checkbox"/>

Q87 Did anyone explain to you how to recognise that your baby is getting enough milk?

Yes ☐ **Go to Q88**
No ☐ **Go to Q90**

Q88. Did you feel confident that you could recognise if your baby was getting enough breastmilk?

Yes ☐
No ☐

Q89. How useful did you find this information at the time?

- | | |
|-------------------|--------------------------|
| Extremely useful | <input type="checkbox"/> |
| Very useful | <input type="checkbox"/> |
| Not very useful | <input type="checkbox"/> |
| Not useful at all | <input type="checkbox"/> |

Q90. Would you have liked any help or information on how to put your baby to the breast?

- | | |
|-----|--------------------------|
| Yes | <input type="checkbox"/> |
| No | <input type="checkbox"/> |

Section 8: About the times that you feed your baby

If you ever breastfed your baby please answer Q91

If your baby was completely fed on infant formula from birth go on to Section 9

Q91. How soon after your baby was born did you first put him/her to the breast?

Please cross one box only

- | | |
|------------------------------------------|--------------------------|
| Immediately / within a few minutes | <input type="checkbox"/> |
| Within half an hour | <input type="checkbox"/> |
| More than ½ hour, up to 1 hour later | <input type="checkbox"/> |
| More than 1 hour, up to 4 hours later | <input type="checkbox"/> |
| More than 4 hours, up to 8 hours later | <input type="checkbox"/> |
| More than 8 hours, up to 12 hours later | <input type="checkbox"/> |
| More than 12 hours, up to 24 hours later | <input type="checkbox"/> |
| More than 24 hours later | <input type="checkbox"/> |

If your baby was born in a hospital, birth centre or unit please answer Q92

If your baby was born at home please go on to Q101

Q92. While you were in the hospital, birth centre or unit, as well as being breastfed, did your baby have infant formula, water or glucose water?

- | | | | |
|------------|--------------------------|---|------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q93 |
| No | <input type="checkbox"/> | } | Go to Q94 |
| Don't know | <input type="checkbox"/> | | |

Q93. Were you advised to give something else to your baby other than breast milk or did you want your baby to have something else?

Advised to give something else ☐

I wanted my baby to have something else ☐

No, neither ☐

Section 9: About when you were in the hospital, birth centre or unit

If your baby was born at home please go to Q101

Q94. Did your baby stay beside you all the time you were in the hospital, birth centre or unit?

Yes ☐

No ☐

Q95. Were there any problems feeding your baby while you were in the hospital, birth centre or unit?

Yes ☐ ⇒ **Go to Q96**

No ☐  **Go to Q99**

Q96. What problems were there?

Please write in

[illegible]

Q97. Did anyone give you any help or support with this/these problems?

Yes ☐ ⇒ **Go to Q98**
No ☐ ⇒ **Go to Q99**

Q98. Who helped or supported you?

Please cross one or more boxes

Midwife	<input type="checkbox"/>
Midwifery Support Worker	<input type="checkbox"/>
Nurse	<input type="checkbox"/>
Nursery Nurse	<input type="checkbox"/>
Healthcare assistant	<input type="checkbox"/>
Health visitor	<input type="checkbox"/>
Doctor / GP	<input type="checkbox"/>
Voluntary or charitable organisation	<input type="checkbox"/>
Peer supporter (a mum who has breastfed themselves and been trained to give support to other mums)	<input type="checkbox"/>
Breastfeeding support group	<input type="checkbox"/>
Partner, friend or relative	<input type="checkbox"/>
Someone else (<i>Please cross and write in</i>)	<input type="checkbox"/>

.....

Q99. While you were in the hospital, birth centre or unit did you get enough help and support with feeding your baby?

Yes – received enough help ☐
No – would have liked more help ☐

Q100. When you left the hospital, birth centre or unit, were you...

Please cross one box only

Only giving breast milk	<input type="checkbox"/>
Only giving infant formula	<input type="checkbox"/>
Giving both breast milk and infant formula?	<input type="checkbox"/>

Section 10: About help for you at home

Q101. How old was your baby when you had the last visit or contact with the midwife or maternity support worker?

Please write in age in days - if you cannot remember exactly, please put in the approximate age.

<input type="text"/>	<input type="text"/>	days old
----------------------	----------------------	----------

Q102. Since leaving the hospital, birth centre or unit has anyone given you the contact details of a voluntary organisation or community group which helps new mothers with infant feeding?

(If your baby was born at home, please base your answer from when your baby was born.)

Please cross one or more boxes

Yes, in conversation	<input type="checkbox"/>	}	Go to Q103
Yes, in writing / in print	<input type="checkbox"/>		
No	<input type="checkbox"/>	⇒	Go to Q104

Q103. Have you used these contact details to seek any help or information?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

Q104. Are you aware of the National Breastfeeding Help line?

Yes and I have used it	<input type="checkbox"/>
Yes but I have not used it	<input type="checkbox"/>
No I was not aware of it	<input type="checkbox"/>

Q105. Since your baby was born has a health visitor been to see you?

Yes	<input type="checkbox"/>	⇒	Go to Q106
No	<input type="checkbox"/>	⇒	Go to Q107

Q106. How old was your baby when the health visitor first came?

Please write in the total number of days- if you cannot remember exactly, please put in the approximate age.

<input type="text"/>	<input type="text"/>	days old
----------------------	----------------------	----------

Q107. Since you left the hospital, birth centre or unit have you had any problems with feeding your baby?

(If your baby was born at home, please answer about any feeding problems since the birth.)

Yes	<input type="checkbox"/>	⇒	Go to Q108
No	<input type="checkbox"/>	⇒	Go to Q111

Q108. What problems were there?

Please write in

Q109. Did you get any help or information about this/these problems?

Yes	<input type="checkbox"/>	⇒	Go to Q110
No	<input type="checkbox"/>	⇒	Go to Q111

Q110. Where did you get this help or information?

Please cross one or more boxes

- | | |
|-------------------------------------------------------------------------------------------------------|--------------------------|
| SureStart or Children's Centre / Children's Health Clinic | <input type="checkbox"/> |
| Voluntary or charitable organisation | <input type="checkbox"/> |
| Peer supporter (a mum who has breastfed themselves
and been trained to give support to other mums) | <input type="checkbox"/> |
| Breastfeeding support group | <input type="checkbox"/> |
| Partner, friend or relative | <input type="checkbox"/> |
| Start4Life | <input type="checkbox"/> |
| Books / leaflets / magazines | <input type="checkbox"/> |
| Television / radio | <input type="checkbox"/> |
| The internet / web based resources | <input type="checkbox"/> |
| Breastfeeding clinic | <input type="checkbox"/> |
| National Breastfeeding Helpline | <input type="checkbox"/> |
| Doctor / GP | <input type="checkbox"/> |
| Health visitor | <input type="checkbox"/> |
| Midwife | <input type="checkbox"/> |
| Nurse | <input type="checkbox"/> |
| Somewhere else (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Q111. During your pregnancy or after the birth of your baby were you given a copy of any of the following?

Please cross one or more boxes

- | | |
|---------------------------------------------------------------------------------------|--------------------------|
| The Pregnancy Book | <input type="checkbox"/> |
| The Birth to Five book | <input type="checkbox"/> |
| Off to the best start (Start4Life) leaflet (<i>England only</i>) | <input type="checkbox"/> |
| Breastfeeding - off to a good start leaflet (<i>Scotland and Northern Ireland</i>) | <input type="checkbox"/> |
| Breastfeeding – the best start for your new baby leaflet (<i>Wales only</i>) | <input type="checkbox"/> |
| Bottle feeding leaflet (<i>England only</i>) | <input type="checkbox"/> |
| Ready Steady Baby leaflet (<i>Scotland only</i>) | <input type="checkbox"/> |
| Breastfeeding and work leaflet (<i>England only</i>) | <input type="checkbox"/> |
| Breastfeeding and returning to work leaflet (<i>Scotland, Wales and N. Ireland</i>) | <input type="checkbox"/> |
| “From Bump to Breastfeeding” DVD | <input type="checkbox"/> |
| Received items but don't remember names | <input type="checkbox"/> |
| Did not receive any of these | <input type="checkbox"/> |

Q112. In which position do you usually place your baby to sleep?

Please cross one box only

- | | |
|------------------|--------------------------|
| On his/her back | <input type="checkbox"/> |
| On his/her front | <input type="checkbox"/> |
| On his/her side | <input type="checkbox"/> |
| Varies | <input type="checkbox"/> |

Q113. How often, if at all, do you let your baby sleep in your bed with you?

Please cross one box only

- | | |
|--------------|--------------------------|
| All the time | <input type="checkbox"/> |
| Regularly | <input type="checkbox"/> |
| Sometimes | <input type="checkbox"/> |
| Rarely | <input type="checkbox"/> |
| Never | <input type="checkbox"/> |

Q114. Have you ever slept on a sofa with your baby?

- | | |
|-----|--------------------------|
| Yes | <input type="checkbox"/> |
| No | <input type="checkbox"/> |

Section 11: About smoking and drinking

Q115. Have you ever smoked cigarettes?

- | | | | |
|-----|--------------------------|---|-------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q116 |
| No | <input type="checkbox"/> | ⇒ | Go to Q121 |

Q116. Have you smoked at all in the last two years, that is since September 2008?

- | | | | |
|-----|--------------------------|---|-------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q117 |
| No | <input type="checkbox"/> | ⇒ | Go to Q121 |

Q117. Do you smoke cigarettes at all now?

- | | | | |
|-----|--------------------------|---|-------------------|
| Yes | <input type="checkbox"/> | ⇒ | Go to Q118 |
| No | <input type="checkbox"/> | ⇒ | Go to Q119 |

Q118. Did you smoke cigarettes at all during pregnancy, after you found out you were pregnant?

Yes	<input type="checkbox"/>	⇒	Go to Q120
No	<input type="checkbox"/>	⇒	Go to Q121

Q119. When did you finally give up?

Please cross one box only

Before you knew you were pregnant	<input type="checkbox"/>	⇒	Go to Q121
As soon as you found out you were pregnant	<input type="checkbox"/>	}	Go to Q120
Later on during your pregnancy	<input type="checkbox"/>		
After the birth	<input type="checkbox"/>		

Q120. Since you knew about your pregnancy, did you do any of the following?

Please cross one or more boxes

Stopped smoking temporarily (for less than 1 month)	<input type="checkbox"/>
Stopped smoking temporarily (for more than 1 month)	<input type="checkbox"/>
Used nicotine replacement therapy (e.g. nicotine gum, patch or other), which was prescribed by my GP or other healthcare professional	<input type="checkbox"/>
Used nicotine replacement therapy (e.g. nicotine gum, patch or other) that I bought over the counter	<input type="checkbox"/>
Cut down the number of cigarettes I smoked each day	<input type="checkbox"/>
Increased the number of cigarettes I smoked	<input type="checkbox"/>
None of the above	<input type="checkbox"/>

Q121. During your pregnancy, did any of the people you lived with smoke cigarettes?

Please cross one or more boxes

Yes, my partner smoked	<input type="checkbox"/>
Yes, someone else I lived with smoked	<input type="checkbox"/>
No, nobody else who I lived with smoked	<input type="checkbox"/>
Not applicable - I lived alone	<input type="checkbox"/>

Q122. Do any of the people who live with you now smoke cigarettes?

Please cross one or more boxes

- Yes, my partner smokes ☐
- Yes, someone else I live with smokes ☐
- No, nobody else who I live with smokes ☐
- Not applicable - I live alone with my baby ☐

Q123. Do you ever drink alcohol at all now? (including low alcohol drinks)

- Yes ☐ ⇒ **Go to Q125**
- No ☐ ⇒ **Go to Q124**

Q124. Have you drunk alcohol at all during the past two years?

- Yes ☐ ➡ **Go to Q125**
- No ☐ ➡ **Go to Q130**

Q125. Thinking back to when you were pregnant, please cross the box that best describes how often you usually drank each of the alcoholic drinks listed below.

During pregnancy I usually drank:

Please cross one box on each line

[illegible]

Q126. For each type of drink you say that you had when you were pregnant, please write in the boxes the amount you usually drank each time that you had a drink.

(If none write '0')

Normal strength beer / lager / cider / shandy	<input type="text"/>	half pints	<input type="text"/>	pints
Strong (6% or more) beer / lager / cider	<input type="text"/>	half pints	<input type="text"/>	pints
Wine / champagne	<input type="text"/>	small glass (125ml)	<input type="text"/>	medium glass (175ml)
			<input type="text"/>	large glass (250ml)
Sherry / martini / vermouth / port	<input type="text"/>	glasses		
Spirits / liqueurs (e.g. gin, whisky, rum, brandy, vodka)	<input type="text"/>	single measures (count double measures as 2)		
Alcopops	<input type="text"/>	bottles		
Low alcohol drinks (please write in - including type of measure)			
Other alcoholic drinks (please write in - including type of measure)			

Q127. Thinking about ALL kinds of alcoholic drinks, how often did you have an alcoholic drink of any kind during pregnancy?

Please cross one box only

Most days	<input type="checkbox"/>
3-4 times a week	<input type="checkbox"/>
Once or twice a week	<input type="checkbox"/>
Once or twice a month	<input type="checkbox"/>
Less than once a month	<input type="checkbox"/>
Not at all	<input type="checkbox"/>

Q128. During your pregnancy would you say you drank more, less or about the same amount of alcohol than before you were pregnant?

Please cross one box only

I drank much more during pregnancy than before	<input type="checkbox"/>	} Go to Q129
I drank more during pregnancy than before	<input type="checkbox"/>	
I drank about the same during pregnancy as before	<input type="checkbox"/>	⇒ Go to section 12
I drank less during pregnancy than before	<input type="checkbox"/>	} Go to Q129
I drank much less during pregnancy than before	<input type="checkbox"/>	

Q129. Why did you change your drinking habits during pregnancy?

Please cross one or more boxes

- Drinking alcohol made me feel sick / unwell ☐
- I disliked the taste of alcohol when I was pregnant ☐
- Alcohol cheered me up and made me feel better ☐
- Alcohol might harm my baby ☐
- I had personal / family problems ☐
- Some other reasons (***Please cross and write in***) ☐
-

Section 12: And finally...

If this is your first baby, please go on to Q131

Q130. If this is not your first baby, we would like to know how you fed your previous children.

Please fill in the details below, but DO NOT INCLUDE YOUR LATEST BABY as you have already told us about him/her.

Previous children:	Q130a Was he/she breastfed at all?	Q130b If breastfed, how long did you continue breastfeeding?
Eldest child:	Yes <input type="checkbox"/> ⇒ Go to Q130b No <input type="checkbox"/>	<input type="checkbox"/> days OR <input type="checkbox"/> weeks OR <input type="checkbox"/> months
Second eldest child:	Yes <input type="checkbox"/> ⇒ Go to Q130b No <input type="checkbox"/>	<input type="checkbox"/> days OR <input type="checkbox"/> weeks OR <input type="checkbox"/> months
Third eldest child:	Yes <input type="checkbox"/> ⇒ Go to Q130b No <input type="checkbox"/>	<input type="checkbox"/> days OR <input type="checkbox"/> weeks OR <input type="checkbox"/> months
Fourth eldest child:	Yes <input type="checkbox"/> ⇒ Go to Q130b No <input type="checkbox"/>	<input type="checkbox"/> days OR <input type="checkbox"/> weeks OR <input type="checkbox"/> months

Q131. Thinking about all the help and information you received on how to feed your baby, who or what had the MOST influence on you?

Please cross one box only

- Own experience ☐
- Friends / other mothers ☐
- Partner ☐
- Mother / grandmother ☐
- Other relatives ☐
- Health professional (e.g. doctor, midwife) ☐
- SureStart or Children's Centre / Children's Health Clinic ☐
- Voluntary or charitable organisation ☐
- Peer supporter (a mum who has breastfed themselves and been trained to give support to other mums) ☐
- Breastfeeding support group ☐
- National Breastfeeding Helpline ☐
- Start4Life ☐
- Books / leaflets / magazines ☐
- Television / radio ☐
- The internet / web resources ☐
- Someone / something else (***Please cross and write in***) ☐

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***If you are now completely feeding your baby infant formula, go to Q133
If you are breastfeeding your baby, answer Q132***

Q132. For how long do you think you will continue breastfeeding your baby?

Until my baby is:

Either weeks old

Or months and weeks old

Don't know / have not decided (*Please cross if appropriate*) ☐

Q133. Are you aware of any health benefits in breastfeeding, either for the mother or the baby?

Yes ☐ ⇒ **Go to Q134**

No ☐ ⇒ **Go to Q136**

Q134. What health benefits, if any, are you aware of for the MOTHER?

Please write in

Q135. What health benefits, if any, are you aware of for the BABY?

Please write in

To finish with, a few questions about yourself...

Q136. What age are you now?

Please cross one box only

- | | |
|--------------|--------------------------|
| Under 20 | <input type="checkbox"/> |
| 20, up to 24 | <input type="checkbox"/> |
| 25, up to 29 | <input type="checkbox"/> |
| 30, up to 34 | <input type="checkbox"/> |
| 35, up to 39 | <input type="checkbox"/> |
| 40 or over | <input type="checkbox"/> |

(If you are still in full time education please cross the box for the age you are intending to leave it)

16 or under ☐

17 ☐

18 ☐

19 or over ☐

Yes ☐ \Rightarrow **Go to Q141**

On paid maternity leave ☐ $\left. \vphantom{\begin{matrix} \text{On paid maternity leave} \\ \text{On unpaid maternity leave} \end{matrix}} \right\}$

On unpaid maternity leave ☐ **Go to Q139**

No ☐ $\left. \vphantom{\begin{matrix} \text{On paid maternity leave} \\ \text{On unpaid maternity leave} \end{matrix}} \right\}$

Yes, full-time ☐

Yes, part-time ☐

No ☐

Don't know ☐

Yes ☐ ⇒ Please answer Q141-147 for the job you did most recently

No ☐ ⇒ Go to Q148

--

Q142. What do you mainly do in your job?

Please write in

Q143. What does the firm or organisation you work for make or do at the site where you work?

Please write in

Q144. Are you...

- | | | | |
|-------------------|--------------------------|---|-------------------|
| an employee | <input type="checkbox"/> | ⇒ | Go to Q145 |
| or self-employed? | <input type="checkbox"/> | ⇒ | Go to Q146 |

Q145. Do you have any managerial duties or do you supervise any other employees?

- | | |
|-----------------|--------------------------|
| Yes, manager | <input type="checkbox"/> |
| Yes, supervisor | <input type="checkbox"/> |
| No, neither | <input type="checkbox"/> |

Q146. Do you work mainly at home or do you go out to work?

- | | | | |
|----------------|--------------------------|---|-------------------|
| Mainly at home | <input type="checkbox"/> | ⇒ | Go to Q148 |
| Go out to work | <input type="checkbox"/> | ⇒ | Go to Q147 |

Q147. How many employees are there at the place where you work?

- | | |
|-----------------------------------------|--------------------------|
| 1-24 | <input type="checkbox"/> |
| 25 - 499 | <input type="checkbox"/> |
| 500 or more | <input type="checkbox"/> |
| On own / with partners but no employees | <input type="checkbox"/> |

Q148. Are you...

- | | |
|-----------------------------------|--------------------------|
| Married or in a civil partnership | <input type="checkbox"/> |
| Living together | <input type="checkbox"/> |
| Single | <input type="checkbox"/> |
| Widowed, divorced or separated | <input type="checkbox"/> |

Q149. What is your ethnic group?

Please cross one box only

White

- | | |
|-----------------------------------------------------------------|--------------------------|
| British | <input type="checkbox"/> |
| Irish | <input type="checkbox"/> |
| Any other white background (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Mixed

- | | |
|-----------------------------------------------------------------|--------------------------|
| White and Black Caribbean | <input type="checkbox"/> |
| White and Black African | <input type="checkbox"/> |
| White and Asian | <input type="checkbox"/> |
| Any other mixed background (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Asian or Asian British

- | | |
|-----------------------------------------------------------------|--------------------------|
| Indian | <input type="checkbox"/> |
| Pakistani | <input type="checkbox"/> |
| Bangladeshi | <input type="checkbox"/> |
| Any other Asian background (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Black or Black British

- | | |
|-----------------------------------------------------------------|--------------------------|
| Caribbean | <input type="checkbox"/> |
| African | <input type="checkbox"/> |
| Any other black background (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Chinese or Other ethnic group

- | | |
|------------------------------------------------|--------------------------|
| Chinese | <input type="checkbox"/> |
| Any other (<i>Please cross and write in</i>) | <input type="checkbox"/> |

.....

Q150. Is there anything else you would like to say about feeding your baby?

Yes

☐

Please write in below

No

☐

Please give the date when you filled in this questionnaire

day

month

year

***Was there anything you intended to go back and complete?
Please check.***