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# **Infant Feeding Survey 2005**

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FOR HEALTH AND SOCIAL CARE



## **Infant Feeding Survey 2005**

A survey conducted on behalf of The Information Centre for health and social care and the UK Health Departments by BMRB Social Research





Department of Health, Social Services and Public Safety

An Roinn Sláinte, Seirbhísí Sóisialta agus Sábháilteachta Poiblí

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FOR HEALTH AND SOCIAL CARE

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## Acknowledgements

The authors would like to acknowledge the contribution of the many colleagues who helped with the design and implementation of the survey.

At BMRB we would like to acknowledge the contribution of our statistician, Giselle Baker, for her contribution to sample design and data analysis. Additionally, many research colleagues at BMRB contributed to various aspects of the survey over the three Stages including Andrew Goldstein, Alex Harvey, Tara Mackey, Matthew Sexton, and Polly Sinclair. We would also like to thank our colleagues in Kantar Operations who were responsible for the fieldwork, data entry, coding, and data preparation aspects of the survey.

We would like to thank the staff within the Birth Registration offices in England and Wales, Scotland, and Northern Ireland for their assistance in providing the initial sample of mothers and for undertaking the despatch of the Stage 1 questionnaires. Also the many individuals in the UK Health Departments and at the Information Centre for health and social care who had input into the design and content of the survey in its initial stages and who commented on early drafts of the report.

Finally, and most importantly, we would like to thank all the mothers who participated in the survey.

### **Notes to Tables**

- 1. Base numbers are shown in italics and are weighted bases. Weighting factors have been scaled so that the weighted sample size in each country for all mothers is equal to the number of mothers responding at that Stage.
- Very small bases have been avoided where possible. Where the base size is less than 50, both the bases and the percentage estimates are shown in brackets [].
- 3. Percentages may not always add up to 100% due to rounding.
- 4. Unless otherwise stated, changes and differences mentioned in the text are statistically significant at the 95% confidence level.
- 5. The following conventions have been used in all tables:
  - No cases
  - \* Percentage less than 0.5%
  - n/a Data not available
  - [] Percentage based on less than 50 cases

## **Summary of main findings**

The Infant Feeding Survey has been conducted every five years since 1975. The 2005 Infant Feeding Survey was the seventh national survey of infant feeding practices to be conducted. The main aim of the survey was to provide estimates on the incidence, prevalence, and duration of breastfeeding and other feeding practices adopted by mothers in the first eight to ten months after their baby was born. The 2005 survey is the first to provide separate estimates for all four countries in the United Kingdom, as well as for the UK as a whole.

The survey is based on an initial representative sample of mothers who were selected from all births registered during August and September 2005 in the United Kingdom. Three stages of data collection were conducted with Stage 1 being carried out when babies were around four to ten weeks old, Stage 2 when they were around four to six months old, and Stage 3 when they were around eight to ten months old. A total of 9,416 mothers completed and returned all three questionnaires.

#### Incidence, prevalence, and duration of breastfeeding (Chapter 2)

Initial breastfeeding rates in 2005 were 78% in England, 70% in Scotland, 67% in Wales, and 63% in Northern Ireland. In England and Wales, Scotland and Northern Ireland the incidence of breastfeeding increased between 2000 and 2005. The 2005 survey was the first time separate estimates were available for England and Wales.

The highest incidences of breastfeeding were found among mothers from managerial and professional occupations, those with the highest educational levels, those aged 30 or over and first time mothers. These variations were evident in all countries and were consistent with the patterns found in previous surveys.

In 2005, 48% of all mothers in the United Kingdom were breastfeeding at six weeks, while 25% were still breastfeeding at six months. Between 2000 and 2005 there was an increase in the prevalence of breastfeeding at all ages up to nine months in both England and Wales and Northern Ireland. In Scotland an increase in prevalence was seen only at ages up to six weeks.

The 2005 survey was the first time that levels of exclusive breastfeeding at specific ages were measured. An infant is exclusively breastfed if they receive only breast milk, but no other liquids or solids except for medicine, vitamins or mineral supplements. In 2005, 45% of all mothers in the United Kingdom were breastfeeding exclusively at one week, while 21% were feeding exclusively at six weeks. At six months the proportion of mothers who were breastfeeding exclusively was negligible (<1%).

#### **Choice of feeding method (Chapter 3)**

When asked to think back to before they had their baby, seven in ten mothers (70%) in the United Kingdom said they intended to breastfeed their baby, with most intending only to breastfeed rather than to mix breast and formula feeding.

Mothers in England, first-time mothers, second-time mothers who had breastfed their previous child for six weeks or more, mothers who had been breastfed themselves as infants, and mothers who had friends who breastfed were the most likely to intend to breastfeed. There was a high correlation between intentions and actual initial feeding behaviour.

Over eight in ten mothers (84%) said they were aware of the health benefits of breastfeeding, and most were able to spontaneously give at least one benefit. Mothers in Scotland and Northern Ireland, older mothers, and mothers from managerial and professional occupations were the most likely to be aware of the benefits of breastfeeding.

About eight in ten mothers (79%) had received some advice during their pregnancy about the health benefits of breastfeeding, with midwives being the most common source of such advice. Mothers who had received advice were more likely than mothers who had not received advice to intend to breastfeed, and were more likely to actually initiate breastfeeding.

About two-thirds of all mothers (68%) had discussed feeding intentions at their antenatal check-ups, while just less than three in ten of all mothers (28%) had discussed feeding at antenatal classes. Mothers who had attended antenatal classes where feeding was discussed or where they were taught how to position the baby were more likely to intend to breastfeed than mothers who did not attend antenatal classes.

#### Birth, post-natal care, and the early weeks (Chapter 4)

Seven in ten mothers reported skin-to-skin contact with babies within an hour of the birth. Initiation of breastfeeding was higher for mothers who had early skin-to-skin contact than those who had no such contact after the birth.

A third of breastfed babies had received additional feeds in the form of formula, water or glucose while in hospital – this practice was particularly associated with low birth weight babies and those starting life in special care. In about a third of cases, additional feeds had been given because the mother wanted this rather than because this had been advised.

Seven in ten mothers breastfeeding in hospital had been shown how to put their baby to the breast in the first few days (89% of first-time mothers and 53% of mothers of later babies). Mothers who had received help or advice found this most useful if the person giving guidance stayed with them until the baby had started to feed.

A third of breastfeeding mothers had experienced some kind of feeding problem either in hospital or in the early weeks after leaving. The highest levels of problems were experienced by mothers who used a combination of breast and formula (around half of all mixed feeding

mothers experienced problems). Over eight in ten mothers who experienced problems were offered help or advice. Those who did not receive help or advice for these problems were more likely to have stopped breastfeeding within two weeks than those who did receive such help or advice.

Around half (49%) of all mothers allowed their baby to sleep in the parental bed at least occasionally, with 11% adopting this practice on a regular basis. Co-sleeping was particularly associated with breastfeeding mothers - 61% of breastfeeding mothers allowed their baby to sleep with them at least occasionally compared with 38% of mothers giving only formula milk.

#### The use of milk other than breast milk (Chapter 5)

Three-quarters of all mothers had given their baby milk other than breast milk by the age of six weeks, this proportion rising to 92% by six months. Mothers from managerial and professional occupations and older mothers were the most likely to introduce milk other than breast milk at a later age, which reflects the higher levels of breastfeeding amongst these mothers.

At Stage 2 of the survey (four to six months), most mothers who had given their baby milk other than breast milk in the last seven days were mainly giving infant formula milk. Use of follow-on milk or liquid cow's milk was low at this Stage. By Stage 3 of the survey mothers were more likely to be using follow-on milk as their baby's main source of milk other than breast milk, rather than infant formula.

At Stage 3 of the survey about half of all mothers had given their baby follow-on milk. Most mothers followed the recommendation of not giving their baby follow-on milk before the age of six months, although mothers from routine and manual occupations, mothers who had never worked, and mothers with the lowest education level were the most likely to say they had given their baby follow-on at an earlier age.

Just under half of all mothers who had prepared powdered infant formula in the last seven days had not followed the key recommendations for preparing formula: either by not always using boiled water that had cooled for less than 30 minutes or not always adding the water to the bottle before the powder. About a third of mothers did not follow the recommendations for preparing formula when away from the home, either by not keeping pre-prepared formula chilled or by using cold or cooled water when making up feeds.

#### Feeding and health after the early weeks (Chapter 6)

About one in eight mothers had experienced feeding problems between Stages 1 and 2, and one in ten between Stages 2 and 3. Mothers who breastfed between Stages 1 and 2 were more likely to have had feeding problems compared with mothers who formula fed throughout. However, the highest rate of problems was found among mothers who continued

to breastfeed, but who introduced supplementary formula. Inability to satisfy baby, a need to top up with formula, and blocked milk ducts were all problems mentioned by this group.

Insufficient milk was the most important factor behind mothers giving up breastfeeding between one week and four months, while giving up in the early weeks (weeks one and two) was also associated with rejection of the breast and pain or discomfort. In later months, return to work began to feature as a reason for stopping; although this was a less significant factor in 2005 compared with 2000.

Nine in ten mothers who gave up breastfeeding within six months would have preferred to breastfeed for longer, this level declining as breastfeeding duration increased. Although even among those who breastfed for at least six months, 40% would have liked to continue longer.

Babies breastfed for a minimum of six months were significantly less likely than other babies to experience colic, constipation, sickness/vomiting, diarrhoea, chest infections and thrush. Differences were most apparent for gastro-intestinal conditions.

Propensity to develop symptoms for the above conditions decreased with breastfeeding duration, with babies breastfed for less than two weeks having a higher than average likelihood of suffering these problems. Babies formula-fed from birth had the highest rate of chest infections and thrush.

#### Introduction of solid foods (Chapter 7)

There has been a marked trend towards mothers introducing solid foods later in 2005 compared with 2000. For example, in 2000 85% of mothers had introduced solid foods by four months, but by 2005 this figure had fallen to 51%. This shift is evident in all countries and continues a longer-term trend in this direction.

Solid foods tended to be introduced at a younger age among mothers in Wales and Scotland, those in lower social classes, and those with lower educational levels. The shift over the previous five years towards later weaning was particularly pronounced among mothers within the highest occupation and education groups.

When babies were four to six months, mothers giving solids were much more likely to provide commercially-prepared foods than home-prepared foods in their babies' daily diets. By eight to ten months, however, mothers relied less on commercial brands with a correspondingly increased use of home-prepared foods.

The large majority of mothers avoided the use of salt completely in the diets of their eight to ten month old babies, although propensity to use salt rose among those classified to the lower occupation groups, as well as among mothers from ethnic minority backgrounds.

Compared with 2000, higher proportions of mothers in 2005 said they avoided the use of salt, nuts and honey in their babies' diets. A greater awareness of food allergies in 2005 was one of the key reasons behind these shifts.

#### Additional drinks and supplementary vitamins (Chapter 8)

A third of all mothers were giving drinks in addition to breast or formula milk by four weeks. This had risen to two thirds by four months. Mothers who breastfed initially were less likely than mothers who had not to be giving additional drinks at all ages up to six months.

Mothers from managerial and professional occupations and older mothers tended to introduce drinks at a later age.

Just three per cent of babies aged four to ten weeks were being given vitamin supplements, rising gradually to seven per cent by the age of eight to ten months. Babies were more likely to be receiving vitamin supplements if their birth weight was low, or if they had been in special care after the birth.

A third (33%) of all breastfeeding mothers were taking vitamin or iron supplements at four to ten weeks. This proportion fell to 28% by four to six months and 23% by eight to ten months. As in 2000, mothers in Northern Ireland were more likely than mothers in the other countries to be taking supplements.

#### Feeding outside the home (Chapter 9)

By Stage 3, 45% of all mothers had returned to work. Eight in ten mothers returning to work did so after their baby was five months old, with 57% returning after their baby was six months old. Most mothers worked part-time: 14% working less than 15 hours per week and a further 56% working between 15 and 30 hours.

One in seven working mothers (15%) said that they were provided with facilities to either express milk or to breastfeed at work. Such facilities were particularly associated with mothers using a workplace crèche (29%).

Some working patterns were associated with a higher than average propensity for mothers to combine work and breastfeeding at five or six months: mothers working less than 15 hours a week, mothers in managerial or professional occupations, and mothers given access to facilities breastfeed or express milk at work.

Half (51%) of mothers breastfeeding initially had breastfed in public, this proportion increasing from four per cent of mothers breastfeeding for less than two weeks to nearly all (86%) breastfeeding for at least six months.

Only three per cent of mothers said that they had been stopped or asked not to breastfeed in public, although 13% said that they had been made to feel uncomfortable. Only eight per cent of breastfeeding mothers said that they wanted to breastfeed in public but had been deterred from doing so.

Compared with other countries, mothers in Scotland tended to have more positive experiences when breastfeeding in public. For example, 55% of Scottish breastfeeding

mothers had breastfed in public compared with between 40% and 52% in other countries. Scottish mothers were also more comfortable about feeding in public without going to a special mother and baby room, were less likely to report problems finding a suitable venue, and were less likely to report being stopped or made to feel uncomfortable.

#### Dietary supplements, smoking and drinking (Chapter 10)

Over eight in ten mothers (83%) reported that they took some action to increase their intake of folic acid during pregnancy, with three-quarters (75%) taking supplements and 28% changing their diet.

Over half (54%) of all mothers took extra vitamin or iron supplements (apart from folic acid) during pregnancy, with 46% taking iron either as a single supplement or in combination with vitamins.

A third of mothers (33%) in the United Kingdom smoked in the 12 months before or during their pregnancy. Of mothers who smoked before or during their pregnancy, about half (48%) gave up at some point before the birth. One in six of all mothers (17%) continued to smoke throughout their pregnancy. The proportion of all mothers in England who smoked throughout pregnancy fell from 19% in 2000 to 17% in 2005. A similar fall was also seen in Northern Ireland over the same period.

Smoking rates among mothers before or during pregnancy fell between 2000 and 2005 in England and Northern Ireland but remained at a similar level in Scotland.

Almost nine in ten mothers (87%) who smoked before or during pregnancy received some type of advice or information on smoking. Midwives, books, leaflets and magazines and doctors were the most common sources of advice.

Over half (54%) of mothers drank alcohol during pregnancy. Older mothers, mothers from managerial and professional occupation groups, and mothers in England and Wales were the most likely to drink during pregnancy. The proportion of mothers drinking alcohol during pregnancy fell between 2000 and 2005.

Among mothers who drank during pregnancy consumption levels were low. Only eight per cent of all mothers drank more than two units of alcohol per week on average.

## **1** Introduction

The Infant Feeding Survey has been carried out every five years since 1975 and the 2005 survey was the seventh time the survey has been conducted. The survey was carried out by BMRB Social Research on behalf of the four United Kingdom Health Departments. The 2005 survey is the first one to provide separate estimates for all four countries of the United Kingdom.

#### 1.1 Background to infant feeding policy

A large body of published research has shown that breastfeeding has clear health benefits for both mothers and infants. Breastfed babies are less likely to suffer from conditions such as gastroenteritis, chest, urinary tract, or ear infections, diabetes in childhood, and childhood obesity. For some of these conditions the longer a baby is breastfed the greater the protection gained or the more positive the impact on longer-term health. Mothers who breastfeed have a reduced risk in later life of some cancers (ovarian and breast) and of osteoporosis.

Due to this body of evidence on the health benefits of breastfeeding, government policy in the United Kingdom has consistently supported breastfeeding as the best way of ensuring a healthy start for infants. In 1974 a COMA Working Party was set up to review infant feeding practices in the United Kingdom. The recommendations of this Working Party were that all mothers should be encouraged to breastfeed and that mothers should be discouraged from introducing solid foods before four months old<sup>1</sup>. Subsequent reports throughout the 1980s and 1990s continued to endorse these broad recommendations<sup>2</sup>.

During this time the infant feeding recommendations in the United Kingdom were broadly in line with the guidance from the World Health Organisation (WHO), which in the 1990 *Innocenti Declaration* recommended that all infants should be fed exclusively on breast milk from birth up to 4-6 months of age<sup>3</sup>. Early in 2000, the WHO commissioned a systematic review of the published scientific literature on the optimal duration of exclusive breastfeeding<sup>4</sup>. As a result of this review, the WHO revised its guidance to recommend exclusive breastfeeding for the first six months of an infant's life<sup>5</sup>. This revised guidance was adopted by the United Kingdom Health Departments from 2003 onwards.

<sup>&</sup>lt;sup>1</sup> Department of Health and Social Security (1974) *Present day practice in infant feeding*. Report on health and Social Subjects 9. (London: HMSO)

<sup>&</sup>lt;sup>2</sup> Updated reports on current infant feeding guidance were produced by COMA in 1980, 1988, and 1994.

<sup>&</sup>lt;sup>3</sup> World Health Organisation (1990) *Declaration on the protection, promotion and support of breastfeeding* made at the WHO/UNICEF meeting on Breastfeeding in the 1990s: A Global Initiative.

<sup>&</sup>lt;sup>4</sup> Kramer S and Kakuma R (2002) *The optimal duration of exclusive feeding: A systematic review* (Cochrane Library)

<sup>&</sup>lt;sup>5</sup> World Health Organisation (2001) *The optimal duration of exclusive breastfeeding: report on an expert consultation* (Geneva: WHO)

The current recommendations on feeding infants are as follows:

- Breast milk is the best form of nutrition for infants
- Exclusive breastfeeding is recommended for the first six months (26 weeks) of an infant's life
- Six months is the recommended age for the introduction of solid foods for infants
- Breastfeeding (and/or breast milk substitutes) should continue beyond the first six months, along with appropriate types and amounts of solid foods<sup>6</sup>.

In order to support and promote these recommendations on infant feeding a range of measures and initiatives has been undertaken across the United Kingdom. While some activities, such as National Breastfeeding Awareness Week, have been United Kingdom wide, each country has developed its own specific strategy and activities for promoting breastfeeding.

In 1988 the Department of Health set up the Joint Breastfeeding Initiative in England and Wales to encourage a closer working relationship between health professionals and voluntary organisations to promote breastfeeding. A similar initiative known as the Scottish Joint Breastfeeding Initiative was set up in Scotland in 1990. National Breastfeeding Awareness Week was launched in 1993 as an annual campaign held in all countries of the United Kingdom to highlight the benefits of breastfeeding. In 1995 the National Breastfeeding Working Group was set up and published good practice guidance for the NHS. In the same year the National Network of Breastfeeding Co-ordinators (NNBC) was also established as a multi-disciplinary group to promote breastfeeding by stimulating and sustaining action at a local level, while sharing ideas nationally. Breastfeeding Co-ordinators or Advisers were also appointed in Wales (2003), Scotland (1996) and Northern Ireland (2002).

More recently in England the Infant Feeding Initiative was launched in 1999, as part of the government's commitment to improving health inequalities. Between 1999 and 2002 nearly £3m was spent on funding 79 different projects. The focus of all these projects was the development of innovative practices that aimed to increase the incidence and duration of breastfeeding, especially amongst those groups who were least likely to do so. An evaluation of these initiatives was published in 2003 which highlighted the benefits of the schemes and made recommendations about key considerations for continuing good practice throughout the NHS<sup>7</sup>.

Most recently the importance of breastfeeding was highlighted by the inclusion of a specific target in the Department of Health's Priorities and Planning Framework for 2003-2006. This identified national priorities and targets, which organisations in England needed to build into their local delivery plans. Included in these was a target to increase breastfeeding initiation

<sup>&</sup>lt;sup>6</sup> Department of Health (2004) Infant feeding recommendation (London: DH)

<sup>&</sup>lt;sup>7</sup> Dykes F (2003) Infant Feeding Initiative: a report evaluating the Breastfeeding Practice Projects 1999-2002 (London: Department of Health)

rates by 2 percentage points per year, with a focus on mothers from disadvantaged groups. While the Infant Feeding Survey will provide national and regional data, there is also a monitoring framework at the local level so that all NHS Trusts delivering maternity services collect data on initiation of breastfeeding.

In Wales a strategy for promoting breastfeeding was published in 2001<sup>8</sup>. A National Breastfeeding Co-ordinator was appointed in 2003 and a Breastfeeding Strategy Implementation Group was also set up to identify and progress priority areas for implementation, and to engender best practice in the promotion, support and protection of breastfeeding. Task and Finish Groups have been established to focus on specific areas of activity. Bilingual leaflets and regular newsletters are produced for use by health professionals and parents.

In Scotland the Scottish Breastfeeding Group (SBG) was set up in 1995 as a multi-disciplinary group to help contribute to policy development and to act as a conduit for the dissemination of good practice and information on breastfeeding. A National Breastfeeding Adviser was in post from 1995 to 2005 and informed and influenced policy development, contributed to the development of resources, supported and monitored NHS Board activities, and encouraged best practice. Stemming from the work of the SBG a dedicated website (Breastfeeding in Scotland) was set up in 1999 to provide information on breastfeeding for a wide range of audiences including clinicians, mothers, and researchers, and in 2005 the Breastfeeding (Scotland) Act was enacted which made it an offence to prevent or stop a person from breastfeeding a child under the age of 2 years in any public place. Most recently a draft Infant Feeding Strategy for Scotland was consulted upon and this will form an integral part of the Scottish Executive's Food and Health delivery Plan which will be published in 2007<sup>9</sup>.

In Northern Ireland the Department for Health and Social Services (DHSS) published a Northern Ireland Breastfeeding Strategy in 1999<sup>10</sup>. A Breastfeeding Strategy Implementation Group was set up to provide ongoing support and direction for the implementation of the strategy, while a Regional Breastfeeding Co-ordinator was appointed in 2002 to help promote and implement the strategy. Much of the activity for promoting and supporting breastfeeding activity has been undertaken by the Health Promotion Agency for Northern Ireland and has included the development of resources for both parents and health professionals, including the development of a website for parents aimed at promoting breastfeeding.

<sup>&</sup>lt;sup>8</sup> National Assembly for Wales (2001) Investing in a Better Start: Promoting Breastfeeding in Wales (Cardiff: NAW)

<sup>&</sup>lt;sup>9</sup> Scottish Executive (2006) Infant Feeding Strategy for Scotland: A Consultation Paper (Edinburgh: Scottish Executive)

<sup>&</sup>lt;sup>10</sup> Department of Health and Social Services (1999) Northern Ireland breastfeeding Strategy (Belfast: DHSS)

#### **1.2 Smoking and drinking in pregnancy**

Although the primary purpose of the survey has always been to monitor infant feeding practices, the survey has also been used to measure the proportion of mothers who smoke and drink during pregnancy and to look at how mothers' smoking and drinking behaviour changes as a result of their pregnancy.

The 1998 Tobacco White Paper *Smoking Kills* outlined the government's anti-smoking strategy and highlighted smoking among pregnant women as a key area. A specific target was adopted for England to reduce the percentage of women who smoke during pregnancy from 23% (in 1995) to 15% by the year 2010; with a fall to 18% by the year 2005. The Infant Feeding Survey was chosen as the vehicle for measuring progress towards this target.

#### 1.3 Aims of the survey

The first COMA Working Party set up in the 1970s recommended that a national survey be carried out to establish basic information about infant feeding practices in England and Wales. The first survey took place in 1975 and surveys have been conducted every five years since then. From 1980 the survey covered Scotland, while from 1990 Northern Ireland was also included. The 2005 survey is the first time that England and Wales have been sampled separately, meaning that it is the first time separate estimates are available for all four countries in the United Kingdom.

Over the course of all the surveys, while the importance of maintaining consistency across time has been recognised, the content of the survey has evolved to reflect the changing policy agenda. Thus, while the 2005 survey continued to measure longer-term trends in relation to the incidence, prevalence and duration of breastfeeding, the content of the survey was adapted in line with the revised feeding guidance in order to be able to measure the prevalence and duration of exclusive breastfeeding.

The main aims of the 2005 survey were broadly similar to previous Infant Feeding Surveys, and were as follows:

- To establish how infants born in 2005 were being fed and to provide national figures on the incidence, prevalence and duration of breastfeeding. These estimates are to be provided separately for England, Wales, Scotland and Northern Ireland, as well as for the United Kingdom as a whole;
- To examine trends in infant feeding practices over recent years, in particular to compare changes between 2000 and 2005;
- To measure prevalence and duration of exclusive breastfeeding for the first time;
- To investigate variations in feeding practices among different socio-demographic groups and the factors associated with mothers' feeding intentions and with the feeding practices adopted in the early weeks;
- To establish the age at which solid foods are introduced and to examine weaning practices up to 9 months; and

• To measure the proportion of mothers who smoke and drink during pregnancy, and to look at the patterns of smoking and drinking behaviour before, during and after the birth.

#### 1.4 Survey methodology

The sample design and fieldwork procedures were broadly similar to those used in previous surveys, although a number of changes were made to the design of the 2005 survey compared with how it was conducted in the past. These changes included moving from a two-stage clustered sample design to a completely unclustered sample design in England; drawing completely separate samples for England and Wales; and not over sampling of mothers from lower social class groups.

A completely unclustered sample of 19,848 births was selected from all births registered in the period August to October 2005. The aim of the sampling process was to achieve a sufficiently robust sample size in each country to produce separate estimates for England, Wales, Scotland and Northern Ireland. For this reason the sampling fraction and the precise length of the sampling period varied from country to country. In both Wales and Northern Ireland all births in the specified period were selected, while in Scotland approximately one in two births were sampled and in England approximately one in seven births were sampled.

In England and Scotland births where no partner was recorded at registration were over sampled. However, there was no over sampling of mothers from lower Social Class groups, as had been the case on previous surveys. This was done because the Social Class system used on previous surveys had been replaced by the new National Statistics Socio-Economic Classification (NS-SEC) and it was felt that the association between infant feeding practices and NS-SEC was not as well understood as the association between infant feeding practices and Social Class.

At Stage 1 of the survey, postal questionnaires were despatched to mothers during October – December 2005, with the aim of contacting mothers when their babies were around four to ten weeks old. Up to four reminders were sent to mothers who had not returned a questionnaire. A total of 12,290 mothers returned the Stage 1 questionnaire, representing a response rate of 62%.

At Stage 2 of the survey, postal questionnaires were despatched to mothers during January to April 2006, when their babies were around four to six months old. Up to three reminders were sent to mothers who had not returned a questionnaire. Mothers who did not respond to the postal survey were subsequently followed up by a face-to-face interviewer or, in a small number of cases, by telephone. A total of 10,814 mothers returned the Stage 2 questionnaire, representing a response rate of 88%.

At Stage 3 of the survey, postal questionnaires were despatched to mothers during June to August 2006, when their babies were around eight to ten months old. The follow-up procedures for mothers who did not return the questionnaire were exactly the same as for Stage 2. A total of 9,416 mothers returned the Stage 3 questionnaire, representing a response rate of 87%.

Since mothers were only contacted in later Stages of the survey if they had responded to the previous one, the effect of non-response at each Stage is cumulative. Thus, the response rate at Stage 3 of the survey based on the initial sample of mothers was 47%.

All questionnaires were returned to a central location. Fully and partially open-ended questions were coded by a team of coders working to agreed code frames, before the questionnaires were scanned. Following data entry a detailed editing process was carried out to ensure consistency and integrity of the data.

All the data were then weighted to correct both for differential sampling and for differential response rates among different groups. Further weights were applied to the Stage 2 and Stage 3 data to correct for further non-response bias introduced through attrition over the course of the survey.

Further details about the survey methodology, including details for each individual country, are contained in Appendix 1.

#### **1.5** Making comparisons with results from previous survey

One of the main aims of the 2005 survey is to provide trend data in infant feeding practices, especially highlighting changes since the last survey in 2000. Although many of the key questions and definitions have been kept consistent across all surveys, there are a number of other factors that need to be considered when looking at comparisons over time.

#### 1.5.1 Sampling error

All surveys are subject to sampling error due to the chance variations between a particular sample and the whole population from which it has been drawn. When comparing results from two separate samples, each will be subject to sampling error meaning that any observed changes over time may actually be attributable to sampling variation, rather than being real. Sampling errors are influenced by the size of the sample on which estimates are being based, the variability of the particular measure within the sample, and the complexity of the sample design. Further details about sampling errors and examples of standard errors for some of the key survey estimates can be found in Appendix 2.

As a general rule only differences that are statistically significant at the 95% confidence level are commented on in the text.

#### 1.5.2 Non response

Most surveys are subject to possible bias due to non-response. Analysis of the 2005 survey showed a consistently lower response rate in all countries among younger mothers and in areas of higher deprivation at all Stages of the survey. The achieved samples at each Stage of the survey were weighted to correct for this differential non-response. The achieved samples after weighting can be validated by comparing them with the registration data from all births in the relevant year. This comparison shows that the 2005 weighted sample was similar in terms of mothers' age and deprivation profile compared with all births in the United Kingdom, and in each individual country.

#### 1.5.3 Changes in the socio-demographic characteristics of mothers

Any significant changes in the characteristics of the universe of mothers in different years will affect the interpretation of trend data, and this will be particularly important if these characteristics are themselves associated with key survey estimates, such as the incidence of breastfeeding. Analysis of previous surveys has shown a significant change in the characteristics of mothers over the longer-term, with the sample universe becoming older, better educated, and of higher socio-economic characteristics over time. These changes have reflected changes in the population.

Tables 1.1-1.4 show the profile of the 2000 and 2005 surveys by several key sociodemographic measures to examine whether these longer term trends have continued in the last five years.

Mothers in the 2005 survey were more likely compared with mothers in 2000 to be having a first baby (51% and 47% respectively). This was true in all countries, although the change was particularly noticeable in Northern Ireland where the proportion of mothers having a first-time baby went up from 41% in 2000 to 49% in 2005. The 2005 survey represents the first survey where first-time mothers made up more than half of the whole sample.

#### Table 1.1

Mothers in the 2005 survey were slightly older compared with those in the 2000 survey, although the difference was a lot less than has been seen between earlier surveys. In fact, the proportion of mothers aged 30 or over was exactly the same in 2000 and 2005 (47%), and it was only the proportion of mothers aged 35 or over where there was an increase (16% in 2000 and 19% in 2005). In 2005 mothers in Wales were younger compared with mothers in other countries, with only 42% being aged 30 or over.

#### Table 1.2

Mothers in the 2005 survey were more educated compared with those in the 2000 survey in terms of the age at which they left full-time education. In 2005, 38% of mothers left full-time education at age 19 or over compared with 28% in 2000. This difference was greatest in Northern Ireland, where 48% of mothers left full-time education aged 19 or over compared with 34% in 2000. These changes between 2000 and 2005 continue a longer-term trend towards the sample of mothers becoming more educated.

#### Table 1.3

Mothers in the 2005 survey were more likely to come from higher socio-economic groups compared with those in the 2000 survey. Thus, 36% of mothers in 2005 were from managerial and professional occupations compared with 29% in 2000. This change was apparent in all countries. However, the proportion of mothers in routine and manual occupations also increased in all countries between 2000 and 2005 (33% in 2005 compared with 28% in 2000). There was also a decrease in the proportion of mothers who had never worked (7% in 2005 compared with 13% in 2000).

#### Table 1.4

9

Changes in the composition of the sample between 2000 and 2005 are not taken account of in any of the analysis. However, when looking at the longer-term trends in the incidence of

breastfeeding the results have been standardised to take account of changes in the composition of the population over time.

#### 1.5.4 Age of babies at each Stage of the survey

At each Stage of the survey babies will be a range of ages at the point the mother completes the questionnaire. Although the design and implementation of the sampling and fieldwork procedures are intended to try and make this age range as narrow as possible it is difficult to completely control this since it depends upon how quickly the mother completed the survey when they received it, and whether they responded to the first, second, third reminder, or had to be followed-up by an interviewer.

Some of the key variables are not affected by this age range because they are based on the specific age of the baby. For example, incidence and duration of breastfeeding, and age at which solids were first introduced are both based on the actual age of the baby. However, other measures relate to what the mother was doing at the time they completed the questionnaire. For example, whether mothers were giving their baby vitamins or whether they were breastfeeding in public or not relate to what mothers were doing at the time of the survey. This means that if the average age of the babies is different from survey to survey it may affect comparisons of any questions which are based on the mother's behaviour or attitude at the time she completed the questionnaire.

Table 1.5 shows that at Stage 1 of the survey babies were on average about a week older in 2005 compared with 2000 (54 days in 2005 compared with 48 days in 2000). However, this was due to the average age of babies in England and Wales being older in 2005 compared with 2000. In both Scotland and Northern Ireland babies were actually about a week younger on average compared with 2000.

At Stage 1, 64% of babies were in the age range four to six weeks, while 85% were in the age range four to ten weeks. Because of this the age of babies at Stage 1 is referred to as "four to ten weeks" when used in the rest of the report, the same time period used for the 2000 survey.

The average age of babies at Stage 2 of the survey was 21 weeks. This was consistent across all countries and similar to the age profile of the 2000 survey. At this Stage, 67% of babies fell into the age range four to five months, while 82% were in the age range four to six months. Because of this the age of babies at Stage 2 is referred to as "four to six months" when used in the rest of the report, rather than "four to five months" as in previous surveys.

The average age of babies at Stage 3 of the survey was 41 weeks. Again this was consistent between countries and was similar to the age profile of the 2000 survey. At this Stage, only 26% of babies fell into the age range eight to nine months, while 80% were in the range eight to ten months. Because of this the age of babies at Stage 3 is referred to as "eight to ten

months" when used in the rest of the report, rather than "eight to nine months" as in previous surveys<sup>11</sup>.

Overall, the figures suggest that the age profile of babies in 2005 was broadly similar to the profile of the 2000 survey, with only a slight difference in average age at Stage 1. Therefore, it seems unlikely that different age profiles should be much of a factor when comparing time trends.

#### Table 1.5

#### **1.6 Comparison of survey universes**

Between 1980 and 1990 the Infant Feeding Survey was only conducted in England and Wales and Scotland. This means that historically data on the total sample have been presented for Great Britain. In the 2000 survey it was decided to reflect the fact that the survey had also been conducted in Northern Ireland since 1990, and present the total sample results at the level of the United Kingdom. This has been repeated for the 2005 survey, except for any analysis by ethnicity. The ethnicity question was not asked in Northern Ireland, and therefore total sample estimates by ethnicity are presented for Great Britain.

The 2005 survey was the first survey designed to present separate estimates for Wales. Prior to this the sample in England and Wales had been drawn as a single sample, with the Welsh part of the sample being too small to present separate results. In order to allow time trends to be maintained, throughout the report where results are being compared for 2000 and 2005 the tables show figures for both England and Wales combined (which can then be compared with 2000), and also for England and Wales separately (for 2005 only).

#### 1.7 Weighted bases

When results for each country are shown separately, they are weighted only to compensate for differential non-response and the over-sampling of mothers where no partner details were recorded at registration (England and Scotland only). Separate weights were created for England only, Wales only, as well as England and Wales combined. Where results are based on the United Kingdom as a whole, an additional weight is applied to compensate for the over-sampling in Scotland, Northern Ireland and Wales.

All weights have been scaled to the unweighted sample sizes for each country and for the United Kingdom as a whole, a practice similar to that adopted on the 2000 survey.

<sup>&</sup>lt;sup>11</sup> In reality it would have been more accurate to use the periods "four to six months" and "eight to ten months" in the 2000 survey since the proportion of babies falling into this age range was similar in both 2000 and 2005.

#### **1.8 Definitions and terminology used in the survey**

The definitions of some key terms used throughout the report are given below. Some of these ( $^{\dagger}$ ) have been used consistently since 1975.

**Breastfed initially**<sup>†</sup> refers to all babies whose mothers put them to the breast, even if this was on one occasion only

Incidence of breastfeeding<sup>†</sup> refers to the proportion of babies who were breastfed initially

**Prevalence of breastfeeding**<sup>†</sup> refers to the proportion of all babies who were wholly or partially breastfed at specific ages

**Duration of breastfeeding**<sup>†</sup> refers to the length of time that mothers who breastfed initially continued to breastfeed for, even if they were also giving their baby other milk and solid foods.

**Prevalence of exclusive breastfeeding** refers to the proportion of all babies who have only ever been given breast milk up to specific ages and who have never been fed formula milk, solid foods, or any other liquids.

**Duration of exclusive breastfeeding** refers to the length of time that mothers who initially breastfed exclusively continued to feed exclusively, that is not giving formula milk, solid foods, or any other liquids.

**Smoking during pregnancy:** Three categories of smoking behaviour are used in the report as follows:

- *Smoking before or during pregnancy* is the proportion of mothers who smoked **at all** in the two years before they completed Stage 1 of the survey. This roughly covers the period of their pregnancy plus the year before conception.
- *Smoking throughout pregnancy* is the proportion of all mothers who smoked in the two years before they completed Stage 1 of the survey, and who were smoking at the time of their baby's birth. It includes mothers who may have given up smoking before or during their pregnancy, but who had restarted before the birth.
- *Gave up smoking before or during pregnancy* is the proportion of mothers who smoked in the two years before they completed Stage 1 of the survey and who gave up during this period and had not restarted before the birth of the baby.

It should be noted that the key interest of the survey is to measure smoking behaviour immediately before or during pregnancy and any changes that occur over this period. Therefore, the measures reported are not directly comparable with other surveys which tend to report current smoking status (i.e. whether the respondent is smoking at the time they complete the survey).

Drinking during pregnancy: Three categories of drinking behaviour are used in the report as follows:

- *Drinking before or during pregnancy* is the proportion of mothers who drank alcohol **at all** in the two years before they completed Stage 1 of the survey. This roughly covers the period of their pregnancy plus the year before conception.
- *Drinking during pregnancy* is the proportion of all mothers who drank alcohol in the two years before they completed Stage 1 of the survey, and who drank during pregnancy.
- *Gave up drinking before pregnancy* is the proportion of mothers who drank alcohol in the two years before they completed Stage 1 of the survey but who did not drink during pregnancy.

#### **1.9 Standard analysis variables**

Throughout the report a number of key analysis variables are used. These are defined below:

**Birth order:** All mothers were asked whether this was their first child and, if not, how many children they had. Many results are analysed by birth order, with comparisons being made between first-time mothers and mothers of second or later babies.

**Education level:** All mothers were asked at what age they left full-time education. Throughout the report this is used as a proxy for education level, with mothers who left full-time education at 16 or under being categorised as having the lowest education level and mothers who left full-time education at 19 or later being categorised as having the highest education level.

**Mother's age:** All mothers were asked their current age at Stage 1 of the survey and the results are banded into five bands: Under 20, 20-24, 25-29, 30-34, 35 or over.

**National Statistics socio-economic classification (NS-SEC):** From 2001 the National Statistics socio-economic classification (NS-SEC) was introduced for all official surveys and statistics. It replaced Social Class based on occupation and socio-economic group (SEG). This classification aims to differentiate occupations in terms of their employment relations, rather than skill level and so the distinction between manual and non-manual is no longer used. NS-SEC consists of eight, five and three class versions, and the version used here is the three class version. This consists of three groups as follows:

- i. Managerial and professional occupations
- ii. Intermediate occupations
- iii. Routine and manual occupations

Additionally, there are two residual categories consisting of those who have never worked and those where NS-SEC could not be classified because of insufficient information.

The 2005 survey collected occupational information needed to code NS-SEC for mothers only. It did not collect occupational information for partners, as had been the case on all

previous surveys. This means that all analysis by socio-economic classification is based on the mother, and not on her partner.

Details of how NS-SEC is derived and the different analysis categories can be found on the National Statistics website<sup>12</sup>.

**Ethnic group:** The 2005 survey asked mothers in England, Wales and Scotland for their ethnic group. The question used was the National Statistics ethnic group question first introduced in 2001. It consists of the following categories:

- White British, Irish, Any Other White background
- Mixed White and Black Caribbean, White and Black African, White and Asian, Any Other Mixed background
- Asian or Asian British Indian, Pakistani, Bangladeshi, Any Other Asian background
- Black or Black British Caribbean, African, Any Other Black Background
- Chinese or Other Ethnic Group Chinese, Any Other Ethnic background

In Northern Ireland, religious denomination was asked instead of ethnicity, although no results are presented by religion.

**Stages of the survey:** The approximate ages of babies at the different Stages of the survey were as follows:

Stage 1: babies aged four to ten weeks

Stage 2: babies aged four to six months

Stage 3: babies aged eight to ten months

<sup>&</sup>lt;sup>12</sup> http://www.statistics.gov.uk/methods\_quality/ns\_sec/

## **Chapter 1 Tables**

Table 1.1: D	Table 1.1: Distribution of sample by birth order and country (2000 and 2005)													
	England & Wales		Scotland		Northern Ireland		United Kingdom		England		Wales			
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005		
	%	%	%	%	%	%	%	%	%	%	%	%		
First baby	47	51	49	51	41	49	47	51	n/a	51	n/a	50		
Second or later baby	51	49	51	49	59	51	53	49	n/a	49	n/a	50		
Base: All Stage 1 mothers	5441	8210	2274	2194	1779	1886	9492	12290	n/a	6075	n/a	2135		

Table 1.2: Distribution of sample by mother's age and country (2000 and 2005)													
	England & Wales		Scotland		Northern Ireland		United Kingdom		England		Wales		
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	
	%	%	%	%	%	%	%	%	%	%	%	%	
Under 20	7	7	6	8	6	6	7	7	n/a	7	n/a	10	
20-24	18	20	16	18	15	17	18	20	n/a	20	n/a	23	
25-29	28	26	29	26	30	26	29	26	n/a	26	n/a	25	
30-34	30	28	31	28	33	31	30	28	n/a	29	n/a	26	
35 or over	16	19	18	20	16	19	16	19	n/a	19	n/a	16	
All aged 30 or over	46	47	49	48	49	50	47	47	n/a	47	n/a	42	
Base: All Stage 1 mothers	5441	8210	2274	2194	1779	1886	9492	12290	n/a	6075	n/a	2135	

 Table 1.3: Distribution of sample by age at which mother completed full-time education and country (2000 and 2005)

	Engle	and 8	Scot	land	Nort	born	lln	itod	England		Walos	
	Wales		Scollanu		Ireland		Kingdom		England		Wales	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%	%	%	%	%	%	%
16 or under	37	28	36	28	25	18	36	28	n/a	28	n/a	30
17 or 18	34	34	33	34	40	34	35	34	n/a	34	n/a	35
19 or over	28	38	31	38	34	48	28	38	n/a	38	n/a	35
Base: All Stage 1 mothers	5441	8210	2274	2194	1779	1886	9492	12290	n/a	6075	n/a	2135

Table 1.4: Distribution of sample by mother's socio-economic classification (NS-SEC) and country (2000 and 2005)														
	England & Wales		Scotland		Northern Ireland		United Kinadom		England		Wales			
	2000	2005	2000	2005	2000	2005	2000 ັ	2005	2000	2005	2000	2005		
	%	%	%	%	%	%	%	%	%	%	%	%		
Managerial & professional	29	36	31	37	27	38	29	36	n/a	36	n/a	31		
Intermediate occupations	20	20	20	22	20	22	20	21	n/a	20	n/a	22		
Routine & manual	28	33	27	34	28	33	28	33	n/a	32	n/a	39		
Never	14	7	12	5	13	5	13	7	n/a	7	n/a	5		
Unclassified	9	3	10	2	11	2	9	3	n/a	3	n/a	3		
Base: All Stage 1 mothers	5441	8210	2274	2194	1779	1886	9492	12290	n/a	6075	n/a	2135		

Table 1.5: Age of babies at each Stage of the survey by country (2000 and 2005)													
	England &		Scotland		Northern		United		England		Wales		
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	
Mean age of													
babies at:													
Stage 1 (days)	46	55	54	47	60	52	48	54	n/a	55	n/a	54	
Proportion of babies:	%	%	%	%	%	%	%	%		%		%	
Aged 6-10 weeks	50	65	80	53	82	61	54	64	n/a	65	n/a	65	
Aged 4-10 weeks	86	84	88	93	83	88	84	85	n/a	84	n/a	86	
Mean age of babies at:													
Stage 2 (nearest week)	20	21	21	20	20	21	20	21	n/a	21	n/a	21	
Proportion of babies:	%	%	%	%	%	%	%	%		%		%	
Aged 4-5 months	62	67	54	72	47	65	60	67	n/a	67	n/a	68	
Aged 4-6 months	83	82	84	82	68	80	82	82	n/a	82	n/a	81	
Mean age of babies at:													
Stage 3 (nearest week)	40	41	42	41	41	41	41	41	n/a	41	n/a	41	
Proportion of babies:	%	%	%	%	%	%	%	%		%		%	
Aged 8-9 months	34	25	15	30	35	29	33	26	n/a	25	n/a	25	
Aged 8-10 months	66	80	70	82	71	76	79	80	n/a	80	n/a	79	
Bases:													
All Stage 1 mothers	5441	8210	2274	2194	1779	1886	9492	12290	n/a	6075	n/a	2135	
All Stage 3 mothers	4729 4112	7141 6145	1953 1718	1918 1666	1437	1605	₀∠99 7267	9416	n/a	5∠67 4563	n/a	1654 1582	

# 2 Incidence, prevalence and duration of breastfeeding
# **Key Findings**

## Initial incidence of breastfeeding

- Initial breastfeeding rates in 2005 were 78% in England, 70% in Scotland, 67% in Wales, and 63% in Northern Ireland. In England and Wales, Scotland and Northern Ireland the incidence of breastfeeding increased between 2000 and 2005. The 2005 survey was the first time estimates were available separately for England and Wales.
- Some of the increase in breastfeeding rates between 2000 and 2005 can be explained by changes in the age and educational profile of mothers. However, even after standardising the results to take account of these changes, breastfeeding rates in England and Wales, Scotland and Northern Ireland increased between 2000 and 2005
- The highest incidences of breastfeeding were found among mothers from managerial and professional occupations, those with the highest educational levels, those aged 30 or over and first time mothers. These variations were evident in all countries and were consistent with the patterns found in previous surveys.

## Prevalence and duration of breastfeeding

- The higher levels of initial breastfeeding seen in 2005 compared with 2000 extended beyond birth in all countries. Increases in the prevalence of breastfeeding were observed at all ages up to nine months in both England and Wales and Northern Ireland. In Scotland an increase in prevalence was seen only at ages up to six weeks.
- Prevalence of breastfeeding at all ages up to nine months was highest among mothers from managerial and professional occupations, those with the highest education levels, those aged 30 or over, and those from minority ethnic groups.
- Among mothers who did breastfeed initially the proportion still breastfeeding at six weeks and at six months was the same in 2005 compared to 2000. Only at nine months was the proportion of mothers still breastfeeding higher in 2005 compared with 2000. However, in Scotland the proportion of mothers still breastfeeding at six weeks and six months fell in 2005 compared with 2000.

## Prevalence and duration of exclusive breastfeeding

- Prevalence of exclusive breastfeeding was highest in England at ages up to four months and lowest in Northern Ireland and Wales. At six months prevalence of exclusive breastfeeding was negligible in all countries (<1%).
- Among mothers who breastfed exclusively at birth, the proportion still feeding exclusively at all ages up to four months was higher in England and Scotland compared with Northern Ireland and Wales
- Prevalence and duration of exclusive breastfeeding were higher at all ages up to four months among mothers from managerial and professional occupations, mothers aged 30 or over, and mothers with the highest education level.
- Among mothers who breastfed exclusively at birth, almost two-thirds (64%) lost their exclusive feeding status by the introduction of formula milk, while 10% lost exclusivity through the introduction of solids. Mothers who first introduced solids fed exclusively for much longer than mothers who first introduced formula milk or other liquids.

This chapter presents the key statistics about initiation of breastfeeding, the proportion of babies who were being breastfed at specific ages up to nine months, and the length of time mothers continued to breastfeed. The survey also measured levels of exclusive breastfeeding at specific ages up to six months for the first time. For all these key measures comparisons are made with previous surveys where possible and variations by different demographic subgroups are explored.

## 2.1 Incidence of breastfeeding

Incidence of breastfeeding is defined as the **proportion of babies who were breastfed initially**. This includes all babies who were put to the breast at all, even if this was on one occasion only.

## 2.1.1 Trends in incidence of breastfeeding

Trends in the incidence of breastfeeding by individual country and for the United Kingdom as a whole are available back to 1990. The historical data show that, in all countries where time trend data are available, there has been a steady increase in the incidence of breastfeeding since 1990. This trend continued over the period between the 2000 and 2005 surveys, with breastfeeding rates having increased from 71% to 77% in England and Wales, 63% to 70% in Scotland, and 54% to 63% in Northern Ireland.

As in previous surveys the incidence of breastfeeding varied by country, being highest in England and lowest in Northern Ireland. Although breastfeeding rates in Northern Ireland remain lower compared with other countries, it is worth noting that the increase in rates between 2000 and 2005 was greater in Northern Ireland than elsewhere in the United Kingdom.

Separate breastfeeding rates were available for England and Wales for the first time in 2005 and showed incidence rates of 78% and 67% respectively.

Table 2.1, Figure 2.1



## 2.1.2 Variations in the incidence of breastfeeding

All previous surveys have shown a consistent pattern of variation in the incidence of breastfeeding according to certain socio-demographic characteristics of the mother, such as socio-economic classification, education level and age of mother. The 2005 survey confirmed the continued existence of these variations, which were broadly consistent across all countries.

## Birth order

Previous surveys have shown that the incidence of breastfeeding is higher among mothers of first babies compared with later babies. This continued to be the case in 2005 and was seen in all countries.

Across the United Kingdom almost eight in ten first-time mothers (79%) breastfed their babies initially compared with 73% of mothers of second or later babies. However, between 2000 and 2005 the increase in breastfeeding rates across the United Kingdom was greater among mothers of second or later babies compared with first-time mothers. This continued a trend that was seen in the last survey and means that the gap between the breastfeeding levels of first-time and second-time mothers is now at a historically low level, suggesting that the messages about the benefits of breastfeeding are reaching both first-time and second-time mothers.

## Changes in feeding behaviour between current baby and previous baby

Previous surveys have shown that the likelihood of a mother breastfeeding her second or subsequent baby is strongly associated with her experiences of feeding her previous children. This has led to the targeting of feeding information and advice to first-time mothers. Table 2.2 showed that although the incidence of breastfeeding was higher among first-time mothers compared with mothers of second or later babies this gap has narrowed over time.

In 2005 the association between current breastfeeding behaviour and previous behaviour was still in evidence. In the United Kingdom, while 73% of all mothers of second or later babies initially breastfed there was a large difference in feeding rates according to how they had fed their previous child<sup>13</sup>. Almost all mothers (98%) who had breastfed their previous child for six weeks or more also breastfed initially this time round, while 79% of those who had breastfed their previous child for less than six weeks also initially breastfed their current child. This suggests that any previous experience of breastfeeding, even if only for a relatively short-period, has a positive impact on future breastfeeding behaviour.

Among mothers of second or later babies who had **not** breastfed their previous child, a third (33%) changed their behaviour and breastfed this time round, at least initially. This pattern was broadly consistent across all countries, although mothers in Scotland and Northern Ireland who had **not** breastfed their previous child were less likely than mothers in England to breastfeed this time round (26% and 24% respectively compared with 36%).

Although the association between current breastfeeding and previous breastfeeding is consistent with previous surveys, the 2005 survey found that more second-time mothers who had previously not breastfed switched to breastfeeding this time round compared with the 2000 survey. Thus, in 2000 around a quarter (26%) of those who had **not** breastfed their previous child switched to breastfeeding. This compared with a third (33%) of mothers who switched in 2005. This change was greatest in England and Wales where the proportion of those who had **not** breastfed their previous baby switching to breastfeeding this time round rose from 27% in 2000 to 35% in 2005. This change in feeding behaviour among mothers of second or later babies goes some way to explaining why the gap in incidence rates between first-time and second-time mothers (Table 2.2) has narrowed over time.

### Table 2.3

As found in the 2000 survey, mothers of second or later babies who switched to breastfeeding their current baby had particular socio-demographic characteristics. Compared with all mothers of second or later babies, those who switched were more likely to be younger (20% of switchers were under 25 compared with 14% of all second-time mothers), less well educated (44% of switchers left school at age 16 or earlier compared with 31% of all second-time mothers), and from intermediate or routine and manual social groups (63% of switchers were from these two social groups compared with 54% of all second-time mothers).

<sup>&</sup>lt;sup>13</sup> Mothers who had more than two children were classified according to how they had fed their last child.

This finding suggests that the shift to breastfeeding among mothers of second or later babies happened primarily among the more socially disadvantaged groups of the population. However, this could be attributable to the fact that older, well-educated, and higher social class mothers were more likely to have breastfed both their previous child and their current child. It is perhaps not surprising, therefore, that switching was concentrated in groups where breastfeeding rates have historically been low.

## Socio-economic classification (NS-SEC) of mother

Mothers were classified into socio-economic groups based on either their current job or previous job. Further details of the NS-SEC classification can be found in Chapter 1.

As found in the 2000 survey, there was a clear association between breastfeeding and socioeconomic status. Across the United Kingdom, 88% of mothers in managerial and professional occupations breastfed initially, compared with 77% of mothers in intermediate occupations, and 65% of mothers in routine and manual occupations. Breastfeeding rates among mothers who had never worked were the same as those found among mothers in routine and manual occupations (65%). This association between socio-economic classification and breastfeeding was evident in all countries.

Compared with England, breastfeeding rates were lower in Scotland, Wales and Northern Ireland for mothers in every socio-economic grouping, reflecting the overall pattern seen in Table 2.1

Between 2000 and 2005 breastfeeding rates across the United Kingdom increased among mothers in all socio-economic groups, with the largest increases observed among mothers in routine and manual occupations and among mothers who had never worked. Thus, breastfeeding rates among mothers in managerial and professional occupations increased from 85% in 2000 to 88% in 2005 compared with an increase from 59% to 65% among mothers in routine and manual occupations, and from 52% to 65% among mothers who had never worked.

Changes in breastfeeding rates between 2000 and 2005 among mothers in different socioeconomic groups showed some variation by country. In England and Wales, the greatest increases in breastfeeding rates were seen among mothers in routine and manual occupations and among mothers who had never worked. Thus, between 2000 and 2005, breastfeeding rates in England and Wales increased from 60% to 67% among mothers in routine and manual occupations, and from 54% to 67% among mothers who had never worked. In Scotland, the biggest increases were among mothers in intermediate occupations (from 64% to 72%) and among mothers who had never worked (from 41% to 52%), while in Northern Ireland the increases were broadly similar across all socio-economic groups.

Table 2.4, Figure 2.2



## Age at which mother completed full-time education

In 2005 there was a clear association between breastfeeding and education level, a pattern seen in previous surveys. Across the United Kingdom, mothers who had left full-time education at age 16 or younger were the least likely to have breastfed (59%), while those who had left full-time education at 18 or older were the most likely to have breastfed (91%). This association was evident in all countries.

Looking at trend data, across the United Kingdom, there were increases in breastfeeding rates among mothers of all educational levels between 2000 and 2005. However, this hides some variation between different countries. In England and Wales, an increase between 2000 and 2005 was seen only among mothers with the lowest education level (from 55% in 2000 to 61% in 2005). By contrast, in Northern Ireland, an increase was seen only among mothers with the highest educational level (from 71% in 2000 to 78% in 2005). In Scotland, increases were seen among mothers in the two highest education levels.

Table 2.5

## Age of mother

As in previous surveys there was a strong association across all countries between breastfeeding and the age of the mother. Across the United Kingdom as a whole breastfeeding rates were lowest among mothers aged 20 or under (51%) and highest among mothers aged 35 or over (84%). The incidence of breastfeeding among mothers aged 20 or under was particularly low in Scotland (40%) and Northern Ireland (35%).

When looking at the trends between 2000 and 2005, across the United Kingdom, increases in breastfeeding rates were seen in all age groups although these were not statistically significant among mothers aged 20 or under. This was also true for the individual countries, where increases in breastfeeding rates between 2000 and 2005 were seen in all age groups, except for mothers aged 20 or under.



### Table 2.6, Figure 2.3

## Ethnicity of mother

Information on ethnicity was collected in England, Wales and Scotland, but was not asked in Northern Ireland. As in 2000, mothers from all minority ethnic groups were more likely to breastfeed compared with white mothers. Thus more than nine in ten mothers who classified themselves as Asian, Black, or Chinese or other ethnic origin initially breastfed compared with around three-quarters of white mothers (74%). Between 2000 and 2005 incidence of breastfeeding increased among both white mothers (68% to 74%) and Asian mothers (87% to 94%).

## Table 2.7

## Region

Due to the increase in the sample size of the 2005 survey it is possible for the first time to present some results for England broken down by Strategic Health Authority.

In England breastfeeding rates were lower than average in the North East (59%), the North West (66%) and the West Midlands (73%) regions but were higher than average in London

(90%), the South West (86%), the South Central (86%), and the South East Coast (85%) regions.

Table 2.8

## 2.2 Standardisation of breastfeeding rates

Although the change in breastfeeding rates between 2000 and 2005 represented an increase in each country for which trends are available, it is important to place the results in the context of changes in the composition of the sample over time.

As shown in Section 2.1.2, incidence of breastfeeding has always been strongly associated with the age, the educational level, and the socio-economic status of the mother. It is therefore important to look at the composition of the sample over time to assess to what extent any increase in the incidence of breastfeeding in this period is attributable to changes in the sample, as opposed to a 'real' increase in the population.

Previous surveys have shown an increasing proportion of mothers aged over 30, and mothers who have continued in full-time education beyond the age of 19. Since both of these factors are strongly associated with breastfeeding, a technique known as standardisation has been used to separate the contribution of compositional change from what might be termed 'real' change over the period since 1985.

Table 2.9 shows the incidence of breastfeeding within each country with the rates standardised for age and educational level. Due to the differences in the sample design pre-2000 it is only possible to show this for England and Wales combined. It is also no longer possible to standardise results by socio-economic grouping due to the change from Social Class to National Socio-economic classification (NS-SEC) highlighted in Chapter 1.

As already seen the survey estimates of the incidence of breastfeeding in England and Wales were 71% in 2000 and 77% in 2005. However, the standardised rates, assuming that the distribution of age and education of the sample had remained the same as in 1985, were 62% in 2000 and 67% in 2005. This indicates that the observed change in breastfeeding rates between 2000 and 2005 in England and Wales represents a real increase and was not simply due to changes in the sample composition.

The incidence of breastfeeding in Scotland increased from 63% in 2000 to 70% in 2005. Standardisation shows that some of this change can be attributed to changes in the sample composition, but the standardised rates still showed an increase in the incidence of breastfeeding from 54% to 57% between 2000 and 2005.

In Northern Ireland a similar pattern was evident with standardisation removing some, but not all, of the observed increase in incidence of breastfeeding between 2000 and 2005. The standardised figures show an increase in breastfeeding from 47% to 51% between 2000 and 2005.

## 2.3 **Prevalence of breastfeeding**

Prevalence of breastfeeding is defined as the proportion of all babies who are being breastfed at specific ages, even if they are also receiving infant formula or solid food.

## 2.3.1 Trends in prevalence by country

As already seen in Table 2.1, across all countries initial breastfeeding rates were higher in 2005 compared with previous surveys. However, although more than three-quarters (76%) of mothers started breastfeeding at birth, there was a noticeable fall-out during the early weeks. Thus, across the United Kingdom the prevalence of breastfeeding fell from 76% at birth to 63% at one week, and to 48% at six weeks. At six months, a quarter of mothers (25%) were still breastfeeding.

The pattern of fall-out was broadly similar across all countries, although the actual levels of breastfeeding at later ages varied from country to country<sup>14</sup>.

Stage 1 of the survey asked mothers the exact day they gave up breastfeeding meaning that it was possible to look at fall-out rates on a daily basis within the first week. Table 2.10 shows that during the first week the fall-out was fairly evenly spread, with some mothers breastfeeding (or trying to breastfeed) for only a day or two. Across the United Kingdom, the proportion of mothers who were breastfeeding fell from 76% to 72% at two days, to 67% at four days, and to 63% at one week.

Table 2.10, Figure 2.4

<sup>&</sup>lt;sup>14</sup> It should be noted that the analysis on the prevalence of breastfeeding is based on all mothers who completed Stage 3 of the survey, while incidence of breastfeeding is based on all mothers who completed Stage 1 of the survey. This means there are some small differences in the estimates reported in section 1.1 about incidence of breastfeeding compared with the prevalence of breastfeeding at birth reported in section 1.2. No estimates differ by more than one percentage point.



Table 2.10 also shows the changes in prevalence of breastfeeding by country compared with the last survey. While the pattern of fall-out was broadly similar in 2000 and 2005, the higher levels of initial breastfeeding seen in 2005 were maintained at each age compared with the previous survey, although the differences between surveys narrowed as the babies got older. Thus, in the United Kingdom the prevalence of breastfeeding at one week was 63% in 2005 compared with 55% in 2000. At six weeks the respective prevalence levels were 48% compared to 42%, while at six months the levels were 25% in 2005 compared to 21% in 2000. This finding highlights the importance of encouraging mothers to try to breastfeed in the hours and days immediately after birth since it suggests that the more mothers who try to breastfeed initially, the more who will actually go on to breastfeed successfully over the longer term.

Higher prevalence of breastfeeding between 2000 and 2005 was evident in all countries for which comparisons were available, although the greatest increase was seen in Northern Ireland. Here the prevalence of breastfeeding at one week was 46% in 2005 compared with 37% in 2000, while at six weeks it was 32% in 2005 compared with 26% in 2000. In England and Wales and Northern Ireland higher prevalence rates were maintained in 2005 compared with 2000 through until nine months, although this was not the case in Scotland. Here the prevalence rates at six months and nine months were exactly the same in 2000 and 2005 (24% at six months and 15% at nine months).

### 2.3.2 Variations in the prevalence of breastfeeding

### Birth order

As already seen, first-time mothers were more likely to initiate breastfeeding at birth. However, Table 2.11 shows that first-time mothers had a higher fall-out rate compared with mothers of second or later babies. This meant that the prevalence of breastfeeding among mothers of second or later babies was higher compared with first-time mothers from four months onwards. For example, at six months the breastfeeding rate among mothers of second or later babies was 28% compared with 23% among first-time mothers. The finding that first-time mothers stop breastfeeding earlier than second-time mothers was consistent with previous surveys.

Table 2.11

### Socio-economic classification (NS-SEC) of mother

Table 2.12 shows that the differences in the levels of breastfeeding seen at birth between mothers from different socio-economic groups continued through until nine months, with mothers from managerial and professional occupations having higher rates of breastfeeding at all ages compared with mothers from intermediate occupations, who in turn had higher rates compared with mothers from routine and manual occupations. For example, prevalence of breastfeeding at six weeks was 65% among mothers from managerial and professional occupations compared with 46% among mothers from intermediate occupations and 32% among mothers from routine and manual occupations.

Mothers who had never worked had similar levels of breastfeeding in the early stages to mothers from routine and manual occupations, although a gap developed after six weeks. Thus, for example, at six months 25% of mothers who had never worked were breastfeeding compared with only 16% of mothers from routine and manual occupations.

### Table 2.12

## Age at which mother completed full-time education

Table 2.13 shows that the differential rates of breastfeeding seen at birth by the mother's education level continued at all ages with the gap widening at later ages. Thus, at six months mothers with the highest level of education were more than three times as likely to be breastfeeding compared with mothers classified to the lowest education level (39% and 12% respectively).

## Age of mother

Table 2.14 shows breastfeeding prevalence by the age of the mother. This shows that not only were initial breastfeeding rates lower among younger mothers but also that the fall-out rate was higher among this group. At six months mothers aged 35 or over were more than five times as likely to be breastfeeding compared with mothers aged under 20 (36% and 7% respectively).

Of particular note was the fall-out rate among mothers under 20. While over half (52%) of this group breastfed or tried to breastfeed initially, this had fallen to 44% at two days, and to 34% at one week.

Table 2.14

## Ethnicity of mother

Both Asian and Black mothers were more likely than white mothers to breastfeed initially. This difference was maintained through until later ages, with 37% of Asian mothers and 57% of Black mothers breastfeeding at six months compared with 23% of white mothers. Breastfeeding rates at six months were also higher among both mothers of mixed ethnic origin (40%) and Chinese and other ethnic origin (40%) compared with white mothers.

Particularly noticeable was the high level of breastfeeding among Black mothers and the relatively low fall-out rate. While 97% of Black mothers breastfed initially, this had fallen to only 87% at six weeks, and to 72% at four months. Even at nine months, almost four in ten Black mothers (39%) were still breastfeeding compared with 16% of white mothers.

Table 2.15

## Region

Table 2.16 shows that the regional differences seen in England in initial rates of breastfeeding were maintained at later ages. Although the fall-out rate varied between regions, the rate of fall-out tended to be higher in those regions where initial incidence was lowest. Thus, at six months the highest breastfeeding rates were in London (39%) and the South East Coast (34%) regions, while the lowest rates were in the North East (17%) and the North West (17%) regions.

Table 2.16

## 2.4 Duration of breastfeeding

The duration of breastfeeding refers to the length of time that mothers who breastfeed initially continue to breastfeed even if they are also giving their baby other milk and solid foods.

The results presented in this section relate only to mothers who ever breastfed and shows the proportion who were still breastfeeding at different ages. Duration of breastfeeding is probably an easier measure to interpret than prevalence when comparing the different fall-out rates among various sub-groups, simply because all groups begin from the same starting point (i.e. 100% of mothers are breastfeeding).

## 2.4.1 Trends in duration by country

In 2005, across the United Kingdom, 17% of mothers who breastfed initially had stopped at one week, with six per cent having stopped at only two days. By six weeks, 63% of mothers who started breastfeeding were still doing so, while this fallen to a third (33%) by six months.

Between countries the fall-out rate was higher at all ages in Wales and Northern Ireland compared with England and Scotland. For example, at one week 23% of mothers in Wales and 26% of mothers in Northern Ireland who breastfed initially had stopped compared with only 16% in England and 19% in Scotland. This difference was also apparent at six weeks and six months. Thus, at six months around three-quarters of mothers in Northern Ireland (78%) and Wales (73%) who breastfed initially had stopped compared with two-thirds of mothers in England (66%) and Scotland (66%).

The pattern of fall-out among mothers in Scotland was broadly the same as in England, so that at six months 34% of mothers in both England and Scotland who breastfed initially were still doing so.





Table 2.17 also compares the duration of breastfeeding at different ages between 2000 and 2005. This shows that across the United Kingdom there was little change in the proportion of mothers who stopped breastfeeding at one week, six weeks, or six months between 2000 and

2005. Only at nine months was the proportion of mothers still breastfeeding higher in 2005 compared with 2000 (23% and 19% respectively).

In both England and Wales and Northern Ireland there was little difference between 2000 and 2005 in the proportion of mothers still breastfeeding at different ages. However, in Scotland the proportion of mothers breastfeeding at later ages actually fell between 2000 and 2005. Thus, in 2005 62% of mothers in Scotland who breastfed initially were still breastfeeding at six weeks compared with 67% in 2000. A similar fall was evident at six months with the proportion still breastfeeding being 34% in 2005 compared with 40% in 2000.

Table 2.17

## 2.4.2 Variations in duration of breastfeeding

## Birth order and previous breastfeeding experience

Table 2.18 confirms what has been found in previous surveys, namely that mothers of second or later babies tend to breastfeed for longer than first-time mothers. Although there was little difference at one week, by six weeks 68% of mothers of second or later babies who initially breastfed were still breastfeeding compared with 58% of first-time mothers. This gap was also evident at six months with 38% of second time mothers still breastfeeding compared with 29% of first-time mothers.

## Table 2.18

It has already been shown in Table 2.3 that a third (33%) of mothers who did not breastfeed their previous child switched to breastfeeding at least initially for their current baby. It is interesting to look at the duration of breastfeeding among mothers of second or later babies by how they fed their previous child to see whether their experiences this time round reflected the previous time.

Table 2.19 shows that there were some substantial differences in duration rates according to previous feeding behaviour. Among mothers who had **not** breastfed their previous child but who chose to breastfeed at least initially this time round there was a sharp fall-out, especially in the first week. In fact, 40% of these mothers stopped breastfeeding after one week, with one in five (19%) stopping after one day. By six months only one in six of these mothers were still breastfeeding (16%) compared with over half (52%) of mothers who had fed their previous child for six weeks or more.

Among mothers who had breastfed their previous child, there was also some difference in duration this time round according to how long they had breastfed the last time. Mothers who had breastfed their previous child for less than six weeks showed a higher fall-out rate at the early stages, with a third (34%) stopping within a week, and three-quarters (73%) stopping within six weeks. In fact, at six weeks and beyond, breastfeeding rates among mothers who had **not** breastfed their previous child for a relatively short period (for example 39% and 27% at 6 weeks respectively). Most mothers who had breastfed their previous child for a relatively short period (for six weeks or longer were also likely to feed their current baby for six weeks or more. Thus, at six weeks 87% of these mothers were still breastfeeding, while over half (52%) were still breastfeeding at six months.

Table 2.19, Figure 2.6



## Socio-economic classification (NS-SEC) of mother

Table 2.20 shows that among mothers who breastfed initially, those from higher socioeconomic groups tended to breastfeed for longer, with mothers from routine and manual occupation groups and those who had never worked being more likely to stop feeding after one week. Thus, after one week 89% of mothers from managerial and professional occupations were still breastfeeding compared with 77% of mothers from routine and manual occupation groups and 78% of mothers who had never worked. This differential fall-out rate continued at later ages so that by six weeks 73% of mothers from managerial and professional occupations were still breastfeeding compared with 60% of mothers from intermediate occupations, and 49% of mothers from routine and manual occupations. This differential by socio-economic group persisted at six months.

Mothers who had never worked had a lower fall-out rate at six months compared with mothers from intermediate and routine and manual occupation groups. This might be explained by the fact that they did not work, meaning that they had more opportunity to continue breastfeeding for longer compared with mothers who returned to work when their baby was relatively young (see next section).

## When mother returned to work

Among mothers who breastfed initially there was some variation in duration of breastfeeding by when they returned to work. Not surprisingly, in the early stages after birth up to six weeks, there was little difference in fall-out rates by the working status of the mother, since few mothers were working at this stage. However, at both four months and six months, the fall-out rate among mothers who returned to work before their baby was six months old was higher when compared with mothers who returned when their baby was older and those who were not working at all by Stage 3 of the survey. Thus, 26% of mothers who returned to work when their baby was less than four months and 18% of those who returned with 31% of those who returned to work when their baby was older than six months and 39% of those who were not working by Stage 3 of the survey.

By nine months breastfeeding levels among mothers who were not working were higher than mothers who had returned to work. For example, at nine months 30% of mothers who breastfed initially and who were not working by Stage 3 of the survey were still breastfeeding compared with 23% of mothers who returned to work when their child was nine months or older and 11% of mothers who returned to work when their child was four to six months old.

Table 2.21

## Age at which mother completed full-time education

Table 2.22 shows that mothers with the highest education level breastfed for longer compared with mothers with the lowest education level. For example, at six weeks 75% of mothers who left school at 18 or over were still breastfeeding compared with 44% of those who left school at age 16 or earlier. At six months the equivalent rates were 43% and 20% respectively.

## Table 2.22

## Age of mother

Table 2.23 shows that older mothers were more likely than younger mothers to breastfeed for longer. Among mothers aged under 20 there was an especially high fall-out rate in the first week, with only 66% of mothers aged under 20 who breastfed initially still breastfeeding after one week. This compared with 89% of mothers aged 35 or over. Differential fall-out rates between mothers of different ages continued up to and beyond six months. Thus, at six months only 13% of mothers aged under 20 were still breastfeeding compared with 33% of mothers aged 35 or over.

Table 2.23, Figure 2.7



## Ethnicity of mother

White mothers who breastfed initially did so for a shorter time compared with mothers from other ethnic groups. Black mothers had a particularly low fall-out rate, with 90% of those who breastfed initially still doing so at six weeks compared with 61% of white mothers. At six months breastfeeding rates among mothers of all minority ethnic groups were higher compared with white mothers.

## Table 2.24

## Region

Table 2.25 shows that duration of breastfeeding among mothers who breastfed initially varied by region in England, with mothers in the south feeding for longer than mothers in the north. For example, at six months 25% of mothers in the North West, 28% in Yorkshire and Humberside, and 31% in the North East regions were still breastfeeding compared with 43% of mothers in London, 39% in the South East Coast, and 38% in the South West regions.

## 2.5 Exclusive breastfeeding

In recent years there has been increasing interest in the number of mothers who breastfeed their child exclusively. The definition of exclusive breastfeeding adopted by the World Health Organisation in 1991 is that an infant receives only breast milk, and no other liquids or solids, with the exception of medicine, vitamins, or mineral supplements.

In 2000, the World Health Organisation commissioned a systematic review of the published scientific literature on the optimal duration of exclusive breastfeeding. As a result of this, the WHO recommended exclusive breastfeeding for the first six months and this recommendation has been adopted by all the UK Health Departments since 2001.

The 2005 Infant Feeding Survey represents the first time that an attempt was made to measure the proportion of all babies and infants who are exclusively breastfed at specific ages and the duration of exclusive feeding.

## 2.5.1 Defining and measuring exclusive breastfeeding

In considering how to define and measure exclusive breastfeeding it is important to distinguish between two concepts. The first concept, and the one that is more commonly measured, is the proportion of babies or infants who are **currently being exclusively breastfed**. This is usually measured by asking mothers what they have fed their babies over a specific period, such as the last 24 or 48 hours. The strength of this measure is that it is unlikely to be affected by significant recall error since the period being asked about is both easily defined and in the recent past. However, the weakness of the measure is that it represents only a 'snapshot' and so is not a good measure of irregular feeding patterns. Thus, infants who are given formula, other liquids, or solids, on an irregular basis, would be categorised as 'exclusive' if they had not received them in the 24 or 48 hours before the survey.

The second way of thinking about exclusivity is to measure the proportion of babies or infants who **have been exclusively breastfed since birth**. This measure is better at capturing irregular feeding patterns since it seeks to measure babies and infants who have only **ever** been given breast milk since birth. With this measure exclusive feeding status is 'lost' the first time that formula milk, other liquids, or solids are given to a baby. The weakness of this measure, however, is that in the absence of continuous monitoring, it relies upon mothers being able to accurately recall when they first introduced formula milk, other liquids, and solids. Because of this a degree of recall error is likely to be incorporated into the measure.

The aim of the 2005 Infant Feeding Survey was to try and measure the proportion of infants at different ages who had been exclusively breastfed since birth.

The way in which the definition of exclusive breastfeeding used in this report was measured is outlined below:

• At each Stage of the survey mothers were asked whether they had ever given their babies formula milk, other liquids, or solids since birth. If the mother said that they had given any of these they were then asked at what age they had **first** introduced each one;

- At each Stage of the survey the way in which the age data was collected was tailored to what was considered to be the most realistic way of collecting the data given the likely recall period. Thus, at Stage 1, mothers were asked when they had first introduced formula or other liquids in terms of days or weeks; at Stage 2 they were asked about it in terms of weeks; and at Stage 3 they were asked about it in terms of months. While it was accepted that asking respondents to provide information to the nearest week or the nearest month created a degree of imprecision in the data collected, it was felt that this had to be balanced against the ability of mothers to accurately recall these events;
- Using this information three intermediate measures were then derived for each mother using a common timescale:
  - Age at which formula milk (or other milk) was first introduced;
  - Age at which any other liquids were first introduced; and
  - Age at which solids were first introduced
- Finally, a composite measure of exclusivity was derived by using the three intermediate measures to determine at what age exclusivity was lost by the introduction of formula milk, or other liquids, or solids. In deriving this measure careful attention was given to how the 'boundary points' were defined. For example, if a mother reported that they first introduced formula at six weeks, should they be counted as being exclusive or not exclusive at six weeks? It was decided that in such a situation the baby would be counted as being exclusively breastfed up to six weeks, but not at the six week point itself. This same principle was applied for all different ages.

It should be noted that in this chapter formula milk, solids and other liquids are discussed only in relation to measuring exclusive breastfeeding. Specific information about formula milk, solids, and other liquids is contained in the rest of the report (Chapters 5, 7 and 8).

## 2.5.2 Prevalence of exclusive breastfeeding by country

Prevalence of exclusive breastfeeding is defined as **the proportion of all babies who are being exclusively breastfed at specific ages**, meaning that they have only ever been given breast milk up to that specific age.

Table 2.26 shows the proportion of all mothers who were exclusively breastfeeding at different ages up to six months in each country.

Mothers who introduced something other than breast milk on day 1 were defined as not feeding exclusively at birth. Across the United Kingdom, almost two-thirds of mothers (65%) were exclusively breastfeeding at birth. It is worth noting that exclusive breastfeeding at birth was lower than the overall breastfeeding prevalence rate at birth (76%), indicating that a substantial proportion of mothers gave their baby something other than breast milk on the first day. This links in with the finding reported in Chapter 4 that a third of breastfeed babies had been given formula or other liquids before the end of their hospital stay. At one week less than half of all mothers (45%) were exclusively breastfeeding, while this had fallen to around a fifth (21%) by six weeks. At six months levels of exclusive breastfeeding were negligible.

The prevalence of exclusive breastfeeding at birth was highest in England (66%) and lowest in Northern Ireland (55%). The pattern of fall-out was broadly similar across all countries so that the different levels seen at birth in each country were maintained at later ages. For example, at six weeks the rate of exclusive breastfeeding was 22% in England compared with 13% in Northern Ireland, while at four months rates of exclusive breastfeeding were twice as high in England (8%) compared with both Northern Ireland and Wales (4%). By six months rates were negligible in all countries.

Table 2.26

## 2.5.3 Variations in the prevalence of exclusive breastfeeding

It is worth noting that because prevalence of exclusive breastfeeding is obviously linked to the overall incidence and prevalence rates the same patterns that have already been seen in relation to incidence, prevalence, and duration of breastfeeding among different sociodemographic groups will be largely repeated for exclusive breastfeeding.

## Birth order

At birth first-time mothers were more likely than mothers of second or later babies to be exclusively breastfeeding (67% and 62% respectively). However, first-time mothers were more likely than second-time mothers to introduce something other than breast milk at an early stage, meaning that at one week onwards the prevalence of exclusive breastfeeding was higher among mothers of second or later babies. For example, at six weeks 24% of mothers of second of later babies were feeding exclusively compared with 18% of first-time mothers.

Table 2.27

## Socio-economic classification (NS-SEC) of mother

Table 2.28 shows the same pattern of differential between mothers from different social groups in terms of prevalence of exclusive feeding as was seen with overall prevalence. Mothers from managerial and professional occupation groups were the most likely to be feeding exclusively at birth (77%), while mothers from routine and manual occupation groups (54%) and mothers who had never worked (48%) were the least likely.

These differences in levels of exclusive breastfeeding among different social groups were maintained at later ages. At four months mothers from managerial and professional groups were almost three times as likely to be feeding exclusively (11%) compared with both mothers from routine and manual occupations (4%) and those who had never worked (also 4%). However, by six months exclusive breastfeeding was negligible among mothers from all social groups.

## Age at which mother completed full-time education

There was a clear association between education level and rates of exclusive breastfeeding with mothers having the highest education levels being most likely to feed exclusively and mothers with the lowest education levels being the least likely to be feeding exclusively. This differential was seen at birth and was evident at all ages up to four months. Thus, at one week 58% of mothers with the highest education level were breastfeeding exclusively compared with 30% of mothers with the lowest education level. By four months, 13% of mothers with the highest education levels were feeding exclusively compared with four per cent of mothers with the lowest education levels.

## Table 2.29

## Age of mother

Older mothers were more likely than younger mothers to be feeding exclusively at birth. Over seven in ten mothers aged 35 or over (73%) and aged 30-34 (72%) were feeding exclusively at birth compared with 55% of mothers aged 20-24 and only 39% of mothers aged under 20. Differences in rates of exclusivity by the mother's age were broadly maintained at later ages. For example, at six weeks more than a quarter of mothers aged 30 or over were exclusive compared with 12% of mothers aged 20-24 and five per cent of mothers aged under 20.

## Table 2.30

## Ethnicity of mother

Table 2.31 shows that levels of exclusive breastfeeding at birth were higher among mothers of all minority ethnic groups compared with white mothers. However, at one week levels of exclusive feeding were fairly similar with 45% of white mothers feeding exclusively compared with 47% of Asian mothers and 44% of Black mothers. Levels of exclusivity were also broadly the same at six weeks among mothers from these ethic groups. Levels of exclusivity at four months were higher among both mothers of Mixed ethnic origin and among mothers of Chinese and other ethnic origin compared with mothers from other ethnic groups.

Although prevalence rates of exclusive breastfeeding were broadly similar among white, Asian and Black mothers at ages after one week, it is interesting to note that this is in contrast to prevalence levels of breastfeeding generally (not necessarily exclusive), which were much higher among Asian and Black mothers compared with white mothers (see section 2.3.2).

## Table 2.31

## Region

In England, levels of exclusivity by region broadly reflected the differences already seen in overall prevalence levels. Mothers in the North East (51%) and North West (57%) regions had the lowest levels of exclusive breastfeeding at birth, while mothers in the South West (78%) and the South East Coast (78%) regions had the highest levels. These differential levels of exclusive feeding by region were still in evidence at both six weeks and four months.

## 2.5.4 Duration of exclusive breastfeeding by country

Duration of exclusive breastfeeding refers to the length of time that mothers who breastfeed exclusively at birth continue to feed their baby only breast milk.

Table 2.33 shows that across the United Kingdom among mothers who were exclusively breastfeeding at birth there was a sharp fall-off in exclusivity in the early weeks. Thus, at one week 69% of mothers who fed exclusively at birth were still doing so, while by six weeks this had fallen to 32% of mothers who had fed exclusively at birth. At four months, 12% of mothers who were feeding exclusively at birth had still only ever given their baby breast milk, and this had fallen to negligible levels at six months.

The fall-out in exclusive feeding was broadly similar across all countries, although occurred at a slightly faster rate in Wales and Northern Ireland compared with England and Scotland. For example, 44% of mothers in England and 41% of mothers in Scotland who were breastfeeding exclusively at birth were still doing so at four weeks compared with 37% of mothers in both Northern Ireland and Wales. This differential was still evident at four months with 12% of mothers in England and 10% of mothers in Scotland still feeding exclusively compared with eight per cent in Northern Ireland and 7% in Wales.

### Table 2.33, Figure 2.8



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### 2.5.5 Variations in the duration of exclusive breastfeeding

### Birth order and previous feeding experience

Table 2.34 shows that among mothers who breastfed exclusively at birth the fall-out rate was higher among first-time mothers compared with mothers of second or later babies. At one week 36% of first-time mothers who were feeding exclusively at birth were no longer doing so compared with 26% of second-time mothers. This differential was evident at both six weeks with 39% of second-time mothers still feeding exclusively compared with 27% of first-time mothers and also at four months (14% and 9% respectively).

### Table 2.34

Although no information on exclusive breastfeeding of previous children was available it is interesting to look at the duration of exclusive breastfeeding by how mothers of second or later babies fed their previous child. Table 2.35 shows that mothers who breastfed their previous child for six weeks or more (not necessarily exclusively) breastfed exclusively for longer this time round compared with both mothers who had fed their previous child for less than six weeks and mothers who had not breastfed their previous child at all. The difference was especially noticeable in the early stages, with 84% of mothers who had breastfed their previous child for less to more still exclusively feeding their current baby at one week compared with only 52% of mothers who had breastfed their previous child for less than six weeks and 53% of mothers who had not breastfed their previous child.

At six weeks half (50%) of all mothers who had breastfed their previous child for six weeks or more were still feeding exclusively compared with 19% of mothers who did not breastfeed their previous child and nine per cent of mothers who breastfed their previous child for less than six weeks. In fact, at later ages the fall-out rate among mothers who had breastfed their previous child for only a relatively short time was higher compared with mothers who had not breastfed their previous child at all.

#### Table 2.35

### Socio-economic classification (NS-SEC) of mother

Among mothers who were breastfeeding exclusively at birth there was a clear difference in the fall-out rates by socio-economic grouping with mothers in managerial and professional occupations being likely to feed exclusively for longer than mothers in other social groups. Almost two-thirds (65%) of mothers from managerial and professional occupations who were feeding exclusively at birth were still exclusive at two weeks compared with 58% of mothers from intermediate occupations and 53% of mothers from routine and manual occupations. At two weeks, mothers who had never worked were the least likely to be still feeding exclusively (47%). These differential fall-out rates continued through until later ages. For example, at four months 14% of mothers from managerial and professional occupations. By this age mothers who had never worked had similar rates of exclusive feeding (8%) compared with mothers from routine and manual.

### Table 2.36, Figure 2.9



### When mother returned to work

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It has already been seen that the overall duration of breastfeeding was related to whether or not mothers returned to work and, if so, the age of the baby when they started work again. Table 2.37 shows that there was also an association between the duration of exclusive breastfeeding and returning to work, although this association was less strong. On average, mothers who had not returned to work by Stage 3 of the survey fed exclusively for slightly longer than mothers who had returned to work. For example, at four months 14% of mothers who had not returned to work were still feeding exclusively compared with eight per cent of mothers who returned to work when their baby was less than four months. For mothers who had returned to work, the age of the baby when they started again did not seem to be related to the duration of exclusive feeding. In particular mothers who returned to work when their child was six months or older were no more likely than mothers who returned to work when their child was younger than six months to be feeding exclusively at the six month point.

### Table 2.37

### Age at which mother completed full-time education

Table 2.38 shows that, on average, mothers with the highest education level breastfed exclusively for longer than mothers with the lowest education level. For example, at two weeks 65% of mothers with the highest education level who fed exclusively at birth were still

feeding exclusively compared with 48% of mothers with the lowest education level. At four months mothers with the highest education level were twice as likely as mothers with the lowest education level to be still breastfeeding exclusively (16% and 8% respectively).

#### Table 2.38

### Age of mother

There was a clear association between duration of exclusive breastfeeding and age of mother. On average, older mothers feeding exclusively at birth fed exclusively for longer than younger mothers. Just under two-thirds of mothers aged 30-34 (64%) and 35 or over (65%) were still feeding exclusively at two weeks compared with 49% of mothers aged 20-24 and 37% of mothers aged under 20. At four months, 17% of mothers aged 35 or over were still exclusively breastfeeding compared with just three per cent of mothers aged under 20.

#### Table 2.39

### Ethnicity of mother

Mothers from minority ethnic groups had higher levels of exclusive breastfeeding at birth compared with white mothers. However, Table 2.40 shows that among mothers who breastfed exclusively at birth the fall-off was greater among mothers from minority ethnic groups compared with white mothers in the early stages. For example, 70% of white mothers who fed exclusively at birth were still exclusive at one week compared with 62% of Asian mothers and 59% of Black mothers. This differential was also evident at four months with 12% of white mothers still feeding exclusively compared with seven per cent of Asian and five per cent of Black mothers. Mothers of Mixed ethnic origin (15%) and of Chinese or other ethnic origin (18%) had the highest levels of exclusive breastfeeding at four months.

#### Table 2.40

### Region

Table 2.41 shows that the fall-out rate of mothers who breastfed exclusively at birth was broadly similar across all regions of England. Duration of exclusive feeding tended to be longer in the South and the West and shorter in the North and the Midlands, although the pattern was not entirely consistent. For example, at six weeks 40% of mothers in the South East Coast and 39% of mothers in the South West who fed exclusively at birth were still doing so compared with 25% of mothers in the North West and 27% in the West Midlands.

#### Table 2.41

### 2.5.6 How exclusive breastfeeding status was lost

To try to better understand the nature of exclusive breastfeeding it is interesting to look at how mothers who breastfed exclusively at birth lost their exclusive status. Exclusivity is considered to be lost the first time that formula or other milk, solids, or any other liquid is given to a baby. From the data it was possible to work out for each mother who breastfed exclusively at birth exactly what, apart from breast milk, they first gave their baby. Some mothers may have given their baby both formula and liquid, for example, or some other combination around the same time. Since much of the data was collected in banded periods

(e.g. weeks) it was not always possible to know which component was actually introduced first.

All mothers who were feeding exclusively at birth were divided into five categories;

- Exclusive feeding status lost by the introduction of formula milk (or other milk);
- Exclusive feeding status lost by the introduction of any other liquids, such as water or juice;
- Exclusive feeding status lost by the introduction of formula milk and other liquids at around the same time;
- Exclusive feeding status lost by the introduction of solids; and
- Exclusive feeding status lost by the introduction of solids and something else (formula milk and/ or other liquids) at around the same time

Figure 2.10 shows that just under two-thirds of mothers (64%) who fed exclusively at birth lost their exclusive feeding status by giving their baby formula milk, while a further nine per cent lost it by introducing both formula milk and other liquids at around the same age. Around one in ten mothers (11%) lost their exclusive feeding status by first giving their baby some other liquid such as water or juice, while a similar proportion (10%) lost their exclusive status by giving their baby solids. A further six per cent did so by introducing both solids and either formula milk or some other liquid at around the same time.

Figure 2.10



Table 2.42 shows that there were some clear differences in the characteristics of mothers according to how they lost their exclusive feeding status. Compared with all mothers who fed exclusively at birth, mothers who lost their feeding status by first giving their baby solids tended to be disproportionately older, better educated, and from professional and managerial social groups. Thus, 56% of mothers who lost their exclusive feeding status by introducing solids were from managerial and professional occupations (compared with 44% of all mothers who fed exclusively at birth); 64% had the highest education level (compared with 47% of all mothers); and 29% were 35 or over (compared with 22% of all mothers).

Mothers who lost their exclusive feeding status by giving their baby some other liquid such as water or juice tended to be disproportionately younger and from routine and manual occupations. Thus, 27% of mothers who lost their exclusive feeding status by first introducing other liquids were aged under 24 (compared with 20% of all mothers who fed exclusively at birth); and 41% were from routine and manual occupations or had never worked (compared with 32% of all mothers).

## Table 2.42

Table 2.43 shows the duration of exclusive breastfeeding according to how mothers lost their exclusive feeding status. Mothers who lost their exclusive feeding status by the introduction of formula milk had a much shorter duration of exclusive breastfeeding compared with mothers who lost their exclusive status by the introduction of solids. Duration of exclusive

feeding among mothers who first introduced any other liquids was in between these other two groups.

Only 61% of mothers who fed exclusively at birth and who lost their exclusive feeding status by introducing formula milk were still feeding exclusively at one week. At six weeks this had fallen to only 20%, and to one per cent by four months. By contrast, 100% of mothers who lost their exclusive feeding status through the introduction of solids were still feeding exclusively at six weeks and two-thirds (66%) were still exclusive at four months. However, at five months this has fallen sharply to 32% and to three per cent at six months. While most mothers introduced solids before the recommended age of six months it is worth noting that in 2005 mothers were weaning their babies at a later age compared with 2000 (see Chapter 7).

These findings illustrate the fact that there is not a single reason why so few mothers actually manage to follow the recommendation of feeding exclusively until six months. One group of mothers stop feeding exclusively after a relatively short period because they introduce formula milk, either to replace or supplement breast milk; while another group of mothers stop feeding exclusively at around four to six months because they wean their baby at this age. This suggests that if mothers are to be encouraged to breastfeed exclusively until six months a variety of messages, both on the benefits of breast milk over formula milk and on the best age at which to introduce solids, need to be given.

Table 2.43, Figure 2.11



# **Chapter 2 Tables**

Table 2.1: Incidence of	of breastfeedii	ng by country	/, 1980-2005			
	1980	1985	1990	1995	2000	2005
% who breastfed initially	%	%	%	%	%	%
England & Wales	67	65	64	68	71	77
Scotland	50	48	50	55	63	70
Northern Ireland	n/a	n/a	36	45	54	63
United Kingdom	n/a	n/a	62	66	69	76
England	n/a	n/a	n/a	n/a	n/a	78
Wales	n/a	n/a	n/a	n/a	n/a	67
Bases: All Stage 1 mothers						
England & Wales	3755	4671	4942	4598	5441	8210
Scotland	1718	1895	1981	1863	2274	2194
Northern Ireland	n/a	n/a	1497	1476	1778	1886
United Kingdom	n/a	n/a	5533	5181	9492	12290
England	n/a	n/a	n/a	n/a	n/a	6075
Wales	n/a	n/a	n/a	n/a	n/a	2135

Table 2.2: Incident	ce of b	reastfe	eding l	oy birth	n order	and co	ountry (	2000, 20	05)			
	England & Wales		Scotland		Northern Ireland		United Kingdom		England		Wales	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
% who breastfed initially	%	%	%	%	%	%	%	%	%	%	%	%
First birth	75	80	67	73	59	67	74	79	n/a	81	n/a	71
Later birth	66	74	59	66	51	58	65	73	n/a	75	n/a	63
All mothers	71	77	63	70	54	63	69	76	n/a	78	n/a	67
Bases: All Stage 1 mothers First birth	2560	4196	1115	1121	729	916	4448	6268	n/a	3109	n/a	1067
Later birth	2881	4014	1159	1073	1049	970	5044	6022	n/a	2966	n/a	1068
All mothers	5441	8210	2274	2194	1778	1886	9492	12290	n/a	6075	n/a	2135

Table 2.3: Inciden	ce of	breast	feeding	j amoi	ng mo	thers	of mor	e than	one	child	by pre	evious
breastfeeding benav	Engla Wa	y count and & les	Scot	0, 2005 tland	) Nort Irela	hern and	Un King	ited Idom	Eng	land	Wé	ales
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
				Per	rcentag	e who	breastf	ed initia	ally			
How previous child was fed:	%	%	%	%	%	%	%	%	%	%	%	%
Never breastfed	27	35	22	26	20	24	26	33	n/a	36	n/a	28
Breastfed for less than 6 weeks	68	80	63	75	74	75	68	79	n/a	81	n/a	69
Breastfed for 6 weeks or more	96	98	95	98	93	96	96	98	n/a	98	n/a	96
All mothers of later births <sup>†</sup>	66	74	59	66	51	58	65	73	n/a	75	n/a	63
Bases: Stage 1 mothers with previous children Never breastfed	987	1290	453	418	526	430	1793	2005	n/a	940	n/a	415
Breastfed for less	556	713	207	180	101	216	966	1080	n/a	522	n/a	223
than 6 weeks	550	715	207	103	154	210	900	1000	n/a	522	n/a	225
Breastfed for 6 weeks or more	1210	1955	462	449	289	304	2068	2852	n/a	1463	n/a	416
All mothers of later births <sup>†</sup>	2881	4014	1159	1073	1049	970	5044	6022	n/a	2966	n/a	1068
<sup>†</sup> Includes some mother	s for wh	om meth	nod of fe	eding pr	evious cl	hild was	s not knov	wn				

Table 2.4: Incider country (2000, 200	nce of (5)	breast	feedin	g by n	nother'	s socio	o-econo	omic cla	issifica	tion (N	IS-SEC	) and
	Engla Wa	and & les	Scotland		Northern Ireland		Uni King	ited Idom	England		Wales	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
% who breastfed initially	%	%	%	%	%	%	%	%	%	%	%	%
Managerial & professional	86	89	80	84	76	80	85	88	n/a	89	n/a	84
Intermediate occupations	75	79	64	72	56	58	73	77	n/a	80	n/a	72
Routine and manual	60	67	53	56	45	49	59	65	n/a	67	n/a	55
Never worked	54	67	41	52	33	37	52	65	n/a	68	n/a	41
Unclassified	68	72	62	[53]	48	[64]	66	71	n/a	73	n/a	62
All mothers	71	77	63	70	54	63	69	76	n/a	78	n/a	67
Bases: All Stage 1 mothers												
Managerial & professional	1600	2970	702	807	484	723	2791	4463	n/a	2216	n/a	667
Intermediate	1090	1682	461	472	363	406	1906	2536	n/a	1240	n/a	467
Routine & manual	1499	2692	624	750	503	625	2619	4047	n/a	1970	n/a	826
Never worked	740	605	268	117	232	85	1277	868	n/a	455	n/a	116
Unclassified	510	261	218	[48]	196	[47]	901	376	n/a	195	n/a	58
All mothers	5441	8210	2274	2194	1778	1886	9492	12290	n/a	6075	n/a	2135

	England & Wales		yland & Scotland Vales		Nort Irel	Northern Ireland		United Kingdom		England		Wales	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	
% who breastfed initially	%	%	%	%	%	%	%	%	%	%	%	%	
16 or under	55	61	46	48	38	38	54	59	n/a	62	n/a	49	
17 or 18	72	74	63	68	50	55	70	73	n/a	75	n/a	65	
Over 18	89	92	83	87	71	78	88	91	n/a	92	n/a	85	
All mothers <sup>†</sup>	71	77	63	70	54	63	69	76	n/a	78	n/a	67	
Bases: All Stage 1 mothers													
16 or under	2009	2281	813	613	446	331	3436	3368	n/a	1681	n/a	635	
17 or 18	1875	2760	743	734	716	643	3289	4132	n/a	2037	n/a	746	
Over 18	1507	3101	708	822	603	892	2683	4684	n/a	2308	n/a	730	
All mothers	5441	8210	2274	2194	1778	1886	9492	12290	n/a	6075	n/a	2135	

Table 2.6: Inciden	ce of b	reastfe	eding l	by mot	her's a	ge and	country	<b>/ (2000</b> ,	2005)			
	England & Wales		Scotland		Northern Ireland		United Kingdom		England		Wales	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
% who breastfed initially	%	%	%	%	%	%	%	%	%	%	%	%
20 or under	49	53	31	40	24	35	46	51	n/a	54	n/a	42
20-24	60	68	53	59	41	49	58	67	n/a	69	n/a	58
25-29	69	77	63	70	54	63	67	76	n/a	78	n/a	71
30-34	78	85	71	77	62	71	76	83	n/a	85	n/a	76
35 or over	82	85	70	80	62	69	80	84	n/a	86	n/a	76
All mothers <sup>†</sup>	71	77	63	70	54	63	69	76	n/a	78	n/a	67
Bases: All Stage 1 mothers												
Under 20	383	601	143	180	103	118	557	905	n/a	436	n/a	205
20-24	973	1629	360	386	269	316	1670	2397	n/a	1193	n/a	495
25-29	1544	2122	655	568	526	497	2703	3179	n/a	1572	n/a	540
30-34	1647	2322	710	614	589	587	2894	3487	n/a	1728	n/a	547
35 or over	873	1517	402	430	284	361	1534	2287	n/a	1133	n/a	335
All mothers	5441	8210	2274	2194	1778	1886	9492	12290	n/a	6075	n/a	2135
<sup>†</sup> Includes some moth	ners for v	whom ag	ge was r	not recor	ded							

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Table 2.7: Incidence of breast	Table 2.7: Incidence of breastfeeding by ethnicity of mother (Great Britain, 2000 and 2005)											
	Percentage ini	who breastfed itially	Base: All Sta	ge 1 mothers								
	2000	2005	2000	2005								
	%	%										
White	68	74	8104	9023								
Mixed	86	84	92	182								
Asian or Asian British	87	94	274	635								
Black or Black British	95	96	185	352								
Chinese or other ethnic group	85	93	65	132								
All mothers <sup>†</sup>	<b>All mothers<sup>†</sup> 70 77</b> 8975 10404											
<sup>†</sup> Includes some mothers for whom ethnicity was not recorded												

Table 2.8: Incidence of breastf	eeding by region (United Kingdom	, 2005)
	Percentage who breastfed initially	Base: All Stage 1 mothers
	2005	2005
Strategic Health Authority	%	
North East	59	368
North West	66	900
Yorkshire & The Humber	75	505
East Midlands	77	569
West Midlands	73	740
East of England	81	721
London	90	682
South East Coast	85	573
South Central	86	479
South West	86	539
All England	78	6075
Wales	67	2135
Scotland	70	2194
Northern Ireland	63	1886
United Kingdom	76	12290

	1985	1990	1995	2000	2005
% who breastfed initially	%	%	%	%	%
England & Wales					
Unstandardised percentage	65	64	68	71	77
Standardised percentage	65	62	62	62	67
Scotland					
Unstandardised percentage	48	50	55	63	70
Standardised percentage	48	46	48	54	57
Northern Ireland					
Unstandardised percentage	n/a	36	45	54	63
Standardised percentage	n/a	36	41	47	51

Table 2.10:	): Prevalence of breastfeeding at ages up to 9 months by country (2000 and 2005)											
	Engla Wa	and & les	Scotland		Northern Ireland		United Kingdom		England		Wales	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%	%	%	%	%	%	%
Birth	71	78	63	71	54	62	69	76	n/a	78	n/a	68
2 days	n/a	73	n/a	66	n/a	57	n/a	72	n/a	74	n/a	63
3 days	n/a	71	n/a	63	n/a	54	n/a	70	n/a	72	n/a	59
4 days	n/a	69	n/a	61	n/a	50	n/a	67	n/a	70	n/a	56
5 days	n/a	67	n/a	59	n/a	49	n/a	66	n/a	68	n/a	55
6 days	n/a	66	n/a	58	n/a	47	n/a	64	n/a	66	n/a	53
1 week	57	65	50	57	37	46	55	63	n/a	66	n/a	52
2 weeks	54	61	47	54	34	44	52	60	n/a	62	n/a	48
6 weeks	43	49	40	44	26	32	42	48	n/a	50	n/a	37
4 months	29	35	30	31	14	20	28	34	n/a	35	n/a	24
6 months	22	26	24	24	10	14	21	25	n/a	26	n/a	18
9 months <sup>†</sup>	14	19	15	15	7	10	13	18	n/a	19	n/a	12
Base: All Stage 3 mothers	4112	6145	1718	1666	1437	1605	7267	9416	n/a	4563	n/a	1582
<sup>†</sup> Based on a	reduced	number o	of cases	excluding	those ba	abies who	had not	reached	9 month	s by Stag	ge 3	
Table 2.11: Prevalence of I 2005)	breastfeeding at ages	up to 9 months by birth	order (United Kingdom,									
---	-----------------------------	------------------------------	------------------------									
	First birth	Later birth	All mothers									
	%	%	%									
Birth	80	73	76									
2 days	75	68	72									
3 days	73	66	70									
4 days	70	64	67									
5 days	68	63	66									
6 days	66	62	64									
1 week	65	61	63									
2 weeks	60	59	60									
6 weeks	47	49	48									
4 months	32	36	34									
6 months	23	28	25									
9 months <sup>†</sup>	16	20	18									
Base: All Stage 3 mothers	4810	4606	9416									
<sup>†</sup> Based on a reduced number of	f cases excluding those bab	vies who had not reached 9 m	onths by Stage 3									

	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers
	%	%	%	%	%	%
Birth	88	77	66	64	69	76
2 days	85	72	61	56	63	72
3 days	84	69	58	55	61	70
4 days	82	66	55	53	59	67
5 days	81	64	53	52	58	66
6 days	79	62	52	51	58	64
1 week	79	62	51	50	58	63
2 weeks	76	57	46	46	58	60
6 weeks	65	46	32	38	50	48
4 months	47	30	21	30	36	34
6 months	35	23	16	25	27	25
9 months <sup>†</sup>	24	17	11	19	25	18
Base: All Stage 3 mothers	3479	1955	3051	650	280	9416

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education (United Kingdom, 2005)									
	16 or under	17 or 18	Over 18	All mothers <sup>††</sup>					
	%	%	%	%					
Birth	61	73	90	76					
2 days	55	68	87	72					
3 days	52	65	86	70					
4 days	49	63	84	67					
5 days	47	61	83	66					
6 days	45	59	82	64					
1 week	44	58	81	63					
2 weeks	39	55	78	60					
6 weeks	27	42	68	48					
4 months	17	27	51	34					
6 months	12	20	39	25					
9 months <sup>†</sup>	10	14	27	18					
Base: All Stage 3 mothers	2549	3137	3649	9416					
<ul> <li>Based on a reduced number of</li> <li>Includes some mothers for who</li> </ul>	cases excluding those b om age left full-time educ	abies who had not record	eached 9 months by led	/ Stage 3					

Table 2.13: Prevalence of breastfeeding at ages up to 9 months by age mother left full-time education (United Kingdom, 2005)

Table 2.14: Prevalenc 2005)	ce of breastfeed	ling at ages	up to 9 mont	ths by mothe	er's age (Unite	d Kingdom,
	Under 20	20-24	25-29	30-34	35 or over	All mothers <sup>††</sup>
	%	%	%	%	%	%
Birth	52	66	76	83	85	76
2 days	44	61	71	80	81	72
3 days	41	57	69	78	80	70
4 days	39	54	67	76	78	67
5 days	38	51	65	75	77	66
6 days	36	49	64	73	76	64
1 week	34	48	63	73	75	63
2 weeks	30	43	59	70	72	60
6 weeks	14	31	47	58	62	48
4 months	8	18	32	42	48	34
6 months	7	12	25	31	36	25
9 months <sup>†</sup>	4	10	17	21	27	18
Base: All Stage 3 mothers	625	1750	2473	2721	1818	9416
<sup>†</sup> Based on a reduced nut <sup>††</sup> Includes some mother:	mber of cases exc s for whom age w	luding those base not recorde	abies who had r d	not reached 9	months by Stage	3

Table 2.15: Pr Britain, 2005)	evalence of b	reastfeeding a	at ages up to 9	months by r	nother's ethnic	group (Great
	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>††</sup>
	%	%	%	%	%	%
Birth	75	82	93	97	90	77
2 days	71	77	87	92	82	73
3 days	68	77	85	92	82	70
4 days	66	72	83	92	82	68
5 days	64	71	81	92	82	66
6 days	62	70	80	91	81	65
1 week	62	70	79	91	81	64
2 weeks	58	67	76	91	79	60
6 weeks	46	54	66	87	65	49
4 months	32	46	47	72	48	34
6 months	23	40	37	57	40	26
9 months <sup>†</sup>	16	29	32	39	32	18
Base: All Stage 3 mothers	6819	131	483	225	92	7811
<sup>†</sup> Based on a red <sup>††</sup> Includes some	luced number of emothers for who	cases excluding	those babies who was not recorded	had not reached	9 months by Stag	e 3

	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East Coast	South Central	South West	All mothers
	%	%	%	%	%	%	%	%	%	%	%
Birth	57	68	75	77	73	82	90	87	88	86	78
2 days	55	63	70	72	69	77	85	85	84	82	74
3 days	53	61	67	67	66	75	84	84	83	80	72
4 days	49	58	64	65	64	74	82	82	81	78	70
5 days	46	56	62	64	63	73	81	81	79	76	68
6 days	44	54	59	62	61	71	80	80	78	75	66
1 week	44	52	59	62	61	71	79	79	77	75	66
2 weeks	41	46	53	60	57	67	77	75	72	73	62
6 weeks	33	36	43	48	44	55	66	62	58	58	50
4 months	23	24	30	30	32	38	49	47	39	44	35
6 months	17	17	21	26	24	28	39	34	28	33	26
9 months <sup><math>\dagger</math></sup>	13	12	14	22	16	20	31	23	18	23	19
Base: All Stage 3 mothers	283	692	370	450	577	529	473	419	360	410	4563

Table 2.17: Dur 2005)	ation of	f breast	tfeedin	g amon	g moth	ers wh	o breas	tfed in	itially b	y coun	try (200	0 and
	England & Wales		England & Scotland Wales		Nort Irel	hern and	United Kingdom		Eng	land	Wales	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%	%	%	%	%	%	%
Birth	n/a	100	n/a	100	n/a	100	n/a	100	n/a	100	n/a	100
2 days	n/a	95	n/a	93	n/a	91	n/a	94	n/a	95	n/a	93
3 days	n/a	92	n/a	89	n/a	86	n/a	91	n/a	92	n/a	88
4 days	n/a	89	n/a	86	n/a	81	n/a	88	n/a	89	n/a	83
5 days	n/a	87	n/a	84	n/a	78	n/a	86	n/a	87	n/a	81
6 days	n/a	85	n/a	82	n/a	75	n/a	84	n/a	85	n/a	78
1 week	85	84	83	81	72	74	84	83	n/a	84	n/a	77
2 weeks	80	79	78	77	66	70	79	78	n/a	79	n/a	71
6 weeks	65	63	67	62	51	52	64	63	n/a	64	n/a	55
4 months	45	45	50	44	30	32	44	44	n/a	45	n/a	36
6 months	34	33	40	34	21	22	34	33	n/a	34	n/a	27
9 months <sup>†</sup>	19	24	23	22	11	15	19	23	n/a	24	n/a	18
Base: Stage 3 mothers who breastfed initially	2900	4767	1029	1180	778	1002	4760	7186	n/a	3568	n/a	1068
<sup>†</sup> Based on a redu	ced num	ber of ca	ises excl	uding the	ose babi	es who h	nad not re	eached 9	) months	by Stag	e 3	

Table 2.18: Duration of breastf Kingdom, 2005)	eeding among mothers	who breastfed initially	y by birth order (United
	First birth	Later birth	All mothers
	%	%	%
Birth	100	100	100
2 days	94	94	94
3 days	91	91	91
4 days	88	88	88
5 days	86	87	86
6 days	83	85	84
1 week	82	85	83
2 weeks	76	81	78
6 weeks	58	68	63
4 months	40	50	44
6 months	29	38	33
9 months <sup>†</sup>	20	28	23
Base: Stage 3 mothers who breastfed initially	3841	3345	7186
' Based on a reduced number of cas	es excluding those babies v	who had not reached 9 mor	oths by Stage 3

		How previous	child was fed	
	Not breastfed	Breastfed for less than 6 weeks	Breastfed for 6 weeks or more	All mothers of later births <sup>††</sup>
	%	%	%	%
Birth	100	100	100	100
2 days	81	91	98	94
3 days	75	82	98	91
4 days	69	75	97	88
5 days	64	70	97	87
6 days	61	67	96	85
1 week	60	66	96	85
2 weeks	54	56	95	81
6 weeks	39	27	87	68
4 months	20	13	67	50
6 months	16	9	52	38
9 months <sup>†</sup>	10	6	38	28
Base: Stage 3 mothers of later births who breastfed initially	507	639	2159	3345

# Table 2.19: Duration of breastfeeding among mothers who breastfed initially by previous experience of breastfeeding (United Kingdom, 2005)

	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers
	%	%	%	%	%	%
Birth	100	100	100	100	100	100
2 days	97	94	92	88	92	94
3 days	95	90	88	85	88	91
4 days	93	86	84	83	86	88
5 days	91	84	81	81	85	86
6 days	90	81	78	80	85	84
1 week	89	80	77	78	85	83
2 weeks	86	75	70	72	85	78
6 weeks	73	60	49	58	73	63
4 months	53	40	32	47	52	44
6 months	40	29	24	38	40	33
9 months <sup>†</sup>	27	22	16	30	35	23
Base: Stage 3 mothers who breastfed initially	3071	1501	2004	418	193	7186

# Table 2.20: Duration of breastfeeding among mothers who breastfed initially by mother's socio-

	Age of baby when mother returned to work									
	Less than 4 months	4 - 6 months	6 – 9 months	9 months or older	Not working at any time	All mothers <sup>†</sup>				
	%	%	%	%	%	%				
Birth	100	100	100	100	100	100				
2 days	95	92	95	92	95	94				
3 days	92	88	92	89	92	91				
4 days	89	84	89	88	89	88				
5 days	86	81	87	85	87	86				
6 days	83	78	85	84	85	84				
1 week	82	77	84	83	84	83				
2 weeks	77	72	80	77	79	78				
6 weeks	60	53	65	63	65	63				
4 months	35	33	44	40	49	44				
6 months	26	18	31	32	39	33				
9 months <sup>†</sup>	17	11	18	23	30	23				
Base: Stage 3 mothers who breastfed initially	404	1118	1625	275	3713	7186				

Table 2.21: Duration of breastfeeding among mothers who breastfed initially by age of baby when mother returned to work (United Kingdom, 2005)

	16 or under	17 or 18	Over 18	All mothers <sup>††</sup>
	%	%	%	%
Birth	100	100	100	100
2 days	90	93	97	94
3 days	86	90	95	91
4 days	80	86	93	88
5 days	76	84	92	86
6 days	74	81	91	84
1 week	72	80	90	83
2 weeks	64	75	87	78
6 weeks	44	57	75	63
4 months	28	38	57	44
6 months	20	28	43	33
9 months <sup>†</sup>	16	19	30	23
Base: Stage 3 mothers who breastfed initially	1561	2278	3288	7186

Table 2.23: Duration (United Kingdom, 200	of breastfeedi 5)	ing among	mothers who	breastfed	initially by m	other's age
	Under 20	20-24	25-29	30-34	35 or over	All mothers <sup>††</sup>
	%	%	%	%	%	%
Birth	100	100	100	100	100	100
2 days	84	91	94	96	96	94
3 days	80	86	91	94	94	91
4 days	75	81	88	91	92	88
5 days	73	77	86	90	91	86
6 days	70	73	84	88	89	84
1 week	66	72	83	87	89	83
2 weeks	57	65	78	84	86	78
6 weeks	28	46	62	69	74	63
4 months	16	27	43	50	56	44
6 months	13	19	33	37	43	33
9 months <sup>†</sup>	7	15	22	25	32	23
Base: Stage 3 mothers who breastfed initially	324	1163	1869	2269	1539	7186
<sup>†</sup> Based on a reduced number of cases excluding those babies who had not reached 9 months by Stage 3						

Table 2.24: Dura (Great Britain, 20	ation of brea 05)	stfeeding am	ong mothers	who breastfee	d initially by	ethnic group	
	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>††</sup>	
	%	%	%	%	%	%	
Birth	100	100	100	100	100	100	
2 days	94	94	93	95	92	94	
3 days	91	94	91	95	91	91	
4 days	88	87	89	95	91	88	
5 days	86	86	87	95	91	86	
6 days	84	85	86	94	91	84	
1 week	83	85	85	94	91	83	
2 weeks	77	82	81	94	88	78	
6 weeks	61	66	70	90	72	63	
4 months	42	56	50	74	53	45	
6 months	31	49	39	59	45	34	
9 months <sup>†</sup>	22	36	33	40	36	24	
Base: Stage 3 mothers who breastfed initially	5095	107	452	218	83	6009	
<sup>†</sup> Based on a reduced number of cases excluding those babies who had not reached 9 months by Stage 3							

	North	North	Yorkshire	East	West	East of	London	South	South	South	All
	East	West	and the	Midlands	Midlands	England		East	Central	West	mothers
			Humber					Coast			
	%	%	%	%	%	%	%	%	%	%	%
Birth	100	100	100	100	100	100	100	100	100	100	100
2 days	96	94	94	94	94	94	95	97	95	96	95
3 days	93	91	89	88	90	92	93	96	94	93	92
4 days	86	85	85	85	88	91	91	94	92	91	89
5 days	81	83	83	83	86	89	90	93	90	89	87
6 days	77	80	79	82	83	87	89	91	88	88	85
1 week	76	77	78	82	83	86	87	90	87	88	84
2 weeks	72	68	70	78	78	82	85	86	83	85	79
6 weeks	58	53	57	62	60	67	73	71	66	68	64
4 months	39	35	40	40	44	46	54	54	44	52	45
6 months	31	25	28	34	32	34	43	39	32	38	34
9 months <sup>†</sup>	21	18	19	28	22	24	34	26	20	27	24
Base: Stage 3 mothers who breastfed initially	162	469	278	344	423	433	427	366	316	350	3568

Table 2.26: Prevalence of exclusive breastfeeding at ages up to 6 months by country (2005)							
	England	Wales	Scotland	Northern Ireland	United Kingdom		
	%	%	%	%	%		
Birth	66	58	61	55	65		
1 week	46	38	42	35	45		
2 weeks	39	32	37	31	38		
3 weeks	34	28	32	25	33		
4 weeks	29	21	25	20	28		
6 weeks	22	15	19	13	21		
2 months (8 weeks)	18	12	17	11	18		
3 months (13 weeks)	14	9	12	8	13		
4 months (17 weeks)	8	4	6	4	7		
5 months (21 weeks)	3	2	3	2	3		
6 months (26 weeks)	*	*	*	*	*		
Base: All Stage 3 mothers	4563	1582	1666	1605	9416		

Table 2.27: Prevalence of exclusive breastfeeding at ages up to 6 months by birth order (United Kingdom, 2005)							
	First birth	Later birth	All mothers				
	%	%	%				
Birth	67	62	65				
1 week	43	46	45				
2 weeks	36	41	38				
3 weeks	31	36	33				
4 weeks	26	30	28				
6 weeks	18	24	21				
2 months (8 weeks)	15	20	18				
3 months (13 weeks)	11	16	13				
4 months (17 weeks)	6	9	7				
5 months (21 weeks)	2	4	3				
6 months (26 weeks)	*	*	*				
Base: All Stage 3 mothers	4810	4606	9416				

economic classification (NS-SEC) (United Kingdom, 2005)								
	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers		
	%	%	%	%	%	%		
Birth	77	65	54	48	57	65		
1 week	57	44	35	29	43	45		
2 weeks	50	38	29	23	39	38		
3 weeks	44	33	23	20	33	33		
4 weeks	38	27	19	15	29	28		
6 weeks	30	21	13	13	19	21		
2 months (8 weeks)	26	18	10	11	12	18		
3 months (13 weeks)	19	14	8	9	11	13		
4 months (17 weeks)	11	8	4	4	7	7		
5 months (21 weeks)	5	3	1	2	4	3		
6 months (26 weeks)	*	*	*	-	1	*		
Base: All Stage 3 mothers	3479	1955	3051	650	280	9416		

# Table 2.28: Prevalence of exclusive breastfeeding at ages up to 6 months by mother's socio

	16 or under	17 or 18	Over 18	All mothers <sup>†</sup>
	%	%	%	%
Birth	50	61	78	65
1 week	30	42	58	45
2 weeks	24	36	51	38
3 weeks	19	30	45	33
4 weeks	16	25	39	28
6 weeks	11	18	31	21
2 months (8 weeks)	9	14	27	18
3 months (13 weeks)	7	10	20	13
4 months (17 weeks)	4	4	13	7
5 months (21 weeks)	2	2	5	3
6 months (26 weeks)	*	*	*	*
Base: All Stage 3 mothers	2549	3138	3649	9416

Table 2.30: Prevalence of exclusive breastfeeding at ages up to 6 months by mother's age (UnitedKingdom, 2005)							
	Under 20	20-24	25-29	30-34	35 or over	All mothers <sup>†</sup>	
	%	%	%	%	%	%	
Birth	39	55	64	72	73	65	
1 week	22	33	44	52	54	45	
2 weeks	14	27	38	46	47	38	
3 weeks	9	22	33	41	42	33	
4 weeks	8	16	27	35	36	28	
6 weeks	5	12	20	27	28	21	
2 months (8 weeks)	4	9	17	23	24	18	
3 months (13 weeks)	3	6	13	18	19	13	
4 months (17 weeks)	1	2	7	9	12	7	
5 months (21 weeks)	*	1	3	4	5	3	
6 months (26 weeks)	-	-	*	1	*	*	
Base: All Stage 3 mothers	625	1750	2473	2721	1817	9416	
<sup>†</sup> Includes some mothers f	or whom age was	s not recorded					

Table 2.31: Prevalence of exclusive breastfeeding at ages up to 6 months by mother's ethnic group (Great Britain, 2005)							
	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>†</sup>	
	%	%	%	%	%	%	
Birth	64	69	75	73	73	65	
1 week	45	46	47	44	51	45	
2 weeks	39	38	39	39	42	39	
3 weeks	33	37	32	35	38	33	
4 weeks	28	31	28	26	33	28	
6 weeks	21	22	24	19	28	21	
2 months (8 weeks)	18	17	20	12	26	18	
3 months (13 weeks)	14	15	13	8	23	14	
4 months (17 weeks)	8	11	5	4	13	8	
5 months (21 weeks)	3	2	1	4	5	3	
6 months (26 weeks)	*	1	-	*	1	*	
Base: All Stage 3 mothers	6819	131	483	225	93	7811	

Table 2.32: Prevalenc	Table 2.32: Prevalence of exclusive breastfeeding at ages up to 6 months by Strategic Health Authority (England, 2005)										
	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East Coast	South Central	South West	All mothers
	%	%	%	%	%	%	%	%	%	%	%
Birth	51	57	62	64	61	66	73	78	73	78	66
1 week	32	37	41	44	41	50	49	59	51	58	46
2 weeks	29	31	35	38	34	44	43	50	42	50	39
3 weeks	28	24	30	32	29	38	38	45	38	44	34
4 weeks	24	20	25	28	23	32	33	42	31	38	29
6 weeks	16	14	19	22	17	25	24	32	24	30	22
2 months (8 weeks)	13	12	17	18	14	21	20	27	21	26	18
3 months (13 weeks)	10	9	12	13	11	17	16	21	15	19	14
4 months (17 weeks)	5	6	6	7	7	9	10	13	7	10	8
5 months (21 weeks)	2	2	4	3	3	4	5	4	2	3	3
6 months (26 weeks)	-	-	-	*	1	*	1	1	1	*	*
Base: All Stage 3 mothers	283	692	370	450	577	529	473	419	360	409	4563

country (2005)			.g		
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Birth	100	100	100	100	100
1 week	69	66	69	64	69
2 weeks	60	55	60	56	59
3 weeks	52	48	51	46	51
4 weeks	44	37	41	37	43
6 weeks	33	26	31	24	32
2 months (8 weeks)	28	21	28	21	27
3 months (13 weeks)	21	16	20	15	21
4 months (17 weeks)	12	7	10	8	12
5 months (21 weeks)	5	3	4	4	5
6 months (26 weeks)	1	*	1	*	*
Base: Stage 3 mothers who fed exclusively at birth	3011	915	1023	881	6091

## Table 2.33: Duration of exclusive breastfeeding among mothers who fed exclusively at birth by

birth order (United Kingdom, 2005)							
	First birth	Later birth	All mothers				
	%	%	%				
Birth	100	100	100				
1 week	64	74	69				
2 weeks	54	66	59				
3 weeks	46	57	51				
4 weeks	38	49	43				
6 weeks	27	39	32				
2 months (8 weeks)	22	33	27				
3 months (13 weeks)	16	26	21				
4 months (17 weeks)	9	14	12				
5 months (21 weeks)	4	6	5				
6 months (26 weeks)	*	1	*				
Base: Stage 3 mothers who fed exclusively at birth	3235	2856	6091				

### Table 2.34: Duration of exclusive breastfeeding among mothers who fed exclusively at birth by birth order (United Kingdom, 2005)

providuo experience or predaticeding (onited Kingdoni, 2000)									
	How previous child was fed								
	Not breastfed	Breastfed for less than 6 weeks	Breastfed for 6 weeks or more	All mothers of later births <sup>†</sup>					
	%	%	%	%					
Birth	100	100	100	100					
1 week	53	52	84	74					
2 weeks	44	39	77	66					
3 weeks	36	24	70	57					
4 weeks	27	16	62	49					
6 weeks	19	9	50	39					
2 months (8 weeks)	16	6	43	33					
3 months (13 weeks)	12	4	34	26					
4 months (17 weeks)	5	2	19	14					
5 months (21 weeks)	1	*	8	6					
6 months (26 weeks)	-	-	1	1					
Base: Stage 3 mothers of later births who fed exclusively at birth	344	529	1951	2856					
' Includes some mothers for whom p	revious feeding beha	viour was not knowr	ו						

 Table 2.35: Duration of exclusive breastfeeding among mothers who fed exclusively at birth by previous experience of breastfeeding (United Kingdom, 2005)

mother's socio-economic classification (NS-SEC) (United Kingdom, 2005)									
	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers			
	%	%	%	%	%	%			
Birth	100	100	100	100	100	100			
1 week	73	67	65	60	76	69			
2 weeks	65	58	53	47	68	59			
3 weeks	57	50	43	40	58	51			
4 weeks	50	42	35	32	50	43			
6 weeks	39	32	24	26	34	32			
2 months (8 weeks)	33	27	19	23	21	27			
3 months (13 weeks)	25	21	14	18	19	21			
4 months (17 weeks)	14	12	7	8	13	12			
5 months (21 weeks)	6	5	3	3	8	5			
6 months (26 weeks)	*	*	1	-	1	*			
Base: Stage 3 mothers who fed exclusively at birth	2695	1271	1650	315	159	6091			

# Table 2.36: Duration of exclusive breastfeeding among mothers who fed exclusively at birth by mother's socio-economic classification (NS-SEC) (United Kingdom, 2005)

		Age of baby when mother returned to work								
	Less than 4 months	4 - 6 months	6 – 9 months	9 months or older	Not working at any time	All mothers <sup>†</sup>				
	%	%	%	%	%	%				
Birth	100	100	100	100	100	100				
1 week	68	65	71	71	69	69				
2 weeks	58	56	61	57	60	59				
3 weeks	47	47	53	46	53	51				
4 weeks	39	38	43	41	45	43				
6 weeks	26	25	32	30	35	32				
2 months (8 weeks)	21	22	26	23	31	27				
3 months (13 weeks)	14	16	18	17	25	21				
4 months (17 weeks)	8	8	10	10	14	12				
5 months (21 weeks)	4	2	3	5	6	5				
6 months (26 weeks)	1	-	*	*	1	*				
Base: Stage 3 mothers who fed exclusively at birth	362	960	1394	235	3096	6091				

mother left full-time education (United Kingdom, 2005)								
	16 or under	17 or 18	Over 18	All mothers <sup>†</sup>				
	%	%	%	%				
Birth	100	100	100	100				
1 week	60	69	74	69				
2 weeks	48	58	65	59				
3 weeks	39	50	57	51				
4 weeks	32	41	50	43				
6 weeks	23	29	39	32				
2 months (8 weeks)	19	23	34	27				
3 months (13 weeks)	15	17	26	21				
4 months (17 weeks)	8	7	16	12				
5 months (21 weeks)	4	3	7	5				
6 months (26 weeks)	*	*	1	*				
Base: Stage 3 mothers who fed exclusively at birth	1265	1912	2863	6091				
' Includes some mothers for whether the source of the s	nom age left full-time eo	ducation was not reco	orded					

# Table 2.38: Duration of exclusive breastfeeding among mothers who fed exclusively at birth by age mother left full-time education (United Kingdom, 2005)

	Under 20	20-24	25-29	30-34	35 or over	All
						<i>mothers</i> <sup>†</sup>
	%	%	%	%	%	%
Birth	100	100	100	100	100	100
1 week	57	60	68	73	74	69
2 weeks	37	49	59	64	65	59
3 weeks	24	40	51	57	57	51
4 weeks	20	29	43	48	50	43
6 weeks	12	21	32	37	38	32
2 months (8 weeks)	12	16	26	33	33	27
3 months (13 weeks)	8	11	20	25	26	21
4 months (17 weeks)	3	4	11	13	17	12
5 months (21 weeks)	1	1	4	6	7	5
6 months (26 weeks)	-	-	1	1	*	*
Base: Stage 3 mothers who fed exclusively at birth	241	970	1582	1955	1325	6091

	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>†</sup>
	%	%	%	%	%	%
Birth	100	100	100	100	100	100
1 week	70	67	62	59	69	69
2 weeks	60	56	52	52	58	59
3 weeks	52	53	43	48	52	51
4 weeks	44	44	38	35	46	43
6 weeks	33	32	32	26	38	33
2 months (8 weeks)	28	24	27	17	36	28
3 months (13 weeks)	22	22	17	11	31	21
4 months (17 weeks)	12	15	7	5	18	12
5 months (21 weeks)	5	3	2	5	7	5
6 months (26 weeks)	*	1	-	1	1	*
Base: Stage 3 mothers who fed exclusively at birth	4354	91	361	166	68	5086

	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East Coast	South Central	South West	All mothers
	%	%	%	%	%	%	%	%	%	%	%
Birth	100	100	100	100	100	100	100	100	100	100	100
1 week	63	65	66	68	67	75	68	75	69	75	69
2 weeks	57	55	56	60	56	67	59	63	58	64	60
3 weeks	55	43	48	50	48	57	52	57	52	56	52
4 weeks	47	35	40	44	37	48	45	53	43	49	44
6 weeks	31	25	31	35	27	38	33	40	32	39	33
2 months (8 weeks)	26	21	27	28	23	32	28	35	28	33	28
3 months (13 weeks)	19	16	20	20	18	25	22	27	21	24	21
4 months (17 weeks)	10	10	11	11	11	14	14	17	10	13	12
5 months (21 weeks)	5	4	6	5	5	6	7	5	3	4	5
6 months (26 weeks)	-	-	-	*	1	1	1	1	1	*	*
Base: Stage 3 mothers who fed exclusively at birth	144	393	227	288	353	351	343	329	264	318	3011

		How	exclusive feed	ling status v	How exclusive feeding status was lost								
	Formula	Other liquids	Formula/ other liquids	Solids	Solids and other combination	All mothers <sup>†</sup>							
	%	%	%	%	%	%							
Mother's age													
Under 20	4	6	8	1	1	4							
20-24	16	21	23	7	12	16							
25-29	25	28	28	26	24	26							
30-34	33	27	26	38	35	32							
35 or over	22	18	16	29	28	22							
Age completed FT education													
16 or under	21	21	31	16	14	21							
17-18	32	35	37	20	30	32							
19 or over	47	44	32	64	55	47							
Mother's NS-SEC													
Managerial & professional	44	39	36	56	47	44							
Intermediate	21	18	21	21	24	21							
Routine & manual	27	32	35	18	19	27							
Never worked	5	9	5	3	5	5							
Unclassified	3	2	2	2	5	3							
Base: Stage 3 mothers who fed exclusively at birth <sup>††</sup>	3887	667	546	575	359	6091							

Table 2.42: Characteristics of mothers who fed exclusively at birth by how exclusive breastfeeding
status was lost (United Kingdom, 2005)

how exclusive breastfeeding status was lost (United Kingdom, 2005)									
		Exclusive feed	ing status lo	st by the i	introduction of:				
	Formula milk	Any other liquids (e.g. water, juice)	Formula milk & other liquids	Solids	Solids and other combination	All mothers <sup>†</sup>			
	%	%	%	%	%	%			
Birth	100	100	100	100	100	100			
1 week	61	85	59	100	100	69			
2 weeks	50	71	48	100	100	59			
3 weeks	41	58	38	100	100	51			
4 weeks	32	44	28	100	99	43			
6 weeks	20	29	17	100	99	32			
2 months (8 weeks)	14	22	11	99	99	27			
3 months (13 weeks)	6	13	6	97	98	21			
4 months (17 weeks)	1	4	1	66	74	12			
5 months (21 weeks)	*	*	-	32	28	5			
6 months (26 weeks)	*	*	-	3	3	*			
Base: Stage 3 mothers who fed exclusively at birth	3887	667	546	575	359	6091			
includes some mouners for	whom 1055 01	exclusivity was not	recorded						

### **3** Choice of feeding methods
# Key findings

#### Planned method of feeding and factors associated with this

- When asked to think back to before they had their baby, seven in ten mothers said they intended to breastfeed their baby, with most intending only to breastfeed rather than to mix breast and formula feeding.
- The proportion of mothers who intended to breastfeed their baby was higher in 2005 compared with the 2000 survey. Mothers in England, first-time mothers, second-time mothers who had breastfed their previous child for six weeks or more, mothers who had been breastfed themselves as infants, and mothers who had friends who breastfed were the most likely to intend to breastfeed.
- Almost all mothers who intended to breastfeed actually did so, although about one in ten mothers who intended to use formula did so too. Mothers who intended only to breastfeed did so for longer compared with mothers who intended to mix breast and formula feeding.

### Awareness of health benefits of breastfeeding

 Over eight in ten mothers said they were aware of the health benefits of breastfeeding. Mothers in Scotland and Northern Ireland, older mothers, and mothers from managerial and professional occupations were the most likely to be aware of the benefits of breastfeeding.

### Ante-natal advice received on breastfeeding

- About eight in ten mothers had received some advice during their pregnancy about the health benefits of breastfeeding, with midwives being the most common source of such advice. Mothers who had received advice were more likely than mothers who had received no advice to intend to breastfeed and were more likely to actually initiate breastfeeding.
- Nearly all mothers had attended antenatal check-ups, while about a third had attended antenatal classes. Mothers in Scotland, first-time mothers and mothers from managerial and professional occupations were the most likely to attend antenatal classes.
- About two-thirds of all mothers had discussed feeding intentions at their antenatal check-ups, while just less than three in ten of all mothers had discussed feeding at antenatal classes. Mothers who had attended antenatal classes where feeding was discussed or where they were taught how to position the baby were more likely to intend to breastfeed than mothers who did not attend antenatal classes.

This chapter explores how mothers intended to feed their baby prior to the birth. It looks at the reasons behind their feeding choice and the possible social factors that may have influenced it. It also examines the influence that health professionals and others may have had on mothers' choice of feeding method, through advice and information received at antenatal check-ups and classes.

## 3.1 Planned method of feeding

At Stage 1 of the survey, when babies were about four to ten weeks old, all mothers were asked if they had planned before the birth how they were going to feed their baby. Over nine in ten mothers (91%) across the United Kingdom said that this was the case. Overall, seven in ten mothers (70%) said that they intended to breastfeed their baby, with 60% intending only to breastfeed and 10% intending to mix breast and formula feeding.

The proportion of mothers who said they had decided before the birth to breastfeed their baby was highest in England (72%) and lowest in Northern Ireland (56%). Mothers in Northern Ireland were the most likely to say that they were not planning to breastfeed but were only going to use infant formula (31%).

The proportion of mothers who intended before the birth to breastfeed their baby increased in all countries between 2000 and 2005. For example, in England and Wales the proportion of mothers who intended to breastfeed their baby increased from 66% in 2000 to 72% in 2005, while in Northern Ireland the increase was from 51% to 56%.

#### Table 3.1

Table 3.2 shows that first-time mothers were somewhat more likely than mothers of second or later babies to say they had intended to breastfeed their baby (73% and 67% respectively). First-time mothers were particularly likely to say they planned only to breastfeed compared with second-time mothers (65% and 55% respectively). First-time mothers were also slightly more likely than second-time mothers to say they had not made up their mind before the birth about how they were going to feed their baby (11% and 7% respectively).

#### Table 3.2

Given the association between mothers' experiences of feeding a previous baby and how they fed their current baby (Chapter 2, section 2.1.2) it is not surprising that there was also a strong association between a mother's previous feeding experience and her intended feeding behaviour this time round. Almost all second-time mothers (95%) who had breastfed their previous child for six weeks or more said they had intended to breastfeed their current child, with most (81%) saying they planned only to breastfeed. Two-thirds of second-time mothers (67%) who had breastfed their previous child for less than six weeks said they had intended to breastfeed this time round, although one in five (21%) said they intended only to use infant formula. Mothers who had breastfed their previous child for a relatively short-time were more likely to intend to use mixed breast and formula feeding this time round compared with mothers who had breastfed their previous child for longer (21% and 14% respectively).

Among mothers who had not breastfed their previous child, most intended to use infant formula this time round, although three in ten (28%) said they had planned to breastfeed their current child.





As was the case in previous surveys, the vast majority of mothers who said they had decided before the birth how they were going to feed their baby actually carried out their stated intentions. While this association might be expected, the high level of correspondence between intentions and actions should be treated with some caution. Mothers were asked retrospectively about their intentions and they may therefore have forgotten or rationalised their original intentions in light of their actual experience.

Mothers who intended to breastfeed were more likely to have carried out their intentions compared with mothers who intended only to use formula. Thus, 98% of mothers who said they intended only to breastfeed did so initially, as did 95% of mothers who said they intended to use mixed breast and formula feeding. Although most mothers who said they intended only to use infant formula actually did so (89%), about one in ten of these mothers (11%) did breastfeed initially. Mothers who had not decided how they were going to feed their baby were more split in their actual feeding behaviour, with 57% breastfeeding initially and 43% using only infant formula.

#### Table 3.4

97

While the association between stated intentions and actual feeding behaviour was strong because of the reasons mentioned above, it is also useful to examine whether feeding

intentions affected the duration of breastfeeding and exclusive breastfeeding among mothers who initiated breastfeeding.

Table 3.5 shows that mothers who said they intended only to breastfeed did so for longer compared with mothers who said they intended to use mixed breast and formula feeding. Thus, at one week 86% of mothers who intended only to breastfeed were still doing so compared with 77% of mothers who intended to mix breast and formula feeding. This difference continued through until nine months. For example, at six months 38% of mothers who intended only to breastfeed were still doing so compared with 16% of mothers who intended to use mixed feeding.

Mothers who said they had not intended to breastfeed but who did so initially, breastfed for the shortest time. Thus, of these mothers only about half (52%) were still breastfeeding at one week, and this had fallen to three per cent at six months.

#### Table 3.5

Table 3.6 shows a similar pattern when looking at the duration of exclusive breastfeeding. Mothers who had intended only to breastfeed were likely to feed exclusively for longer than mothers who intended to use mixed feeding. Thus, 73% of mothers who had intended only to breastfeed and who fed exclusively at birth were still exclusive at one week compared with 54% of mothers who had intended to use mixed feeding. At six weeks the proportions of mothers who were still exclusively breastfeeding were 37% and 11% respectively.

Mothers who intended only to use infant formula but who actually breastfed exclusively at birth tended not to feed exclusively for long. Thus, at one week only 42% of these mothers were still feeding exclusively and this had dropped to seven per cent at six weeks.

Table 3.6

### 3.2 Reason for choice of feeding method

At Stage 1 all mothers who said they knew before the birth how they were going to feed their baby were asked why they had planned to feed their baby in this way. Answers were collected in an open format and later coded into categories.

By far the most common reason behind an intention to breastfeed was a perception that this was best for the baby's health. This reason was given by 81% of all mothers who planned before the birth to breastfeed, with first-time mothers being more likely than mothers of second or later babies to cite this as a reason (87% and 75% respectively). Other common reasons given for planning to breastfeeding included convenience (28%), because of the closer bond it helped create between mother and baby (19%), because of the health benefits for the mother (17%), and because it was cheaper than using formula milk (15%).

The reasons given in the 2005 survey for intending to breastfeed were broadly similar to those given in the 2000 survey. However, in 2005 mothers were somewhat less likely to cite convenience and cost as a reason, while being somewhat more likely to cite the health of the mother as a benefit (17% in 2005 compared with 12% in 2000).

Table 3.7

Table 3.8 shows the reasons given by mothers of second or later babies for their desire to breastfeed, by how they fed their previous child. Second-time mothers who had previously breastfed were more likely than those who did not breastfeed their previous child to say that it was best for the baby (76% and 67% respectively). A third of mothers (33%) who had breastfed their previous child said they planned to do so again because it was more convenient compared with 14% of mothers who had not breastfed previously. Mothers who had breastfed their previous child were also more likely than mothers who had not to mention the health of the mother (16% and 8% respectively), cost (14% and 8% respectively), the fact that breastfeeding was natural (13% compared with 8%) and that it helped the mother to lose weight more easily (11% compared with 6%).

#### Table 3.8

Table 3.9 shows that the most common reasons given by mothers who planned before the birth only to use infant formula were because they did not like the idea of breastfeeding (32%) and the fact that other people could feed the baby (25%). These reasons were more commonly given by first-time mothers compared with mothers of second or later babies. For example, 45% of first-time mothers said they did not like the idea of breastfeeding compared with 24% of mothers of second or later babies.

Previous feeding behaviour was also an important factor for second-time mothers who intended only to use formula this time round. Over one in three mothers of second or later babies (35%) said they intended only to use formula this time round because that was how they had fed their previous children, while 23% said that they had tried breastfeeding in the past and had not liked it.

Reasons given by mothers in 2005 for why they intended only to use formula were broadly similar to those given in 2000, although mothers were more likely to say they did not like the idea of breastfeeding in 2005 compared with 2000 (32% and 19% respectively).

In 2005 a number of new reasons were given by mothers that had not been coded on the previous survey. Among these other reasons, the most commonly cited was that infant formula was more convenient or fitted in with their lifestyle, which was mentioned by 13% of mothers. First-time mothers were slightly more likely than mothers of later babies to give this as a reason (15% compared with 11%).

Table 3.9

### 3.3 Awareness of the health benefits of breastfeeding

As seen in the previous section, many mothers who were intending to breastfeed cited the health benefits of breastfeeding as a reason for doing so. At Stage 1 of the survey all mothers, irrespective of their feeding intentions, were asked whether they were aware of the health benefits of breastfeeding and, if so, what the benefits were for the baby and also for the mother. Awareness of the health benefits of breastfeeding might be a motivating factor in encouraging mothers to actually breastfeed.

Overall, 84% of mothers across the United Kingdom said that they were aware of the health benefits of breastfeeding, with 80% actually being able spontaneously to give one or more

specific benefit. Levels of awareness about the health benefits of breastfeeding were broadly similar compared with the 2000 survey.

Mothers in Northern Ireland and Scotland were slightly more likely than mothers in England or Wales to be aware of the health benefits of breastfeeding, and they were also slightly more likely to be able spontaneously to cite one or more specific benefit. For example, 83% of mothers in Northern Ireland were able to cite a health benefit of breastfeeding compared with 77% of mothers in Wales. These differences are related to the finding reported later in section 3.4 that mothers in these countries were more likely than in other countries to have received advice on the health benefits of breastfeeding, which in turn was related to levels of awareness of the benefits.

#### Table 3.10

Awareness about the health benefits of breastfeeding varied by the socio-demographic characteristics of mothers.

Older mothers were more likely than younger mothers to be aware of the health benefits of breastfeeding and were more likely to be able spontaneously to give a specific benefit. For example, 69% of mothers aged under 20 said they were aware of the health benefits of breastfeeding compared with 90% of mothers aged 30 or over. About two-thirds of mothers aged under 20 (66%) were able spontaneously to cite a health benefit of breastfeeding compared with 86% of mothers aged 30 or over.

Similar differences in knowledge were also seen among mothers from different socioeconomic groups, with 94% of mothers in managerial and professional occupations being aware of the health benefits of breastfeeding compared with 77% of mothers from routine and manual occupations and 55% of mothers who had never worked.

White mothers were more likely to say they were aware of the health benefits of breastfeeding compared with mothers from minority ethnic groups. For example, 82% of white mothers were able spontaneously to give one or more benefit of breastfeeding compared with 62% of Asian mothers and 67% of Black mothers.

Table 3.11, Figure 3.2



Mothers who said they had intended to breastfeed were more likely to be aware of the health benefits of breastfeeding than mothers who had planned to use infant formula. Nine in ten (90%) mothers who planned to breastfeed said they were aware of the benefits compared with 69% of those who planned only to use formula.

A similar association existed between level of awareness about the health benefits of breastfeeding and actual initiation. Just under nine in ten mothers (89%) who breastfeed initially said they were aware of the health benefits of breastfeeding compared with 68% of mothers who did not start breastfeeding.

There was no difference in the level of awareness of the health benefits of breastfeeding between first-time and second time mothers. However, among mothers of second or later babies, those who had breastfed their previous child were more likely to be aware of the health benefits of breastfeeding compared with those who had not breastfed their previous child. For example, 88% of second-time mothers who breastfed their previous child for six weeks or more were able to cite a benefit of breastfeeding compared with 65% of mothers who had not breastfed their previous child.

#### Table 3.12

Mothers who said they were aware of the health benefits of breastfeeding were asked to state what they thought the health benefits were for the baby and for the mother. Answers were collected in an open format and later coded into categories.

The most commonly mentioned health benefit for the baby was that breastfeeding helped in the development of the immune system, making it easier for the baby to fight infections and diseases. This was mentioned by almost eight in ten mothers (79%) who were aware of the health benefits of breastfeeding. Other commonly mentioned health benefits for the baby were that breast milk was more nutritious than formula milk (30%), breast milk helped to protect against complaints such as asthma, eczema, and other allergies (21%), and that it helped with wind, colic and other digestive problems (16%).

By far the most commonly cited health benefit of breastfeeding for the mother was that it helped the uterus contract, thereby helping the mother lose weight (mentioned by 69% of mothers who knew about the health benefits of breastfeeding). Four in ten mothers (39%) mentioned the reduced risk of breast or ovarian cancer and 15% mentioned the reduced risk of cancer generally.

Additionally, just less than one in five mothers (18%) mentioned the role of bonding as a 'health' benefit for both the mother and the baby.

There were noticeable differences between countries in terms of the reasons that mothers gave. For example, mothers in England were more likely than mothers in Northern Ireland to mention that breastfeeding helped to develop the immune system (80% and 74% respectively). However, mothers in both Scotland and Northern Ireland were more likely than mothers in England to mention the role of breastfeeding in protecting against allergies such as asthma or eczema.

In terms of the health benefits for the mother, mothers in England were more likely than those in Scotland or Northern Ireland to mention that breastfeeding helped with mothers' weight loss. Mothers in Scotland and Northern Ireland were more likely to mention the reduced risk of cancer and the reduced risk of osteoporosis compared with mothers in England or Wales.

Table 3.13

### 3.4 Sources of advice about the health benefits of breastfeeding

All mothers were asked whether they had received any advice during their pregnancy about the health benefits of breastfeeding. About eight in ten mothers (79%) across the United Kingdom said they had received some advice about the health benefits of breastfeeding. Mothers in Scotland and Northern Ireland were more likely than mothers in England or Wales to have received such advice.

Mothers who had received advice had done so from a mixture of formal and informal sources. Midwives were the most common source of advice, being mentioned by 87% of all mothers who had received any advice. Other common sources of advice about the health benefits of breastfeeding included magazines, books and leaflets (46%), family members such as partners or mothers (25%), and health visitors (20%).

#### Table 3.14

Table 3.15 shows that mothers who had received some advice during pregnancy about the health benefits of breastfeeding were more likely than those who had not to say they were

aware of the health benefits of breastfeeding (88% and 70% respectively), and were more likely to be able spontaneously to cite a benefit (83% and 66% respectively).

Mothers who had received advice were also more likely than those who had not to say they had intended to breastfeed their baby (73% and 62% respectively). They were also more likely to have actually breastfed initially (78% and 69% respectively).

Table 3.15

### 3.5 Factors associated with planned feeding method

Since there is such a strong association between stated feeding intentions before the birth and actual feeding behaviour, there is little point in examining the relationship between feeding intentions and key demographic variables such as socio-economic group, education level, ethnicity, and so on. The associations seen in Chapter 2 will simply be replicated, with older mothers, those from managerial and professional occupations, and those with higher levels of education being the most likely to say they had intended to breastfeed.

However, there are other social and cultural factors that may be important in influencing a woman's choice of feeding. This section examines the association between choice of feeding method and two social factors, namely how the mother herself was fed and the influence of her peers.

Table 3.16 shows that mothers who were breastfed themselves as infants were more likely to intend to breastfeed their own child (85%) compared with mothers who had been fed only with infant formula (60%) and mothers who did not know how they were fed (62%).

Table 3.16, Figure 3.3



Mothers were asked at Stage 1 whether they knew other mothers with young babies and, if so, how these mothers fed their babies. Across the United Kingdom, nine in ten mothers (89%) said that they knew other mothers with young babies.

Table 3.17 shows that there was a strong association between how a mother planned to feed her baby and the feeding behaviour of her peers.



Nine in ten mothers (90%) who said that most of their friends breastfed their babies were also intending to breastfeed their own baby. Among mothers who said most of their friends did not breastfeed, only 57% were planning to breastfeed their own baby. While this is a lot lower than mothers who said all or most of their friends breastfed, it is still the case that the majority of these mothers were planning to breastfeed suggesting that while peers have some influence they are probably not the most crucial factor in influencing intentions.

Women who said they did not know other mothers, and therefore might be expected not to be influenced by their peers, were positioned between the two extremes in terms of their intentions, with two-thirds (66%) saying they had intended to breastfeed their own baby.

Of course, in examining the association between a woman's feeding intentions and those of her peers it must be remembered that the socio-demographics of any peers are likely to be the same as the woman herself in terms of socio-economic group, age, and so on.

Table 3.17, Figure 3.4

### 3.6 Antenatal care and feeding advice received during pregnancy

At Stage 1 of the survey all mothers were asked about the antenatal care they received. Mothers who had attended antenatal check-ups or classes, or who had some other contact with health professionals, were also asked whether feeding had been discussed with them. This section initially looks at the antenatal care received by mothers, before specifically examining the feeding advice they received during their pregnancy.

### 3.6.1 Antenatal care received

Almost all mothers across the United Kingdom (98%) had attended antenatal check-ups during their pregnancy. Attendance at antenatal check-ups was almost universal in all countries.

Slightly more than a third of all mothers (36%) had attended antenatal classes. Mothers in Scotland were the most likely to have attended antenatal classes (43%), while mothers in Wales were the least likely to have done so (26%).

About half of all mothers across the United Kingdom (49%) said they had received an antenatal home visit from a midwife. There was wide variation by country, with 78% of mothers in Wales receiving an antenatal home visit compared with only 21% of mothers in Northern Ireland. Across the United Kingdom, one in eight mothers (12%) said they had had an antenatal visit from a health visitor, and this ranged from 12% of mothers in both England and Scotland to three per cent of mothers in Northern Ireland.

#### Table 3.18

First-time mothers and mothers of second or later babies were equally likely to have had antenatal check-ups. However, first-time mothers were more likely to have attended antenatal classes compared with second-time mothers (62% and 10% respectively). First-time mothers were also slightly more likely to have had an antenatal home visit from a health visitor compared with second-time mothers (14% and 10% respectively).

#### Table 3.19

Attendance at antenatal classes was strongly associated with the socio-economic characteristics of the mother. Mothers from managerial and professional occupations were twice as likely as mothers from routine and manual occupations to have attended antenatal classes (50% and 26% respectively). There was little difference in other types of antenatal care received by socio-economic group, although mothers who had never worked were slightly less likely than other mothers to have attended antenatal check-ups (92%).

#### Table 3.20

Table 3.21 shows the type of antenatal classes that mothers went to. Across the United Kingdom the most common types of antenatal class were organised either through a clinic, doctor's surgery, or health centre (49%), or through a hospital (44%). Just over one in ten mothers (11%) who went to an antenatal class attended one organised by a voluntary organisation, such as the National Childbirth Trust (NCT).

There was significant variation in the types of classes attended by mothers in different countries. Mothers in Scotland were most likely to have attended classes organised through a clinic or doctor's surgery (58%) while mothers in Northern Ireland were the most likely to have gone to classes at hospital (75%). Mothers in Wales, Scotland, and Northern Ireland were all much less likely than mothers in England to have attended classes organised by a voluntary organisation such as the NCT. Mothers in Wales were slightly more likely than mothers in the rest of the United Kingdom to have attended classes which were midwife led or organised through a midwife unit (11% in Wales compared with 4% for the United Kingdom as a whole).

Table 3.21

### 3.6.2 Feeding advice received during antenatal care

Mothers who had attended antenatal check-ups were asked whether anyone had asked them how they planned to feed their baby and whether anyone had discussed feeding their baby with them. Across the United Kingdom, 85% of all mothers said that feeding had been raised in some way at their antenatal check-ups, whether this was simply being asked how they planned to feed their baby or whether it was a discussion about feeding. About two-thirds of mothers (68%) said they had had a discussion about feeding during antenatal check-ups, while 17% said they had been asked about their feeding plans but had not had any further discussion.

Mothers in Scotland and Northern Ireland were more likely than mothers in England or Wales to have discussed feeding at their antenatal check-ups. By contrast, mothers in England and Wales were more likely than those in Scotland or Northern Ireland only to have been asked about their feeding plans, but to have had no other discussion about feeding.

#### Table 3.22

First-time mothers were more likely than mothers of second or later babies to have discussed feeding at their antenatal check-ups (70% and 66% respectively).

#### Table 3.23

Nearly all mothers (97%) who had discussed feeding at an antenatal check-up had discussed it with a midwife. Other health professionals that mothers had discussed feeding with during antenatal check-ups were health visitors (18%) and doctors (10%).

Mothers who had attended antenatal classes were asked whether the classes had included any discussions on feeding and, if so, whether they had been taught how to position the baby or how to attach the baby to the breast. Table 3.22 shows that across the United Kingdom 28% of mothers had been to antenatal classes where feeding had been discussed, while 24% had been to classes where they had actually been taught how to position the baby for breastfeeding. Mothers in Wales were the least likely to have had a discussion about feeding at an antenatal class, although this reflects the fact that a lower proportion of mothers in Wales attended antenatal classes in the first place.

#### Table 3.24

Almost half (49%) of first-time mothers had attended an antenatal class at which feeding had been discussed compared with only six per cent of second-time mothers. Over four in ten

first-time mothers (43%) attended antenatal classes where they were taught how to position the baby for breastfeeding compared with five per cent of second-time mothers.

#### Table 3.25

Table 3.26 shows that across all mothers there was no difference in how mothers planned to feed their babies according to whether they had discussed feeding at their antenatal check-up or not. However, first-time mothers who had discussed feeding at antenatal check-ups were slightly more likely to say they had intended to breastfeed than mothers who had not discussed feeding (74% and 71% respectively).

Attendance at antenatal classes did appear to have a positive impact on intentions to breastfeed. Thus, 83% of mothers who attended antenatal classes said they planned to breastfeed compared with 63% of mother who did not attend antenatal classes. However, this difference is mostly explained by the socio-economic characteristics of mothers who attend antenatal classes as noted earlier.

However, attendance at antenatal classes with talks or discussions on feeding did appear to have a positive relationship with a mother's intention to breastfeed. Thus, 85% of mothers who attended antenatal classes where feeding was discussed said they planned to breastfeed their baby, while 87% of mothers who attended antenatal classes where they were taught how to position the baby to the breast said they planned to breastfeed. This suggests that discussions of feeding and being taught how to position the baby at antenatal classes do have a small impact on the feeding plans of mothers.

Table 3.26

# **Chapter 3 Tables**

Table 3.1: How mothers intended to feed their babies by country (2000 and 2005)												
	Engla	and &	Scot	tland	Nort	hern	Un	ited	Eng	land	Wa	les
	Wa	les			Irel	and	King	dom				
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%	%	%		%		%
Only breastfeed	n/a	61	n/a	57	n/a	48	n/a	60	n/a	61	n/a	54
Breast & formula feed	n/a	11	n/a	8	n/a	9	n/a	10	n/a	11	n/a	9
Either of the above	66	72	60	65	51	56	65	70	n/a	72	n/a	63
Only formula feed	26	20	31	24	40	31	27	20	n/a	19	n/a	27
Had not decided	7	8	9	10	9	12	8	9	n/a	8	n/a	9
Base: All Stage1 mothers	5441	8210	2274	2194	1778	1886	9492	12290	n/a	6075	n/a	2135

Table 3.2: How mothers intended to feed their babies by birth order (United Kingdom, 2005)					
	First birth	Later birth	All mothers		
	%	%	%		
	05		00		
Only breastreed	65	55	60		
Breast & formula feed	8	13	10		
Either of the above	73	67	70		
Only formula feed	16	25	20		
Had not decided	11	7	9		
Base: All Stage 1 mothers	6268	6022	12290		

(United Kingdom, 2005)		, b		J
	Hov	s fed:	All later birth	
	Did not breastfeed	Breastfed for less than 6 weeks	Breastfed for 6 weeks or more	<i>mothers<sup>†</sup></i>
	%	%	%	%
Only breastfeed	22	47	81	55
Breast & formula feed	6	21	14	13
Either of the above	28	67	95	67
Only formula feed	61	21	2	25
Had not decided	10	11	2	7
Base: Stage1 mothers of later babies	2006	1080	2852	6022
<sup>T</sup> Includes mothers where feed	ing history of previou	s baby unknown		

# Table 3.3: How mothers intended to fed their babies by previous experience of breastfeeding

Table 3.4: Proportion of mothers who breastfed initially by how they had planned to feed (United Kingdom, 2005)								
	How intended to feed:							
	Only breast feed	Breast and formula feed	Only formula feed	Had not decided	All mothers <sup>†</sup>			
	%	%	%	%	%			
Proportion of mothers who:								
Breastfed initially	98	95	11	57	76			
Did not breastfeed initially	2	5	89	43	24			
Base: All Stage 1 mothers	7360	1290	2517	1069	12290			
<sup>†</sup> Includes some mothers for who	om feeding in	tentions were not	known					

Table 3.5: Duration of breastfeeding among mothers who breastfed initially by how mother           planned to feed her baby (United Kingdom, 2005)						
			All mothers			
	Only breast feed	Breast and formula feed	Only formula feed	Had not decided	who breastfed initially <sup>†</sup>	
	%	%	%	%	%	
Birth	100	100	100	100	100	
1 week	86	77	52	72	83	
2 weeks	82	71	42	63	78	
6 weeks	68	48	19	46	63	
4 months	50	28	5	27	44	
6 months	38	16	3	20	33	
9 months <sup>††</sup>	27	10	3	15	23	
Base: Stage 3 mothers who breastfed initially	5546	921	213	477	7186	
<sup>††</sup> Based on a reduced nur	or whom feeding ii mber of cases excl	ntentions were not luding those babie	known s who had not reac	hed this age by	Stage 3	

	itea rangaoni, 2	Ном	intended to f	eed:	All mothers
	Only breast feed	Breast and formula feed	Only formula feed	Had not decided	who fed exclusively at birth <sup>†</sup>
	%	%	%	%	%
Birth	100	100	100	100	100
1 week	73	54	42	58	69
2 weeks	64	40	30	46	59
3 weeks	56	28	21	39	51
4 weeks	48	19	14	29	43
6 weeks	37	11	7	20	32
2 months (8 weeks)	32	6	4	17	27
3 months (13 weeks)	25	2	2	12	21
4 months (17 weeks)	14	1	1	6	12
5 months (21 weeks)	6	*	1	3	5
6 months (26 weeks)	1	0	0	0	*
Base: Stage 3 mothers who fed exclusively at birth	4896	713	104	353	6091

# Table 3.6: Duration of exclusive breastfeeding among mothers who fed exclusively at birth by how they planned to feed (United Kingdom, 2005)

Table 3.7: Reasons for planning to breastfeed <sup>†</sup> by birth order (United Kingdom, 2000 and 2005)						
	First birth		Later birth		All moth plann breas	ers who ned to stfeed
	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%
Breastfeeding is best for health of the baby	85	87	73	75	79	81
Breastfeeding is more convenient	34	26	40	30	37	28
Closer bond between mother and baby	23	20	23	17	23	19
Breastfeeding better for health of the mother	13	18	11	15	12	17
Breastfeeding is cheaper/free	21	17	19	13	20	15
Breastfeeding is natural	14	15	11	13	12	14
Breastfed previous baby (babies)	-	-	32	27	16	13
Mother loses weight more easily	13	12	9	10	11	11
Base: Stage1 mothers who planned to breastfeed	3112	4587	3051	4063	6163	8650
<sup>†</sup> Including mothers planning to solely breastfeed Percentages add to more than 100% as mothers	and those were able	e planning to to give mo	o give breast re than one a	and formula	a milk	

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Kingdom, 2005)		
	How fed µ	previous child:
	Breastfed	Did not breastfeed
	%	%
Breastfeeding is best for baby	76	67
Breastfeeding is more convenient	33	14
Closer bond between mother and baby	17	13
Breastfeeding is cheaper/free	14	8
Breastfed previous children <sup>†</sup>	31	6
Breastfeeding is natural	13	8
Breastfeeding better for mother's health	16	8
Mother loses weight more easily	11	6
Influenced by health professionals	1	2
Influenced by friends or relatives	1	*
Enjoyed it, felt more comfortable/proud	5	2
History of allergies/illness in family	2	1
No particular reason	*	1
Other	5	12
Base: Stage1 mothers of later babies who planned to breastfeed this time round	3448	570
<sup>1</sup> Mothers who did not breastfeed their previous child may have the	preastfed other children	<b>r</b>

# Table 3.8: Reasons for planning to breastfeed by previous experience of breastfeeding (United Kingdom, 2005)

Table 3.9: Reasons for planning to use infant formula by birth order (United Kingdom, 2000 and2005)						
	First birth		Later birth		All mothers wh planned to formula feed	
	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%
Other people can feed baby	29	32	22	20	25	25
Did not like the idea of breastfeeding	27	45	15	24	19	32
Fed previous children with infant formula	-	1	23	35	15	21
Breastfed previous children and didn't get on with it	-	-	16	23	10	15
Can see how much the baby has had	7	6	4	4	5	5
Would be embarrassed to breastfeed	4	9	4	4	4	6
Expecting to return to work soon	7	5	2	2	4	3
Feeding with infant formula is less tiring	2	2	2	3	2	3
Medical reasons for not breastfeeding	2	6	4	5	4	6
Convenient/due to mother's lifestyle <sup>†</sup>	-	15	-	11	-	13
Domestic reasons, coping with other children <sup>†</sup>	-	*	-	9	-	6
Base: Stage 1 mothers who planned to feed entirely with infant formula	921	984	1642	1533	2563	2517
' New codes added in 2005 Percentages add to more than 100% as moth	ers were ab	le to give m	ore than one	answer		

Table 3.10: Proportion of mothers who were aware of the health benefits of breastfeeding by country (2000 and 2005)												
	Engla Wa	and & les	Scot	tland	Nort Irel	hern and	Un King	ited Idom	Eng	land	Wa	les
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%	%	%		%		%
Proportion of mothers												
aware of health benefits	85	83	88	87	86	88	86	84	n/a	83	n/a	83
aware of health benefits <b>and</b> able to name a benefit	76	79	77	82	74	83	76	80	n/a	79	n/a	77
Base: All Stage 1 mothers	5441	8210	2274	2194	1778	1886	9492	12290	n/a	6075	n/a	2135

Table 3.11: Proportion of mothers w           socio-demographic characteristics	ho were aware of the hea (United Kingdom, 2005)	lth benefits of breast	feeding by
	<i>Proportion aware of health benefits</i>	Proportion aware of health benefits and able to give reasons	Base: All Stage 1 mothers
	%	%	
Mother's age			
Under 20	69	66	905
20-24	73	68	2397
25-29	85	80	3179
30-34	90	86	3487
35 or over	90	86	2287
Mother's socio-economic classification (NS-SEC)			
Managerial & professional	94	91	4463
Intermediate occupations	89	86	2536
Routine & manual	77	72	4047
Never worked	55	49	868
Unclassified	68	54	376
Ethnicity (Great Britain only)			
White	86	82	9023
Mixed	78	74	182
Asian or Asian British	70	62	635
Black or Black British	72	67	352
Chinese or other ethnic group	72	66	132
All mothers <sup>†</sup>	84	80	12290
'Includes mothers for whom some socio-d	emographic information was r	not collected	

Table 3.12: Proportion of mothers who were aware of the health benefits of breastfeeding by feeding intentions and practices (United Kingdom, 2005)						
	Proportion aware of health benefits	Proportion aware of health benefits and able to give reasons	Base: All Stage 1 mothers			
	%	%				
How intended to feed:						
Only breastfeed	91	87	7360			
Breast and formula feed	85	81	1290			
Either of the above	90	86	8650			
Only formula feed	69	62	2517			
Had not decided	72	67	1069			
Whether breastfed initially or not:						
Yes	89	86	9339			
No	68	60	2950			
Previous breastfeeding:						
First time mothers	84	80	6269			
Second time mothers who:						
Did not breastfeed previous child	72	65	2006			
Breastfed previous child, <6 weeks	88	84	1080			
Breastfed previous child, 6 weeks+	91	88	2852			
All mothers <sup>†</sup>	84	80	12290			
<sup>†</sup> Includes mothers for whom some feeding	g information was not colle	ected				

Table 3.13: Knowledge of the health benefits of breastfeeding by country (2005)						
	England	Wales	Scotland	Northern Ireland	United Kingdom	
	%	%	%	%	%	
Health benefits for baby						
Helps build immunity/fight infections and diseases	80	77	78	74	79	
Breast milk is more nutritious	32	29	16	28	30	
Reduces likelihood of asthma/eczema/other allergies	19	21	39	32	21	
Less wind/colic/digestive problems	16	17	20	20	16	
Better growth and development	8	9	7	7	8	
Health benefits for mother						
Helps uterus contract/mother to lose weight	72	67	48	63	69	
Reduced risk of breast or ovarian cancer	37	38	55	47	39	
Reduced risk of cancer (general)	14	13	25	22	15	
Reduced risk of osteoporosis/ bone deterioration	5	8	12	13	6	
Benefits for mother and baby						
Helps bond with baby	19	18	12	18	18	
Base: Stage1 mothers aware of health benefits of breastfeeding Percentages add to more than 100% a	4819 Is mothers were	1650 able to give mo	1789 ore than one answ	1559 ver	9778	

Table 3.14: Sources of information about the health benefits of breastfeeding by country (2005)							
	England	Wales	Scotland	Northern	United		
				Ireland	Kingdom		
	%	%	%	%	%		
Percentage of mothers who	78	82	86	88	79		
received advice about the							
health benefits of							
breasticeding							
Base: All Stage 1 mothers	6075	2135	2194	1886	12290		
Source of information	%	%	%	%	%		
Midwife	86	90	91	91	87		
Magazine/book/leaflet	46	43	45	47	46		
Partner/mother/other family	26	23	20	20	25		
Health visitor	20	17	23	15	20		
Doctor/GP	14	9	20	26	15		
Friend	14	14	12	11	14		
TV/radio	9	9	14	19	10		
Nurse	5	5	6	12	6		
Voluntary organization	7	3	3	1	6		
Support or peer group	3	2	4	2	3		
Base: Stage 1 mothers who       4717       1747       1895       1654       9717         received advice on health benefits         Percentages do not add up to 100 as mothers could give more than one answer							

Either of the above

Base: All Stage 1 mothers

Proportion who breastfed initially

Only formula feed

Not decided

Table 3.15: Feeding knowledge, intentions and actions of mothers by whether given advice during         pregnancy on the health benefits of breastfeeding (United Kingdom, 2005)						
	Mothers who received advice	Mothers who did not receive advice	All mothers <sup>†</sup>			
	%	%	%			
Proportion aware of health benefits	88	70	84			
Proportion aware of health benefits and able to give a benefit	83	66	80			
How intended to feed:						
Only breastfeed	62	51	60			
Breast & formula feed	10	11	10			

<sup>†</sup> Includes mothers for whom it was not known whether advice received or not

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baby by country (2005)				by now they w	ere reu as a
	England	Wales	Scotland	Northern Ireland	United Kingdom
		Percentage	who planned to	o breastfeed <sup>†</sup>	
	%	%	%	%	%
How mother was fed:					
Only breastfed	85	84	84	75	85
Mixed breast and formula	80	73	86	78	80
Only formula fed	62	54	55	51	60
Not known	63	52	55	48	62
Bases: Stage 1 mothers who were:					
Only breastfed	1599	438	397	214	3031
Mixed breast and formula	1257	306	327	210	2390
Only formula fed	2645	1209	1324	1324	5755
Not known	575	182	146	137	1114
<sup>†</sup> Includes mothers who intended to o	nly breastfeed an	d those who pla	anned to breast a	nd formula feed	

# Table 3.16: Proportion of mothers who planned to breastfeed their baby by how they were fed as

Table 3.17: Proportion of mothers who planned to breastfeed their baby by how friends feed their babies by country (2005)						
	England	Wales	Scotland	Northern Ireland	United Kingdom	
		Percentage	who planned to	breastfeed <sup>†</sup>		
	%	%	%	%	%	
Most breastfeed	90	87	91	82	90	
About half breastfeed and half use formula	73	69	67	63	72	
Most use formula	59	53	51	47	57	
Don't know other mothers	69	53	53	45	66	
Bases: Stage 1 mothers						
Most friends breastfed	1333	302	453	224	2585	
Half and half	1679	541	558	482	3348	
Most friends used formula	2124	1012	867	990	4510	
Don't know other mothers	224	65	77	37	439	
<sup>1</sup> Includes mothers who intended to only breastfeed and those who planned to breast and formula feed						

Table 3.18: Antenatal care received by mothers by country (2005)							
	England	Wales	Scotland	Northern Ireland	United Kingdom		
	%	%	%	%	%		
Had antenatal check-ups	98	98	98	99	98		
Went to antenatal classes	36	26	43	38	36		
Had antenatal home visit from:							
Midwife	50	78	34	21	49		
Health visitor	12	7	12	3	12		
Base: All Stage 1 mothers	6075	2135	2194	1886	12290		

Table 3.19: Antenatal care received by birth order (United Kingdom, 2005)						
	First birth Later birth		All mothers			
	%	%	%			
Had antenatal check-ups	97	98	98			
Went to antenatal classes	62	10	36			
Had antenatal home visit from:						
Midwife	48	50	49			
Health visitor	14	10	12			
Base: All Stage 1 mothers	6268	6022	12290			

Table 3.20: Antenatal care received by mother's socio-economic classification (NS-SEC ) (United Kingdom, 2005)						
	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers
	%	%	%	%	%	%
Had antenatal check-ups	100	99	97	92	94	98
Went to antenatal classes	50	38	26	12	30	36
Had antenatal home visit from:						
Midwife	48	50	51	45	40	49
Health visitor	10	11	13	13	12	12
Base: All Stage 1 mothers	4463	2536	4047	868	376	12290

Table 3.21: Type of antenatal classes attended by country (2005)							
	England	Wales	Scotland	Northern Ireland	United Kingdom		
	%	%	%	%	%		
Clinic/doctor's surgery/health centre	49	41	58	25	49		
Hospital	43	48	45	75	44		
Voluntary organisation (e.g. NCT)	13	5	3	1	11		
Midwife unit or led	4	11	3	-	4		
Other	2	2	1	-	2		
Base: Stage 1 mothers who attended an antenatal classes	2187	553	933	714	4446		

Table 3.22: Whether feeding was raised at antenatal check-ups by country (2005)						
	England	Wales	Scotland	Northern Ireland	United Kingdom	
	%	%	%	%	%	
Feeding raised at antenatal check-up	83	87	90	91	85	
Had discussion about feeding	66	71	78	79	68	
Asked about feeding plans, but no discussion	17	16	13	11	17	
Feeding not raised at antenatal check-up <sup>†</sup>	14	11	8	8	13	
Bases: All Stage 1 mothers	6075	2135	2194	1886	12290	
<sup>T</sup> Includes the small proportion of mothers who did	l not have an a	ntenatal che	ck-up			

Table 3.23: Whether feeding was raised at antenatal check-ups by birth order (United Kingdom, 2005)							
	First birth	Later birth	All mothers				
	%	%	%				
Feeding raised at antenatal check-up	85	84	85				
Had discussion about feeding	70	66	68				
Asked about feeding plans, but no discussion	15	18	17				
Feeding not raised at antenatal check-up <sup>†</sup>	12	14	13				
Base: All Stage 1 mothers	6268	6022	12290				
<sup>†</sup> Includes the small proportion of mothers who did not have an antenatal check-up							

Table 3.24: Whether feeding was raised at antenatal classes by country (2005)							
	England	Wales	Scotland	Northern Ireland	United Kingdom		
	%	%	%	%	%		
Attended antenatal class	36	26	43	38	36		
Had discussions about feeding at class	28	20	31	30	28		
Taught how to position/ attach baby at class	24	17	28	25	24		
Bases: All Stage 1 mothers <sup>†</sup>	6075	2135	2194	1886	12290		
<sup>†</sup> Includes the small proportion of mothers who did not have an antenatal check-up							

Table 3.25: Whether feeding was discussed at antenatal classes by birth order (United Kingdom, 2005)				
	First birth	Later birth	All mothers	
	%	%	%	
Attended antenatal class	62	10	36	
Had discussions about feeding at class	49	6	28	
Taught how to position/ attach baby at class	43	5	24	
Base: All Stage 1 mothers	6268	6022	12290	

Table 3.26: Proportion of mothers who planned to breastfeed their baby by feeding advice receivedin antenatal care by birth order (United Kingdom, 2005)				
	First birth	Later birth	All mothers	
	Percentage who planned to breastfeed <sup>†</sup>			
	%	%	%	
Antenatal check-ups				
Discussed feeding at antenatal check-ups	74	67	71	
Did not discuss feeding at antenatal check-ups $^{\dagger\dagger}$	71	69	70	
Antenatal classes				
Did not attend classes	57	66	63	
Attended classes	83	81	83	
Attended classes where feeding was discussed	86	81	85	
Attended classes where taught how to position baby	87	83	87	
Bases: Stage1 mothers who				
discussed feeding at antenatal check-ups	4384	3974	8358	
did not discuss feeding at antenatal check-ups	1885	2047	3932	
did not attend classes	2412	5431	7844	
attended classes	3856	590	4446	
attended classes where feeding was discussed	3079	363	3442	
attended classes where taught how to position baby	2677	288	2965	
Includes mothers who intended to only breastfeed and those who planned to breast and formula feed <sup>††</sup> Includes the small proportion of mothers who did not have an antenatal check-up				

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## 4 Birth, post-natal care and the early weeks

## **Key Findings**

#### Breastfeeding & the birth/experience in hospital

- Seven in ten mothers reported skin-to-skin contact with babies within an hour of the birth. Initiation of breastfeeding was higher for mothers who had early skin-to-skin contact than those who had no such contact after the birth.
- Babies spending long periods of time in special care after the birth were more likely than average to be breastfed at one and two weeks.
- A third of breastfed babies had received additional feeds in the form of formula, water or glucose while in hospital – this practice was particularly associated with low birth weight babies and those starting life in special care. In about a third of cases, additional feeds had been given because the mother wanted this rather than because this had been advised.
- Seven in ten mothers breastfeeding in hospital had been shown how to put their baby to the breast in the first few days (89% of first-time mothers and 53% of mothers of later babies). Mothers who had received help or advice found this most useful if the person giving guidance stayed with them until the baby had started to feed.

#### Problems feeding the baby in the early weeks

 A third of breastfeeding mothers had experienced some kind of feeding problem either in hospital or in the early weeks after leaving. The highest levels of problems were experienced by mothers who used a combination of breast and formula (around half of all mixed feeding mothers experienced problems). Over eight in ten mothers who experienced problems were offered help or advice. Those who did not receive help or advice for these problems were more likely to have stopped breastfeeding within two weeks than those who did receive such help or advice.

#### Where and how baby placed to sleep

- Following advice related to cot death, 84% of mothers placed their baby to sleep on its back, a small increase from 80% in 2000.
- Around half (49%) of all mothers allowed their baby to sleep in the parental bed at least occasionally, with 11% adopting this practice on a regular basis. Co-sleeping was particularly associated with breastfeeding mothers (61% of breastfeeding mothers allowing their baby to sleep with them at least occasionally compared with 38% of mothers giving only formula milk).

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This Chapter examines factors related to the birth, and to care provided to mothers in hospital. There is a particular focus on how events during and immediately after the birth may affect feeding, and more specifically breastfeeding, in the first few weeks. The chapter also covers problems with breastfeeding in hospital and the initial weeks, and reasons for stopping at this early stage. The possible influence of relatives and friends on mothers' feeding practices is also considered. Finally, the chapter explores how closely mothers adhere to accepted advice on how babies are placed to sleep, and sharing of the parental bed.

#### 4.1 Breastfeeding and factors associated with the birth

Chapter 3 observed that the vast majority of mothers who said that they had planned to breastfeed followed through with their intentions. However, it is useful to examine the variation in prevalence of breastfeeding in the first two weeks by factors related to the labour and delivery, thus enabling any potential influences on breastfeeding initiation to be detected.

#### 4.1.1 Home births

Only a very small proportion of mothers gave birth at home (3%). However, this small subgroup of mothers was significantly more likely than other mothers to initiate breastfeeding (86% compared with 76% overall) and to continue this in the early weeks (79% breastfeeding at two weeks compared with 61% overall).

Table 4.1

#### 4.1.2 Type of delivery

The majority of babies were born by normal delivery (64%), with a quarter (23%) born via caesarean section. Vacuum extraction (*ventouse*) and forceps were used respectively in eight per cent and five per cent of births. There was no variation in the likelihood of breastfeeding initially by nature of birth. In addition, mothers were equally likely to be breastfeeding at one week and two weeks regardless of delivery method.

#### Table 4.2

#### 4.1.3 Analgesia

Most mothers received some kind of analgesic during labour (92%) with the majority using gas and air (72%). Epidurals and other injections were each used by around one in three mothers (37% and 33%) while general anaesthetics were used only in rare circumstances (3%).

Mothers who gave birth without any form of analgesic were the most likely to initiate breastfeeding (79%), while those who gave birth under general anaesthetic were slightly less likely to initiate breastfeeding when compared with other mothers (71%). At one week and two weeks this difference became more emphasised (for example 68% of mothers with no analgesic were breastfeeding at two weeks compared with 54% of mothers giving birth under general anaesthetic).

#### Table 4.3

#### 4.1.4 Babies in special care

Mothers were asked if their baby had been given phototherapy for jaundice or been admitted to special care. Only 12% of babies were affected by this, with eight per cent being admitted to special care and five per cent receiving phototherapy. There was no difference in initiation of breastfeeding by whether baby started life in special care. However, babies starting life in special care were slightly more likely to be breastfed at both one week (68% of special care babies compared with 64% of other babies) and at two weeks (63% compared with 60%). However, the differential increases with length of time spent in special care, with 73% of babies spending at least four days in special care being breastfed at one week compared with 61% of babies only spending a day and 64% not in special care at all. Similarly the prevalence of breastfeeding at two weeks increases from 58% of babies spending up to a day in special care to 67% spending four or more days.

It is possible that the longer stay in hospital had led mothers to receive more support for breastfeeding their babies. However, whatever the cause, the finding that babies who need a long period of special care are more likely than average to be breastfed in the first two weeks is clearly encouraging.

#### Table 4.4, Figure 4.1

About half of all babies spending four or more days in special care weighed less than 2.5kg suggesting that pre-maturity/low birth weight was one of the main reasons for their prolonged stay. Despite this and the findings reported above, there was no clear pattern between baby's birth weight *per se* and breastfeeding in the first two weeks - although babies with low birth weights (under 2.5kg) were slightly more likely to be breastfed at one week and two weeks than high birth weight babies (3.5kg or more).



#### 4.1.5 Length of time before skin-to-skin contact

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In previous surveys, mothers have been asked about the length of time before they first held their baby, in order to look at the possible effects of early bonding on breastfeeding behaviour. However, there has been increasing interest in the effects of, more specifically, skin-to-skin contact between mothers and babies, since this may encourage babies to root for the breast, thus helping to establish a successful first breastfeed. In 2000, 92% of babies had been "held" within an hour of the birth, whether or not this was skin-to-skin. However, in 2005, 72% of mothers reported more specifically skin-to-skin contact with their babies within an hour of the birth. A fifth (19%) said that they had had no such contact.

Breastfeeding initiation was indeed much higher for babies exposed to early skin-to-skin contact (79% immediately and 87% within an hour compared with 57% of babies with no such contact). Immediate contact was associated with slightly lower initiation than contact with an hour. The breastfeeding prevalence at one week and two weeks was correlated with initial incidence.

#### 4.2 Experiences in hospital and breastfeeding in the early weeks

This section investigates mothers' experiences in hospital and how these are associated with initiation and duration of breastfeeding in the early weeks. In this section, figures are based on the large majority (97%) of mothers who gave birth in hospital.

#### 4.2.1 Length of stay in hospital

The average length of stay did not differ according to feeding status, with breastfeeding and bottle-feeding mothers spending an average of around 2 days in hospital (2.3 and 2.0 days respectively.) Table 4.7 displays the distribution of hospital stay length based on all breastfeeding mothers. Two-fifths spent no more than one day in hospital, with a further fifth (20%) spending up to two days. As in 2000, mothers who had given birth to their first baby tended to stay in hospital longer on average than mothers who had given birth previously (47% of first-time mothers staying two or more days compared with 29% of other mothers).

Compared with 2000, the average length of hospital stay for breastfeeding mothers decreased slightly (in 2005 62% of breastfeeding mothers stayed no longer than two days compared with 54% in 2000). However, this reduction in length in stay was particularly concentrated within first-time mothers - in 2005 30% of initially breastfeeding first-time mothers were discharged after just one day, compared with 19% in 2000.

#### Table 4.7

While the length of time mothers spent in hospital has decreased slightly, there has been no change in the proportion of breastfeeding mothers who had stopped breastfeeding by the time they left hospital (12% in both 2005 and 2000). Mothers of first babies who had initially tried breastfeeding were slightly more likely to have stopped by the time they left hospital compared with mothers of later babies (14% and 10% respectively).

#### Table 4.8

#### 4.2.2 Reasons for stopping breastfeeding in the first few weeks

Mothers who had stopped breastfeeding within the first two weeks were asked why they had stopped (reasons for giving up at later stages are covered in Chapter 6). Answers were collected in an open format and later coded into categories.

The reasons given for stopping varied somewhat depending on whether mothers gave up within the first or second week after the birth. The most common reasons for stopping in the first week were: baby not sucking / rejecting the breast (35%); having insufficient milk (25%); and having painful breasts or nipples (24%).

Mothers who stopped breastfeeding in the second week were more likely than those giving up in the first to say that this was because they had insufficient milk (42%) or because breastfeeding took too long / was tiring (17%). On the other hand, they were less likely than mothers who had given up in the first week to say it was because the baby would not suck / rejected the breast (24%). The pattern of responses was very similar to that found in 2000.

Infant Feeding Survey 2005

There was some variation in reasons given for stopping in the early weeks by birth order. Mothers of first babies were more likely to cite rejection of the breast as a reason for stopping in the first week (40% compared with 28% of mothers of later babies). In addition, mothers of later babies giving up in the first two weeks were much more likely to say they had stopped breastfeeding for domestic reasons than mothers of first babies (12% compared with 0% of mothers of first babies); this is likely to reflect issues arising from having other children present in the household.

#### 4.2.3 Time taken to initiate breastfeeding

Mothers breastfeeding at least initially were asked how soon after their baby was born they first put him/her to the breast. Seven in ten (72%, no change from 2000) had initiated breastfeeding in the first hour, a further 14% between one and four hours, and 12% after more than four hours.

#### Table 4.11

Delays in initiating breastfeeding were linked, to some extent, with early cessation. Mothers who initiated breastfeeding after a delay of more than 12 hours were more likely to have given up in the first two weeks (22%) than mothers who initiated breastfeeding immediately or within the first few minutes (15%). However, the proportion of late initiators who give up in the first two weeks has been in gradual decline since 1995, such that the gap between early and late initiators has been closing.

Table 4.12

#### 4.2.4 Contact between mother and baby in hospital

Babies being kept by the mother's side at all times, helps encourage the practice of breastfeeding. Since 1995, the proportion of hospital-born babies who stayed by their mother at all times has been increasing - 82% of babies in 2005 compared with 79% in 2000 and 74% in 1995. This may partly reflect the slightly reduced length of time mothers spent in hospital in 2005 compared with previous years. For eight per cent of babies in 2005, such close contact was not a possibility as they were in incubation or special care for more than one day.

#### Table 4.13

#### 4.2.5 Formula milk and other drinks in hospital

Feeding practices in hospital are expected to help inform mothers' future feeding choices. The 2000 survey covered the frequency with which breastfed babies were also given formula milk in hospital. However, the 2005 survey looked more widely at whether breastfed babies had been given formula milk, water or glucose while they were in hospital – trend data is therefore unavailable.

A third (33%) of all breastfed babies born in hospital had been given formula, water or glucose during their stay. This practice was particularly associated with low birth weight babies (66% of babies born weighing less than 2.5kg given additional feeds/liquids) and those starting life in special care (65%) – clearly these two associations are related.

In about half (46%) of all cases where this had occurred, it was on advice, although 34% of breastfeeding mothers giving additional feeds/liquids had wanted their baby to have something else. The remaining 20% said that neither of these had applied – these may have been mothers who were giving formula-feeds in response to breastfeeding difficulties, but who ideally would have preferred not to. Babies in special care were more likely than other babies to have received additional feeds on advice.

Table 4.14 displays these percentages based on all breastfeeding mothers giving birth in hospital.





Figure 4.2: Proportion of breastfeeding mothers who gave formula, water or glucose while in hospital by special care and birthweight (United Kingdom, 2005)

Provision of supplementary formula or additional drinks was associated with an increased likelihood of stopping breastfeeding in the early weeks. By the end of the first week, 28% of breastfeeding mothers whose babies had been given one of these feeds had given up, compared with only eight per cent who breastfed exclusively in hospital. A similar differential was observed at two weeks (34% compared with 12%).

#### Infant Feeding Survey 2005

However, looking at mothers giving additional feeds in more detail, it would appear that the decision to stop breastfeeding after early exposure to bottles/other liquids is often a personal choice. Only 19% of mothers advised to give early bottles/liquids had given up by the first week, with this rising to 43% of mothers who decided early on that they wanted to give additional feeds.

Table 4.15

#### 4.3 **Problems feeding the baby and advice given**

#### 4.3.1 Advice on how to put baby to the breast in the first few days

Mothers who initially breastfed were asked whether anyone had shown them how to put their baby to the breast in the first few days; 72% had been shown this. Such advice was mainly provided by midwives (89% of mothers receiving instruction), and nurses (26%).

Understandably, breastfeeding mothers of first babies were more likely than mothers of later babies to have been given such guidance (89% and 53% respectively)<sup>15</sup>. Among first-time mothers, about half of those (11%) who were not shown how to feed would have liked this (6%). Although around half (47%) of mothers of later babies received no guidance, only 7% expressed a wish to have received such guidance.

Among first-time mothers who breastfed, there was no variation in propensity to have given up in the first two weeks by whether instruction was given.

#### Table 4.16

The intensity of breastfeeding guidance may be expected to have an effect on mothers' continuation with breastfeeding. Therefore mothers were asked how long the person giving them instruction stayed with them. The pattern of response was similar for mothers of first and later babies. Overall, half (49%) of mothers receiving help with breastfeeding said that the professional helping them left once the baby was feeding but came back to check on them, while a third (33%) said that they had been left as soon as the baby had started feeding. Only 11% said that someone had stayed with them the whole time until the end of the feed.

#### Table 4.17

Mothers who had been shown how to put their baby to the breast were asked how useful this advice had been. The majority (85%) of mothers who had received help or advice said it was either very or extremely useful. Advice was seen to be most useful if the person giving the help or advice stayed with the mother either the whole time or until the baby was feeding (returning later to check on them). Almost all (95%) of mothers who received advice this way said it had been very or extremely useful.

<sup>&</sup>lt;sup>15</sup> It is not possible to compare these statistics with 2000, due to a change in the question wording.

#### 4.3.2 Problems feeding the baby in hospital and after leaving

Mothers were asked about the existence and nature of feeding problems both while in hospital and after leaving. Feeding problems after leaving hospital relate to the period between leaving hospital and the time of completion of the Stage 1 questionnaire (around four to ten weeks). Feeding problems at later stages are covered in Chapter 6. Answers relating to feeding problems were collected in an open format, and responses were later coded into categories.

The level of problems experienced varied according to mothers' feeding status during these periods. Mothers only breastfeeding were more likely than mothers only formula-feeding to experience feeding problems both while in hospital (22% compared with 12%) and in the early weeks after leaving (28% compared with 11%).

However, by far the highest levels of problems were experienced by mothers who adopted a mixed feeding approach. Half (52%) of mothers who used a combination of breast and formula while in hospital experienced problems in hospital. Similarly, in the period between leaving hospital and completing the Stage 1 questionnaire, 44% of mothers who either introduced or switched to formula after initially breastfeeding said that they experienced problems. However, in these situations, the cause and effect cannot be determined. Mothers may have adopted a mixed feeding approach *because* they were having problems; alternatively the mixed feeding approach in itself may have led to the problems. Intuitively, the first of these situations would seem the most likely, particularly given the nature of feeding problems mothers cited – many of which related to breastfeeding.

The problems experienced in hospital by breast or mixed feeding mothers differed in nature to those experienced by formula-feeding mothers. The most frequently cited problem for breast or mixed feeding mothers while in hospital was a failure to latch on properly (60% and 47% respectively) followed by breast or nipple discomfort (24% and 14%). Formula-feeding mothers with problems, on the other hand, were particularly likely to mention that the baby fed too slowly (30% compared with around one in ten mothers breast or mixed feeing) or that the baby suffered from vomiting/reflux (15% compared with 1% breastfeeding and 2% mixed feeding in hospital).

After leaving hospital, the main problems experienced by mothers formula-feeding at this stage were related to the health of the baby: vomiting (27% compared with 4% of breastfeeding and 6% of mixed feeding mothers with problems) and colic/wind (27% compared with 8% and 6%).

As discussed above, problems encountered in the very early days by breastfeeding mothers were mainly centred on problems with attachment or failure to feed. This still featured as a problem for mothers after leaving hospital, although to a lesser extent (33% of breastfeeding and 29% of mixed feeding mothers experiencing problems at this stage). For mothers introducing or switching to formula milk, further problems encountered were babies not satisfied (24%) and a need for top-ups of formula (18%). These are problems which are likely to have led to introduction of or switch to formula milk, rather than being a consequence of the change in feeding methods.

Not surprisingly, breastfeeding mothers of first babies were more likely to have experienced feeding problems in hospital than mothers of later babies (43% compared with 21%), although by the time breastfeeding mothers had left hospital this gap had reduced (43% of first-time mothers having problems compared with 31% of mothers of later babies).

Breastfeeding mothers of first babies who had problems in hospital were particularly likely to have had problems relating to attachment/failure to suck (57% compared with 41% of the equivalent subset of mothers of later babies).

#### Table 4.20

#### 4.3.3 Help or advice with feeding problems

Mothers who experienced feeding problems were asked whether or not they had been given help or advice with these. While in hospital, 83% of breastfeeding mothers encountering problems received advice (no difference within birth order). After leaving hospital, there was a similar level of support for mothers experiencing problems (88%, again no difference by birth order). However, although only small subgroups of mothers were affected by a lack of help or advice for problems, these mothers were significantly more likely to have stopped breastfeeding within the first two weeks. Nearly two-fifths (37%) of mothers who initially breastfeed and who lacked help or advice with their feeding problems had stopped within two weeks. This compares with 25% of breastfeeding mothers who did receive help with their feeding problems. This difference is largely attributable to first-time mothers with feeding problems. Among mothers of later babies, this difference is not evident.

#### Table 4.21

A similar differential is found among breastfeeding mothers experiencing problems after leaving hospital, but the difference in early cessation between those receiving advice (14%) and those not (21%) is less marked.

#### Table 4.22

Breastfeeding mothers who had received help or advice for feeding problems at either stage (in hospital and after leaving) were asked who provided this help or advice. In hospital, help for breastfeeding mothers was mainly given by midwives (84%) or nurses (32%). Once they had left hospital, the support network widened to include midwives (65%), the health visitor (55%), partner/friend/ relative (24%) or a doctor / GP (18%). A further 13% had consulted books, leaflets or magazines for advice on feeding problems and one in ten (10%) had visited a breastfeeding clinic.

#### Table 4.23

More generally, 77% of mothers who breastfed on leaving hospital were given information on how to get help with feeding their baby after they arrived back at home (this rising to 82% of first-time mothers). Two-thirds (65%) of this group were also given the contact details of a voluntary organisation which helps new mothers such as the National Childbirth Trust (this rising to 70% of first-time mothers breastfeeding at this stage).

Mothers formula-feeding upon leaving hospital were less likely to have been given contact details for advice on feeding (53% given information on where to get help and 40% given details of voluntary organisations).

Table 4.24

#### 4.3.4 Publications available to mothers

A number of publications offering advice on pregnancy, breastfeeding and health are available to new mothers, although these vary by country. At Stage 1 of the survey, mothers were asked which, if any, of a prompted list of publications they had received either during pregnancy or after the birth.

Most mothers (82%) in the United Kingdom reported receiving at least one of the listed publications. Mothers of first babies were more likely to have received at least one of them than mothers of later babies (93% and 72% respectively).

Scottish mothers were particularly likely to have received a relevant publication - the most common one being '*Ready Steady Baby*' (84% of Scottish mothers). In England, Wales and Northern Ireland the most commonly received publications were '*The Pregnancy Book*' (received by 56%, 44% and 67% respectively) and '*The Birth to Five Book*' (56%, 61% and 60% respectively).

Table 4.25

# 4.4 The influence of own feeding experiences and friends and relatives

#### 4.4.1 Whether the mother was breastfed as a baby

Previous surveys have identified a link between how mothers were fed themselves when they were babies, and how long they breastfed their own children. The 2005 survey confirmed the continued existence of this association.

Thus breastfeeding mothers who were themselves entirely formula fed were more likely to give up in the first two weeks (27%) than mothers who were breastfed themselves (11%). These differences continued to be evident beyond the first fortnight, with similar differentials at four weeks (63% of formula-fed mothers giving up breastfeeding at four weeks compared with 82% of breastfed mothers).

#### 4.4.2 Influence of friends and relatives

Similarly, there was a correlation between the feeding practices of mothers themselves and how their friends with babies fed their children, indicating a peer influence on feeding. As observed in previous surveys, breastfeeding mothers whose friends mostly formula-fed were more likely to have given up in the first two weeks (29%) than those whose friends mostly breastfed (9%). This association again continues beyond the first fortnight with 59% of mothers with friends who mainly formula fed still breastfeeding at four weeks compared with 85% of mothers whose friends mainly breastfed.

Table 4.27

#### 4.5 Placing of baby to sleep and sharing parental bed

#### 4.5.1 Positioning of baby to sleep

To limit the risk of cot death mothers are advised to place their baby on their back to sleep. In 2005, 84% of all mothers placed their baby on their back as advised, a small rise from 80% in 2000. Very small proportions of mothers adopted other practices: two per cent said that they placed their baby on their front to sleep, six per cent on their side and seven per cent said that this varied. There was no difference between mothers of first babies and mothers of later babies in this respect.

#### Table 4.28

The position of the baby when asleep varied by mother's socio-economic group. Mothers who had never worked were less likely than mothers in managerial and professional occupations to follow the accepted advice on this matter (70% compared with 88%). In addition, there were some clear differences by mother's cultural background, with mothers from Black, Asian and mixed ethnic backgrounds displaying a lower propensity to follow the advice to place baby on their back to sleep (69% of Asian mothers, 69% of mothers from mixed ethnic backgrounds and 53% of Black mothers).

#### Tables 4.29, 4.30

Mothers from England were slightly less likely than mothers from Wales, Scotland and Northern Ireland to have adhered to the accepted advice (83% of English mothers placing babies to sleep on their backs compared with between 87% and 89% of mothers in other countries).

#### Table 4.31

#### 4.5.2 Sharing the parental bed

Mothers are recommended not to allow their newborn baby to sleep in their own bed in order to avoid the risk of accidental smothering. Thus, in 2005, an additional question was included in the Stage 1 survey, asking mothers how often if at all they allowed their four to ten week old baby to sleep in their own bed. Against advice, around half (48%) of mothers reported allowing their baby to sleep in their bed: 37% said this happened rarely or sometimes and 10% regularly or every night.

The practice of co-sleeping tended to be associated with breastfeeding mothers. Three-fifths (61%) of mothers breastfeeding at the time of the survey completion allowed their baby to sleep in their bed at least occasionally compared with 37% of mothers giving only formula milk at this stage. One in six (19%) breastfeeding mothers allowed this to happen regularly or all the time compared with only four per cent of formula-fed babies.

#### Table 4.32, Figure 4.3



Compared with other countries, mothers in Northern Ireland were the least likely to allow their baby to sleep in their bed (60% of mothers in Northern Ireland saying they never did this compared with between 50% and 56% in other countries). These variations by country reflect differences in breastfeeding prevalence rates (see section 2.3), with English mothers being the most likely, and mothers from Northern Ireland, the least likely to breastfeed.

#### Table 4.33

There were no clear differences in sleeping arrangements by mother's socio-economic group. However, mothers from Black and Asian cultural backgrounds were significantly more likely than white mothers to adopt a regular practice of allowing their babies to share a bed with them (29% and 24% compared with 8% of white mothers).

## **Chapter 4 Tables**

Table 4.1: Incidence of breastfeeding at birth, one week, and two weeks by where baby wasdelivered (United Kingdom, 2005)							
	Born in hospital	Born at home	All mothers <sup>†</sup>				
	%	%	%				
Breastfed initially	76	86	76				
Breastfeeding at 1 week	64	80	64				
	20	70	24				
Breastfeeding at 2 weeks	60	79	61				
Base: All Stage 1 mothers	11947	340	12290				
<sup>†</sup> Includes some mothers for whom	delivery location was unknown						

Table 4.2: Incidence of breastfeeding at birth, one week, and two weeks by type of delivery (United Kingdom, 2005)

		Type of delivery					
	Normal	Forceps	Vacuum extraction	Caesarean			
	%	%	%	%	%		
Breastfed initially	75	80	78	76	76		
Breastfeeding at 1 week	64	64	66	65	64		
Breastfeeding at 2 weeks	60	62	62	61	61		
Base: All Stage 1 mothers	7908 <sup>†</sup>	$640^{\dagger}$	982 <sup>†</sup>	$2874^{\dagger}$	12290		

Table 4.3: Incidence of breastfeeding at birth one week and two weeks by type of analgesic           received during birth (United Kingdom, 2005)								
		All						
	Nothing	Epidural	Other injection (e.g. pethidine)	General Anaesthetic	Gas & air	mothers		
	%	%	%	%	%	%		
Breastfed initially	79	76	73	71	76	76		
Breastfeeding at 1 week	71	63	58	58	63	64		
Breastfeeding at 2 weeks	68	60	55	54	60	61		
Base: All Stage 1 mothers	978	4497	3995	388	8844	12290		
'Mothers may have received	I more than or	e analgesic						

Table 4.4: Incidence of breastfeeding at birth, one week, and two weeks by whether and how longbaby received special care (United Kingdom, 2005)										
_	Special care/Phototherapy for jaundice									
	Whether	received	Length o	Length of time in special care						
	No	Yes	< 2 days	2-3 days	4+ days					
	%	%	%	%	%	%				
Breastfed initially	76	77	74	81	79	76				
Breastfeeding at 1 week	64	68	61	70	73	64				
Breastfeeding at 2 weeks	60	63	58	65	67	61				
Base: All Stage 1 mothers	10862	1428	494	404	497	12290				
includes some mothers for w	vnom special (	care status un	known							

		Weight of bat	oy (kilograms)		All mothers <sup><math>†</math></sup>
	Less than 2.5	2.5 < 3	3 < 3.5	3.5+	
	%	%	%	%	%
Breastfed initially	78	72	76	77	76
Breastfeeding at 1 week	71	60	64	65	64
Breastfeeding at 2 weeks	66	56	61	62	61
Base: All Stage 1 babies	721	1908	4208	5383	12290

Table 4.6: Incidence of breastfeeding at birth, 1 week, and 2 weeks by length of time before motherhad skin-to-skin contact with their baby (United Kingdom, 2005)When first had skin-to-skin contact

	Immediately	Within an hour	After 1, up to 12 hours	More than 12 hours	None	All mothers <sup>†</sup>
	%	%	%	%	%	%
Breastfed initially	79	87	80	69	57	76
Breastfeeding at 1 week	68	73	65	58	47	64
Breastfeeding at 2 weeks	65	69	61	52	43	61
Base: All Stage 1 mothers	7068	1820	837	202	2311	12290

	First birth		Later birth		All mothers breastfeeding initially	
	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%
Up to 1 day	19	30	49	52	34	40
More than 1, up to 2 days	23	24	17	18	20	21
More than 2, up to 3 days	18	18	11	13	14	16
More than 3, up to 5 days	28	20	17	12	23	17
More than 5 days	13	8	6	4	10	6
Base: Stage 1 mothers who had hospital birth and breastfed initially	3248	4891	3106	4152	6354	9043

Table 4.8: Breastfeeding status2000 and 2005)	at the tim	e of leavin	g hospital	by birth ord	der (United	Kingdom,
	First birth		Later birth		All mothers breastfeeding initially	
	2000	2005	2000	2005	2000	2005
On leaving hospital mother	%	%	%	%	%	%
was:						
Breastfeeding	84	86	89	89	88	87
- Only breastfeeding	74	71	78	77	76	74
- Breast & formula feeding	11	14	11	12	11	13
Not breastfeeding (stopped while still in hospital)	15	14	10	10	12	12
Base: Stage 1 mothers who had hospital birth and breastfed initially	3247	4891	3107	4150	6354	9043

Kingdom 2000 and 2005)			<b>J</b>						
	Baby's age when breastfeeding ceased								
	Less than 1 week		1 week, but les	s than 2 weeks					
	2000	2005	2000	2005					
	%	%	%	%					
Insufficient milk	26	25	41	42					
Painful breasts or nipples	27	24	29	30					
Baby would not suck / rejected breast	35	35	19	24					
Breastfeeding took too long / was tiring	11	10	17	17					
Mother was ill	8	8	12	10					
Did not like breastfeeding	8	8	4	5					
Domestic reasons	4	4	8	7					
Baby was ill	5	6	10	7					
Difficult to judge how much baby had drunk	3	3	2	4					
Baby could not be fed by others	1	1	2	4					
Base: Stage 1 mothers who gave up breastfeeding within first 2 weeks	1069	1428	318	435					
Percentages add to more than 10	0% as mothers we	e able to give more t	than one answer						

 Table 4.9: Reasons given by mothers for stopping breastfeeding within one or two weeks (United Kingdom 2000 and 2005)

(	Baby's age when breastfeeding ceased									
	Less than 1 week		1 week, but 2 wee	less than eks	Up to 2	weeks				
	First birth	Later birth	First birth	Later birth	First birth	Later birth				
	%	%	%	%	%	%				
Baby would not suck / rejected breast	40	28	26	20	37	26				
Insufficient milk	29	20	43	40	33	24				
Painful breasts or nipples	21	27	30	28	24	27				
Breastfeeding took too long / was tiring	12	8	16	18	13	10				
Mother was ill	8	9	8	12	8	10				
Baby was ill	7	5	8	5	7	5				
Did not like breastfeeding	6	10	4	6	6	10				
Difficult to judge how much baby had drunk	4	2	6	-	4	2				
Baby could not be fed by others	1	2	5	2	2	2				
Domestic reasons	-	10	-	20	-	12				
Base: Stage 1 mothers who gave up breastfeeding within first 2 weeks	836	592	283	152	1119	744				
Percentages add to more than	100% as mothe	rs were able	e to give more that	n one answer						

# Table 4.10: Reasons given by mothers for stopping breastfeeding within first two weeks by birth order (United Kingdom, 2005)

Table 4.11: Length of time before baby was first put to the breast (United Kingdom, 1995, 2000 and2005)						
	1995	2000	2005			
	%	%	%			
Immediately / within few minutes	25	28	27			
Within an hour	43	44	44			
More than 1 hour, up to 4 hours later	17	14	14			
More than 4 hours, up to 12 hours later	8	5	5			
More than 12 hours later	8	7	7			
Base: Stage 1 breastfeeding mothers who had hospital birth	3337	6354	9043			

# Table 4.12: Proportion of mothers who had stopped breastfeeding within two weeks by length of time taken to first put baby to breast (Great Britain, 1995; United Kingdom, 2000, 2005) Percentage who had stopped

	breastfeeding within 2 weeks			Bases: Stage 1 breastfeeding mothers who had hospital birth			
	1995	2000	2005	1995	2000	2005	
	%	%	%				-
Immediately / within few minutes	14	16	15	804	1790	2467	
Within an hour	16	21	19	1381	2796	4023	
More than 1 hour, up to 4 hours later	26	24	23	564	862	1247	
More than 4 hours, up to 12 hours later	26	30	29	249	331	450	
More than 12 hours later	30	27	22	252	467	605	
All mothers who breastfed initially in hospital	19	21	19	3337	6354	9043	

1995; United Kingdom, 2000 and 2005	i)		
	1995	2000	2005
	%	%	%
Mother and baby together continuously	74	79	82
Baby away sometimes:			
Mother always fed baby	9	7	5
Nurses sometimes fed baby	8	6	5
Baby in incubator or special care most of the time (more than 1 day)	9	8	8
Base: Stage 1 breastfeeding mothers who had hospital birth	3243	6354	9043

Table 4.13: Contact between breastfee1995; United Kingdom, 2000 and 2005)	eding mothers	and babies while in hospital	(Great Britain,
	1995	2000	2005

Table 4.14: Proportion of breastfeeding mothers who gave formula, water or glucose while inhospital (United Kingdom, 2005)							
	All breastfeeding mothers <sup>†</sup>	Breastfeeding mothers with baby					
		in specialwith birthweight of care			f		
		Yes	No	<2.5kg	2.5-2.99	3-3.49	3.5kg+
	%	%	%	%	%	%	%
All who gave additional feeds/liquids	33	65	28	66	36	31	29
- Given on advice	15	40	12	36	18	13	13
- Given because wanted to	11	9	11	12	11	11	11
- Neither of the above	6	16	5	17	7	6	5
Base: Stage 1 mothers breastfeeding initially who gave birth in hospital	9043	1074	7969	552	1349	3111	3972

whether baby had formula, water of glucose while in hospital (officer Kingdoff, 2005)								
	Mother gav	ve baby form	Mothers broastfooding	All broastfooding				
	On advice	Because wanted to	Neither of these	All having extra feeds	exclusively in hospital	mothers <sup>†</sup>		
	%	%	%	%	%	%		
Stopped breastfeeding by 1 week	19	43	25	28	8	16		
Stopped breastfeeding by 2 weeks	25	49	30	34	12	20		
Base: Stage 1 mothers breastfeeding initially who gave birth in hospital	1359	1006	578	2971	5800	9043		
<sup>†</sup> Includes some babies where use of formula, water or glucose is unknown								

# Table 4.15: Proportion of mothers who had stopped breastfeeding within one and two weeks by whether baby had formula, water or glucose while in hospital (United Kingdom, 2005)

# Table 4.16: Proportion of breastfeeding mothers who received help or advice the first time they breastfed by birth order (United Kingdom, 2005)

-			
	First birth	Later birth	All mothers breastfeeding initially
	%	%	%
Received advice	89	53	72
Did not receive advice	11	47	28
- would have liked advice	6	7	6
- did not want advice	5	39	21
Base: Stage 1 mothers breastfeeding initially (hospital & home births)	4963	4376	9338

Table 4.17: How long person giving advice to breastfeeding mothKingdom, 2005)	er stayed with mother (United
	%
Stayed the whole time	11
Left once baby was feeding but came back to check on you	49
Left once baby was feeding	33
Left before baby was feeding	5
Base: Stage 1 breastfeeding mothers who received advice on feeding in hospital	6723

Table 4.18: How useful advice on breastfeeding was by how long person advising stayed with           mother (United Kingdom, 2005)									
	Pers	on advising on	breastfeeding		All who				
	stayed throughout first feed	left once feeding/ came back to check	left once baby feeding	left before baby fed	received advice on breastfeeding <sup>†</sup>				
Help was found to be	%	%	%	%	%				
Extremely useful	70	56	22	6	44				
Very useful	25	39	52	26	41				
Not very useful	3	4	22	44	12				
Not at all useful	1	*	4	22	3				
Base: Stage 1 breastfeeding mothers who received advice on feeding in hospital	749	3312	2225	351	6723				
<sup>†</sup> Includes some mothers for whether the source of the so	<sup>†</sup> Includes some mothers for whom length of stay not known								

# Table 4.19: Feeding problems experienced by mothers while in hospital and after leaving hospital by feeding method at the time (United Kingdom, 2005)

by leeding method a	Brobloms in hospital					Problems after leaving bespital				
	Inho	Problems II	n nospitai r	A.II	After bespital methor					
	only breastfed	breast & formula fed	did not breast feed	mothers <sup>†</sup>	only breastfed	introduced or switched to formula	did not breast feed	mothers <sup>†</sup>		
	%	%	%	%	%	%	%	%		
Any problem	22	52	12	28	28	44	11	29		
Base: Stage 1 mothers having hospital birth	5624	3376	2902	11947	3170	4818	3829	11947		
Nature of problems										
Wouldn't suck/latch	60	47	11	48	33	29	5	27		
Breastfeeding uncomfortable or painful (incl. sore breasts/nipples/ mastitis)	24	14	1	16	12	10	2	9		
Baby fed too slowly/ falling asleep/ distracted	12	10	6	10	5	7	8	7		
Needed (top-ups of) formula	1	20	3	11	4	18	2	12		
Baby not feeding properly/enough/not interested	12	10	30	13	7	6	15	7		
Fed by syringe/tube	4	11	12	9	1	*	1	1		
Baby still hungry/not satisfied	6	11	2	8	13	24	15	20		
Lack of support	8	7	3	7	3	4	3	4		
Had to express/ problems with expressing milk	7	7	*	6	3	3	*	3		
Breast milk dried	2	8	-	5	2	3	1	3		
Too tired/ill	3	7	4	5	1	3	1	3		
Baby vomiting/reflux	1	2	15	3	4	6	27	9		
Not gaining enough/ lost weight	2	2	*	2	4	8	3	6		
Colic/wind	*	*	2	*	8	6	27	7		
Base: Stage 1 mothers who had feeding problems	1215	1753	348	3319	875	2102	408	3416		
Includes some mothers for whom feeding status unknown Percentages add to more than 100% as mothers were able to give more than one response										

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	First birth	lems in ho	spital	Problems	ofter leavin								
	First birth		Spilai		Problems in hospital Dy Diffit Order (Officer Kniguoth, 2003) Problems in hospital Problems after leaving hospital								
		birth	All babies breastfed in hospital	First birth	Later birth	All babies breastfed after leaving							
	%	%	%	%	%	%							
Any problem	44	21	33	43	31	37							
Base: All mothers having hospital birth	4871	4129	9000	4194	3708	7902							
Nature of problems													
Wouldn't suck/latch on/poor attachment	57	41	52	33	25	30							
Breastfeeding uncomfortable or painful (incl. sore breasts/ nipples/mastitis)	17	20	18	12	8	10							
Baby fed too slowly/ falling asleep/distracted	11	11	11	7	6	6							
Needed (top-ups of) formula	13	11	12	16	11	14							
Baby not feeding properly/enough/not interested	11	10	11	7	5	6							
Fed by syringe/tube	8	10	8	*	1	1							
Baby still hungry/not satisfied	9	10	9	22	20	21							
Lack of support	8	6	7	4	2	4							
Had to express/ problems with expressing milk	7	7	7	4	2	3							
Breast milk dried up/not	6	6	6	4	2	3							
Too tired/ill	5	5	5	3	2	3							
Baby vomiting/reflux	2	1	2	4	6	5							
Not gaining enough/lost weight	1	2	2	6	7	7							
Colic/wind	*	*	*	6	7	7							
Base: Stage 1 breastfeeding mothers who had feeding problems	2119	851	2970	1807	1155	2962							

Table 4.21: Proportion of mothers who had stopped breastfeeding within two weeks by whether           they received help with problems in hospital by birth order (United Kingdom, 2005)							
	First birth		Later birth		All mothers who breastfed initially <sup>†</sup>		
	Received help	Did not receive help	Received help	Did not receive help	Received help	Did not receive help	
	%	%	%	%	%	%	
Percentage who had stopped breastfeeding within two weeks	24	40	28	32	25	37	
Base: Stage 1 mothers breastfeeding initially and having feeding problems in hospital	1799	306	680	164	2479	470	
<sup>†</sup> Excludes mothers where it was no	ot known wheth	ner they recei	ved help or not				

Table 4.22: Proportion of mothers who had stopped breastfeeding within two weeks by whether they received help with problems after hospital by birth order (United Kingdom, 2005)

	First birth		Later birth		All babies breastfed on leaving hospital <sup>†</sup>		
	Received help	Did not receive help	Received help	Did not receive help	Received help	Did not receive help	
	%	%	%	%	%	%	
Percentage who had stopped breastfeeding within two weeks	14	22	13	20	14	21	
Base: Stage 1 mothers breastfeeding on leaving hospital and having feeding problems at this time	1623	177	986	154	2610	331	
<sup>†</sup> Excludes mothers where it was not known whether they received help or not							

after leaving (United Kingdom, 2005) <sup>/</sup>						
	Sources of advice for breastfeeding mothers who experienced feeding problems					
	in hospital	after hospital				
	%	%				
Midwife	84	65				
Health visitor	n/a	55				
Partner, Friend or relative	8	24				
Doctor / GP	7	18				
Books, leaflets or magazines	n/a	13				
Breastfeeding clinic	n/a	10				
Voluntary organisation	n/a	7				
Support or peer group	n/a	6				
Nurse	32	4				
Healthcare assistant	13	n/a				
Base: Stage 1 mothers receiving help for breastfeeding problems	2479	2610				
<sup>†</sup> n/a represents categories not included on the prompt lists for the different questions Percentages add to more than 100% as mothers were able to give more than one answer						

# Table 4.23: Sources of advice for mothers experiencing breastfeeding problems in hospital and after leaving (United Kingdom, 2005) $^{t}$

Table 4.24: Additional advice or information given to mothers since leaving hospital (United Kingdom, 2005)									
	All Stage 1	On leaving hospit	On leaving hospital mother was						
	mothers	breastfeeding	not						
			breastfeeding						
	%	%	%						
Percentage of mothers who were given									
advice on how to get help with feeding the baby	69	77	53						
contact details of voluntary organisation which	57	65	40						
helps new mothers (e.g. NCT)									
Base: All Stage 1 mothers	12290	7901	3914						
Percentages add to more than 100% as mothers were a	ble to give more	than one answer							

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	Birth	Birth order			Country		
	First births	Later births	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%	%	%
The Pregnancy Book	62	42	56	44	19	67	53
The Birth to Five Book	71	32	56	61	8	60	52
Breastfeeding ( <i>England</i> / <i>Wales only</i> )	36	30	38	35	n/a	n/a	n/a
Bottle feeding ( <i>England</i> only)	11	9	12	n/a	n/a	n/a	n/a
Ready Steady Baby (Scotland only)	9	8	n/a	n/a	84	n/a	n/a
Breastfeeding – off to a good start ( <i>Scotland</i> <i>only</i> )	8	6	n/a	n/a	53	n/a	n/a
Breastfeeding and returning to work ( <i>Scotland only</i> )	4	3	n/a	n/a	28	n/a	n/a
One or more of all books listed	93	72	81	83	92	83	82
Received publication but title unknown	14	20	17	17	16	18	17
Do not recall receiving any of publications listed	3	18	11	10	4	11	11
Base: All Stage 1 mothers	6268	6022	6075	2135	2194	1886	12290

# Table 4.25: Publications on pregnancy and the early years given to mothers, by birth order and by

Table 4.26: Duration of breastfeeding to four weeks by how mother was fed (United Kingdom,2005)										
	How mother was fed									
	Breastfed entirely	Breast and formula fed	Formula fed entirely	Don't know	All mothers who breastfed initially <sup>†</sup>					
	%	%	%	%	%					
Breastfed for less than 2 weeks	11	18	27	23	20					
Breastfed for 2, less than 4 weeks	7	9	10	10	9					
Breastfed at 4 weeks	82	73	63	67	71					
Base: Stage 1 mothers who breastfed initially	2688	2066	3724	711	9339					
<sup>T</sup> Includes some mothers for whor	n feeding metho	d at birth not reco	orded							

Table 4.27: Duration of breastfeeding to four weeks by how mothers' friends fed their babies         (United Kingdom, 2005)										
	How mothers' friends fed their babies									
	Most breastfed	Half breast / half formula fed	Most formula fed	Don't know	All mothers who breastfed initially <sup>†</sup>					
	%	%	%	%	%					
Breastfed for less than 2 weeks	9	20	29	26	20					
Breastfed for 2, less than 4 weeks	6	9	12	8	9					
Breastfed at 4 weeks	85	71	59	66	71					
Base: Stage 1 mothers who breastfed initially	2424	2645	2752	319	9399					
<sup>†</sup> Includes some cases where mo	<sup>†</sup> Includes some cases where mothers had no friends with babies									

Table 4.28: Placing of baby to sleep by birth order (United Kingdom , 2000 and 2005)								
		2000			2005			
	First birth	Later birth	All mothers	First birth	Later birth	All mothers		
	%	%	%	%	%	%		
On baby's back	82	78	80	84	83	84		
On baby's front	2	1	1	2	3	2		
On baby's side	6	10	8	6	7	6		
Varies	10	11	10	8	7	7		
Not stated	1	*	*	*	1	1		
Base: All Stage 1 mothers	4447	5044	9492	6267	6021	12290		

Table 4.29: Placing of baby to sleep by mother's socio-economic classification (NS-SEC) (United	
Kingdom, 2005)	

	Managerial & professional	Intermediate	Routine & manual	Never worked	Unclassified	All mothers
	%	%	%	%	%	%
On baby's back	88	87	81	70	71	84
On baby's front	2	2	2	4	5	2
On baby's side	5	5	7	10	8	6
Varies	5	5	9	15	15	7
Base: All Stage 1 mothers	4463	2535	4047	868	376	12290

Table 4.30. Flacing of baby to sleep by mother's ethnic group (Great Britain , 2005)									
	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>†</sup>			
	%	%	%	%	%	%			
On baby's back	86	69	69	53	74	83			
On baby's front	2	5	5	7	8	2			
On baby's side	6	11	8	10	9	6			
Varies	6	14	17	30	8	8			
Base: All Stage 1 mothers	9023	182	636	351	132	10404			
Includes some mothers for w	hom ethnic gro	up was not rec	corded						

Table 4.31: Placing of baby to sleep by country (2005)									
	England	Wales	Scotland	Northern Ireland	United Kingdom				
	%	%	%	%	%				
On baby's back	83	87	87	89	84				
On baby's front	2	2	1	1	2				
On baby's side	6	6	6	5	6				
Varies	8	5	6	5	7				
Base: All Stage 1 mothers	6075	2135	2194	1886	12290				

### Table 4.30: Placing of baby to sleep by mother's ethnic group (Great Britain , 2005)
# Table 4.32: How often mother allows baby to sleep in parental bed at Stage 1 of the survey by method of feeding (United Kingdom, 2005)

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	Only breastfeeding	Breast & formula	Only formula milk	All mothers
	%	%	%	%
All the time	7	5	1	4
Regularly	12	9	3	7
Sometimes	18	21	12	15
Rarely	24	25	21	23
Never	38	40	62	51
Base: All Stage 1 mothers	3471	2292	6525	12290

Table 4.33: How often mother allowed baby to sleep in parental bed by country (2005)									
	England	Wales	Scotland	Northern Ireland	United Kingdom				
	%	%	%	%	%				
All the time	4	3	2	2	4				
Regularly	7	7	5	6	7				
Sometimes	16	14	14	12	15				
Rarely	23	21	22	20	23				
Never	50	55	56	60	51				
Base: All Stage 1 mothers	6075	2135	2194	1886	12290				

<sup>†</sup> Includes some mothers for whom ethnic group was not recorded

Never

Base: All Stage 1 mothers

Table 4.34: How often mother allows baby to sleep in parental bed by mother's ethnic group (Great Britain, 2005)									
	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>†</sup>			
	%	%	%	%	%	%			
All the time	3	7	10	16	14	4			
Regularly	6	13	14	13	6	7			
Sometimes	14	21	27	35	37	16			
Rarely	23	19	19	17	20	23			

# 5 The use of milk other than breast milk

# **Key Findings**

### Types of milk other than breast milk given

- As babies got older, mothers who breastfed initially changed the type of milk they were giving their baby, with an increased proportion introducing formula milk, either to supplement breastfeeding or as their baby's only source of milk. Thus, at Stage 1 of the survey 38% of mothers who breastfed initially were using formula milk as their baby's only source of milk, rising to 58% at Stage 2 and 78% at Stage 3.
- Three-quarters of all mothers had given their baby milk other than breast milk by the age of six weeks, this proportion rising to 92% by six months. Mothers from managerial and professional occupations and older mothers were the most likely to introduce milk other than breast milk at a later age, which reflects the higher levels of breastfeeding amongst these mothers.
- At Stage 2 of the survey (four to six months), most mothers who had given their baby milk other than breast milk in the last seven days were mainly giving infant formula milk. Use of follow-on milk or liquid cow's milk was low at this Stage. By Stage 3 of the survey, mothers were more likely to be using follow-on milk as their baby's main source of milk other than breast milk, rather than infant formula.
- At Stage 3 of the survey about half of all mothers had given their baby follow-on milk. Most mothers followed the recommendation of not giving their baby follow-on milk before the age of six months, although mothers from routine and manual occupations, mothers who had never worked, and mothers with the lowest education level were more likely than average to say they had given their baby follow-on at an earlier age.
- At Stage 3 of the survey, about four in ten mothers had given their baby liquid cow's milk, although this had mainly been used to mix with food. Only six per cent of mothers had introduced liquid cow's milk as their baby's main source of non-breast milk by this Stage of the survey.

## Preparation of feeds

 Just under half of all mothers who had prepared powdered infant formula in the last seven days had not followed the key recommendations for preparing formula: either by not always using boiled water that had cooled for less than 30 minutes or not always adding the water to the bottle before the powder. About a third of mothers did not follow the recommendations for preparing formula when away from the home, either by not keeping pre-prepared formula chilled or by using cold or cooled water when making up feeds.

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This Chapter examines mothers' use of milk other than breast milk at each Stage of the survey. It looks at what type of milk mothers were giving their babies and at what age babies were first given any sort of milk other than breast milk. The Chapter also looks specifically at mothers' use of both follow-on and liquid cow's milk and at what age these milks were first given. Finally, the Chapter looks at several other aspects of formula feeding including whether mothers who used powdered formula milk were following the recommended guidelines for preparing and storing feeds, and the help mothers received with the cost of formula or other milk.

# 5.1 Types of milk other than breast milk given to babies

There are several types of milk other than breast milk that mothers can use during their baby's first year.

Infant formula (or first milk) is an artificial feed, which can act as an alternative for breast milk as the sole source of nutrition for babies until they are first given solid food. The majority of infant formula milks are based on cow's milk and can be classified according to the dominant cow's milk protein of whey or casein. Although most formula milks are based on cow's milk, infant formula based on soy protein can be used from birth, although it is not recommended as a first choice unless there is a specific reason for not using cow's milk.

As babies grow older other types of milk may be introduced such as follow-on formula (or second milk) and liquid cow's milk. While infant formula milk is usually whey-based in order to be as close to breast milk as possible, follow-on milk is casein-based and fortified with iron. Follow-on milk takes longer to digest and it is sometimes claimed that it is especially suitable for hungrier babies, although there is no evidence for this claim. It is not recommended that follow-on milk is given to infants before the age of six months.

Liquid cow's milk is not recommended to be given to infants as a main drink until they are a year old and at this age only full-fat milk is recommended. Semi-skimmed milk is not recommended for infants until they are two years old, while skimmed milk should not be given to children under five years old. However, it is acceptable to introduce cow's milk to mix in foods that are prepared for the baby from the age of six months.

Other types of milk such as goat's milk and sheep's milk are not recommended to be given as drinks until infants are a year old.

## 5.2 The use of different types of milk

In 2005, just under a quarter of mothers (24%) in the United Kingdom did not initiate breastfeeding at birth but instead used infant formula milk as the sole source of nutrition for their baby. The proportion of mothers who only ever used infant formula milk from birth was lower in 2005 compared with the 2000 survey (when it was 30%), which is a reflection of the increase in the incidence of breastfeeding seen in Chapter 2.

Although the majority of mothers breastfed initially (76%), it was shown in Chapter 2 that some mothers breastfeed only for a relatively short period of time before introducing infant

formula milk. Table 5.1 shows what types of milk mothers had given their baby in the previous seven days at each Stage of the survey.

At Stage 1, when babies were around four to ten weeks old, over seven in ten mothers (72%) had given their baby infant formula milk in the last seven days. Just over half of all mothers (53%) had given their baby only infant formula milk during this period, indicating that this was the baby's sole source of nutrition, while about a fifth of mothers (19%) had used mixed feeding during this period, giving their baby both breast and formula milk.

At Stage 2 of the survey, when babies were between four and six months old, 83% of mothers had given their baby formula milk in the last seven days, with more than two-thirds (68%) having only given their baby formula milk during this period. At Stage 3, when babies were between eight and ten months old, 91% of mothers had given their baby formula milk in the last seven days, with over eight in ten (83%) giving this as the sole source of milk.

This pattern of mothers increasingly using formula milk as their baby gets older, either as the sole source of milk or in addition to breast milk, is in line with the fall-off in the prevalence of breastfeeding that was seen in Chapter 2.

#### Table 5.1

Since mothers who have only ever given their baby formula milk since birth will not have changed their feeding habits across the different Stages of the survey, it is useful to look specifically at the milk feeding patterns of mothers who breastfed initially. Table 5.2 shows that at Stage 1 of the survey over six in ten mothers (63%) who breastfed initially had given their baby formula milk in the last seven days, with 38% having only given their baby formula milk during this period.

At Stage 2, almost eight in ten mothers (78%) who had breastfed initially had given their baby formula milk in the last seven days, with 58% having only used formula milk during this time. By Stage 3, the equivalent proportions were 88% and 78%.

#### Table 5.2

For mothers who had used both breast and formula milk, it is interesting to examine what the baby's predominant source of nutrition was. At Stage 1 of the survey all mothers who had ever used formula milk were asked how often they had used formula milk since their baby was born.

Table 5.3 shows that across the United Kingdom, 64% of mothers who had used both breast and formula milk at Stage 1 of the survey said that they had used formula milk as their baby's predominant feed, that is for at least half of all feeds since the baby was born. A further 18% of mothers who had used both breast and formula milk said they had used formula milk on an occasional but regular basis (either daily or weekly) since their baby had been born, but it was not their baby's main source of nutrition, while 17% of mothers said they had used it on a sporadic basis since their baby had been born, perhaps on only a few occasions. In fact, 12% of mothers who had given their baby both breast and formula milk said they had used formula milk only once or twice since their baby was born.

#### Table 5.3

# 5.3 Age at which milk other than breast milk was first introduced

At each Stage of the survey mothers were asked at what age they had first given their baby any sort of milk other than breast milk. It is not possible from the information collected in the survey to be sure of the exact type of milk other than breast milk that mothers first gave to their baby, although in the majority of cases it can be assumed that it was infant formula milk.

Table 5.4 shows that across the United Kingdom over a third (35%) of mothers gave their baby infant formula milk at birth. Since the proportion of mothers who did not breastfeed initially was only 24% this shows that more than one in ten (11%) initiated breastfeeding when their baby was born but also gave their baby infant formula milk on the first day.

By one week over half of all mothers (54%) had given their baby formula milk, while threequarters (76%) had done so by six weeks. Over nine in ten mothers (92%) mothers had given their baby formula milk by the time he or she was six months old.

There was relatively little variation by country in terms of the age at which mothers first gave their baby formula milk. Mothers in England were the slowest to give their babies formula milk, with 34% of mothers in England having given their baby formula by one week compared with 42% of mothers in Wales and 45% of mothers in Northern Ireland. This pattern tends to reflect the different levels of breastfeeding within each country seen in Chapter 2, since there is inevitably an association between the proportion of mothers who breastfeed initially and the age at which mothers first introduce formula milk.

#### Table 5.4

Mothers in managerial and professional occupations tended to introduce infant formula milk at a later age compared with other mothers. For example, just over a fifth of mothers (22%) in managerial and professional occupations gave their baby formula milk at birth compared with 35% of mothers in intermediate occupations, and 46% of mothers in routine and manual occupations. By six weeks, two-thirds (66%) of mothers in managerial and professional occupations had given their baby formula milk compared with 84% of mothers in routine and manual occupations. This differential among mothers from different socio-economic groupings was still evident at six months.

### Table 5.5

Younger mothers tended to first give their baby formula milk at a younger age compared with older mothers. Six in ten (61%) mothers aged under 20 gave their baby formula milk at birth compared with only 27% of mothers aged 35 or over. This differential continued as the babies got older. For example, at six weeks 94% of mothers aged under 20 had given their baby formula milk compared with 68% of mothers aged 35 or over.

### Table 5.6, Figure 5.1



# 5.4 Different types of milk other than breast milk given to infants

As mentioned at the beginning of this Chapter mothers can give their babies different types of milk as they get older, either as their only milk feed or to supplement breastfeeding. Thus, while mothers who give their babies milk other than breast milk at an early age will start by using infant formula milk, as the baby gets older they may introduce follow-on milk and eventually liquid cow's milk.

At Stage 1 of the survey, when most babies were four to six weeks old, all mothers who were using milk other than breast milk were assumed to be using infant formula milk and so were not asked any details about the specific type of milk they were giving their baby. However, by Stages 2 and 3 of the survey, when babies were older, all mothers who were using milk other than breast milk were asked a series of questions about the exact type of milk they were using. Mothers were asked about the different types of milk they had ever given their baby, and the type of milk they had given their baby most often in the last seven days.

Table 5.7 shows that across the United Kingdom, 85% of mothers at Stage 2 who had given their baby milk other than breast milk in the last seven days had mainly used infant formula milk, 12% had mainly used follow-on milk, and one per cent had mainly used cow's milk. There was little difference in the types of milk being given by mothers in different countries at this Stage. Since most babies at Stage 2 of the survey were between four and six months it

is not surprising that infant formula milk was the main type of milk other than breast milk being used, since this is what is recommended for all babies under six months.

At Stage 3 of the survey, an increased proportion of mothers were using follow-on milk. Half (47%) of mothers who had given their baby milk other than breast milk in the last seven days said that this was mainly follow-on milk. By contrast the proportion of these mothers mainly using infant formula milk in the last seven days had fallen from 85% at Stage 2 to 43% at Stage 3. Additionally, six per cent of mothers said they had used liquid cow's milk as their baby's main source of non-breast milk in the last seven days.

At Stage 3 mothers in England who had given their baby milk other than breast milk in the last seven days were the most likely (49%) to have mainly used follow-on milk, while mothers in Scotland (38%) and Northern Ireland (39%) were the least likely.

Table 5.7, Figure 5.2



Table 5.8 shows that mothers who were supplementing breastfeeding with other milk at Stage 2 were more likely than mothers who were only giving other milk to have used infant formula milk in the last seven days (92% and 83% respectively). By contrast, mothers who were only giving non-breast milk were more likely than those giving this in supplement to the breast to have mainly given their baby follow-on milk (13% and 6% respectively).

However, by Stage 3 of the survey mothers breastfeeding as well as giving other milk were less likely than those who were not also breastfeeding to have mainly used infant formula milk in the last seven days (31% and 45% respectively). The proportion of mothers using followon milk at Stage 3 was broadly similar whether or not they were also breastfeeding, but breastfeeding mothers were more likely to have mainly used liquid cow's milk in the last seven days compared with mothers who were not breastfeeding (14% and 5% respectively).

#### Table 5.8

Among mothers giving milk other than breast milk, mothers who had used mainly infant formula or follow-on milk in the last seven days were asked whether they had used powdered or ready-to-feed milk. Table 5.7 showed that at both Stages 2 and 3 of the survey the majority of mothers used powdered milk, whether they were giving their baby infant formula or follow-on formula.

Table 5.9 shows the type of formula used by mothers who had mostly used formula in the last seven days (i.e. excluding those who mostly used liquid cow's milk or other types of non-formula milk). At Stage 2 of the survey 13% of mothers who mainly used formula milk in the last seven days had used ready-to-feed milk. Mothers were more likely to have used a combination of powdered and ready-to-feed milk at Stage 2 (9%), rather than solely using ready-to-feed milk (4%).

By Stage 3 of the survey, the proportion of formula-feeding mothers using ready-to-feed milk had increased slightly to 15%, and a slightly higher proportion of mothers were using only ready-to-feed milk compared with Stage 2 (4% and 7% respectively). At Stage 3, among mothers giving formula milk, mothers in Wales were the most likely to have used ready-to-feed milk (19%) and mothers in Northern Ireland were the least likely (12%).

#### Table 5.9

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## 5.5 Use of follow-on milk

As already mentioned, at Stages 2 and 3 of the survey mothers who had used any sort of milk other than breast milk were asked exactly what type of milk they had used. While the previous section focused on the proportion of mothers using milk other than breast milk in the last seven days who used follow-on milk, this section examines the proportion of *all* mothers who had ever given their baby follow-on milk and at what age this type of milk was first introduced.

Since there is some doubt as to whether all mothers fully understand the difference between infant formula and follow-on milk, at Stage 2 all mothers who had used any type of milk other than breast milk were asked if they knew the difference between the two.

Seven in ten mothers (70%) who had given their baby any sort of milk other than breast milk said they knew the difference between infant formula and follow-on milk<sup>16</sup>. Since the results below are based on all mothers, whether or not they knew the difference between the two, it

<sup>&</sup>lt;sup>16</sup> The questionnaire did not seek to verify whether or not mothers correctly knew the difference

is worth bearing in mind that the results are likely to contain a degree of respondent reporting error (i.e. a proportion of mothers may have reported giving their baby follow-on milk when they had not, and vice versa).

Table 5.10 shows that at Stage 2 of the survey, when babies were between four and six months old, 11% of mothers said they had given their baby follow-on milk. At Stage 3 of the survey, when babies were between eight and ten months, this had increased to 53% of all mothers. There were few differences by country, although mothers in Scotland and Northern Ireland were less likely than mothers in England or Wales to have introduced follow-on milk at Stage 3.

### Table 5.10

Table 5.11 shows that at Stage 2 mothers from routine and manual occupations were almost twice as likely as mothers from managerial and professional occupations to say they had given their baby follow-on milk (15% and 8% respectively). However, by Stage 3 of the survey mothers from managerial and professional occupations were actually slightly more likely than mothers from routine and manual occupations to have given their baby follow-on milk (57% and 51% respectively). At Stage 3 mothers who had never worked were less likely than all other mothers to say they had ever given their baby follow-on milk (39%).

### Table 5.11

At Stage 2 a similar difference in the use of follow-on milk was evident by education level, with 14% of mothers with the lowest education level having given their baby follow-on milk compared with only eight per cent of mothers with the highest education level. However, by Stage 3 there was no difference in the proportion of mothers who had introduced follow-on milk by their education level.

### Table 5.12

Mothers who said they had ever given their baby follow-on formula were asked at what age they had first given it to their baby. Table 5.13 shows that a small proportion of mothers (4%) reported that they had first given their baby follow-on milk by eight weeks, while one in ten (10%) said they had done so by four months. A third of mothers (34%) said they had first given their baby follow-on milk by six months, while just over half (51%) had done so by nine months. This suggests that the vast majority of mothers do not introduce follow-on milk before six months as recommended.

Mothers from routine and manual occupation groups and mothers who had never worked were more likely than mothers from managerial and professional occupations to have first given their baby follow-on milk at an early age. Thus, 16% of mothers who had never worked and 12% of mothers from routine and manual occupations had given their baby follow-on formula by four months compared with seven per cent of mothers from managerial and professional occupations. However, by six months there were no differences by the socio-economic characteristics of the mother, and by nine months mothers from managerial and professional occupations were more likely to have used follow-on milk compared with mothers from routine and manual occupations and those who had never worked.

Table 5.13

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A similar pattern was evident by education level, with mothers classified to the lowest education level being more likely to introduce follow-on milk at an earlier age compared with mothers classified to a higher education level. For example, 12% of mothers with the lowest education level said they had first given their baby follow-on milk by four months compared with seven per cent of mothers with the highest education level.

#### Table 5.14

At Stage 2 of the survey, mothers who said they had ever given their baby follow-on milk were asked their reasons for giving their baby this type of milk; answers were picked from a prompted list. The most common reason given by mothers was their experience of using follow-on milk with previous children, which was mentioned by 23% of mothers who had used follow-on milk at Stage 2. Other common reasons mothers mentioned for giving their babies follow-on milk were because they had been advised to do so by a doctor or health visitor (22%), because they thought it was better for the baby since it provided him or her with more nutrients (20%), and because the baby was still hungry after being fed infant formula (18%).

First-time mothers who had introduced follow-on milk at Stage 2 were most likely to say they had done so because they had been advised by a doctor or health visitor (25%) or that they thought follow-on milk was better for the baby (24%). Second-time mothers who had given their baby follow-on milk at Stage 2 most commonly mentioned their experience of using follow-on milk with previous children as the reason for using it this time round (48%).

Table 5.15

# 5.6 Liquid cow's milk

At Stages 2 and 3 of the survey all mothers were asked whether they had ever given their baby liquid cow's milk either as a feed or to mix with food. If mothers said they had given their baby cow's milk most often in the last seven days, this was assumed to be their baby's main milk drink. If cow's milk had not been given most often in the last seven days, it was assumed that it had only been given as an occasional milk drink.

At Stage 2 of the survey, only three per cent of mothers said they had ever given their baby cow's milk and this was mostly used to mix with solid food.

At Stage 3 of the survey 39% of all mothers across the United Kingdom said they had ever given their baby cow's milk. About a quarter of mothers (23%) had used cow's milk to mix with food, while 19% had given their baby cow's milk as an occasional drink. Only six per cent of mothers at Stage 3 said they had given cow's milk as their baby's main milk in the last seven days.

Mothers who said they were giving their baby cow's milk as a main feed at Stage 3 were asked what type of milk they were using. Most mothers who were giving their baby cow's milk as his or her main milk were using whole milk, although a small proportion were using semi-skimmed milk.

Mothers in Northern Ireland were more likely than mothers in other countries to have given their baby cow's milk at Stage 3 of the survey. They were more likely both to be mixing it with food (30%) and to be using it as their baby's main feed (10%).

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Although the results are not directly comparable with the 2000 survey due to changes in the questions, the results do suggest a reduction in the use of cow's milk compared with previous surveys. This is mainly due to a reduction in the proportion of mothers using cow's milk to mix with solid food, which is probably explained by the fact that mothers are introducing solid foods later compared with previous surveys (see Chapter 7).

#### Table 5.16

Mothers who had introduced cow's milk at Stage 3 were asked at what age they had first given their baby such milk, either as a feed or to mix with food. Table 5.17 shows the age at which mothers first used cow's milk by how they had used it at Stage 3 of the survey. This shows that mothers were most likely to have first introduced cow's milk to mix with food. Thus, 13% of mothers had used cow's milk to mix with food by six months, while just under a quarter (22%) had used it for this purpose by nine months.

A negligible proportion of mothers had ever given their baby cow's milk as a drink before six months, with six per cent having given it to their baby as an occasional milk feed by six months and 22% having done so by nine months. Only three per cent of mothers had given their baby cow's milk as his or her main milk feed by nine months.

Table 5.17

# 5.7 How mothers make up formula feeds

Powdered infant formula is not a sterile product and can be contaminated with microorganisms such as *enterobacter sakazakii* and salmonella, which can cause serious illness. Younger babies and infants are likely to be more susceptible to these organisms than older infants. Because of this concern the correct preparation and handling of powdered formula milk is important and the Food Standards Agency and all the UK Health Departments have issued guidance about the safe preparation, storage and handling of powdered infant formula<sup>17</sup>.

Beyond points of basic hygiene the key recommendation for making and storing powdered infant formula are as follows:

- Feeds should be made up with boiled water that has been allowed to cool to no less than 70°C. In practice this means the feed should be made within 30 minutes after the water has boiled;
- When making the feed the boiled water should be added to the bottle first, followed by the correct amount of powdered formula;
- Once the feed is prepared it should be cooled as quickly as possible to feeding temperature; and

<sup>&</sup>lt;sup>17</sup> Although all the UK Health Departments have now all issued guidance on the preparation of powdered formula milk this did not occur at the same time in every country

 Ideally, powdered formula should be made up fresh for each feed rather than being stored. Although not ideal, feeds can be made up and stored below 5°C for a maximum of 24 hours.

In addition to these guidelines for preparing feeds in the home it is recommended that if mothers need to feed their baby when they are out of the home they should make up fresh feeds as they need them following the steps outlined above. Thus, for example, it is suggested that mothers may consider carrying a flask of just boiled water with them when they are away from the home. Alternatively, mothers may wish to use a liquid ready-to-feed formula when outside the home since these are sterile products.

In order to assess the extent to which mothers follow the main recommendations on the preparation and storage of powdered formula, mothers at Stage 1 who had used formula milk in the last seven days were asked a series of questions about how they prepared formula, both in the home and away from the home.

#### 5.7.1 Preparing formula in the home

Table 5.18 shows that almost seven in ten mothers (69%) across the United Kingdom who used infant formula in the last seven days said they usually made up several feeds at a time and stored them. Only three in ten followed the recommended practices of either making up one feed at a time as they needed it (25%) or only using ready to feed formula (5%). Mothers in England were more likely than mothers in other countries to follow these guidelines (32%), while mothers in Scotland and Northern Ireland were the most likely to make up several feeds at a time and store them.

#### Table 5.18

Focusing on mothers who had used powdered formula in the previous seven days, just over a quarter (27%) followed recommended practice of making up a feed at a time. Mothers who were most likely to only make up one feed at a time as they needed it included mothers of second or later babies (31%), mothers who had never worked (46%), mothers with the highest education level (37%) and - most significantly - mothers from Asian (87%) or Black (76%) ethnic groups.

#### Table 5.19

As mentioned earlier it is recommended that feeds are made using boiled water that has been allowed to cool to no less than 70°C. Since it was not considered feasible to ask mothers about the temperature of the water they used, all mothers were asked about how much time they usually left between the water boiling and making up the feed.

Table 5.20 shows that across the United Kingdom just under six in ten mothers (59%) who had made up powdered formula in the last seven days were following the recommendations by using water that had been left to cool for 30 minutes or less. The proportion of mothers following this recommendation on water temperature was broadly similar across all countries, although mothers in Wales and Northern Ireland were more likely than mothers in England to usually make up feeds within 30 minutes.

#### Table 5.20

Table 5.21 shows that most mothers (94%) who had made up powdered formula in the last seven days followed the guidelines by usually putting the water in the bottle first and then adding the powder, rather than the other way round. There was little difference in how mothers in different countries made up powdered formula in terms of adding the water or powder to the bottle first.

#### Table 5.21

Combining all the information collected about how mothers usually make up powdered feeds it is possible to estimate the proportion of mothers who were correctly following the guidelines. In fact, only 13% of all mothers who had made up powdered formula in the last seven days followed all three recommendations of only making one feed at a time, making feeds within 30 minutes of the water boiling, and adding the water to the bottle before the powder.

However, since making only one feed at a time is considered to be the ideal and it is acceptable to store formula milk for 24 hours under the correct conditions it is also useful to examine the proportion of mothers who at least followed the two key recommendations of making feeds within 30 minutes of the water boiling and adding the water to the bottle before the powder.

Table 5.22 shows that across the United Kingdom 54% of mothers who had made up powdered formula in the last seven days had followed both of these recommendations, while 46% of mothers who had not followed at least one of the recommendations. Mothers in Wales (58%) and Northern Ireland (58%) were the most likely to have followed both recommendations.

#### Table 5.22

Table 5.23 shows that mothers who were the most likely to follow both recommendations on preparing powdered formula included mothers aged under 20 (72%), mothers who had never worked (70%), mothers from routine and manual occupations (59%) and mothers with the lowest educational level (59%).

#### Table 5.23

### 5.7.2 Preparing formula away from the home

As mentioned earlier, when mothers need to feed their baby away from the home, the recommended options are either to use ready-to-feed formula milk or to make up feeds as needed using boiling water by, for example, carrying boiled water in a flask. However, it is recognised that in some circumstances mothers may have no alternative to making up feeds before they leave home. In these circumstances it is recommended that the feeds are chilled before transportation and kept chilled when out. When the feeds are required they should be heated to the required temperature and used immediately.

Table 5.24 shows how mothers who had made up powdered formula in the last seven days usually prepared feeds when they had to feed their baby away from the home (recommended practices are indicated in bold). This shows that across the United Kingdom, about 20% of mothers said they never used powdered feeds away from the home, either because they

breastfed, because they used ready-to-feed formula, or because they never fed their baby outside the home.

For mothers who did give their baby powdered formula milk away from the home, the majority of mothers (65%) usually made up feeds before leaving the home, while only 12% usually made up feeds while they were out. Mothers who made up feeds before leaving the home were more likely to keep their feeds chilled while they were out than not (38% and 27% respectively). Mothers who made up feeds while they were out were fairly evenly split between those who used cold or chilled water (7%) and those who used hot water (5%).

Overall, this means that over a third of mothers (34%) who had made up powdered formula milk in the last seven days were not following the recommendations for feeding away from the home, either because they were not keeping pre-prepared feeds chilled or because they were using cold water to make up feeds when out.

The way in which mothers made up powdered formula feeds away from the home was broadly similar across all countries. Mothers in Scotland (38%) and Northern Ireland (40%) were the most likely not to follow the recommendations on how to prepare and store feeds when away from the home.

Table 5.24

# 5.8 Welfare Food Tokens or Healthy Start vouchers

For more than 60 years the Welfare Food Scheme has provided low-income mothers and families who meet certain criteria with tokens which they can use to buy milk, both in liquid form and as infant formula. During the fieldwork phase for the 2005 survey the Welfare Food Scheme was being phased out and replaced by a new scheme called Healthy Start. This new scheme is broadly similar to the old scheme, although it has been designed to have more flexibility. Mothers and families who qualify receive vouchers that can be exchanged for milk or infant formula, as well as for fresh fruit and vegetables. Vouchers can be exchanged through a variety of participating outlets including supermarkets, corner shops, milkmen, and so on.

At all three Stages of the survey all mothers were asked if they had received any tokens or vouchers for milk or infant formula and, if so, where they had used the tokens. Since the survey was going on during the transition phase, the questions were worded to mention both the Welfare Food Scheme and Healthy Start.

Table 5.25 shows that at Stage 1 of the survey 10% of mothers across the United Kingdom had received tokens or vouchers, and this had risen to 19% by Stage 3 of the survey. Mothers in Wales were more likely than mothers in other countries to have received tokens or vouchers at all Stages.

#### Table 5.25

Mothers who had never worked (60%), those aged under 20 (65%), and mothers of mixed ethnic origin (40%) or Black ethnic origin (36%) were the most likely to have ever received tokens or vouchers by Stage 3 of the survey.

At Stages 2 and 3 of the survey mothers were asked what they had exchanged their vouchers for. The majority of mothers in the United Kingdom (83%) had exchanged their vouchers for baby milk or infant formula, while 38% had exchanged their vouchers for cow's milk for themselves. Just one per cent of mothers had exchanged their vouchers for fruit or vegetables but this is because the new scheme had only just started at the time of the survey and was not running in all parts of the country.

### Table 5.26

Table 5.27 shows that the most common place where mothers had exchanged their vouchers or tokens was through a health centre or clinic, with 64% of all mothers who had received tokens using them here. A third (34%) had used them at a supermarket, while 28% had used them at a corner shop or other type of shop. Only six per cent of mothers had used their token with a milkman. Mothers in Northern Ireland were less likely than mothers in other countries to have exchanged their vouchers at a health centre or clinic (54%), but were more likely to have used a milkman (15%) or a corner shop (36%).

Table 5.27

# **Chapter 5 Tables**

Table 5.1: Type of milk given to babies in the last 7 days at each Stage of the survey (United Kingdom, 2005)									
	Stage 1	Stage 2	Stage 3						
	(4-10 weeks)	(4-6 months)	(8-10 months)						
	%	%	%						
Breast milk only	28	17	9						
Both breast and formula milk	19	15	8						
Formula milk only	53	68	83						
Any formula milk	72	83	91						
Base: All mothers at each Stage	12290	10814	9416						

Table 5.2: Type of milk given to babies in the last 7 days at each Stage of the survey among mothers who breastfed initially (United Kingdom, 2005)

	ntoa rungaoni, 2000,		
	Stage 1	Stage 2	Stage 3
	(4-10 weeks)	(4-6 months)	(8-10 months)
	%	%	%
Breast milk only	37	22	12
Both breast and formula milk	25	20	10
Formula milk only	38	58	78
Any formula milk	63	78	88
Base: Mothers at each Stage who breastfed initially	9339	8261	7186

Table 5.3: Frequency of feedir	ng with form	ula milk at St	tage 1 of the su	rvey by countr	y (2005)
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Frequency of formula milk since birth:					
All or almost all feeds	56	62	57	68	57
About half of all feeds	7	6	6	5	7
One or two feeds a day	14	11	13	10	14
A few feeds a week, not every day	4	4	6	4	4
A few feeds since baby was born, but not every week	5	4	5	4	5
Once or twice since baby was born	12	13	12	9	12
Base: Stage 1 mothers who had used both breast and formula milk	3442	1111	1091	899	6810

Table 5.4: Age at which formula milk first introduced by country (2005)									
	England	Wales	Scotland	Northern Ireland	United Kingdom				
Percentage of mothers who had given formula milk by:	%	%	%	%	%				
Birth	34	42	38	45	35				
1 week	52	60	56	63	54				
4 weeks	68	75	71	77	69				
6 weeks	75	82	77	83	76				
2 months	78	86	79	85	79				
4 months	87	92	89	92	88				
6 months	91	95	92	95	92				
9 months <sup>†</sup>	95	97	98	97	96				
Base: All Stage 3 mothers	4563	1582	1666	1605	9416				
' Based on a reduced number of	f cases excluding the	nose babies who	o had not reached	9 months by Stag	je 3				

Table 5.5: Age at which formula milk first introduced by mother's socio-economic classification (NS-SEC) (United Kingdom 2005)									
	Managerial & professional	Intermediate occupations	Routine & manual	Never worked	Unclassified	All mothers			
Percentage of mothers who had given formula milk by:	%	%	%	%	%	%			
Birth	22	35	46	52	43	35			
1 week	42	54	63	67	57	54			
4 weeks	58	70	78	82	70	69			
6 weeks	66	77	84	84	78	76			
2 months	70	80	87	87	85	79			
4 months	83	88	92	92	90	88			
6 months	88	91	95	94	94	92			
9 months <sup>†</sup>	94	96	97	98	96	96			
Base: All Stage 3 mothers	3479	1955	3051	650	280	9416			
' Based on a reduced nu	mber of cases ex	cluding those bal	bies who had n	ot reached 9	months by stage	3			

	Under 20	20-24	25-29	30-34	35 or over	All mothers <sup>†</sup>
Percentage of mothers who had given formula milk by:	%	%	%	%	%	%
Birth (1day)	61	44	36	28	27	35
1 week	76	65	54	46	45	54
4 weeks	91	80	69	62	61	69
6 weeks	94	85	76	70	68	76
2 months	95	88	80	73	72	79
4 months	96	94	87	85	84	88
6 months	97	96	91	90	88	92
9 months <sup>†</sup>	100	98	96	95	94	96
Base: All Stage 3 mothers	625	1750	2473	2721	1818	9416

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Table 5.7: Main type of milk other than breast milk given in last 7 days at Stages 2 and 3 of the survey by country (2005)										
	England		Wa	les	Scot	tland	Northern United Ireland Kingdom			ited dom
	Sta	nge	Stage		Sta	nge	Sta	ige	Stage	
	2	3	2	3	2	3	2	3	2	3
	%	%	%	%	%	%	%	%	%	%
Infant formula	85	42	84	46	86	52	83	48	85	43
Powdered	72	37	69	38	73	45	76	45	72	38
Ready-to-feed	4	2	3	2	4	2	2	2	4	2
Both	7	3	9	6	8	5	4	2	7	3
Type not known	2	*	2	*	1	*	2	*	2	*
Follow-on milk	12	49	13	42	12	38	13	39	12	47
Powdered	10	42	11	36	9	32	12	35	10	40
Ready-to-feed	*	3	*	2	*	2	*	1	*	2
Both	1	4	1	5	2	4	1	3	1	4
Type not known	*	*	*	*	*	-	*	*	*	*
Cow's milk	1	5	*	7	*	5	1	8	1	6
Whole	*	5	*	7	*	5	*	7	*	5
Semi-skimmed	*	*	*	1	*	*	*	1	*	*
Skimmed	*	*	*	*	*	*	*	*	*	*
Other type of milk	*	1	*	*	*	1	*	1	*	1
		•				·		•		•
No main type of milk	2	З	2	1	2	з	з	Л	2	з
	2	5	2	+	2	5	5	+	2	5
Deeps Mathematica	40.40	20.42	4607	1 400	1600	1400	4505	1400	0050	0405
base: mothers who gave their baby milk other than breast milk in last 7 days	4342	3943	1007	1426	1000	1480	1565	1466	8953	8195

	At relevant Stage of the survey mother was:								
	Breast	feeding	Not brea	stfeeding					
	Stage 2	Stage 3	Stage 2	Stage 3					
	%	%	%	%					
Infant formula	92	31	83	45					
Powdered	71	24	73	39					
Ready-to-feed	9	4	2	2					
Both	10	3	7	3					
Type not known	2	*	2	*					
Follow-on milk	6	50	13	47					
Powdered	4	38	12	41					
Ready-to-feed	1	7	*	2					
Both	1	5	1	4					
Type not known	-	-	*	*					
Cow's milk	1	14	*	5					
Whole	1	12	*	4					
Semi-skimmed	-	2	*	*					
Skimmed	*	-	-	*					
Other type of milk	1	2	*	1					
No main type of milk	1	2	3	3					
Base: Mothers who gave their baby milk other than breast milk in last 7 days	1738	833	7214	7363					

Table 5.9: Use of ready-to-feed milk at Stages 2 and 3 of the survey by country (2005)										
	England		Wa	les	Scot	land	Northern Ireland		United Kingdom	
	Sta	nge	Sta	nge	Sta	nge	Sta	ige	Sta	nge
	2	3	2	3	2	3	2	3	2	3
	%	%	%	%	%	%	%	%	%	%
Ready-to-feed only	4	7	4	7	5	7	2	7	4	7
Both ready-to-feed & powdered	9	8	11	12	10	11	5	5	9	8
All using ready-to-feed	13	15	15	19	15	18	7	12	13	15
Base: Mothers who used formula milk in last 7 days	4314	4139	1602	1487	1602	1537	1557	1532	8901	8589

Table 5.10: Proportion of mothers who had ever given their baby follow-on milk at Stages 2 and 3 of the survey by country (2005)						
	England	Wales	Scotland	Northern Ireland	United Kingdom	
	%	%	%	%	%	
Percentage of mothers who had given follow-on milk at:						
Stage 2 ( 4-6 months)	11	13	10	11	11	
Stage 3 (8-10 months)	54	51	45	46	53	
Bases:						
All Stage 2 mothers	5287	1854	1918	1755	10814	
All Stage 3 mothers	4563	1582	1666	1605	9416	

Table 5.11: Proportion of mothers who had ever given their baby follow-on milk at Stages 2 and	3
of the survey by mother's socio-economic classification (NS-SEC) (United Kingdom, 2005)	

	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers
	%	%	%	%	%	%
Percentage of mothers who had given follow-on milk at:						
Stage 2 (4-6 months)	8	11	15	13	7	11
Stage 3 (8-10 months)	57	56	51	39	40	53
Bases:						
All Stage 2 mothers	3933	2232	3550	774	325	10814
All Stage 3 mothers	3479	1955	3051	650	280	9416

Table 5.12: Proportion of mothers who had ever given their baby follow-on milk at Stages 2 and 3 of the survey by age mother left full-time education (United Kingdom, 2005)

of the survey by age mother left full-time education (onited Kingdom, 2005)							
	16 or under	17 or 18	Over 18	All mothers <sup>†</sup>			
	%	%	%	%			
Percentage of mothers who had given follow-on milk at:							
Stage 2 ( 4-6 months)	14	12	8	11			
Stage 3 ( 8-10 months)	52	52	55	53			
Bases:							
All Stage 2 mothers	2927	3622	4176	10814			
All Stage 3 mothers	2549	3137	3649	9416			
<sup>†</sup> Includes some mothers for whom a	age left full-time educa	ation was not record	ed				

Table 5.13: Age at classification (NS-SE	Table 5.13: Age at which follow-on milk was first introduced by mother's socio-economic classification (NS-SEC ) (United Kingdom, 2005)							
	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers		
	%	%	%	%	%	%		
Percentage of mothers who had given follow-on milk by:								
4 weeks	1	2	3	6	2	2		
6 weeks	2	3	3	6	2	3		
8 weeks	2	3	4	8	3	4		
3 months (13 weeks)	5	7	8	12	4	7		
4 months (17 weeks)	7	10	12	16	6	10		
5 months (22 weeks)	9	12	14	18	9	12		
6 months (26 weeks)	34	35	34	30	25	34		
9 months (39 wks) $^{\dagger}$	55	54	48	37	35	51		
Base: All Stage 3 mothers	3479	1955	3051	650	280	9416		
<sup>T</sup> Based on a reduced nu	mber of cases exc	luding those babi	es who had n	ot reached 9	months by Stage 3	i i		

	16 or under	17 or 18	Over 18	All mothers <sup>††</sup>
	%	%	%	%
Percentage of mothers who had given follow-on milk at:				
4 weeks	3	2	1	2
6 weeks	4	3	2	3
8 weeks	5	4	2	4
3 months (13 weeks)	9	7	5	7
4 months (17 weeks)	12	11	7	10
5 months (22 weeks)	14	13	9	12
6 months (26 weeks)	35	34	33	34
9 months (39 weeks) <sup>†</sup>	48	49	54	51
Base: All Stage 3 mothers	2549	3137	3649	9416

Table 5.15: Reasons for introducing follow-on milk at Stage 2 of the survey by birth order (UnitedKingdom, 2005)					
	First birth	Second birth	All mothers		
	%	%	%		
Reason given:					
Previous feeding experience	-	48	23		
Advised by doctor/health visitor	25	18	22		
Better for the baby/ more nutrients	24	16	20		
Baby still hungry after feeding	22	14	18		
Advised by friend/relative	19	5	12		
Read leaflets/seen information	10	4	7		
Baby not gaining enough weight	5	5	5		
Base: Stage 2 mothers who had introduced follow-on milk	638	577	1215		
Percentages add to more than 100% as mo	thers could give more f	than one answer			

Table 5.16: Cow's milk giv	en at Stage 3 by	country (200	5)		
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
As main milk	6	8	7	10	6
Whole	5	7	5	8	5
Semi-skimmed	*	1	1	1	1
Skimmed	-	*	*	*	*
As an occasional drink	19	20	18	20	19
To mix food	23	23	23	30	23
All using cow's milk	39	40	38	47	39
Base: All Stage 3 mothers	4563	1582	1666	1605	9416
Percentages do not add up to 1	00 as mothers coul	ld give more tha	n one answer		

Table 5.17: Age by which mothers had introduced cow's milk for different uses (United Kingdom,2005)					
	To mix food	As main drink	As occasional drink		
	%	%	%		
Percentage who had introduced cow's milk by:					
8 weeks	*	*	*		
3 months	*	*	*		
4 months	2	*	*		
5 months	3	*	1		
6 months	13	1	6		
8 months <sup>†</sup>	21	2	16		
9 months <sup>†</sup>	22	3	22		
Base: All Stage 3 mothers	9416	9416	9416		

Table 5.18: How mothers usually make up formula feeds by country (2005)						
	England	Wales	Scotland	Northern Ireland	United Kingdom	
	%	%	%	%	%	
Make up one feed at a time	27	20	18	19	25	
Make up several feeds at a time	67	75	77	78	69	
Only use ready to feed formula	5	4	5	2	5	
Base: Stage 1 mothers who had used formula milk in last 7 days	4298	1671	1604	1523	8818	

	Proportion who usually make up one feed at a time	Base: Stage 1 mothers who used powdered formula milk in last 7 days
	%	
Birth order		
First birth	24	4324
Later birth	31	3985
Age mother left full-time education		
16 or under	21	2757
17 or 18	23	2982
Over 18	37	2486
Mother's socio-economic group (NS-SEC)		
Managerial and professional occupations	30	2434
Intermediate occupations	22	1748
Routine and manual occupations	23	3207
Never worked	46	660
Unclassified	42	259
Mother's ethnic group		
White	21	6172
Mixed	35	101
Asian or Asian British	87	377
Black or Black British	76	206
Chinese or other ethnic groups	76	83
All mothers <sup>†</sup>	27	8309

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Table 5.20: Time usually left between boiling water and making up feed by country (2005)					
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Time usually left between boiling water and making up feed:					
Use just boiled water	23	22	27	19	23
Water left to cool for 30 minutes or less	36	41	32	42	36
All following recommended guidelines	58	63	59	61	59
Water left to cool for 30-45 minutes	25	24	30	25	26
Water left to cool for more than 45 minutes	15	11	10	12	14
All not following guidelines	40	35	40	37	40
Base: Stage 1 mothers who used powdered formula in the last 7 days	4041	1590	1511	1476	8309

Table 5.21: Whether put powder in the bottle first or water in the bottle first when making up formula by country (2005)					
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
When making formula:					
Put powder in the bottle first	6	6	6	4	6
Put water in the bottle first	94	94	93	96	94
Base: Stage 1 mothers who used powdered formula in the last 7 days	4041	1590	1511	1476	8309

	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Followed all 3 recommendations <sup>+</sup>	14	11	10	9	13
Followed 2 recommendations <sup>††</sup>	53	58	53	58	54
Base: Stage 1 mothers who used powdered formula in the last 7 days	4041	1590	1511	1476	8309

Table 5.23: Proportion of mothers who followed recommendations on making up powdered           formula milk by socio-demographic characteristics (United Kingdom, 2005)					
	Proportion who followed two recommendations <sup>††</sup>	Base: Stage 1 mothers who used powdered formula milk in last 7 days			
	%	%			
Mother's age					
Under 20	72	815			
20-24	60	1935			
25-29	53	2178			
30-34	45	2073			
35 or over	49	1282			
Age mother left full-time education					
16 or under	59	2757			
17 or 18	55	2982			
Over 18	46	2486			
Mother's socio-economic classification (NS- SEC)					
Managerial and professional occupations	44	2434			
Intermediate occupations	51	1748			
Routine and manual occupations	59	3207			
Never worked	70	660			
Unclassified	63	259			
Mother's ethnic group					
White	53	6172			
Mixed	64	101			
Asian or Asian British	54	377			
Black or Black British	60	206			
Chinese or other ethnic groups	46	83			
All mothers <sup>†</sup>	54	8309			
<ul> <li><sup>†</sup> Includes mothers for whom some socio-demographic</li> <li><sup>††</sup> Includes: using recently boiled water &amp; placing water</li> </ul>	information was not collected				

Table 5.24: How mothers prepared powdered formula feeds for using outside the home by country (2005) <sup>†</sup>						
	England	Wales	Scotland	Northern Ireland	United Kingdom	
	%	%	%	%	%	
Make up feeds before leaving the house						
- and keep chilled	38	41	38	41	38	
- don't keep chilled	25	29	35	36	27	
Make up feeds when out						
- using cold or chilled water	8	5	3	4	7	
- using hot water	5	4	2	2	5	
Do not use powdered feeds away from the home	21	19	20	15	20	
Not following guidelines on feeding away from the home	33	34	38	40	34	
Base: Stage 1 mothers who used powdered formula in the last 7 days	4041	1590	1511	1476	8309	
<sup>†</sup> Rows in bold indicate recommen	ded practice whe	n preparing pow	dered formula awa	ay from home		
Table 5.25: Whether mothers had ever received milk tokens or vouchers at each Stage by country (2005)						
---	---------	-------	----------	---------------------	-------------------	--
	England	Wales	Scotland	Northern Ireland	United Kingdom	
	%	%	%	%	%	
Percentage of mothers who had received tokens or vouchers at:						
Stage 1 ( 4-10 weeks)	9	13	9	10	10	
Stage 2 ( 4-6 months)	15	21	17	19	16	
Stage 3 ( 8-10 months)	19	24	20	21	19	
Base: All Stage 3 mothers	4563	1582	1666	1605	9416	

Table 5.26: What mothers had exchanged tokens or vouchers for by country (2005)							
	England	Wales	Scotland	Northern Ireland	United Kingdom		
	%	%	%	%	%		
Baby milk/infant formula	82	86	89	87	83		
Cow's milk for mother	40	31	34	30	38		
Fruit and vegetables	1	-	-	-	1		
Cow's milk for baby	2	2	2	3	2		
Something else	3	2	1	*	3		
Base: Stage 3 mothers who had received tokens	871	375	333	335	1835		
Percentages do not add up to 100% as mothers could give more than one answer							

	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
At health centre/clinic	63	69	70	54	64
With the milkman	6	5	3	15	6
At a supermarket	36	28	26	23	34
At corner shop/other shop	27	26	27	36	28
Somewhere else	1	5	3	5	2
Base: Stage 3 mothers who had received tokens	871	375	333	335	1835

# **6** Feeding and health after the early weeks

# **Key Findings**

Feeding problems in the later months

- About one in eight mothers had experienced feeding problems between Stages 1 and 2, and one in ten between Stages 2 and 3. Mothers who breastfed between Stages 1 and 2 were more likely to mention problems than mothers who formula fed throughout. However, the highest rate of problems was found among mothers who continued to breastfeed, but who introduced supplementary formula. Inability to satisfy baby, a need to top up with formula, and blocked milk ducts were all problems mentioned by this group.
- At Stage 2, half of mothers who breastfed initially experienced discomfort when breastfeeding. The level of problems experienced increased with duration of breastfeeding.

### Reasons for stopping breastfeeding

- Insufficient milk was the most important factor behind mothers giving up between one week and four months, while giving up in the early weeks (weeks 1-2) was also associated with rejection of the breast and pain or discomfort. In later months, return to work began to feature as a reason for stopping; although this was a less significant factor in 2005 compared with 2000.
- Nine in ten mothers who gave up breastfeeding within six months would have preferred to breastfeed for longer, this level declining as breastfeeding duration increased. Although even among those who breastfed for at least six months, 40% would have liked to continue longer.

### Health problems with the baby

- Common health problems suffered by babies by the age of 8-10 months were colic, constipation, sickness/vomiting, and diarrhoea – each experienced by between approximately 40% and 50% of babies.
- Babies who were breastfed for a minimum of six months were significantly less likely than other babies to experience colic, constipation, sickness/vomiting, diarrhoea, chest infections and thrush. Differences were most apparent for gastro-intestinal conditions.
- Propensity to develop symptoms for the above conditions decreased with breastfeeding duration, with babies breastfed for less than two weeks having a higher than average likelihood of suffering these problems. Babies formula-fed from birth had the highest rate of chest infections and thrush.

### Routine contact with health professionals

• Virtually all mothers had received a visit from the health visitor in the early weeks, this occurring on average when babies were two weeks old. By Stage 2 and 3, most mothers were making regular visits to a child health clinic, although the frequency of visits declined as the baby grew older.

Previous chapters have explored some of the characteristics of breast and bottle-feeding mothers and feeding problems they experienced in the early weeks. This chapter is concerned with the circumstances of mothers and babies beyond the initial weeks in terms of babies' feeding and health. Firstly, the chapter looks at feeding problems experienced after the first stage of the survey, sources of support during this time, and reasons for giving up breastfeeding. Secondly, it investigates the extent to which babies suffered from various health problems and how this related to breastfeeding duration. Finally, it looks at routine contact with health professionals over the later weeks such as visits to child health clinics.

## 6.1 **Problems with feeding in the later months**

Problems experienced with milk feeding in the first few weeks have been reported in Chapter 4. At later stages of the surveys, mothers were asked about further problems with feeding, the nature of problems experienced, and the extent to which they received help or advice with them.

At Stages 2 and 3, mothers were asked to report any problems experienced since completing the previous questionnaire. Thus the periods of reference are approximately: *between 4-10 weeks and 4-6 months* and; *between 4-6 months and 8-10 months.* 

During the first of these periods, one in eight mothers in the United Kingdom (12%) reported experiencing problems, this proportion reducing to nine per cent of mothers during the second period. Both these figures represent a small but significant decline compared with 2000, when the equivalent proportions were 16% and 12%.

There was no difference by birth order: mothers of first time babies were as likely to report feeding problems as mothers of later babies.

### Table 6.1

Responses regarding the nature of feeding problems were collected in an open format and later coded into categories. Problems encountered by mothers in the first few months (between about 4-10 weeks and 4-6 months) included a perception that their baby was not feeding sufficiently well (20% of those experiencing problems); vomiting or reflux (16%); blocked milk duct (15%); and an inability to satisfy their baby (15%). By the later stages (between about 4-6 and 8-10 months), these problems had largely abated. At this stage, the key source of any difficulties related to the introduction of solids (48% of mothers experiencing problems in this period). Further detail on problems experienced when weaning to solids can be found in Chapter 7.

### Table 6.2

Thus, most problems experienced during the first reference period (from about 4-10 weeks to about 4-6 months) were related to milk feeding. Exploring this further, it is found that the level and nature of problems reported in this period was related to changes in mothers' feeding behaviour between the stages. The highest level of problems were found among mothers who, during this period, continued to breastfeed but began introducing supplementary bottles (22% experiencing problems compared with 12% overall). This was higher than the

equivalent proportion of mothers who continued to breastfeed throughout (13%), suggesting that the introduction of supplementary formula may have been in response to problems experienced. Mothers who continued to formula feed throughout the reference period were the least likely to mention feeding problems.

Among mothers who - during the reference period - either continued to formula feed or switched from breast to entirely formula, the main problems experienced were a perception that baby was not feeding well, vomiting/reflux, and baby illness. Problems associated with a decision to supplement breast with formula during this period included blocked milk duct, a feeling that baby was not sufficiently satisfied, and a perception that there was a need for top-ups of formula. Refusal to take a bottle was mentioned by a quarter of mothers who continued breastfeeding and experienced problems during the reference period.

Mothers with problems who formula-fed throughout the period between Stage 1 and 2 were significantly more likely than other mothers with problems to mention baby illness. This is consistent with the findings reported in section 6.4 of this chapter.

Table 6.3

### 6.1.1 Pain or discomfort associated with breastfeeding

Mothers who breastfed at least initially were also asked more specifically about any pain or discomfort they had experienced as a result of breastfeeding - responses were picked from a prompted list. Although only a small proportion of mothers spontaneously mention these types of issues when they think about feeding problems (see Tables 6.2 and 6.3 above), it is clear that a relatively large proportion of mothers do experience discomfort when breastfeeding. At Stage 2, a third (37%) of mothers reported painful nipples, while one in ten experienced mastitis and a similar proportion blocked ducts (10%). Thrush was only experienced by six per cent of mothers. In total, about half (46%) of mothers had experienced at least one of the above. The level of problems reported increased with duration of breastfeeding, as Table 6.4 shows. A third (33%) of mothers who breastfed for less than two weeks experienced discomfort in at least one of these ways increasing to 55% This indicates that many mothers of mothers breastfeeding for six months or more. committed to longer-term breastfeeding are prepared to continue despite problems and discomfort they may experience.

Table 6.4

# 6.2 Help and advice with feeding problems

Mothers who reported feeding difficulties were asked if they had received any help or advice with this. The majority of mothers said that that they had received help – eight in ten (83%) at Stage 2 and seven in ten (71%) at Stage 3. These figures remain unchanged from 2000.

The sources of help used by mothers were similar at both stages. The health visitor was the most frequently used source of advice; around three-quarters of mothers at each stage who received advice did so from the health visitor. The doctor/GP and friends/relatives were used by around a third of mothers receiving help at both stages.

The pattern of results was broadly comparable with 2000.

### Table 6.5

As discussed in 6.1, problems reported at Stage 2 relate to the period between Stage 1 and Stage 2 (between about 4-10 weeks and 4-6 months). The sources of advice consulted varied by the pattern of feeding behaviour in this period. Mothers who either continued with, or switched to, formula in this period were more likely than breast-feeders to consult their doctor. On the other hand, mothers who introduced formula while still continuing to breastfeed were particularly likely to consult their health visitor. Mothers who breastfed throughout (whether or not formula was also given) displayed a higher propensity to use written sources of information, support/peer groups and breastfeeding clinics.

Table 6.6

# 6.3 Reasons for stopping breastfeeding after the early weeks

Chapter 2 showed that one in six women in the United Kingdom (17%) who breastfed initially had given up within one week and one in five (22%) had given up within two weeks. After the initial two weeks (which have been considered in some detail in Chapter 4) the rate of giving up breastfeeding slowed: two-thirds (63%) who had started breastfeeding were still doing so when their babies were six weeks old and one in three (33%) continued for six months or more. This section looks at the reasons given by women for stopping breastfeeding, whether they would have liked to feed for longer, and whether they would do so again. Reasons for giving up were collected in an open format and later coded into categories.

Overall, among all mothers giving up, the single largest factor behind cessation of breastfeeding was insufficient milk (39% giving this as a reason). However, the reasons for giving up varied by duration of breastfeeding. In the early weeks (weeks 1-2) three main reasons were provided for giving up breastfeeding: insufficient milk; rejection of the breast; and painful breasts or nipples. These latter two problems gradually became less significant during the later weeks and months of breastfeeding. However, insufficient milk was by far the major reason for stopping breastfeeding between one week and six months. Mothers finding breastfeeding too tiring was a factor for about one in five mothers who breastfeed for between one week and four months. From six months, returning to work began to feature as a reason for stopping (22% of mothers breastfeeding for at least six months), as to a lesser extent did teething (14%).

In general the pattern of results was very similar to that found in 2000. The only difference was a lower proportion of mothers mentioning return to work as a factor behind giving up breastfeeding in the later months. For example, 33% of mothers who breastfeed for between four and nine months cited this a reason in 2000 compared with 20% in 2005. This is consistent with longer maternity leave entitlements available to mothers in 2005 compared with 2000 (see Chapter 9).

### Table 6.7

### 6.3.1 Whether mother would have liked to breastfeed for longer

The reasons that mothers gave for stopping breastfeeding suggest that few mothers gave up because they planned to; this was particularly the case for mothers giving up before four months. However, to investigate this further, mothers were also asked whether they would have liked to continue for longer. Overall, three-quarters (73%) of breastfeeding mothers who gave up within the survey period said that they would have preferred to breastfeed for longer, while one in five (18%) said that they had breastfed for as long as intended. Compared with mothers of later babies, mothers of first time babies were slightly less likely to be content with the period they breastfed for (75% wishing they could have breastfed for longer compared with 70% of mothers of later babies)

### Table 6.8

As in previous years, the proportion of mothers who would have preferred to breastfeed for longer declined with duration of breastfeeding. Around nine in ten mothers who breastfed for less than six weeks said that they would have liked to continue longer, this proportion declining to 40% of mothers who breastfed for at least six months.

These results confirm the implications of Table 6.7 - that most women who start to breastfeed are generally committed to this method of feeding but are often deterred by problems or other circumstances.

### Table 6.9, Figure 6.1



### 6.3.2 Whether mothers would breastfeed another baby

As in previous years there was a correlation between duration of breastfeeding and future intentions to breastfeed. While three-fifths (62%) of mothers who breastfed for less than a week said that they would breastfeed another baby, this rose to near universal commitment to breastfeed again among mothers who fed this way for at least six weeks. The pattern of results by duration of breastfeeding remains unchanged from 2000.

Table 6.10

# 6.4 Health problems with the baby

Mothers are advised to breastfeed for as long as possible in the first six months of a baby's life, as research has shown that breast milk helps build immunity to infection and can reduce the risk of many health conditions including gastro-enteritis (vomiting and diarrhoea), ear infections, chest infections, asthma, eczema and urinary infections.

It was therefore of interest to measure the extent to which babies had suffered from these and other health conditions, and to relate prevalence of baby illnesses to incidence and duration of breastfeeding.

### 6.4.1 Prevalence of health conditions at different ages

Mothers were asked at Stages 2 and 3 of the survey about health conditions their baby had ever experienced. By the time babies were about four to six months old, around half (45%) had suffered problems relating to colic or wind, three in ten (29%) had experienced constipation, and about a fifth of babies had had bouts of sickness/vomiting (21%) and/or diarrhoea (17%). By Stage 3 (8-10 months old), the rate at which babies were suffering from the above conditions rose (37% of mothers reported that their baby had experienced sickness/vomiting, 37% constipation, and 35% diarrhoea). Other health problems which were relatively common among babies by the age of 8-10 months were skin problems (29% of babies) and chest infections (22%). Ear infections, thrush and failure to gain sufficient weight were symptoms suffered by approximately one in eight babies by the time they had reached 8-10 months. Urinary tract infections were extremely rare at both stages of the survey.

#### Table 6.11, Figure 6.2



#### 6.4.2 Association between baby health conditions and breastfeeding

The survey found a negative association between duration of breastfeeding and likelihood of babies developing certain illnesses<sup>18</sup>. Babies who were breastfed for a minimum of six months were significantly less likely than other babies to experience colic, constipation,

<sup>&</sup>lt;sup>18</sup> Figures in this analysis are based on mentions of health conditions at either Stage 2 or Stage 3.

sickness/vomiting, diarrhoea, chest infections and thrush. This difference was most apparent for gastro-intestinal conditions. For example, 33% of babies who were breastfed for at least six months suffered constipation compared with 45% of all babies; for sickness/vomiting the equivalent proportions were 35% and 43%; and for diarrhoea 26% and 41%.

Babies who were breastfed for at least six months had the lowest likelihood of developing symptoms related to the conditions highlighted above. However, for each of these conditions, there was also a gradually reduced likelihood of developing symptoms as breastfeeding duration increased. Babies who were breastfed for up to two weeks had the highest propensity to develop colic, constipation, sickness/vomiting, and diarrhoea. Thereafter, the rate of each of these conditions falls as breastfeeding duration increases, with a significant drop in prevalence between babies breastfed for 4-6 months and those breastfed for at least six months. Therefore, the survey results support the contention that that it is not breastfeeding *per se* which offers the greatest protection against these conditions, but breastfeeding over the longer-term.

Interestingly, babies who were not breastfed at all had a slightly lower likelihood of developing the above-mentioned conditions when compared with babies who were breastfed for a short period (up to two weeks). However, babies formula-fed from birth had the highest rate of chest infections and symptoms relating to thrush.

The survey found no clear relationship between breastfeeding incidence/duration and skin problems or ear infections; there was relatively little variation by length of breastfeeding. However, mothers who breastfeed for at least six months were more likely than mothers who either didn't breastfeed, or who only breastfed for a short period, to report that that their babies had not gained sufficient weight. This was the only "condition" found to be positively associated with longer-term breastfeeding.

Therefore, the survey results generally support the advice promoted to mothers about the health benefits of breastfeeding for the baby, although the link between longer-term breastfeeding and reduced likelihood of developing symptoms was not apparent for all illnesses – this link was mainly found in relation to gastro-intestinal conditions.

Table 6.12, Figure 6.3



Mothers whose babies had experienced any of the illnesses discussed above were asked who, if anyone, had given them help and advice about what to do. The health visitor was the principal advice source for more minor conditions such as colic and constipation, as well as babies failing to gain sufficient weight. The advice of a GP was generally sought when babies were suffering from sickness/vomiting; diarrhoea; chest, ear and urinary tract infections; thrush; and skin problems. Urinary tract infections commonly led to hospital visits (65%). Hospital consultations were also sought for around a quarter of babies suffering from chest infections (23%), and from failure to put on weight (23%). More informal advice from friends and family was generally sought in relation to less serious conditions such as colic and, to a lesser extent, constipation and diarrhoea. In fact for between 12% and 18% of babies suffering from these problems, no advice was sought at all.

Table 6.13

# 6.5 Routine contact with health professionals

Previous sections of this chapter have covered contact with health professionals in response to specific problems such as feeding difficulties and baby illnesses. This section covers the experience of mothers in relation to routine contact with health professionals, including health visitor visits after the baby was born and visits to child health clinics.

At Stage 1, mothers were asked whether a health visitor had been to see them since their baby was born and, if so, how old their baby was at the first visit. Nearly all mothers (99%) had seen a health visitor by the time they completed the questionnaire – that is when babies

were between about four to ten weeks. This proportion did not vary by the constituent countries, nor had it changed since 2000. On average, babies in the United Kingdom were seen by the health visitor at roughly two weeks old (13.3 days). There was relatively little variation by country although mothers in Wales and Scotland were visited by a health visitor slightly earlier on average than babies in other countries.

### Table 6.14

At later stages of the survey, mothers were asked about visits to a child health clinic or GP for regular check-ups. The large majority of mothers were making such visits. At Stage 2 (4 to 6 months) 85% of mothers in the United Kingdom were making visits to a child health clinic, this dropping somewhat to 76% at Stage 3 (8 to 10 months). By country, mothers in Wales were the most likely to be attending routine check-ups (88% at Stage 2 and 82% at Stage 3), while mothers in Northern Ireland were the least likely (80% at Stage 2 and 68% at Stage 3).

The frequency with which mothers attended child health clinics (or similar) declined as their babies grew older. At Stage 2, three-quarters (74%) were taking their baby to a child health clinic at least once a month, this proportion dropping to half (47%) of mothers at Stage 3. Compared with other countries, mothers in Northern Ireland were making less frequent trips to such clinics at both stages of the survey (at Stage 2 23% visited less than once a month compared with 11% overall; at Stage 3 the equivalent proportions were 45% and 30%).

Table 6.15

# **Chapter 6 Tables**

Table 6.1: Whether experienced feeding problems between Stages 1 and 2 and between Stages 2and 3 (United Kingdom, 2000 and 2005)							
	Between S	tages 1 & 2	Between S	tages 2 & 3			
	2000	2005	2000	2005			
	%	%	%	%			
% experiencing feeding problems	16	12	12	9			
Bases:							
All Stage 2 mothers	8298	10814	n/a	n/a			
All Stage 3 mothers	n/a	n/a	7268	9416			

Table 6.2: Feeding problems experienced by mothers between Stages 1 and 2 and between Stages						
	Between Stages 1 & 2 (from 4-10 weeks to 4- 6 months)	Between Stages 2 & 3 (from 4-6 months to 8-10 months)				
	%	%				
Nature of problems <sup>††</sup>						
Baby not feeding properly/enough/not interested	20	14				
Baby vomiting/reflux	16	12				
Blocked milk duct	15	2				
Baby still hungry/not satisfied/waking at night	15	2				
Wouldn't take bottle	14	7				
Baby ill	13	12				
Needed (top-ups of) formula	10	1				
Breast milk dried up/not enough	8	1				
Breastfeeding uncomfortable or painful (incl. sore breasts/nipples/mastitis)	7	2				
Had to change formula	7	2				
Colic/wind	6	1				
Not gaining enough/lost weight	7	3				
Problems relating to feeding solids <sup>†</sup>	4	48				
Baby teething	2	9				
Bases: Stage 2 mothers experiencing problems	1254	n/a				
Stage 3 mothers experiencing problems	rı/a	622				
<sup>1</sup> For more detailed coverage of problems relating to solids, reter to <sup>1†</sup> Only responses mentioned by at least 5% of mothers in either si Percentages do not add to 100% as some mothers gave more tha	<ul> <li>Chapter 7</li> <li>Jbgroup are shown</li> <li>n one answer</li> </ul>					

# Table 6.3: Feeding problems experienced by mothers between Stages 1 and 2 by changes infeeding behaviour over this period (United Kingdom, 2005)

	Betwee	All			
	continued formula feeding	gave up breast, switched to formula	continued breast, introduced formula	continued breast/ mixed feeding	mothers with problems <sup>†</sup>
	%	%	%	%	%
Any problems experienced	7	12	22	13	12
Base: All Stage 2 mothers	2542	4792	639	2823	10814
	%	%	%	%	%
Nature of problems <sup>††</sup>					
Baby not feeding properly/enough/not interested	33	23	10	12	20
Baby vomiting/reflux	24	22	7	7	16
Blocked milk duct	12	12	24	17	15
Baby still hungry/not satisfied/waking at night	13	12	25	17	15
Wouldn't take bottle	8	8	19	23	14
Baby ill	26	14	3	10	13
Needed (top-ups of) formula	-	9	27	9	10
Breast milk dried up/not enough	-	6	19	10	8
Breastfeeding uncomfortable or painful (incl. sore breasts/ nipples/mastitis)	-	4	12	14	7
Had to change formula	13	9	-	2	7
Not gaining enough/lost weight	4	7	10	6	7
Colic/wind	8	8	2	3	6
Base: Stage 2 mothers experiencing problems	182	552	139	381	1254
<sup>1</sup> Includes some mothers for whom ch <sup>1†</sup> Only responses mentioned by at le Percentages do not add to 100% as s	hange in feeding ast 5% of mothe some mothers ga	status not known rs in any subgrou ave more than one	p are shown e answer		

# Table 6.4: Problems experienced by breastfeeding mothers at Stage 2 of the survey by duration of breastfeeding (United Kingdom, 2005)

5,5	Less than 2 weeks	Duratio 2 weeks, less than 6 weeks	n of breast 6 weeks, less than 4 months	feeding 4 months, less than 6 months	6 months or more	All mothers who breastfed initially <sup>†</sup>		
	%	%	%	%	%	%		
Mastitis	6	12	12	14	14	11		
Blocked ducts	3	9	10	14	14	10		
Thrush	2	6	6	6	7	6		
Nipple pain	29	40	36	36	44	37		
Any of the above	33	48	46	50	55	46		
Base: Stage 2 mothers breastfeeding initially	1394	1068	1383	807	2328	8210		
<sup>†</sup> Includes some cases where mothe	<sup>†</sup> Includes some cases where mother's breastfeeding duration not known							
Percentages do not add to 100% as	some mot	hers gave mor	e than one ans	swer				

	Between Stage	e 1 and Stage 2 2005	Between Stage 2 and Stage 3		
	%	%	%	%	
Any advice	82	83	69	71	
Base: Mothers reporting feeding problems at Stage 2/3	1306	1254	891	822	
Health visitor	78	76	84	76	
Doctor/GP	34	38	30	30	
Partner/friends/relatives	31	36	29	37	
Books/leaflets/magazines	13	10	11	12	
Nurse <sup>†</sup>	n/a	8	n/a	5	
Support or peer group <sup>†</sup>	n/a	7	n/a	7	
Breastfeeding clinic <sup>†</sup>	n/a	5	n/a	1	
Base: Mothers receiving advice on feeding problems at Stage 2/3	1076	104	614	585	
<sup>†</sup> Data not available for 2000 Percentages do not add to 100% as so	me mothers gave more	e than one answer			

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	Betwe	All Stage 2			
	continued formula feeding	gave up breast, switched to formula	continued breast, introduced formula	continued breast/ mixed feeding	mothers receiving advice
	%	%	%	%	%
Health visitor	76	77	86	70	76
Doctor/GP	46	43	25	31	38
Partner/friends/relatives	27	35	41	41	36
Book/leaflet/magazine	5	9	13	14	10
Nurse	9	8	4	8	8
Support or peer group	-	4	18	12	7
Breastfeeding clinic	-	1	12	10	5
Base: Stage 2 mothers receiving advice about feeding problems	147	469	116	308	1040

Table 6.7: Reasons given by mothers for stopping breastfeeding by duration of breastfeeding (United Kingdom, 2005)							
(,	Less than 1 week	Baby's ag 1 week, less than 2 weeks	ye when bi 2 weeks, less than 6 weeks	reastfeedir 6 weeks, less than 4 months	ng ceased 4 months , less than 6 months	6 months , less than 9 months	All mothers giving up <sup>†</sup>
	%	%	%	%	%	%	%
Why stopped breastfeeding							
Insufficient milk	26	41	53	48	37	24	39
Baby rejected breast	34	21	17	13	11	16	20
Painful breasts/nipples	24	29	17	9	1	2	14
Took too long/tiring	11	17	19	19	5	5	14
Mother was ill	8	11	9	8	5	5	8
Domestic reasons	4	7	9	10	3	2	7
Returned to work/college	1	-	1	8	15	22	7
Too stressful	7	7	6	4	3	1	5
Baby ill	6	7	5	3	2	1	4
Baby could not be fed by others	1	5	4	6	4	3	4
Didn't like breastfeeding	2	5	4	1	1	*	3
Breastfed for as long as intended	1	1	1	4	10	6	3
More settled on formula	1	2	2	4	8	3	3
Baby not gaining weight	*	1	2	6	4	3	3
Teething/biting <sup>††</sup>					3	14	2
All Stage 3 mothers who stopped breastfeeding during survey period	1143	351	1087	1284	195	727	4827
<ul> <li><sup>†</sup> Includes some cases where mother's breastfeeding duration not known</li> <li><sup>††</sup> Code introduced at later Stages</li> <li>Percentages do not add to 100% as some mothers gave more than one answer</li> </ul>							

Table 6.8: Whether mothers who initially breastfed would liked to have breastfed for longer by birth order (United Kingdom, 2005)						
	First birth	Later birth	All mothers giving up			
	%	%	%			
Yes, would have liked to feed for longer	75	70	73			
I breastfed for as long as I intended to	15	22	18			
I breastfed for longer than I intended	7	6	7			
Base: All Stage 3 mothers who stopped breastfeeding during survey period	2736	2091	4827			

# Table 6.9: Whether mothers who initially breastfed would liked to have breastfed for longer by duration of breastfeeding (United Kingdom, 2005)

	Percent who would liked to have breastfed for longer	Base: All Stage 3 mothers who stopped breastfeeding
Duration of breastfeeding	%	
Less than 1 week	84	1143
1 week . less than 2 weeks	91	351
2 weeks, less than 6 weeks	85	1087
6 weeks, less than 4 months	71	1284
4 months, less than 6 months	57	195
6 months or longer	40	727
All mothers who gave up breastfeeding during survey period	73	4827 <sup>†</sup>
<sup>†</sup> Includes some cases where mother's breastfeeding duration not know	n	

Table 6.10: Whether mothers who breastfed would do so again by duration of breastfeeding         (United Kingdom, 2005)									
		All							
	Less than 1 week	1 week, less than 2 weeks	2 weeks, less than 6 weeks	6 weeks, less than 4 months	4 months, less than 6 months	6 months or longer <sup>††</sup>	mothers who breastfed <sup>†</sup>		
% who would breastfeed another baby	%	%	%	%	%	%	%		
2000	62	83	93	•	97		88		
2005	62	83	92	95	98	97	89		
Bases: All Stage 3 mothers who breastfed									
2000	791	232	742	•	3056		► 5020		
2005	1148	353	1104	1404	801	2273	7186		
<sup>†</sup> Includes some cases where mother's breastfeeding duration not known <sup>††</sup> Includes mothers still breastfeeding at Stage 3									

Table 6.11: Health problems suffered by babies at Stages 2 and 3 of the survey (United Kingdom,2005)									
	Stage 2 (4-6 months)	Stage 3 (8-10 months)	Mentioned at either Stage						
	%	%	%						
Colic/wind	45	39	53						
Constipation	29	37	45						
Sickness/vomiting	21	37	43						
Diarrhoea	17	35	41						
Skin problems	2	29	30						
Chest infection	13	22	26						
Thrush	12	13	17						
Ear infection	3	14	14						
Not gaining enough weight	9	11	14						
Urinary tract infection	1	1	1						
Bases: All Stage 2 mothers	10814	n/a	n/a						
All Stage 3 mothers	n/a	9416	9416						

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	Never		Duratio	on of breas		All	All	
	breast- fed	Less than 2 weeks	2 weeks, less than 6 weeks	6 weeks, less than 4 months	4 months, less than 6 months	6 months or more	mothers who breast- fed <sup>†</sup>	mother
	%	%	%	%	%	%	%	%
Colic/wind	55	58	57	51	51	47	52	53
Constipation	49	54	53	45	43	33	44	45
Sickness/ vomiting	43	48	47	46	43	35	43	43
Diarrhoea	48	51	45	42	40	26	39	41
Skin problems	26	28	30	31	29	31	30	29
Chest infection	31	29	26	26	24	20	24	26
Thrush	22	18	17	15	12	13	15	17
Ear infection	16	15	16	14	12	13	14	14
Urinary tract infection	2	2	1	1	1	1	1	1
Not gaining enough weight	9	11	13	18	19	19	16	14
Base: All Stage 3 mothers	2278	1502	1104	1404	802	2272	7186	9416

Table 6.13: Help or advice sought by mothers about health problems mentioned at Stage 3 of the
survey (United Kingdom, 2005)

	Proportion seeking advice from:										
	Health visitor	GP	Hospital	Family/ friend	Other	No advice	Base: Stage 3 mothers where baby had health problem				
	%	%	%	%	%	%					
Colic/wind	64	22	3	35	4	12	3635				
Constipation	49	24	4	29	3	17	3440				
Sickness/vomiting	27	54	18	18	3	15	3433				
Diarrhoea	23	50	9	19	2	18	3329				
Skin problems	49	74	7	13	3	3	2724				
Chest infection	8	85	23	5	1	1	2033				
Thrush	47	62	5	7	2	1	1238				
Ear infection	5	90	11	3	*	1	1290				
Urinary tract infection	14	46	65	7	1	1	106				
Not gaining enough weight	81	28	23	12	4	1	1005				
Percentages do not add to	Percentages do not add to 100% as some mothers gave more than one answer										

Table 6.14: Age of baby when health visitor first visited mother and baby (United Kingdom, 2005)									
	England	Wales	Scotland	Northern Ireland	United Kingdom				
	%	%	%	%	%				
Up to 5 days old	6	6	4	5	6				
6-10 days	27	35	26	22	27				
11-15 days	42	40	57	54	44				
16-20 days	10	8	7	10	10				
21+ days	12	10	5	8	11				
Mean age of baby at visit (days)	13.5	12.6	12.3	13.2	13.3				
Base: All mothers who had been visited by Stage 1	6003	2111	2166	1871	12145				

Table 6.15: Frequency of attending child health clinic or GP for advice or regular check-ups by         country (2005)											
		Stage	e 2 (4-6 mor	nths)	Stage 3 (8-10 months)						
	England	Wales	Scotland	N. Ireland	UK	England	Wales	Scotland	N. Ireland	UK	
	%	%	%	%	%	%	%	%	%	%	
Once a week	7	5	6	3	7	2	1	2	1	2	
Once a fortnight	29	26	22	9	28	9	8	7	4	9	
Once a month	38	45	43	45	39	38	37	31	19	36	
Less	11	11	12	23	11	28	35	32	45	30	
Never	14	12	17	20	15	23	18	29	32	24	
Base: All mothers	5287	1854	1918	1755	10814	4563	1582	1666	1605	9416	

# 7 Introduction of solid foods

# **Key Findings**

### Age of introducing solid foods

- There has been a marked trend towards mothers introducing solid foods later in 2005 compared with 2000. For example, in 2000 85% of mothers had introduced solid foods by four months, but by 2005 this figure had fallen to 51%. This shift is evident in all countries and continues a longer-term trend in this direction.
- Only a negligible proportion of mothers (2%) were following Department of Health guidelines in accordance with their precise interpretation that is to delay weaning onto solids until six months.
- Solid foods tended to be introduced at a younger age among mothers in Wales and Scotland, those in lower social classes, and those with lower educational levels. The shift over the previous five years towards later weaning was particularly pronounced among mothers within the highest occupation and education groups.
- Age of introduction was also related to whether and when mothers returned to work, with those returning after at least six months, or not returning at all, introducing solids later on average than those who returned earlier.

### Influences on age of introduction

 Later introduction of solids tended to be guided by professional advice such as the health visitor and written sources, while the decision for earlier weaning was more likely to be based on informal advice from friends and family and subjective criteria such as whether consider baby is sufficiently satisfied with milk feeds and previous experience.

### Solid foods given and avoided

- When babies were four to six months, mothers giving solids were much more likely to
  provide commercially-prepared foods than home-prepared foods in their babies' daily
  diets. By eight to ten months, however, mothers relied less on commercial brands with
  a correspondingly increased use of home-prepared foods.
- The large majority of mothers avoided the use of salt completely in the diets of their eight to ten month old babies, although propensity to use salt rose among those classified to the lower occupation groups, as well as among mothers from ethnic minority backgrounds.
- Compared with 2000, higher proportions of mothers in 2005 said they avoided the use of salt, nuts and honey in their babies' diets. A greater awareness of food allergies in 2005 was one of the key reasons behind these shifts.

This chapter covers the behaviour of mothers in relation to providing their babies with solid foods. The chapter focuses initially on age of introduction, how this measure has changed over time, and how it varies by country and other key demographic subgroups. The nature of solid diets given to babies at different ages is also investigated, including the balance of home- and commercially-prepared foods, the frequency of giving types of food, and specific ingredients avoided by mothers. The influences on mothers' decisions about when to begin and what foods to give are also explored, along with difficulties encountered when weaning onto solids.

Note that in this chapter we use the expression "*weaning*" to refer to mothers weaning babies onto solids, rather than to mothers weaning from the breast.

# 7.1 Age of introduction of solid food

The recommendations provided to mothers regarding the most appropriate age at which to introduce solid foods to their babies have changed over the decades. Between 1994 and 2000, the prevailing recommendation was the that "*the majority of infants should not be given solid foods before the age of four months, and a mixed diet should be offered by six months*"<sup>19</sup>. However, in 2001, the World Health Organisation issued a revised global recommendation that mothers should breastfeed exclusively for six months, and this recommendation has been adopted by all the United Kingdom Health Departments (see Chapter 2, section 2.5 for more details).

Thus, at the time of the 2005 survey, the recommendation set out by the Department of Health was to **delay introduction of solid foods until six months of age**. By the time of the 2005 survey, these recommendations should have been in place (in most countries) for around four years<sup>20</sup> - therefore any transition period in terms of the guidance given by health professionals should have passed, allowing a clear link to be made between changes in the pattern of introducing solid foods and changes in government guidelines on this matter.

### 7.1.1 Trends over time (United Kingdom

The results over time have shown that, in each subsequent survey wave, the age of introduction of solids has become progressively later<sup>21</sup>. These reflect the recommendations prevailing at the time of the different surveys, as well as changes in the composition of the samples of mothers in terms of their socio-economic characteristics (see section 1.9).

The longer-term trend in terms of later introduction of solids is summarised in Figure 7.1 which shows the proportion of mothers in the United Kingdom (Great Britain pre-1995) who

<sup>&</sup>lt;sup>19</sup> Department of Health. Weaning and the Weaning Diet, Report of the Working group on the weaning Diet of the Committee on Medical Aspects of Food Policy. HMSO (London: 1994)

<sup>&</sup>lt;sup>20</sup> Although in Northern Ireland, the recommendations were announced later (during 2004).

<sup>&</sup>lt;sup>21</sup> For detailed statistics relating to surveys before 2000, see Foster, K, Lader D, Cheeseborough S *Infant Feeding 1995* HMSO (London 1997)

had introduced solids within certain time periods. In 1990, nearly seven in ten mothers had introduced solids by three months, this proportion falling rapidly over the time series to 24% in 2000 and only 10% in 2005. Between 1995 and 2000 the proportion weaning to solids by four months remained relatively stable, but by 2005 there has been a marked shift from 85% in 2000 down to 51% in 2005. Thus, in 2005, half (49%) of all mothers in the United Kingdom were introducing solids after four months, this proportion having increased from a small minority of six per cent of all mothers in 1990, to nine per cent in 1995 and 15% in 2000. In the United Kingdom, the mean age of introduction of solids was 19 weeks, a rise from 15 weeks in 2000.

These figures clearly demonstrate a significant and marked shift over the time series towards later introduction of solids.

As shown in Table 7.1, the trend over the previous five years towards later introduction of solids is mainly attributable to the shift in the proportion of mothers commencing weaning in the four to five month window (in the United Kingdom 31% of 2005 mothers introduced solids in this age period, compared with 13% in 2000). By five months, most mothers in 2005 (82%) had weaned to solid foods, with near universal weaning by six months. Only two per cent of mothers introduced solids after six months, indicating that, while practices are changing, only a negligible proportion of mothers are following the WHO guidelines in accordance with their precise interpretation (see Chapter 2 for further details on the prevalence of exclusive breastfeeding).

### Table 7.1, Figure 7.1



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### 7.1.2 Trend data by country

Mothers in Wales and Scotland began feeding their baby solid foods earlier on average than mothers in other countries: 60% of Scottish babies and 65% of Welsh babies had been given solids by the age of four months compared with around half of babies in England and Northern Ireland.

The sharp decline in the practice of early weaning between 2000 and 2005 is evident in all countries. In each country, the proportion of mothers who had introduced solids by three months had more than halved during this time period. In 2000, around eight in ten mothers in each country had introduced solids by four months; in 2005 the equivalent levels of penetration were reached at five months. The shift by country is summarised in Figure 7.2<sup>22</sup>.

### Table 7.1 Figure 7.2



Figure 7.2: Proportion of mothers introducing solids during different age periods by country (2000 and 2005)

<sup>&</sup>lt;sup>22</sup> Data relating to England & Wales separately was not available in 2000. Hence Figure 7.2 displays the figures for these countries combined.

### 7.1.3 Variation in the age of introducing solid foods

### Birth order

By birth order, there was no difference in the pattern of age of introduction of solids. Mothers of first-time babies were as likely to have introduced solids by the various ages as mothers of second or later babies.

### Mother's age

There was a clear relationship between mother's age and timing of introducing solids. While only a third (36%) of mothers aged 35 or over had begun weaning to solids by four months, three-quarters (74%) of babies of teenage mothers were weaned by this stage. By five months, only seven per cent of babies of teenage mothers had not yet been weaned, this proportion rising to 28% of babies of mothers aged at least 35. Between these two extremes, there is a linear pattern by mother's age.

# Mother's socio-economic status (NS-SEC)

As would be expected, there was an association between mother's socio-economic status and age of introducing solids. Mothers classified to managerial and professional occupations were much less likely to have introduced solids by four months (41%) than mothers in the intermediate (53%), routine/manual occupational categories (61%) or who had never worked (58%).

#### Table 7.4

Table 7.3

Over the previous five years, there have been significant shifts in the age of introduction of solids within all NS-SEC categories. However, while in 2000 the proportion who had weaned by four months was relatively consistent across occupation groups (between 82% and 87%), there was much more differentiation in 2005. The proportional fall over time in early weaning practice was larger for mothers classified to managerial and professional occupations than for mothers in other occupational groups. Specifically, the proportion weaning by four months had more than halved among managerial/professional occupation mothers (from 84% to 41%), a steeper decline compared with other occupational groups.

However, going against the general trend, a higher than average proportion of mothers who had never worked introduced solids *after* six months (6% compared with 2% of mothers in other classified groups). Although small, this difference is significant.

#### Figure 7.3, Table 7.4

Table 7.2



# Age mother left full-time education

In line with expectations, mothers with higher levels of education were introducing solids later than mothers with lower levels. By the time their babies were four months old, three-fifths (63%) of mothers who had left school by 16 had begun weaning to solids, compared with only two-fifths (40%) of mothers educated beyond the age of 18.

As with the shift within socio-economic categories, the decline in early weaning among the most educated mothers was more pronounced than the equivalent decline among less well educated mothers. While in 2000, 19% of mothers educated beyond the age of 18 introduced solids after four months, this proportion had more than tripled by 2005, with 60% of the most educated mothers introducing solids within this time frame.

### Figure 7.4, Table 7.5



### Ethnicity

Mothers from minority ethnic backgrounds introduced solids later on average than white mothers. Over eight in ten (83%) of white mothers had introduced solids by five months. In comparison, around seven in ten mothers from Asian, Black, Chinese and other ethnic backgrounds had weaned by this stage. Mothers from Chinese and other ethnic backgrounds were the least likely to have introduced solids by four months (40% compared with 51% of white mothers).

### Table 7.6

### Mother's working arrangements

The timing of a mother's return to work (if they do return) may affect when they decide to introduce solids. For example, some mothers may wish to begin this process before they return to work so that they can devote more time to it. Maternity leave entitlements have increased significantly over the last decade (see Chapter 9) which should help mothers not to wean earlier than thought desirable.

Nevertheless, introduction of solid foods was related to whether or not a mother had returned to work, and the timing of their return. Among working mothers, those who delayed their return until at least six months were less likely to have started their baby on solids by four months (49%) than those who returned to work before this (59% returning before their baby was four months and 56% returning when their baby was between four and six months).

Mothers who had not returned to work by the time of the Stage 3 survey weaned their baby slightly later on average than mothers returning before their baby was four months old (51% weaning by four months compared with 59% who returned early).

### Table 7.7

Although mothers in managerial/professional occupations have longer maternity leaves on average (see chapter 9), the relationship between maternity leave length and introduction of solids is not simply a product of the relationship between timing of introduction and occupation level (section 7.3.1). The correlation between maternity leave and age of weaning is evident within mothers of both managerial/professional and routine/manual occupation groups, although this is not the case among mothers classified into intermediate occupations.

The proportion of mothers delaying weaning to at least four months varied by both maternity leave length and occupational category. Among mothers in managerial/professional occupations, three-fifths of those who either returned when their baby was at least six months or who had not yet returned introduced solids after four months. The equivalent proportion among mothers in these categories from routine/manual occupations was two-fifths.

### Table 7.8, Figure 7.5



### 7.1.4 Influences on age of introduction

Mothers were asked about any influences affecting their decision about when to begin weaning their baby on to solids: responses were chosen from a prompted list. The most
prevalent reason for introducing solid foods into a baby's diet was a perception that their baby was no longer satisfied with their milk feeds (63%). Other key reasons included advice from a health professional (35%) and experience with a previous baby (32%). Advice from friends or relatives and information given in leaflets or other materials each accounted for the weaning decision in about one in seven cases (14%).

However, the influences behind the decision on when to begin weaning varied by timing of its introduction. The large majority of mothers who had begun solids by the time their baby was three months old (77%) based this decision on a perception that baby was no longer satisfied with milk feeds. By contrast, this was the reason behind the decision of only 40% of mothers who began solids after five months. Early weaners were also more likely than later weaners to base their decision on experience with a previous baby (37% compared with 22% of mothers weaning after five months) and informal advice from friends and relatives (20% compared with 11%).

In contrast, those who introduced their babies to solids later were far more likely than early weaners to have based their decision on professional advice: either from a health professional (59% of those weaning after five months reducing to 17% of those weaning by three months) or from written information sources (36% reducing to 5%).

Thus it is clear that later introduction of solids tends to be guided more by information from professional sources, while the decision for earlier introduction of solids is more likely to be based on subjective criteria or informal advice sources.

Mothers were also asked a more direct question about what sources of advice, if any, they had sought when they first began to introduce solids. Seven in ten (71%) mothers at Stage 3 said that they been given advice in this area. The sources of advice used are detailed in section 7.8 (Table 7.22) although the most commonly mentioned sources were health visitors, written materials, and friends and relatives – all concurrent with findings reported above.

Table 7.9

#### 7.2 Types of solid food given at Stages 2 and 3

#### 7.2.1 Number of solid meals given

Solids should be introduced to a baby's diet gradually. At the start, only small amounts should be given and this should be in addition to, rather than as a replacement for, milk. For this reason, it is not advised that babies (and particularly younger babies) are not put on three solid meals a day too rapidly.

Three in ten mothers whose babies had been weaned at Stage 2 (30%) were feeding their baby at least three meals a day at the time of survey completion. The majority of Stage 2 babies were aged four to six months at the time of survey completion. However, a proportion of Stage 2 babies who had been weaned were younger than this, and the data show a clear trend towards giving an increased number of daily meals as babies get older. Among weaned babies, only one in ten babies aged three to four months were being given three solid meals a day compared with nearly seven in ten babies aged seven to eight months.

Table 7.10

#### 7.2.2 Balance of home and commercially-prepared foods

The COMA report suggests that it is important to give home-prepared foods as part of weaning, in order to introduce the infant to a greater range of flavours and textures than manufactured foods can provide. It is therefore of interest to monitor the balance between the different types of food given to babies.

At Stages 2 and 3, mothers who had introduced solids were asked about the nature of foods they had **ever** given to their baby as well as the foods given on the **day before they completed the questionnaire** ("*yesterday*"). Table 7.11 summarises these data for each Stage.

At Stage 2, when most babies were around four to six months, the majority of babies who had begun solids had been introduced to commercially-prepared baby foods (85%) while only around half of this group had been introduced to home-made foods (51%) and fruit/vegetables (53%). By Stage 3 however, when babies were around eight to ten months old, almost all babies had been introduced to each of these types of food (at least 90% in each case).

While, by Stage 3, most babies have been introduced to a mixture of both manufactured and home-made baby foods, this does not provide an accurate picture of babies' daily diets. For example, some mothers may prepare home-made foods for their baby on most days, using jars or tins only occasionally or when they are away from home. To obtain a better picture of babies' daily diets mothers were asked to note down the types of food eaten by their baby on the previous day. These data show that at Stage 2, there was a greater reliance on commercially-prepared baby foods (66%) than home-made foods (28%) or fruit and vegetables (36%). However, by Stage 3, the situation was reversed. Babies' daily diets were far more likely to include home-made foods and fresh fruit/vegetables (both 74%) with a reduced level of use of commercially-prepared foods (50% at Stage 3).

Table 7.11 also shows in more detail how the nature of daily diets changes as the baby gets older. The use of commercially-prepared foods declines from 67% among four to five month old babies to 44% among babies aged ten to twelve months. Conversely, the consumption of home-made, fresh and "other" foods tends to increase as the baby gets older, although this levels off from seven months. The data indicate that older Stage 3 babies, aged ten to twelve months, were more likely to be included in family meals (46%) than those aged seven to ten months (34%).

Table 7.11

#### 7.2.3 Types of food given

At Stage 3, when most babies were around eight to ten months old, mothers were asked how often they gave their baby different types of food and the results are summarised in Table 7.12. The balance between manufactured and home-prepared meals concurs with the data provided above: by Stage 3 85% of mothers were feeding their babies fresh foods on a daily basis compared with 45% feeding their babies commercially-prepared foods.

#### Infant Feeding Survey 2005

In terms of food types, the majority of mothers were feeding their (mostly) eight to ten month old babies cereals (82%), dairy products (64%) and cooked vegetables (59%) at least once a day. Meat was consumed by the majority (75%) of babies at least once a week, along with potatoes (86%), rice/pasta (72%), and chicken (77%). Around half (48%) of mothers were feeding their babies fish at least once a week, although this was rarely given on a daily basis (3%).

Foods which were largely avoided included crisps (71% of babies eating less than once a week), eggs (76%) and nuts (99%). More detailed survey results on foods avoided and mothers' reasons for this are covered in section 7.7.

On the whole, where comparisons could be made, the feeding pattern of mothers was similar in 2005 to that in 2000. The only differences were slightly lower rates of consumption of bread (36% of babies in 2005 eating at least once a day compared with 45% in 2000) and puddings/desserts (34% compared with 49%).

#### Table 7.12

The nature of babies' diets varied by mother's socio-economic group and by their ethnic origin. Table 7.13 displays the proportion of mothers from different occupational and ethnic groups who gave different types of food regularly, defined as three or more times a week.

The diets of babies of mothers from managerial/professional occupations were more likely than those of their counterparts to contain regular servings of cooked vegetables (91% of mothers in this group giving three or more times a week reducing to 61% of mothers who had never worked); meat (64% to 40%); chicken (52% to 32%); cooked fruit (54% to 15%); rice/pasta (50% to 35%); and fish (23% to 13%).

On the other hand, mothers in managerial/professional occupations were less likely to provide regular servings of sweets/chocolates/biscuits (14% of managerial/professional mothers increasing to 33% of those who had never worked); crisps (10% to 21%); potato products (5% to 19%); and eggs (5% to 15%).

There were some clear variations in the nature of diets of babies from different cultural backgrounds. Mothers from ethnic minority backgrounds were less likely to regularly give their babies many foods including dairy products, potatoes, bread, fat spreads, cooked vegetables and fruit. However, Asian mothers were more likely than other ethnic groups to give their babies pulses (32% compared with 16% of all mothers) and eggs (16% compared with 6%). Asian and Black mothers were significantly less likely than other cultural groups to give their babies meat regularly (29% and 33% respectively compared with 57% of mothers overall). In fact 41% of Asian and 37% of Black mothers had never included meat in their babies' diets. Asian mothers were also less likely than other groups to give their babies chicken<sup>23</sup> and fish, indicating a greater propensity among this ethnic group to provide a wholly vegetarian diet. Mothers from Chinese or "other" ethnic groups were particularly likely to provide rice or pasta (77% compared with 44% of all mothers) but were much less likely than other groups to provide breakfast cereals (51% compared with 88% of all mothers).

<sup>&</sup>lt;sup>23</sup> In the questionnaire, chicken was categorised separately from "meat".

#### 7.2.4 Giving drinks containing Vitamin C

The COMA report also suggests that vitamin C-enriched fruit drinks consumed with food may be useful to aid the absorption of iron from a meal. At Stage 2, when babies were around four to six months old, a third (31% of mothers who had introduced solids) gave vitamin-C enriched drinks at meal-times. Mothers in Wales and Northern Ireland were slightly more likely than average to give these drinks with meals (36% and 35% respectively).

By Stage 3, half (48%) of mothers were giving vitamin C drinks with meals, once again this proportion increasing in Wales (59%) and Northern Ireland (58%). A small proportion of mothers giving solid food at each Stage (6% Stage 2, 7% Stage 3) were giving these drinks, but not during meal-times<sup>24</sup>.

Table 7.14

#### 7.2.5 Use of milk to mix food

At Stages 2 and 3, mothers who had introduced solid foods were asked about their use of milk to mix baby food<sup>25</sup>. The use of milk to mix up solid foods declines with the age of the baby. At Stage 2, when babies were around four to six months, three-quarters (73%) of weaned babies were being given food mixed with milk, reducing to half (51%) of Stage 3 babies aged around eight to ten months.

At Stage 2, mothers using milk to mix baby food were predominantly using infant formula (nine in ten of Stage 2 mothers using milk) while at Stage 3 mothers using milk were far more likely to be using liquid cow's milk (nearly half of Stage 3 mothers using milk had switched to cow's milk by this stage).

Mothers in Northern Ireland were more likely than mothers in other countries to be using cow's milk at Stage 3 (30% of all mothers compared with 23% overall).

#### Table 7.15

At Stage 2, most breastfeeding mothers who used milk to mix solid foods were using expressed breast milk (65% of this subgroup). However, by Stage 3, those still breastfeeding and using milk to mix solids were mainly using cow's milk (71% of this subgroup). Mothers using only formula, or a mixture of breast and formula, used predominantly infant formula to mix foods at Stage 2, and a majority still used this in preference cow's milk by Stage 3.

Table 7.16

<sup>&</sup>lt;sup>24</sup> It is not possible to compare the results on this measure with surveys in 2000 or earlier as the way in which the questions were asked changed.

<sup>&</sup>lt;sup>25</sup> It is not possible to compare the results on this measure with surveys in 2000 or earlier as the way in which the questions were asked changed.

#### 7.3 Foods avoided

#### 7.3.1 Use of salt

The Department of Health recommends that babies should not have any salt added to their solid meals, as their kidneys are unable to cope with large amounts of salt, and over-use could affect the child's health in the future.

In the United Kingdom, the large majority of mothers in 2005 avoided the use of salt completely (92% of mothers of Stage 3 babies aged about eight to ten months). This proportion did not vary by country (92% England; 91% Wales; 93% Scotland; 94% Northern Ireland).

Use of salt did however vary by mother's' socio-economic group and by their cultural origin. Mothers classified to the lowest socio-economic group were five times more likely to use salt at least "sometimes" (25%) than mothers classified to the highest group (5%). Salt was also more prevalent in the diets of babies of minority ethnic mothers than the diets provided by white mothers. While only five per cent of white mothers used salt at least occasionally, this proportion rose to 32% of Asian mothers, 26% of mothers of Chinese or "other" ethnic origin, 23% of Black mothers, and 16% of mothers of mixed ethnic origin. However, no more than five per cent of mothers from each of these ethnic groups said that they used salt "often", most saying that they used salt only "sometimes".

Tables 7.17, 7.18

#### 7.3.2 Other foods avoided

The Department of Health advises mothers to avoid giving their babies salt (for the reasons described above); sugar (to discourage a sweet tooth and tooth decay); and honey under one year (because if its link with infant botulism). Mothers are also advised to be cautious about their use of nuts, fish or shellfish, and eggs because of possible allergic reactions.

At Stage 3, when babies were around eight to ten months, mothers were asked whether there were any particular ingredients they avoided giving their baby. Nearly half (47%) mentioned at least one ingredient, this proportion unchanged from 2000.

The foods which mothers avoided were consistent with health guidelines. Among the subset of mothers avoiding at least one ingredient, the principal ingredients omitted from diets were salt (51%), nuts (48%), sugar (35%), eggs (14%) and honey (13%). Of course, this question relied on spontaneous mentions by mothers of foods – we know from the discussion above that a much higher proportion of mothers avoided the use of salt in their baby's food. Nevertheless the foods mentioned by mothers at this question indicate those which were most "top-of-mind" when mothers think about what they omit from their babies' diets, and comparisons can be made with previous surveys where data were collected in the same way.

The results shown in Table 7.19 indicate that mothers in 2005 were somewhat more cautious about the foods they gave their babies when compared with 2000. Within the subset of mothers avoiding at least one ingredient, the proportion who avoided salt increased from 33%

to 51% between 2000 and 2005; rises were also seen in the proportions mentioning nuts (30% to 48%) and honey (6% to 13%).

#### Table 7.19

Mothers avoiding foods were asked their reasons for this. Among mothers who cited at least one food avoidance, the most common reason was a concern about allergies (43%, a rise of 8 percentage points since 2000). Other more generic answers included a perception that this food was not beneficial (39% up from 26% in 2000), or that it was harmful for baby (37% up from 20%). Thus, it is evident that the rises in food avoidances between 2000 and 2005 are linked not to media stories or "scares" (as has been the case in previous surveys: for example the high profile of the beef/BSE link at the time of the 1995 survey); instead increases appear to be linked to a general better awareness of the health issues associated with particular foods.

#### Table 7.20

Different reasons were attributed to different foods avoided. Table 7.21 displays the reasons given for avoiding the seven main food types mentioned in Table 7.19; only answers given by at least five per cent of mothers in each subset are shown.

As discussed above, when describing why certain foods were avoided, many mothers gave generic answers such as not being beneficial or being harmful to their baby's health. Focussing on the more specific reasons given, it can be seen that omission of sugar from a baby's diet was linked to its effect on teeth and a desire to avoid baby developing a sweet tooth; additives were linked to hyperactivity; honey and eggs to allergies and food poisoning; and dairy products and nuts were both mainly linked to allergies. Once again, these concerns are generally consistent with the prevailing health advice linked to these foods.

Table 7.21

#### 7.4 Information and advice about giving solid foods

At Stage 3, mothers who had introduced solid foods were asked whether they had received information and advice relating to either when to start giving solid foods (see also section 7.5) or what types of solid food to give.

Three-quarters reported receiving advice on either topic, 71% on when to start and 68% on the types of food to give. The question on where advice was sought was asked generically to all mothers who had received advice on either topic. Therefore, it is not possible to separate out the advice given to mothers about *when to start* and the advice given on *what foods to give*. However, it is possible to obtain some idea of the differences by looking individually at those mothers who had *only* received advice on when to wean, those who had *only* received advice on food types, and those who had received advice on *both* topics. However, it should be noted that these sub-samples will not necessarily be representative of all mothers seeking advice on each topic, so a certain degree of caution should be applied when interpreting these data.

The principal source of advice on these topics was the health visitor, mentioned by 87% of mothers at Stage 3 who had received advice on either topic, 91% of those receiving advice on both topics, 70% only receiving advice on what foods to give, and 62% only receiving advice

on when to start. Friends and relatives were a major source of guidance for mothers who only received advice on what they should be feeding their baby (47%), less so for those mothers who only received advice on age of introduction (28%). The same was true with written materials such as books, leaflets and magazines (respectively 38% and 24% of the above subgroups).

#### Table 7.22

#### 7.5 Difficulties with weaning

The COMA report recommends that "by the age of one year the diet should be mixed and varied". Mothers at Stage 3 were asked to describe the variety of food their baby (then aged about eight to ten months) generally ate. Unchanged from 2000, seven in ten (70%) described their baby as "eating most things", and one in four (25%) as eating a "reasonable variety". Only five per cent described their baby as having "fussy" eating habits.

Mothers from Asian and Black ethnic backgrounds were less likely than their white counterparts to describe their baby as eating "*most things*".

#### Table 7.23

Mothers at Stage 3 were also asked whether they had had any difficulties introducing their baby to solid foods and, if so, what the nature of these difficulties were. Overall, 10% of mothers in the United Kingdom had experienced difficulties, a proportion that did not vary between the constituent countries (10% in England and Northern Ireland, 8% in Scotland and Wales); nor from 2000 (also 10%).

This proportion did not generally vary between the main demographic groups, although Asian and Black mothers were more likely than white mothers to cite difficulties (14% and 15% respectively compared with 9% of white mothers). In addition, those who weaned their baby later were twice as likely to cite problems as those weaning earlier (16% of those weaning after five months compared with only 8% of those weaning by four months).

Among those mothers where difficulties had been encountered, problems included a refusal to eat either certain foods (49%) or any foods (28%); a general disinterest in food (29%) or a preference for drinks (25%). There was relatively little variation in the nature of difficulties reported by timing of weaning, although later weaners were somewhat more likely than early weaners to complain of baby's disinterest in, or refusal to take, solid foods.

Table 7.24

# **Chapter 7 tables**

Table 7.1: Age by which solid foods had been introduced by country (2000 and 2005)													
	Engla Wa	and & les	d & Scotland s		Nort Irel	Northern Ireland		United Kingdom		England		Wales	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	
% who had introduced solids by 6 weeke	%	%	%	%	%	%	%	%	%	%	%	%	
o weeks	3	1	4	1	ა ი	2	с С	1	n/a	1	n/a	2	
8 weeks	4	2	1	2	8	3	5	2	n/a	2	n/a	3	
3 months (13 weeks)	23	10	28	13	34	11	24	10	n/a	9	n/a	13	
4 months (17 weeks)	85	50	83	60	85	51	85	51	n/a	50	n/a	65	
5 months (22 weeks)	98	81	98	85	97	78	98	82	n/a	81	n/a	88	
6 months (26 weeks)	98	98	99	98	98	98	98	98	n/a	98	n/a	98	
9 months (39 wks) $^{\dagger}$	100	100	100	100	100	100	100	100	n/a	100	n/a	100	
Mean no. weeks	15	19	15	18	14	19	15	19	n/a	19	n/a	17	
Base: All Stage 3 mothers	4569	6145	1718	1666	1437	1605	7267	9416	n/a	4563	n/a	1582	
<sup>†</sup> Based on a reduced nu	umber o	f cases (	excludin	g those	babies v	who had	l not rea	ched thi	s age by	/ Stage	3		

Table 7.2: Age by which solid foods had been introduced by birth order (United Kingdom, 2000 and2005)									
	First	birth	Later	' birth	All me	others			
	2000	2005	2000	2005	2000	2005			
% who had introduced solids by	%	%	%	%	%	%			
6 weeks	2	1	3	1	3	1			
8 weeks	4	3	5	2	5	2			
3 months (13 weeks)	24	10	24	10	24	10			
4 months (17 weeks)	87	51	83	52	85	51			
5 months (22 weeks)	98	81	97	83	98	82			
6 months (26 weeks)	98	98	98	98	98	98			
9 months (39 weeks) $^{\dagger}$	100	100	100	100	100	100			
Mean no. weeks	15	19	15	18	15	19			
Base: All Stage 3 mothers	3367	4810	3900	4606	7267	9416			
<sup>†</sup> Based on a reduced number	of cases exclu	ding those bab	ies who had no	t reached this a	age by Stage 3				

Table 7.3: Age by which solid foods had been introduced by mother's age (United Kingdom, 2000and 2005)												
	Unde	er 20	20-	-24	25	-29	30	-34	35 or	over	A	// **
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	тот 2000	2005
% who had introduced solids by	%	%	%	%	%	%	%	%	%	%	%	%
6 weeks	5	3	5	2	3	1	2	1	2	*	3	1
8 weeks	10	8	7	4	6	2	3	1	3	*	5	2
3 months (13 weeks)	33	24	35	17	28	9	19	6	16	5	24	10
4 months (17 weeks)	88	74	90	67	89	53	84	45	80	36	85	51
5 months (22 weeks)	98	93	98	88	99	82	97	81	97	72	98	82
6 months (26 weeks)	98	99	98	98	98	98	98	98	98	97	98	98
9 months (39 wks) <sup>†</sup>	100	100	100	100	100	100	100	100	100	100	100	100
Mean no. weeks	14	16	14	17	14	18	15	19	16	20	15	19
Base: All Stage 3 mothers	390	626	1144	1751	2079	2472	2382	2721	1243	1818	7267	9416
<sup>†</sup> Based on a reduced number of cases excluding those babies who had not reached this age by Stage 3 <sup>††</sup> Base includes some cases where mother's age not known												

Table 7.4: Age by which solid foods had been introduced by mother's socio-economic												
classification (NS-S	EC) (Uni	ited Kir	ngdom	2000 a	nd 200	)5)						
	Manage	erial &	Interm	ediate	Rout	ine &	Nev	/er	Unclas	sified	All mothers	
	profess	sional	occup	ations	2000	nual 2005	wor	ked	2000	2005	2000	2005
% who had introduced solids	%	%	%	%	%	%	%	%	%	%	%	%
<b>by</b> 6 weeks	2	1	2	1	4	2	5	3	2	*	3	1
8 weeks	3	1	4	2	7	4	7	4	5	2	5	2
3 months (13 weeks)	17	6	22	9	29	14	31	14	27	13	24	10
4 months (17 weeks)	84	41	86	53	87	61	82	58	83	47	85	51
5 months (22 weeks)	97	78	98	84	98	87	95	78	97	71	98	82
6 months (26 weeks)	98	98	98	99	98	98	95	94	97	94	98	98
9 months (39 weeks) $^{\dagger}$	100	100	100	100	100	100	100	100	100	100	100	100
Mean no. weeks	15	20	15	18	14	18	14	18	15	19	15	19
Base: All Stage 3 mothers	2315	3480	1558	1955	1982	3051	769	650	644	281	7267	9416
<sup>†</sup> Based on a reduced n	umber of	cases e	xcluding	those b	abies w	ho had i	not reac	hed this	age by	Stage 3	3	

Table 7.5: Age by which solid foods had been introduced by age mother left full-time education(United Kingdom, 2000 and 2005)									
	16 or	under	17 c	or 18	19	9+	All mo	thers <sup>††</sup>	
	2000	2005	2000	2005	2000	2005	2000	2005	
% who had introduced solids by	%	%	%	%	%	%	%	%	
6 weeks	4	2	2	2	1	1	3	1	
8 weeks	7	4	4	3	3	1	5	2	
3 months (13 weeks)	29	15	24	12	17	5	24	10	
4 months (17 weeks)	87	63	86	55	81	40	85	51	
5 months (22 weeks)	98	86	98	84	97	76	98	82	
6 months (26 weeks)	98	98	98	98	97	98	98	98	
9 months (39 weeks) <sup>T</sup>	100	100	100	100	100	100	100	100	
Mean no. weeks	14	17	15	18	16	20	15	19	
Base: All Stage 3 mothers	2510	2550	2595	3137	2104	3649	7267	9416	
Based on a reduced num	<sup>†</sup> Based on a reduced number of cases excluding those babies who had not reached this age by Stage 3								

<sup>††</sup> Base includes some cases where mother's educational level not known

#### Table 7.6: Age by which solid foods had been introduced by mother's ethnic group (Great Britain, 2000 and 2005)

	Wh	iite	Mi>	Mixed Asian or Black or Chinese of Asian Black other British British ethnic aroun		ian or Black or sian Black ritish British		Black or Black British		ese or her nic oup	r All mothers <sup>1</sup>	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
% who had introduced solids by	%	%	%	%	%	%	%	%	%	%	%	%
6 weeks	3	1	2	2	1	1	3	1	n/a	-	3	1
8 weeks	5	2	3	4	1	1	5	1	n/a	-	5	2
3 months (13 weeks)	25	11	18	10	14	5	17	5	n/a	2	24	10
4 months (17 weeks)	86	53	85	45	80	43	73	44	n/a	40	85	51
5 months (22 weeks)	97	83	96	85	94	67	91	67	n/a	69	98	82
6 months (26 weeks)	98	98	97	97	94	94	94	95	n/a	93	98	98
9 months (39 weeks) $^{\dagger}$	100	100	100	100	100	100	100	100	n/a	100	100	100
Mean no. weeks	15	18	15	19	15	20	16	20	n/a	21	15	19
Base: All Stage 3 mothers	6761	6819	61	131	149	483	103	225	n/a	93	7267	7811

<sup>††</sup> Base includes some cases where mother's ethnicity not known

	Mother returne	ed to work wh	en baby was	Not working	All
	<i>…less than</i> 4 months	4, less than 6 months	6 months or older	at Stage 3	mothers $^{\dagger\dagger}$
% who had introduced solids by 6 weeks	%	%	%	%	%
8 weeks	3	2	1	3	2
3 months (13 weeks)	11	12	7	11	10
4 months (17 weeks)	59	56	49	51	51
5 months (22 weeks)	84	87	82	80	82
6 months (26 weeks)	98	99	98	97	98
9 months (39 weeks) $^{\dagger}$	100	100	100	100	100
Mean no. weeks	18	18	19	19	19
Base All Stage 3 mothers	422	1500	2311	5081	9416

Table 7.8: Proportion of n on return to work by moth	nothers who ha ler's socio-eco	ad introduced nomic classif	solid foods afte ication (NS-SEC	er four months b ) (United Kingdo	oy age of baby om, 2005)					
	Mother ret	urned to work	when baby	Not working	All mothers					
	less than 4 months	was an4, less6 months s than 6 or older months		at Stage 3	who had introduced solids <sup>†</sup>					
Percentage who had introduced solids after 4 months										
	%	%	%	%	%					
Managerial & professional	50	52	60	61	59					
Intermediate	43	41	45	51	47					
Routine & manual	29	37	41	40	39					
Bases: Stage 3 mothers Managerial & professional Intermediate	161 116	612 351	1179 524	1469 944	3421 1935					
<sup>†</sup> Base includes some cases w	134 here mother's woi	rking status not l	545 known	1641	3023					

#### Table 7.7. . and the second starts a all'al fa a da la . .

Table 7.9: Why mother began giving solids2005)	when she	did by ag	je of weani	ing (United	Kingdom,			
	Whe	en solids fi	rst introduc	ed:	All			
	By 3 months	<i>mothers</i> <sup>†</sup>						
	%	%	%	%	%			
Baby not satisfied with milk	77	70	62	40	63			
On advice from health visitor/other health professional	17	29	35	59	35			
Experience with previous baby	37	35	34	22	32			
On advice from friends/relatives	20	17	13	11	15			
Leaflets/written information	5	8	11	36	14			
Baby not gaining sufficient weight	4	6	8	6	6			
Other reason	3	5	9	6	6			
Base: All Stage 3 mothers	940	3896	2837	1727	9416			
<sup>†</sup> Base includes mothers who had not yet begun weaning at Stage 3								
Percentages add to more than 100% as mothers were able to give more than one response								

Table 7.10: Number of solid meals given per day at Stage 2 of the survey by age of baby (UnitedKingdom, 2005)									
	3, less than 4 months	Age of bab 4, less than 5 months	y at Stage 2 5, less than 7 months	7-8 months	All mothers who had introduced solids				
	%	%	%	%	%				
None	5	4	1	-	3				
One	45	38	13	7	29				
Two	37	39	36	26	37				
Three or more	11	18	49	67	30				
Base: Stage 2 babies who had been introduced to solid foods	913	4016	2655	418	8003				

Table 7.11: Proportion of babies who had ever been given different types of food, and who hadbeen given different types of food on the day before they completed the questionnaire at Stages 2and 3 of the survey (United Kingdom, 2005)

	Food: intro	s ever duced	Foods g previo	jiven on us dav	Foods given on previous day			
	Stage 2	Stage 3	Stage 2	Stage 3	Sta	ge 2	Sta	ge 3
					<b>Babies</b>	aged †	Babies	aged†
					3, up to	5, up to	8, up to	10, up
					5 mantha	/ montho	10 montho	to 12
	0/	0/	0/	0/	11101111S %	11101111S %	11101111S %	111011111S %
	/0	/0	/0	/0	70	70	70	70
Commercial baby	85	90	66	50	67	63	51	44
food								
Tinned	34	55	13	10	11	16	10	9
Powdered	65	61	38	13	44	30	14	10
Jar	50	82	27	37	23	32	38	33
Home-made foods	51	94	28	74	19	41	73	79
Made for baby <sup>††</sup>	n/a	87	n/a	48	n/a	n/a	49	46
Made for	n/a	67	n/a	37	n/a	n/a	34	46
self/family <sup>††</sup>								
Fruit/vegetables	53	91	36	74	29	46	74	74
Fruit	46	90	28	68	21	36	68	69
Vegetables	44	86	22	44	18	29	44	46
Other foods (e.g.	36	90	24	81	15	37	82	78
yoghurt, cereal)								
No solids on	n/a	n/a	6	*	8	3	*	*
previous day								
Base: All mothers at	8003	9416	8003	9416	4931	2655	7439	1848
Stage2/3 <sup>TTT</sup>								
Bables who fell outside	e tnese age r	anges at Sta	ages 2 and 3	s nave been	excluded			

<sup>††</sup> At Stage 2, only a combined measure for home-made food was coded

<sup>+++</sup> The small number of babies who had not been introduced to solids by Stage 3 are treated as not given foods

(United Kingdom, 2005)			
	Percentage g	iving food:	
	At least once a dav	1-6 times a week	Less than once a week or never
	%	%	%
Fresh foods (e.g. fruit vegetables, home-	85	11	4
made foods)			
Ready-made foods (e.g. tinned or powdered	45	27	28
foods)			
Breakfast cereals	82	8	9
Cheese, yoghurt, fromage frais	64	26	9
Cooked vegetables	59	33	8
Bread	36	38	25
Puddings or desserts	34	30	35
Meat	27	48	25
Potatoes	25	61	14
Cooked fruit	22	31	47
Butter/margarine/spreads	21	27	52
Rice or pasta	16	56	27
Chicken	12	65	23
Sweets/chocolate/biscuits	9	30	61
Raw vegetables	8	23	68
Tinned fruit	6	17	76
Crisps/corn snacks	6	23	71
Beans, lentils, chickpeas	4	34	62
Potato products (incl. chips, waffles, shapes)	4	18	78
Fish (incl. tuna)	3	45	52
Eggs	2	23	76
Tofu, Quorn, TVP	*	3	97
Nuts (incl. ground nuts)	*	1	99
Pasa: All Staga 2 mathemat			
Dase. All Stage 3 mothers'			
<sup>1</sup> The small number of mothers who had not introduc introduced these foods	ed their baby to solids b	y Stage 3 are treate	ed as never having

# Table 7.12: Frequency with which mothers gave different types of food at Stage 3 of the survey (United Kingdom, 2005)

Table 7.13: Percentage giving baby various foods 3 or more times a week at Stage 3 by mother's									
socio-economic cla	assificatio	on (NS-SE	C) and n	nother's e	ethnic gro	up (Unite	d Kingdo	m, 2005)	
	All Stage 3 mothers t	NS- Manag -erial & profess -sional	SEC occu Interme -diate	Routine & manual	Never Wever worked	White/ Mixed	<b>Ethnic</b> Asian	<b>group</b> Black	Chines e/other
	Per	rcentage	of mothe	rs giving	their bab	y food 3	or more ti	imes a w	eek
	%	%	%	%	%	%	%	%	%
Fresh foods	93	96	95	90	87	94	89	89	92
Ready-made foods	58	53	60	62	62	59	63	47	48
Breakfast cereals	88	91	89	86	79	89	79	77	51
Cheese/ yoghurt etc.	85	88	87	84	72	88	63	65	54
Cooked vegetables	82	91	83	78	61	84	65	61	76
Potatoes	63	66	64	63	52	64	47	53	54
Bread	58	62	60	55	45	60	44	36	41
Meat	57	64	59	52	40	60	29	33	59
Puddings or desserts	49	44	52	55	47	51	41	32	20
Chicken	46	52	46	41	32	47	32	43	45
Rice or pasta	44	50	44	38	35	44	46	39	77
Cooked fruit	40	54	38	30	15	41	28	26	24
Butter/margarine/ spreads	33	38	34	30	22	35	21	15	21
Sweets/choc/biscuits	20	14	20	23	33	20	22	15	22
Raw vegetables	18	20	16	17	17	19	16	11	20
Fish (incl. tuna)	18	23	17	15	13	19	11	20	21
Crisps/corn snacks	16	10	14	21	21	16	11	8	8
Beans, lentils, chickpeas	16	16	14	15	21	15	32	19	20
Tinned fruit	14	12	15	15	18	14	19	15	12
Potato products	11	5	8	16	19	10	16	11	4
Eggs	6	5	5	6	15	5	16	9	12
Tofu, Quorn, TVP	1	1	1	1	*	1	1	2	-
Nuts (incl. ground nuts)	*	*	1	*	1	*	3	2	-
Base: All Stage 3 mothers <sup>†††</sup>	9416	3480	1956	3051	650	7013	433	203	82
<sup>†</sup> Base includes some of <sup>††</sup> Mothers with unclass	cases wher sified NS-S	e mother's EC have n	ethnicity r	not known a cluded in th	and/or wher is table.	e mother's	NS-SEC w	as unclas	sified

<sup>†††</sup> The small number of mothers who had not introduced their baby to solids by Stage 3 are treated as never having introduced any foods.

# Table 7.14: Percentage of mothers who gave their baby drinks containing Vitamin C with meals atStages 2 and 3 of the survey by country (2005)

5	Stage 2 (4-6 months)						Stage 3 (8-10 months)			
	Eng	Wales	Scot	NI	UK	Eng	Wales	Scot	NI	UK
	%	%	%	%	%	%	%	%	%	%
Usually	16	20	14	17	16	27	38	29	34	28
Sometimes	15	16	16	18	15	20	21	23	24	20
Yes, but not with meals	6	6	5	5	6	7	7	6	7	7
Never	62	57	65	58	62	44	33	41	35	43
Base: Mothers who gave their baby solid foods <sup>†</sup>	3890	1518	1440	1237	8003	4563	1582	1666	1605	9416
<sup>†</sup> The small number of r Vitamin C drinks	nothers v	vho had no	ot introduc	ed their b	aby to so	lids by Sta	age 3 are 1	reated as	never giv	ving

Table 7.15: Use of milk to mix up food at Stages 2 and 3 of the survey by country (2005)										
	Stage 2 (4-6 mo Eng Wales Scot			onths) NI	UK	Eng	Stage 3 (8-10 months) Wales Scot NI			UK
	%	%	%	%	%	%	%	%	%	%
Any milk	73	71	72	72	73	51	52	52	57	51
Infant formula	64	63	63	65	64	28	30	29	27	28
Liquid cow's milk	3	2	2	3	3	23	23	23	30	23
Breast milk	7	5	6	3	6	1	*	1	1	1
Base: Mothers who gave their baby solid foods <sup>†</sup>	3890	1518	1440	1237	8003	4563	1582	1666	1605	9416
<sup>†</sup> The small number of r to mix solids	mothers v	vho had no	ot introduc	ed their b	aby to so	lids by Sta	age 3 are t	reated as	never us	ing milk

Table 7.16: Use of r Kingdom, 2005)	nilk to mix	c up food by	y feeding	method at	Stages 2	and 3 of the	e survey (	United
		Stage 2 (4-6 months)				Stage 3 (8-1	10 month	s)
	Breast	Formula	Mixed	All mothers	Breast	Formula	Mixed	All mothers
Any milk	% 66	% 73	% 78	% 73	% 51	% 50	% 63	% 51
Infant formula	19	70	66	64	8	30	34	28
Liquid cow's milk	4	2	2	3	36	22	25	23
Breast milk	43	*	12	6	7	*	2	1
Base: Mothers who gave their baby solid foods <sup>†</sup>	867	6053	1082	8003	859	7793	737	9416†
<sup>†</sup> Base includes mother	rs who had i	not introduced	d their baby	to solids by	Stage 3			

Table 7.17: Whether mothers ever add salt to their babies food at Stage 3 by mother's socio- economic classification (NS-SEC) (United Kingdom 2005)									
	Managerial	Intermediate	Routine &	Never	Unclassified	All			
	&		manual	worked		mothers			
	professional								
	0/	0/	0/	0/		0/			
	%	%	%	%		%			
Yes, often	*	*	1	3	1	1			
Yes, sometimes	4	5	7	22	12	7			
Never	95	94	91	73	83	92			
Not stated	1	1	1	1	4	1			
Base: All Stage 3 mothers <sup>†</sup>	3479	1955	3051	650	280	9416			
<sup>†</sup> The small number	of mothers who h	nad not introduced	their baby to sol	ids by Stage 3 a	are treated as neve	er using salt.			

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Table 7.18: Whether mothers ever add salt to their babies food at Stage 3 of the survey by mother's ethnic group (Great Britain 2005)									
	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>††</sup>			
Yes, often	% *	% 3	% 5	% 2	% 2	% 1			
Yes, sometimes	4	13	27	21	24	7			
Never	95	84	67	72	74	92			
Not stated	1	-	2	4	-	1			
Base: All Stage 3 mothers <sup>†</sup>	6819	131	483	225	93	7811			
<sup>†</sup> The small number of <sup>††</sup> Base includes som	of mothers who h e cases where r	nad not introduce mother's ethnicit	ed their baby to so y was not known	blids by Stage 3	are treated as ne	ver using salt.			

Kingdom, 2000 and 2005)	ables at Stage 3 of the	survey (United
	2000	2005
Added ingredients	%	%
Salt	33	51
Sugar	33	35
Additives	8	9
Colourings	3	5
Fat	1	5
Preservatives	2	3
Flavourings	1	1
Other additives	2	1
Specific foodstuffs	22	10
Nuts	30	48
Eggs	15	14
Honey	6	13
Dairy produce generally	9	10
Particular fruit/vegetables	5	7
Meat generally	8	6
Seafood	5	6
Spices	2	4
Gluten/wheat	5	3
Sweets/chocolates	2	2
Beef	5	1
Base: Stage 3 mothers avoiding at least one ingredient	3385	4463

Table 7.20: Reasons for avoiding ingredients at Stage 3 of the survey (United Kingdom, 2000 and 2005) <sup>†</sup>						
	2000	2005				
	%	%				
Allergies	35	43				
Not beneficial	26	39				
Harmful	20	37				
Bad for teeth	18	14				
On advice	7	8				
Food poisoning	n/a	8				
Digestion problems	5	6				
Avoid sweet tooth	6	5				
Base: All Stage 3 mothers avoiding at least one ingredient	3385	4463				
<sup>†</sup> Only reasons mentioned by at least 5% of mothers in 2005 are displa Percentages add to more than 100% as mothers could give more than	ayed					

### Table 7.21: Reasons for avoiding ingredients by which ingredient avoided (United Kingdom, 2005)<sup>†</sup>

			Ingred	dient avo	ided		
	Sugar	Salt	Additives	Eggs	Dairy	Honey	Nuts
	%	%	%	%	%	%	%
Reason for avoiding Not beneficial	43	54	55	6	6	10	n/a
Harmful	6	31	10	24	17	36	33
Bad for teeth	37	n/a	n/a	n/a	n/a	n/a	n/a
Food poisoning	n/a	n/a	n/a	18	7	37	n/a
Digestion problems	n/a	n/a	n/a	n/a	8	n/a	n/a
Avoid sweet tooth	14	n/a	n/a	n/a	n/a	n/a	n/a
Hyperactivity	n/a	n/a	12	n/a	n/a	n/a	n/a
Allergies	n/a	n/a	n/a	44	50	11	70
Personal preference	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Eczema	n/a	n/a	n/a	n/a	8	n/a	n/a
On advice	n/a	6	n/a	10	n/a	12	7
Other reasons relevant to baby's diet	n/a	n/a	13	n/a	n/a	n/a	n/a
Base: All Stage 3 mothers avoiding ingredient <sup>††</sup>	1551	2296	441	627	484	589	2153

<sup>†</sup> Only reasons mentioned by at least 5% of mothers within each ingredient are displayed

<sup>++</sup> In a small number of cases, 2+ mentions by a mother were coded to the same food type. In these instances, all mentions have been included in the base

Percentages add to more than 100% as mothers could give more than one answer

Table 7.22: Advice or information received about when to start giving solids and what types of
solid foods to give (United Kingdom, 2000 and 2005)

	Mothers	dvice	All mothers	
	only on when to start	only on what foods to give	on both topics	receiving advice
	%	%	%	%
Health visitor	62	70	91	87
Friends/relatives	28	47	46	44
Books/leaflets/magazines	24	38	47	44
Internet	2	7	8	7
Doctor/GP	3	2	6	5
Nurse	1	3	2	2
Other	5	4	6	6
Base: All Stage 3 mothers receiving advice or information	699	458	5985	7142
Percentages add to more than 100% as mothe	ers were able to gr	ve more than one re	esponse	

Table 7.23: Variety of solid foods babies ate at Stage 3 of the survey by mother's ethnic group (Great Britain, 2005)									
	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>††</sup>			
	%	%	%	%	%	%			
Eats most things	72	77	43	49	61	69			
Eats a reasonable variety	23	17	41	38	30	25			
Fussy or faddy eater	4	5	13	7	3	5			
Not stated	1	2	4	6	5	1			
Base: All Stage 3 mothers <sup>†</sup>	6819	131	483	225	93	7811			
<ul> <li><sup>†</sup> The small number of mothers w</li> <li><sup>††</sup> Base includes some cases wh</li> </ul>	vho had not in ere mother's (	troduced their ethnicity was r	baby to solids not known	by Stage 3 are	treated as no	t stated			

	When solids first introduced			All mothers
	By 4 months	nonths After 4, by 5 After 5 months months		
			months	
Any difficulties	% 8	% 10	% 16	% 10
Base: All Stage 3 mothers	4829 %	2835 %	1725 %	9416 <sup>†</sup> %
Nature of difficulties				
Baby would only take certain foods	55	43	47	49
Baby disinterested	23	35	31	29
Would not take solids	27	25	33	28
Baby prefers drinks	24	24	26	25
Baby vomiting	19	18	18	19
Baby won't eat from spoon	12	14	12	13
Doesn't like lumpy food	6	4	7	6
Problems related to baby being ill	3	6	4	4
Food allergies	2	2	3	2
Base: All Stage 3 mothers who cited difficulties	368	272	272	912

# 8 Additional drinks and supplementary vitamins

## **Key Findings**

#### The introduction of additional drinks

- In 2005, the prevailing advice to mothers was that babies should be breastfed exclusively for the first six months of life. Thus, there should be no need to give babies additional drinks such as water or juice during this period.
- A third of all mothers were giving drinks in addition to breast or formula milk by four weeks. This had risen to two thirds by four months. Breastfeeding mothers were less likely to be giving additional drinks than mothers who formula fed.
- The age at which mothers introduced additional drinks varied by their sociodemographic characteristics. Mothers from managerial and professional occupation groups, and older mothers tended to introduce drinks at a later age
- Up to four months, mothers in Northern Ireland were more likely to provide additional drinks at an earlier stage than mothers from the other countries.
- At Stages 1 and 2 of the survey most mothers said they were giving additional drinks: because their baby was thirsty; to help constipation; to help colic / wind / indigestion or; to help settle their baby. By Stage 3 most mothers who were giving additional drinks said this was because their baby was thirsty

#### The introduction of cups and beakers

• On average, mothers were introducing cups and beakers in 2005 earlier than they were in 2000. By six months a half (48%) of all mothers had introduced a cup or beaker compared with 41% of all mothers in 2000.

#### Vitamin and mineral supplements for mothers and babies

- Just three per cent of babies aged four to ten weeks were being given vitamin supplements, rising gradually to seven per cent by the age of eight to ten months. Babies were more likely to be receiving vitamin supplements if their birth weight was low, or if they had been in special care after the birth.
- A third (33%) of all breastfeeding mothers were taking vitamin or iron supplements at four to ten weeks. This proportion fell to 28% by four to six months and 23% by eight to ten months. As in 2000, mothers in Northern Ireland were more likely than mothers in the other countries to be taking supplements.

This Chapter looks at the provision of additional drinks and supplementary vitamins to babies at different ages. The chapter initially looks at the age at which mothers first gave their babies additional drinks such as water, fruit juice, squash, or herbal drinks, and the reasons for giving babies these drinks. It also looks at the age at which mothers first gave their babies a beaker or cup to drink from. Finally, it examines the provision of supplementary vitamins to babies, and the use of vitamins by mothers themselves.

### 8.1 Additional drinks

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As already discussed in Chapter 2, the official advice to mothers at the time of the 2005 survey was that babies should be breastfed exclusively for the first six months of life, since breast milk provides all the nutrients a baby needs during this period. By extension, this means that there should be no need for mothers to give their babies additional drinks such as water or juice during this period. This advice is different to the guidelines which existed before 2001, whereby mothers were advised not to give babies additional drinks before the first four to six months – this was in line with the prevailing weaning guidelines of that time.

It should be noted that the questions about when mothers first gave their babies other (nonmilk) drinks were different in the 2005 survey compared with previous surveys. This change was necessary to allow the survey to measure exclusive breastfeeding. Although this means that time trends are not possible, the 2005 survey was able to measure more accurately the age at which babies were first given any other drinks.

#### 8.2 Age of introduction of additional drinks

At each of the three stages of the survey, mothers were asked if they had ever given their baby anything to drink other than milk. This could have included tap or mineral water, fruit juice, squash or herbal drinks. If they had given babies additional drinks they were asked when they had first given their baby this.

By two weeks, about one in six mothers across the United Kingdom (17%) had given their baby some other drink, apart from milk, and this rose to a third of mothers (32%) by four weeks. By four months, two-thirds (64%) had given their baby other drinks, while 84% had done so by six months.

Up to the age of four months, mothers in Northern Ireland were more likely than mothers in other countries to have given their babies additional drinks. For example, at two weeks over a quarter of mothers in Northern Ireland (27%) had given their babies other drinks compared with only 17% in England and 15% in Scotland. Mothers in Scotland were the least likely to give their babies additional drinks at ages up to six weeks. For example, at six weeks 39% of mothers in Scotland had given their babies other drinks compared with 47% in Wales and 54% in Northern Ireland.

Table 8.1

#### Infant Feeding Survey 2005

The age at which mothers first gave babies any other drink apart from milk varied by their socio-demographic characteristics. These patterns were broadly similar to those seen in Chapter 2 (in relation to rates of breastfeeding) and Chapter 7 (in relation to introduction of solids). Thus, mothers from managerial and professional occupation groups, older mothers, and mothers with a higher level of education introduced additional drinks later on average than other mothers.

Tables 8.2 and 8.3 show the findings on this measure relating to socio-economic group and age of mother. Mothers from routine and manual occupation groups were more likely than mothers from managerial and professional occupation groups to have first given their babies other drinks at an earlier age. This difference was apparent up to six months with 77% of mothers from managerial and professional occupations having given their babies additional drinks at six months compared with 89% of mothers from routine or manual occupations.

#### Table 8.2

Similarly the age at which mothers first gave their babies any other drink apart from milk varied according to the mother's age. Younger mothers were more likely than older mothers to have first given their baby other drinks at an early age. This difference was most pronounced at six weeks, with 67% of mothers aged under 20 having introduced additional drinks at this age compared with 31% of mothers aged 35 and over.

#### Table 8.3

The age mothers first gave their babies any other drinks also varied according to whether or not they had breastfed initially. This difference was most noticeable when babies were very young. By one week just seven per cent of mothers who had initiated breastfeeding had given their babies other drinks compared with 20% of mothers who formula fed from birth. This differential was maintained at all ages through until six months, although the difference became less pronounced at later ages. For example, at six weeks 36% of mothers who had initiated breastfeeding had given their babies some other drink compared with 60% of those who had only formula fed. By six months the respective proportions were 81% and 92%.

#### Table 8.4

The age at which babies were first given other drinks was also closely associated with age of weaning on to solids. Mothers who gave their babies solids at an earlier age were also more likely to have first given their babies other drinks at an earlier age. This association was evident even in the early weeks, before babies had been weaned to solids. Thus, 32% of mothers who had given their baby solids before three months had given their baby some other drink apart from milk by two weeks. This compared with only nine per cent of mothers who gave their baby solids after five months. This differential was maintained through until six months. At six months, 94% of mothers who introduced solids before three months had given their baby some other drinks compared with 83% of mothers who weaned their babies between four and five months, and 64% of mothers who weaned their babies after five months.

#### Table 8.5

#### 8.3 Reasons for giving additional drinks

The reasons why mothers were giving additional drinks varied according to the age at which babies were being given such drinks. At both Stage 1 (four to ten weeks) and Stage 2 (four to six months), mothers giving additional drinks apart from milk gave four main reasons for this. Chosen from a prompted list, these were: because their baby was thirsty; to help with constipation; to help with colic, wind or digestion; and to help settle their baby.

The reasons given by mothers who had introduced drinks by Stage 1 of the survey when babies were only about four to ten weeks, highlight the reasons behind the practice of giving drinks at a very early stage, a long time before the recommended guidelines. At this Stage mothers who were giving their babies other drinks were mainly doing this either to help with constipation (47%), because they considered their baby to be thirsty (47%), or to help with colic (38%). By Stages 2 and 3, in other words relating to babies being given drinks after about four months, a perception that the baby was thirsty was the major reason for giving drinks (63% at Stage 2 and 93% at Stage 3). At these stages, mothers giving drinks were less than likely than mothers giving drinks in the early weeks to base this on health factors such as constipation or colic.

#### Table 8.6

The reasons that mothers gave for providing their babies with other drinks apart from milk varied according to whether they were breastfeeding or not at that time. At both Stage 1 and Stage 2, mothers giving drinks while formula feeding were more likely than mothers giving drinks while breastfeeding to say that this was to help with constipation or because their baby was thirsty. For example, at Stage 1 half of mothers giving drinks while also formula feeding (53%) said that this was because their baby was thirsty, compared with 32% of mothers who were giving drinks while breastfeeding. Similarly, 52% of mothers giving drinks while formula feeding at Stage 1 said they gave their baby other drinks to help with constipation compared with 35% of mothers giving drinks while breastfeeding. This latter finding is supported by the results in Chapter 6 which indicate that babies who were breastfeed for longer were less likely to suffer from constipation.

#### Table 8.7

#### 8.4 Use of cup or beaker

Various sources including the WHO and the Department of Health (in The Weaning and the Weaning Diet Report<sup>26</sup>) recommend that from six months mothers start to introduce infants to drinking from cups and beakers. This helps to reduce bottle use and thereby improve dental health.

Mothers were asked at Stage 3 of the survey whether their child had ever drunk from a cup or beaker with a spout and, if so, at what age they had first been given a cup.

<sup>&</sup>lt;sup>26</sup> Weaning and the Weaning Diet: Report of the Working Group on the Weaning Diet of the Committee on Medical Aspects of Food Policy

In 2005, across the United Kingdom, almost half of all mothers (48%) had given their baby a cup or beaker by the age of six months, while this had risen to 79% of all mothers by eight months. The age at which mothers first gave their baby a cup or beaker was similar across all countries.

Compared with the 2000 survey, mothers were more likely to have given their baby a cup or beaker by six months (41% in 2000 compared with 48% in 2005). This increase was observed in all countries, but was especially noticeable in Northern Ireland where 46% of mothers had given their baby a cup or beaker by six months in 2005 compared with 36% in 2000.

#### Table 8.8

As in the 2000 survey, mothers from managerial and professional occupation groups were more likely to give their baby a cup or beaker at an earlier age compared with mothers from routine and manual occupation groups. Just over half (52%) of all mothers from managerial and professional occupation groups had given a cup to their baby by six months compared with 45% of mothers from routine and manual occupation groups and only 32% of mothers who had never worked.

#### Table 8.9

There was also some variation by ethnic group in the age at which mothers first gave their baby a cup or beaker. At six months Asian mothers (35%) and mothers of Chinese or other ethnic origin (26%) were less likely to have given their baby a cup or beaker compared with mothers of other ethnic groups. This differential persisted to nine months.

Table 8.10

#### 8.5 Vitamin and iron supplements

Recommendations on the provision of vitamins for babies have remained largely unchanged since the 2000 survey. Most babies do not have a specific need for supplementary vitamins and the advice is that vitamin supplements should not be given to infants under the age of six months. However, premature babies or babies of mothers with vitamin deficiencies may not be receiving the required levels of nutrients from breast or formula milk and may benefit from properly administered vitamin supplements.

#### 8.6 Supplementary vitamins for the baby

In 2005, only a small proportion of mothers were giving supplementary vitamins to their babies at each Stage of the survey, with three per cent giving vitamins at Stage 1, four per cent at Stage 2 and seven per cent at Stage 3. Use of supplementary vitamins was broadly the same in each country, although at Stage 3 of the survey a slightly higher proportion of mothers in England were giving their babies vitamins compared with mothers in Scotland, Wales, and Northern Ireland.

Across the United Kingdom there was little change in the proportion of mothers giving their babies vitamins in 2005 compared with the 2000 survey at either Stage 1 or Stage 2. However, the proportion of mothers giving supplements at Stage 3 fell from 10% of all mothers in 2000 to seven per cent in 2005. This decrease was evident in all countries,

although was greatest in Scotland where the proportion of mothers giving their babies vitamins at Stage 3 fell from nine per cent in 2000 to four per cent in 2005.

#### Table 8.11

Provision of supplementary vitamins varied considerably at all Stages according to the birth weight of the baby and whether the baby had been in special care or not after the birth. One in six babies who had received special care (16%) was being given supplementary vitamins at Stage 1 compared with only one per cent of other babies. Special care babies continued to be more likely to receive supplementary vitamins at later ages, with 14% being given supplementary vitamins at Stage 3 compared with six per cent of other babies.

Babies who were significantly underweight at birth (under 2.5 kg) were also much more likely to be given supplementary vitamins at all three Stages. Of those babies under 2.5kg at birth, three out of ten (30%) were being given supplementary vitamins at Stage 1 (four to ten weeks), which decreased to 23% by Stage 3 (eight to ten months).

#### Table 8.12

The 2000 survey revealed substantial differences in the provision of vitamins between mothers from different ethnic groups. This was still apparent in 2005 with mothers from Black and minority ethnic groups being more likely than white mothers to give their babies supplementary vitamins. This difference existed at Stage 1 of the survey but was more noticeable at later Stages. For example, at Stage 2 of the survey 12% of Asian mothers and 11% of Black mothers were giving their babies supplementary vitamins compared with only three per cent of white mothers.

By Stage 3, 25% of Asian mothers and 23% of Black mothers were giving vitamins compared with just five per cent of white mothers. These differences might be partly explained by the fact that babies of Black and Asian mothers tended to be smaller on average compared with babies of white mothers.

#### Table 8.13

At Stages 1 and 2 of the survey there was no difference in the proportion of mothers giving their babies supplementary vitamins according to whether they were breastfeeding or not at that time. However, by Stage 3 of the survey, mothers who were still breastfeeding were more likely to be giving vitamin supplements compared with mothers who were feeding with formula (13% and 6% respectively).

#### Table 8.14

Where mothers obtained vitamins for their babies varied according to the age of the baby. At Stage 1 mothers who were giving their babies vitamins were most likely to get them either on prescription (54%) or free from a clinic or hospital (19%). However by Stage 3 only 20% of mothers got the vitamins on prescription, while most bought them.

Table 8.15

### 8.7 Supplementary vitamins for the mother

This section looks at the proportion of mothers who were taking vitamin supplements at each of the three Stages of the survey. A report by the Department of Health in 1988 advised that the content of breast milk was sufficient for an infant's requirements as long as the mother was eating a balanced diet. Therefore, most mothers who are breastfeeding should not need to take supplementary vitamins in order to supplement the vitamin content of their milk. However, many mothers may take vitamin supplements for other reasons; for example iron supplements may be taken in the weeks after the birth to counter post-natal iron-deficiency (anaemia).

At Stage 1, when babies were around four to ten weeks, 33% of mothers who were breastfeeding were taking vitamin or iron supplements. This had dropped to 28% at Stage 2, and to 23% by Stage 3. This decrease in the proportion of mothers taking vitamins and iron supplements as the baby gets older was consistent with the findings from previous surveys.

At Stage 1 vitamin and iron use among mothers who were breastfeeding was higher in Scotland (36%) and Northern Ireland (46%) compared with mothers in England (32%) and Wales (31%). However, by Stage 3 of the survey these differences had largely disappeared.

#### Table 8.16

Breastfeeding mothers who were taking vitamin or iron supplements were asked to indicate what type of supplements they were taking. At all stages of the research the most commonly taken supplements were combined multi-vitamin and iron supplements. Use of iron supplements was particularly prevalent at Stage 1. A third (33%) of breastfeeding mothers who were taking supplements were taking an iron-only supplement, while 41% were taking multi-vitamins and iron combined. By Stages 2 and 3 mothers were less likely to be taking iron only supplements, and were more likely to be taking combined multi-vitamin and iron. By Stage 3, 12% of mothers who were taking supplements were taking supplements were taking Omega supplements.

Table 8.17
### **Chapter 8 Tables**

	England	Wales	Scotland	Northern Ireland	United Kingdom
% of mothers who had given other drinks by:	%	%	%	%	%
1 week	10	11	8	17	10
2 weeks	17	22	15	27	17
4 weeks	31	37	31	44	32
6 weeks	41	47	39	54	42
4 months	64	71	62	70	64
6 months	84	87	80	84	84
9 months <sup>†</sup>	98	98	98	98	98
Base: All Stage 3 mothers	4563	1582	1666	1605	9416
<sup>†</sup> Based on a reduced number	of cases excludir	ng those babies v	who had not reache	ed 9 months by Sta	age 3

Table 8.2: Age at which any other drinks were first given by mother's socio-economic         classification (NS-SEC ) (United Kingdom, 2005)											
	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers					
% of mothers who had given other drinks by:	%	%	%	%	%	%					
1 week	6	10	13	12	10	10					
2 weeks	12	17	22	21	18	17					
4 weeks	24	34	41	36	28	32					
6 weeks	33	43	51	45	35	42					
4 months	55	64	73	73	66	64					
6 months	77	84	89	92	83	84					
9 months <sup>†</sup>	97	98	98	99	98	98					
Base: All Stage 3 mothers	3479	1955	3051	650	280	9416					
<sup>†</sup> Based on a reduced	number of cases e	excluding those bab	ies who had no	ot reached 9 r	months by Stage 3						

Table 8.3: Age at which	ch any other dr	inks were	first given by mother's age (United Kingdom, 2005)					
	Under 20	20-24	25-29	30-34	35 or over	All		
						mothers <sup>††</sup>		
% of mothers who	%	%	%	%	%	%		
had given other								
drinks by:								
1 week	16	15	11	7	6	10		
2 weeks	26	26	18	13	11	17		
4 weeks	54	44	33	25	22	32		
6 weeks	67	53	44	34	31	42		
4 months	84	77	69	56	51	64		
6 months	95	93	87	79	74	84		
9 months <sup>†</sup>	100	99	98	97	97	98		
Base: All Stage 3 mothers	625	1750	2473	2721	1818	9416		
<sup>†</sup> Based on a reduced nui <sup>††</sup> Includes some mothers	mber of cases exc for whom age wa	luding those as not record	babies who had r ed	not reached 9	months by Stage	3		

Table 8.4: Age at which any other drinks were first given by whether initiated breastfed or not (United Kingdom, 2005)										
	Initiated breastfeeding	Formula fed from birth	All mothers							
% of mothers who had given other drinks by:	%	%	%							
1 week	7	20	10							
2 weeks	13	32	17							
4 weeks	26	51	32							
6 weeks	36	60	42							
4 months	60	79	64							
6 months	81	92	84							
9 months <sup>†</sup>	98	98	98							
Base: All Stage 3 mothers	7185	2230	9416							
' Based on a reduced number of	cases excluding those bab	nes who had not reached 9 mon	ths by Stage 3							

Table 8.5: Age at which any other drinks were first given by when solid foods were introduced	
(United Kinadom, 2005)	

		Age at wh	ich baby first gi	ven solids	
	By 3 months or earlier	After 3, by 4 months	After 4, by 5 months	After 5 months	All mothers <sup>††</sup>
% of mothers who had given other drinks by:	%	%	%	%	%
1 week	20	11	8	5	10
2 weeks	32	19	14	9	17
4 weeks	54	37	26	20	32
6 weeks	64	48	34	27	42
4 months	87	75	54	45	64
6 months	94	90	83	64	84
9 months <sup>†</sup>	99	99	98	95	98
Base: All Stage 3 mothers	940	3896	2837	1727	9416
<sup>†</sup> Based on a reduced number <sup>††</sup> Includes some mothers fo	er of cases excludi r whom age first in	ng those babies w troduced solids wa	ho had not reache is not recorded	d 9 months by S	tage 3

Table 8.6: Reasons for giving other drinks to babies by Stage of survey (United Kingdom, 2005)											
	Stage 1	Stage 2	Stage 3								
	( 4 to 10 weeks)	( 4 to 6 months)	( 8 to 10 months)								
	%	%	%								
To help with constipation	47	35	17								
Because thirsty	47	63	93								
To help with colic / wind	38	23	6								
To settle him / her	24	20	17								
Base: Mothers giving additional drinks at relevant Stage	5271	7410	9121								
Percentages add to more than 100%	as mothers could give more	than one answer									

Table 8.7: Reasons for giving other drinks to babies by method of feeding at Stages 1 and 2 of thesurvey (United Kingdom, 2005)										
		Stage 1			Stage 2					
	Breast feeding at Stage 1	Formula feeding at Stage 1	All mothers (Stage 1)	Breast feeding at Stage 2	Formula feeding at Stage 2	All mothers (Stage 2)				
	%	%	%	%	%	%				
To help with constipation	35	52	47	26	37	35				
Because thirsty	32	53	47	45	68	63				
To help with colic / wind	42	36	38	24	23	23				
To settle him / her	21	25	24	17	21	20				
Base: Mothers giving additional drinks at relevant Stage	1405	3866	5271	1547	5863	7410				

Table 8.8: Age at which babies first used a cup or beaker by country (2000 and 2005)												
	Engla Wa	and & les	Sco	tland	Nort Irel	hern and	Uni King	ited dom	Eng	land	Wa	les
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
% of babies who had used a cup or beaker by age:	%	%	%	%	%	%	%	%	%	%	%	%
4 months	9	11	10	11	6	9	9	11	n/a	11	n/a	11
5 months	21	21	23	22	16	18	21	21	n/a	21	n/a	20
6 months	41	48	43	50	36	46	41	48	n/a	48	n/a	46
7 months	57	65	61	67	55	66	58	65	n/a	65	n/a	63
8 months <sup>†</sup>	70	79	73	82	68	81	70	79	n/a	79	n/a	79
9 months <sup>†</sup>	77	86	81	87	77	89	78	87	n/a	86	n/a	86
10 months <sup>†</sup>	80	88	84	89	79	92	80	88	n/a	88	n/a	87
Base: All Stage 3 mothers	4112	6145	1719	1,666	1437	1605	7267	9416	n/a	4563	n/a	1582
<sup>†</sup> Based on a reduced i	number	of cases	excludi	ng those	babies v	vho had	not read	ched this	s age by	Stage 3		

classification (NS-SEC ) (United Kingdom, 2005)											
	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers					
% of babies who had used a cup or beaker by age:	%	%	%	%	%	%					
4 months	11	12	11	6	10	11					
5 months	23	23	20	13	18	21					
6 months	52	51	45	32	45	48					
7 months	70	70	62	45	58	65					
8 months <sup>†</sup>	83	82	77	60	71	79					
9 months <sup>†</sup>	89	88	86	70	84	87					
10 months <sup>†</sup>	91	90	88	77	82	88					
Base: All Stage 3 mothers	3480	1955	3050	649	281	9416					
<sup>†</sup> Based on a reduced r	number of cases e	xcluding those bal	pies who had	not reached	this age by Stage 3						

## Table 8.9: Age at which babies first used a cup or beaker by mother's socio-economic

Table 8.10: Age at which babies first used a cup or beaker by mother's ethnic group (Great Britain,2005)										
	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>††</sup>				
% of babies who had used a cup or beaker by age:	%	%	%	%	%	%				
4 months	11	11	9	11	2	11				
5 months	22	19	17	18	11	21				
6 months	49	46	35	47	26	48				
7 months	67	62	49	59	51	65				
8 months <sup>†</sup>	81	76	65	69	68	79				
9 months <sup>†</sup>	88	85	72	77	70	87				
10 months <sup>†</sup>	90	[81]	76	79	[67]	88				
Base: All Stage 3 mothers	6819	130	483	225	93	7811				
<sup>†</sup> Based on a reduced nu <sup>††</sup> Includes some mother	mber of cases s for whom eth	excluding thos nic group was	e babies who ha not recorded	ad not reached	this age by Stage	3				

Table 8.11: Proportion of babies who were given supplementary vitamins by country (2000 and2005)												
	Engla Wa	and & les	Scot	tland	Northern Ireland		United Kingdom		England		Wales	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
% of babies who were given supplementary vitamins at:	%	%	%	%	%	%	%	%	%	%	%	%
Stage 1 (4-10 weeks)	4	3	3	3	3	2	4	3	n/a	3	n/a	2
Stage 2 (4-6 months)	5	3	6	3	3	3	5	4	n/a	4	n/a	2
Stage 3 (8-10 months)	11	7	9	4	7	5	10	7	n/a	8	n/a	5
Bases: Stage 1 mothers Stage 2 mothers	5440 4729	8210 7141	2275 1953	2194 1918	1778 1618	1886 1755	9492 8299	12290 10814	n/a n/a	6075 5287	n/a n/a	2135 1854
Stage 3 mothers	4112	6145	1719	1666	1438	1605	7266	9416	n/a	4563	n/a	1582

Table 8.12: Proportion of babies who were given supplementary vitamins by whether in special care or not and by birth weight (United Kingdom, 2005)								
	Baby in special care			Birth weight				
	Yes	No	<2.5 kg	2.5 - 3.499kg	3.5kg +			
% of babies who were given supplementary vitamins at:	%	%	%	%	%	%		
Stage 1 (4-10 weeks)	16	1	30	2	1	3		
Stage 2 (4-6 months)	14	2	25	3	2	4		
Stage 3 (8-10 months)	14	6	23	7	6	7		
Bases:		10000	700		5000	40000		
Stage 1 mothers	1401	10890	720 616	6114 5383	5382	12290		
Stage 3 mothers	1078	8338	536	4657	4173	9416		
<sup>†</sup> Includes some babies for who	om birth weigh	t or special care	e status was no	ot known				

	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>†</sup>
% of babies who were given supplementary vitamins at:	%	%	%	%	%	%
Stage 1 (4-10 weeks)	3	5	6	6	3	3
Stage 2 (4-6 months)	3	8	12	11	5	4
Stage 3 (8-10 months)	5	17	25	23	17	7
Bases: Stage 1 mothers Stage 2 mothers	9024 7906	182 164	635 548	352 289	132 111	10404 9084
Stage 3 mothers	6819	131	483	225	92	7810

### Table 0.42.

Table 8.14: Proportion of babies who were given supplementary vitamins by whether mother was         breastfeeding or not at each Stage of the survey (United Kingdom, 2005)							
	Breastfeeding	Formula feeding	All mothers				
% of babies who were given supplementary vitamins at:	%	%	%				
Stage 1 (4-10 weeks)	4	3	3				
Stage 2 (4-6 months)	3	4	4				
Stage 3 (8-10 months)	13	6	7				
Bases: Stage 1 mothers Stage 2 mothers Stage 3 mothers	5762 3475 1603	6526 7339 7814	12290 10814 9416				

Kingdom, 2005)			
	Stage 1 ( 4 to 10 weeks)	Stage 2 (4 to 6 months)	Stage 3 (8 to 10 months)
	%	%	%
On prescription	54	38	20
Buy somewhere else	17	35	56
Free at child health clinic / hospital	19	7	6
Buy at child health clinic / hospital	5	12	13
Some other way	6	3	5
Base: Mothers giving supplementary vitamins	386	385	688

Table 8.16: Proportion of breastfeeding mothers at each Stage of the survey who took           supplementary vitamins or iron by country (2005)							
	England	Wales	Scotland	Northern Ireland	United Kingdom		
	%	%	%	%	%		
Stage 1 (4-10 weeks)	32	31	36	46	33		
Stage 2 (4-6 months)	28	30	24	31	28		
Stage 3 (8-10 months)	23	26	21	24	23		
Bases:							
Stage 1 breastfeeding mothers	2961	774	942	598	5763		
Stage 2 breastfeeding mothers	1778	428	572	323	3475		
Stage 3 breastfeeding mothers	818	181	265	141	1603		

## Table 8.15: Where mother obtained vitamins for their babies at each Stage of the survey (United

(United Kingdom, 2005)								
	Stage 1 ( 4 to 10 weeks)	Stage 2 (4 to 6 months)	Stage 3 (8 to 10 months)					
	%	%	%					
Type of Supplement taken								
Iron only	33	12	11					
Multi-vitamins only	19	26	27					
Multi-vitamin/iron combination	41	46	44					
Single vitamin supplement	5	10	11					
Omega supplements	4	6	12					
Base: Breastfeeding mothers who were taking supplements	1901	959	369					
Percentages add to more than 100%	as mothers could give mor	e than one answer						

### **9** Feeding outside the home

### **Key Findings**

Feeding the baby after return to work

- By Stage 3, about half of mothers had returned to work. Eight in ten mothers returning to work did so after their baby was five months old, with 57% returning after their baby was six months old. Most worked part-time: 14% less than 15 hours per week and a further 56% between 15 and 30 hours.
- One in seven working mothers said that they were provided with facilities to either express milk or to breastfeed at work. Such facilities were particularly associated with mothers using a workplace crèche.
- Compared with other mothers, mothers in Northern Ireland were more likely to be working at Stage 3; and among working mothers, more likely to be working full-time and less likely to report facilities to breastfeed or express milk. Mothers in Scotland were more likely than average to report breastfeeding facilities.
- Some working patterns were associated with a higher than average propensity for mothers to combine work and breastfeeding at five or six months: mothers working less than 15 hours a week; mothers in managerial or professional occupations; and mothers given access to facilities to breastfeed or express milk at work.

#### Feeding in public places

- At Stage 2, 62% of Scottish mothers were aware of the law that had recently been passed in Scotland (March 2005) protecting the rights of mothers to breastfeed in public. Awareness increased among longer-term breast-feeders, mothers classified to managerial/professional occupations, mothers educated for longer, and older mothers.
- Half of mothers breastfeeding initially had breastfed in public, this proportion increasing from four per cent of mothers who breastfed for less than two weeks to nearly all (86%) breastfeeding for at least six months. Breastfeeding in public was particularly associated with mothers who were older, more educated, and classified to the managerial/professional socio-economic group. Breastfeeding mothers from Asian, Chinese or other ethnic groups were less likely than white mothers to breastfeed in public.
- Only three per cent of mothers said that they had been stopped or asked not to breastfeed in public, although 13% said that they had been made to feel uncomfortable. Only eight per cent of breastfeeding mothers said that they had wanted to breastfeed in public but had been deterred from doing so.
- Compared with other countries, mothers in Scotland tended to have more positive experiences when breastfeeding in public. For example, 55% of Scottish breastfeeding mothers had breastfed in public compared with between 40% and 52% in other countries. Scottish mothers were also more comfortable about feeding in public without going to a special mother and baby room, were less likely to report problems finding a suitable venue, and were also less likely to report being stopped or made to feel uncomfortable.

This chapter covers the experiences of mothers when feeding their baby outside the home: two main topics are covered. Firstly, the chapter explores the relationship between how mothers feed their baby and their working status and conditions. Secondly, the chapter covers the extent to which women breast- and bottle-feed in public. Emphasis is placed on the prevalence of breastfeeding in public, the places where mothers prefer to breastfeed, and the barriers that exist for mothers wanting to do this. Results are placed in the context of the new law passed in Scotland in March 2005 which has protected the rights of mothers to breastfeed in public.

#### 9.1 Feeding the baby after return to work

Various sections of this report have explored the relationship between feeding behaviour and return to work after a baby is born. For example Chapter 2 notes that mothers returning to work after six months, or not at all, were more likely than mothers returning earlier to still be breastfeeding at this stage. Consistent with this, Chapter 6 identified return to work as one of the factors behind giving up breastfeeding after 6 months. Furthermore, in Chapter 7, we observe that mothers returning to work after six months introduced solids later on average than mothers who returned earlier.

This section investigates in more detail the relationship between mothers' working arrangements and feeding patterns including timing of return, working hours, flexible working, and childcare arrangements. However, in order to present these findings in context, we first describe some background statistics relating to mothers' working patterns and (where comparative data are available) how these have changed since previous surveys.

#### 9.2 Mothers' working arrangements

#### 9.2.1 Maternity leave

From April 2003, statutory maternity entitlements for women in England, Wales and Scotland increased to six months paid leave together with a further six months unpaid leave for those wishing to take it. This change has continued a longer-term trend towards increased maternity leave entitlements for women. The infant feeding survey data reflect these policy changes. At each Stage of the survey, a higher proportion of mothers in 2005 compared with 2000 were on maternity leave. For example, at Stage 1 (4 to 10 weeks), 59% of mothers were on maternity leave in 2005, compared with 50% in 2000, and 40% in 1995. At Stages 2 and 3, the differentials by survey year are greater. At Stage 2 (four to six months), 43% of mothers were still on maternity leave compared with 22% in 2000 and 16% in 1995. At Stage 3, the equivalent figures were 14%, two per cent and two per cent.

A very small proportion of mothers were working by the time of the Stage 2 survey, although by Stage 3 nearly half (45%) were back at work. This level remains similar to the previous surveys. At this Stage, the main change over the past decade has been a movement towards mothers being on maternity leave from a previous job as opposed to not being in work.

Mothers living in Northern Ireland were more likely to be working at Stage 3 than mothers in other countries (57% compared with 45% overall). At earlier waves, mothers in Scotland and

Northern Ireland were more likely than other mothers to be taking maternity leave from a job, as opposed to simply not being in work.



Tables 9.1, 9.2, Figure 9.1

#### 9.2.2 Age of baby when mother returned to work

Most mothers returning to work by Stage 3 (57%) waited until their baby was at least six months old. A further quarter (23%) returned between five and six months, while a fifth (20%) returned before five months. Compared with mothers in other countries, working mothers in Scotland were slightly less likely to return before their baby was six months old (38% compared with 43-44% in other countries).

Mothers returning to managerial/professional jobs returned slightly later on average than mothers returning to routine/manual occupations (62% compared with 50% returning after their baby was six months old).

#### Tables 9.3, 9.4

#### 9.2.3 Working hours and flexible working

The majority of mothers who had returned to work by Stage 3 were working part-time – that is up to 30 hours a week. One in seven (14%) were working less than 15 hours a week and a further 56% between 15 and 30 hours. The profile of working hours remains similar to that found in 2000. However, in 2005, there were some variations in working hours by country and other factors. Mothers in Northern Ireland were significantly more likely to be working

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full-time than mothers in other countries (44% compared with 27% overall). Mothers returning after their first baby were more likely to be working full-time than mothers returning after a later baby (31% compared with 22%). Furthermore, mothers in managerial/professional occupations were twice as likely to be working full-time as mothers in routine/manual occupations (36% compared with 18%).

#### Tables 9.5, 9.6

Working mothers reported a range of family-friendly working conditions, most notably the ability to work part-time (69% of all working mothers), but also additional absence when baby is ill (36%), flexi-time (33%) and flexible shift patterns (22%). Only 10% of mothers said that their employer offered no family-friendly working policies.

The results were broadly similar by country, although working mothers in Northern Ireland were more likely than in other countries to say that no flexible policies were offered (16% compared with 10% overall). The difference was most evident in relation to the ability to work part-time – 58% of working mothers in Northern Ireland said that this was offered, compared with 69% overall. In addition, mothers in Northern Ireland were least likely to report an ability to work different shift patterns (15% compared with 22% overall).

Table 9.7

#### 9.2.4 Facilities to breastfeed or express milk

One in seven (14%) of working mothers in the United Kingdom said that their employer offered facilities to express milk, eight per cent said that they could breastfeed at work, and 15% said that one or other of these facilities was offered. Of course, these figures may well be under-estimates as mothers who have no need to use such facilities may not necessarily be aware of whether or not they are offered – in fact among working mothers who were breastfeeding at Stage 3 28% said that such facilities were offered. In addition, facilities of this nature were particularly associated with mothers using a work-place crèche (29% of mothers using this form of childcare also having access to a breastfeeding or expressing facility).

Working mothers in Northern Ireland were less likely than average to report being provided with such facilities (10%). On the other hand, working mothers in Scotland were more likely than average to report baby breastfeeding facilities at work (23% of all working mothers and 35% of working mothers who were breastfeeding at Stage 3). This finding may well be linked with the law that came into force in March 2005 which protects the right of mothers in Scotland to feed in public places (see section 9.5).

#### Table 9.8

#### 9.2.5 Childcare

Most working mothers in the United Kingdom used informal, unpaid, modes of childcare such as the baby's grandparents (50%), or husband or partner (34%). Nursery or crèche facilities were used by around a fifth (22%) of mothers, with a further six per cent having access to a workplace crèche. The results were broadly similar by country, although mothers in Northern Ireland were less likely than other mothers to rely on partners to care for their baby while at work (23% compared with 34% overall), instead placing more reliance on childminders or

nannies (21% compared with 15% overall). The use of childcare among working mothers remains similar to 2000, although there has been a small rise in the proportion of mothers using a non-workplace nursery (from 15% to 22%).

Mothers working full-time were more likely than part-time mothers to use formal sources of childcare such as a nanny/childminder or a nursery or crèche. On the other hand, part-time workers were particularly likely to call on their partner to help with childcare.

#### Tables 9.9, 9.10

# 9.3 Variations in provision of milk by working status and working patterns

The previous section showed that around half of all mothers had returned to work by Stage 3, most of these mothers (80%) returning after their baby was at least five months old. Most mothers (70%) were working part-time, and many mothers had additional access to other family-friendly policies such as flexi-time (33%) or time off for baby illnesses (36%). However, relatively few mothers had access to facilities that allowed them to breastfeed or express milk at work (15%) – this proportion higher in Scotland (23%) but lower in Northern Ireland (10%). While at work, most mothers used informal childcare such as grandparents and partners.

This section explores the associations between mothers' working arrangements and how babies were provided with milk. As most mothers returned to work after five months, two stages are focussed on: *babies at 5 months of age* and *babies at 6 months of age*. At each of these ages, we have examined the proportion of babies being given breast milk, formula milk, or both, and analysed this by whether or not the mother was working at this age. Further breakdowns also show the extent to which certain working patterns are associated with a greater or lesser propensity to be providing breast milk – such as working hours, flexible working patterns, occupational status, and type of childcare used.

Overall, at both five months and six months, the majority of mothers still breastfeeding were doing so in conjunction with formula milk. Among all mothers, 29% were breastfeeding at five months (20% giving combined feeds), and 25% were breastfeeding at six months (17% giving combined feeds).

Tables 9.11 to 9.15 show that, at both five and six months, working mothers were less likely than non-working mothers to be providing breast milk - either solely or in combination with formula milk. For example, at five months, 30% of non-working mothers were providing their baby with breast milk (10% breast milk only and 20% in conjunction with formula). This compares with 21% of working mothers (5% solely breast milk and 15% combined). At six months, the difference was more emphasised: 27% of non-working mothers were breastfeeding compared with 16% of working mothers. These findings reflect those reported in Chapter 2.

However, these tables also show that some working arrangements were associated with a higher than average propensity for mothers to combine breastfeeding and work. These were:

- Working less than 15 hours a week: 31% of mothers working this number of hours at five months were breastfeeding compared with 16% of full-time

working mothers; at six months the difference was 26% compared with 16%. In fact at six months, 11% of mothers working less than 15 hours a week were managing to solely breastfeed compared with only three per cent working full-time.

- Working in managerial or professional occupations: 27% of mothers working in these occupations at five months were breastfeeding compared with 14% in routine or manual occupations. At six months, there was a similar differential (22% and 11%).
- Given access to facilities to breastfeed and/or express breast milk: Mothers working for employers providing such facilities were considerably more likely than other working mothers to be breastfeeding at both stages. For example at five months, 42% of working mothers with access to these facilities were still breastfeeding compared with 17% of working mothers with no access.

The 2005 survey found no significant variation in propensity to breastfeed among working mothers by type of childcare used, and whether or not employers provided flexible working hours (such as flexi-time, different shift patterns, extended breaks and shorter working days). Although mothers using home-based childcare such as a nanny or childminder were slightly more likely than mothers using other forms of childcare to breastfeed at both stages, these differences were not significant.

Tables 9.11 to 9.15, Figure 9.2



#### 9.4 How feeding has been affected by return to work

Mothers who were working at Stage 3 (8 to 10 months) were asked specifically whether their return to work had affected the way they fed their baby. Overall, 19% of mothers working at this Stage said that this was the case. This proportion did not vary according to age of baby on return. However, mothers working in managerial or professional occupations were more likely than other working mothers to say that feeding had been affected (27% compared with 10% of mothers working in routine or manual occupations). In addition, mothers working full-time were more likely than mothers working part-time to say this (24% compared with 9% working less than 15 hours).

#### Table 9.16

Mothers who said their baby's feeding had been affected by work were asked in what ways this had been the case; answers were collected in an open format and later coded. The responses given were dominated by mothers saying that returning to work had caused them to stop or cut down on breastfeeding (69% of mothers whose feeding had been affected). Other changes such as difficulties expressing milk, requiring someone else to feed the baby, and a change to baby's routine were mentioned by only small proportions of mothers reporting an affect.

#### Table 9.17

### 9.5 Feeding in public places

Throughout the survey series, the Infant Feeding Survey has measured the extent to which mothers have fed their baby in public, whether they have encountered problems when doing this, and their views on the provision of facilities for feeding mothers – especially those wanting to breastfeed. Since the 2000 survey, this issue has become prominent, following a new law passed in Scotland in March 2005 which has given mothers the right to breastfeed in public. The legislation has made it an offence to stop mothers from breastfeeding their babies in public places such as restaurants, bars, buses and shopping centres. Since no similar laws have been passed in the other countries of the United Kingdom, it is of interest to compare the experiences of mothers in Scotland with that of other mothers.

Questions on breastfeeding in public were asked at Stages 2 and 3: that is during January/February 2006 (when babies were about four to six months old) and June/July 2006 (when babies were about eight to ten months old). Hence all Scottish babies in the sample were born since the law was passed, and the law had been in place for approximately one year at the time the survey data were collected (a little under a year at Stage 2; a little over a year at Stage 3).

Given the extended interest in this topic, the series of questions was reviewed in 2005, and questions are no longer comparable with previous surveys. This means that the 2005 data cannot be compared with previous surveys. However, it is expected that the 2005 survey will serve as a benchmark for future tracking.

#### 9.5.1 Awareness of new law in Scotland

Scottish mothers were asked if they had been aware of the new law in Scotland protecting mothers' rights to feed in public places. At Stage 2 (4 to 6 months) around three-fifths of Scottish mothers were aware (62%), increasing to 76% at Stage 3 (8 to 10 months). However, this apparent increase may not be entirely "real" as mothers previously unaware of the new law will have been prompted at Stage 2. Hence we cannot know with certainty whether awareness would have increased in the absence of this prompt. Given this uncertainty, we have based all the analyses regarding awareness of the law on the figures provided at Stage 2. By this Stage, the law would have been in place for around 10 months.

As might be expected, Scottish mothers who breastfed at least initially were more likely to be aware of the new law than mothers who formula-fed from birth (67% compared with 54%). Table 9.18 shows that other Scottish mothers disproportionately likely to be aware of the new law at Stage 2 were: mothers who by this stage had breastfed for at least four months, mothers in managerial or professional occupations, mothers educated beyond the age of 19, and older mothers aged 30 or over. The latter three variables all correlate with mother's initiation and duration of breastfeeding (see Chapter 2) and therefore it is unsurprising that these variables are also related to awareness of the breastfeeding law

Table 9.18, Figure 9.3



#### 9.6 Extent to which mothers breast and bottle fed in public

#### 9.6.1 Prevalence of feeding in public by country

By both Stage 2 (four to six months) and Stage 3 (eight to ten months), the large majority of mothers had fed in public. In the United Kingdom, 39% had breastfed and 67% had bottle-fed in public. By Stage 3, the proportion who had breastfed in public remained at 39% while the proportion bottle-feeding in public rose to 78% (reflecting the increased use of formula by this stage). By country, the prevalence of feeding in public reflected the differential breastfeeding rates by country (see Chapter 2); thus the rate of breastfeeding in public was highest in England and lowest in Northern Ireland at both stages.

Table 9.19

#### 9.6.2 Prevalence of breastfeeding in public among mothers breastfeeding initially

While important for benchmarking purposes, the figures presented in Table 9.19 are not particularly illuminating in themselves, as they simply reflect the differential breastfeeding rates by country. What is of more interest is the proportion of *breastfeeding mothers* who have breastfed in public.

Table 9.20 shows this proportion by country, based on all Stage 3 mothers. The variation in this measure by duration of breastfeeding is also shown.

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Thus, based on all mothers breastfeeding initially, half (51%) of mothers in the United Kingdom had breastfed in public, this proportion higher among Scottish mothers (55%) when compared with the other countries combined (48%). The rate at which breastfeeding mothers had fed in public was lowest in Northern Ireland (40%).

Table 9.20 also shows how the rate at which mothers breastfed in public varied according to duration of breastfeeding. Unsurprisingly, only a negligible proportion of mothers who breastfeed for less than two weeks had fed this way in public. However, as duration of breastfeeding increased, higher proportions of mothers fed in public. For example, in the United Kingdom, 23% of mothers breastfeeding for between two and six weeks breastfed in public, increasing to 86% of mothers breastfeeding for at least six months. This pattern was observed in all countries of the United Kingdom. However, when the rates at each stage are compared by country, those in Scotland are generally highest, supporting the trend observed above. For example, among mothers breastfeeding for between six weeks and four months, 54% of mothers in the United Kingdom had breastfed in public, increasing to 62% in Scotland.

#### Table 9.20, Figure 9.4



There was a large degree of variation in the prevalence of public breastfeeding by different demographic subgroups. Table 9.21 displays how this proportion varies by mother's socioeconomic group, education level, age, ethnic origin and (for Scottish mothers) by awareness of the new law. The key trends observed are as follows:

- Mothers breastfeeding initially who were classified to managerial or professional occupations were more likely than their counterparts in other occupational groups, or who had never worked, to breastfeed in public. In the United Kingdom, 63% of breastfeeding mothers in managerial/professional occupations had fed this way in public, compared with 40% of those in routine/manual occupations or who had never worked.
- Breastfeeding mothers educated beyond the age of 18 were more likely than mothers who left education earlier to have breastfed in public (61% compared with 48% of those educated to the age of 17 or 18, and 37% of those leaving school at 16 or under).
- Mothers aged 30 or over who breastfed initially were more likely than younger mothers to have breastfed in public (60% of breastfeeding mothers aged 30+ reducing to 27% of breastfeeding teenage mothers).
- Mothers who breastfed a subsequent baby rather than their first were more likely to breastfeed their baby in public (59% compared with 45%).
- Scottish mothers breastfeeding initially and aware of the new law were more likely to have breastfed in public than the equivalent subgroup of mothers who had not been aware (58% compared with 42%).
- There were also some variations in the rate at which mothers breastfed in public by ethnic origin, as discussed further below.

The first four of the above associations – education level, socio-economic group, age and birth order - will all to some extent be linked with the association between breastfeeding in public and breastfeeding duration (Table 9.20). As observed in section 2.4, mothers classified to higher occupational groups, older mothers, more educated mothers, and mothers of a second or later baby, all breastfeed for longer compared with average.

However, by ethnicity, there are differences in the rates of breastfeeding in public which cannot be linked to duration of breastfeeding. Section 2.4 showed that mothers from Black, Asian, Chinese/other or mixed ethnic backgrounds breastfed for longer on average than white mothers. However, despite this, breastfeeding mothers from Asian, Chinese or other ethnic groups were less likely than white mothers to have breastfed in public; this was especially the case among Asian mothers. Thus, while 54% of white mothers who breastfed initially did so in public, only 26% of Asian mothers had done so, and 39% of mothers from Chinese or other ethnic backgrounds. The proportion of Black mothers within this subgroup breastfeeding in public was slightly higher than that of white mothers (62% compared with 54%). This would indicate that propensity to breastfeed in public is linked to cultural differences associated with Asian, Chinese and other ethnic groups.

Table 9.21, Figure 9.5



### Figure 9.5: Proportion of mothers breastfeeding initially who had breastfed in public by

#### 9.7 How mothers prefer to breastfeed in public

Mothers who had ever breastfed in public were asked about their preference for either: using special facilities such as a "mother and baby room"; breastfeeding where they are but finding a quiet place to sit; or breastfeeding where they are without going to any special place.

The findings on this measure did not change between Stage 2 and Stage 3. The large majority of mothers preferred to make some kind of special arrangement to feed - only eight per cent at Stage 2 said that they preferred to breastfeed where they were without having to go anywhere special. One in ten (9%) said that they had no preference either way, and the remainder was equally split between mothers favouring a special mother and baby room (42%), and those preferring to find a quiet place where they were (40%).

Mothers in Scotland who breastfed in public were less likely than mothers in other countries to prefer using a special mother and baby room (35% compared with 42% overall). On the other hand, mothers in Northern Ireland who breastfed in public were more much more likely to favour such facilities (50%). In Scotland, preference for certain facilities over others did not vary significantly by awareness of the new law, suggesting that this had not influenced mothers' opinions about where they prefer to breastfeed.

#### Table 9.22, 9.23

It was observed in section 9.7 above that Asian mothers were much less likely than white or other ethnic groups to breastfeed in public. Among those who did breastfeed in public, there was an almost universal desire to find a special room to breastfeed in (82% of Asian mothers breastfeeding in public). This was double the proportion of all mothers who breastfed in public (42%).

Table 9.24

### 9.8 Barriers to breastfeeding in public

It is clear from the above discussion that many breastfeeding mothers do breastfeed in public, although most feel more comfortable feeding in a discreet location, either in a quiet place or in a special mother and baby room. This section explores the extent and nature of problems encountered by women when breastfeeding in public, as well as investigating the factors which deter mothers who would like to breastfeed in public but haven't done so.

Mothers who breastfed in public were asked whether they had ever:

- had problems finding somewhere to breastfeed their baby in public;
- been stopped or made to feel uncomfortable about breastfeeding in public.

The results on these measures were the same at Stage 2 and Stage 3. At Stage 2, about half (46%) of all mothers breastfeeding initially said that they had encountered problems finding somewhere to feed, although only one in eight (13%) said that they had actually been stopped or made to feel uncomfortable. Encouragingly, given the new law, breastfeeding mothers in Scotland were less likely to cite experience of either of these problems: 33% said that they had had problems finding somewhere suitable to feed and eight per cent said that they had been stopped or made to feel uncomfortable.

Table 9.25, Figure 9.6



Mothers who were more selective about where they preferred to breastfeed had greater problems finding suitable venues when in public. Two thirds (63%) of mothers preferring a special mother and baby room said that they had experienced problems, while this was the case for only 40% of mothers preferring to feed where they are but in a quiet place, and 19% who were happy to feed without having to make any special arrangements. Given that most Asian mothers prefer to use special mother and baby facilities (see above), it is not surprising that a higher than average proportion of Asian mothers breastfeeding in public had had problems finding somewhere to feed (64% compared with 46% overall).

#### Table 9.26, 9.27

Mothers who had been stopped or made to feel uncomfortable about breastfeeding in a public place were asked where this had occurred. Answers were collected in an open format and later coded into categories. Table 9.28 displays categories mentioned by at least five per cent of mothers at Stage 3. Not all mothers mentioned a specific place, although 41% said that this had occurred in a café or restaurant, 20% in a shop or shopping centre, eight per cent at a park/play area and five per cent on public transport. Many mothers mentioned more general feelings of discomfort rather than a specific place – predominantly

disapproving looks or negative reactions from the public (44%), or being made to feel embarrassed or self-conscious (18%). The relatively high proportions mentioning these more general feelings suggest that mothers in this situation are rarely overtly asked to stop breastfeeding, but instead made to feel uncomfortable in more subtle ways.

#### Table 9.28

All mothers who had breastfed in public were asked what factors had discouraged them from breastfeeding in a public place; answers were chosen from a prompted list. Responses given were similar at Stage 2 and 3, although a slightly more diverse range of answers was given at Stage 3 – hence we present data from the latter. In the United Kingdom, three main factors were given: lack of suitable places (42%), concerns about hygiene (29%), and lack of confidence (25%). A fifth cited concerns about being made to feel uncomfortable (21%), although this relatively low proportion (together with the 3% who said they had been stopped) confirms the findings reported above – that few mothers are actually stopped or discouraged from breastfeeding due to negative public reaction. Instead, mothers appear to more concerned about the presence and suitability of places to breastfeed.

The pattern of results was fairly similar by country, although Scottish mothers breastfeeding in public were slightly less likely than other mothers to say that there was a lack of suitable facilities (32% compared with 42% overall), while mothers in Northern Ireland were slightly more likely to mention this (51%). These findings complement those reported in section 9.8 above - that Scottish mothers are generally less in favour, and mothers from Northern Ireland more in favour, of using such facilities.

#### Table 9.29

Table 9.20 showed that around half (51%) of mothers in the United Kingdom who breastfed initially had breastfed in public. Breastfeeding mothers who had not fed in public were asked whether they had ever wanted or tried to do so. There was little evidence that mothers were being put off or denied the chance to breastfeed in public. Most mothers in this situation had not wanted or tried to breastfeed (81% of this subgroup or 8% of all breastfeeding mothers – this did not vary significantly by country). The majority of breastfeeding mothers who had not breastfeed in public had breastfeed for only a relatively short period (66% breastfeed for less than 6 weeks); thus it is not surprising that such a small proportion would have wanted to breastfeed in public. The findings based on all mothers breastfeeding initially are shown in Table 9.30.

#### Table 9.30

The small group of mothers who would have liked to breastfeed in public but who had not done so, were asked why this was the case. Answers were picked from a prompted list.

Similar to Table 9.29 referred to above, the main barriers to breastfeeding in public for this group were a perceived lack of suitable venues and lack of confidence. However 40% of this subgroup, although they may have liked to feed in public, said that they simply preferred to feed at home

Table 9.31

# 9.9 Where should facilities be available for breast and bottle-feeding mothers

Finally, all mothers (however their baby had been fed) were asked where they considered it important to have facilities for feeding babies – whether by breast or by bottle. Almost all (96%) of mothers agreed that shops/shopping centres should provide such facilities, and there was also widespread support for this at restaurants (82%) and leisure centres (70%). The results were broadly similar by feeding status at the time the questionnaire was completed – suggesting that the needs for bottle and breastfeeding mothers are very similar.

#### Table 9.32, Figure 9.7



### **Chapter 9 Tables**

Table 9.1: Mothers' working status at e Kingdom, 2000 and 2005)	each Stage of the survey	(Great Britain, 1995	; United
	1995	2000	2005
	%	%	%
Stage 1 (4-10 weeks)			
Working	7	5	2
On paid maternity leave	35	46 <sub>50</sub>	56〕 <sub>59</sub>
On unpaid maternity leave	5 ∫	4 ∫ <sup>00</sup>	3
Not working	53	45	38
Stage 2 (4-6 months)			
Working	28	27	13
On paid maternity leave	4 _ 16	9 <sub>22</sub>	36 <sub>43</sub>
On unpaid maternity leave	12	13	8
Not working	56	50	43
Stage 3 (8-10 months)			
Working	43	49	45
On paid maternity leave	- ] 。	- ]	11
On unpaid maternity leave	2 } 2	2 <sup>2</sup> 2	13∫ <sup>14</sup>
Not working	55	48	39
Bases: All stage 1 mothers All stage 2 mothers All stage 3 mothers	5181 5181 5181	9492 8299 7267	12290 10814 9416

Table 9.2: Mothers' working status at each Stage of the survey by country( 2005)							
	England	Wales	Scotland	Northern	United Kingdom		
	%	%	%	<i>110100</i> %	%		
<b>Stage 1 (4-10 weeks)</b> Working	2	4	3	4	2		
On paid maternity leave	55 ]	55 ]	61	62 ]	56]		
On unpaid maternity leave	3 ∫ ∜	59 <sub>3</sub> ∫	59 <sub>3</sub> ∫	<sup>63</sup> 4 ∫	66 <sub>3</sub> 59		
Not working	39	38	33	30	38		
Stage 2 (4-5 months)							
Working	14	15	12	14	13		
On paid maternity leave	34	37 ]	42	44 ]	36		
On unpaid maternity leave	8 5	$42  6 \int 42$	7 ∫ 49	9 5 ∫	48 <sub>8</sub> 43		
Not working	44	42	39	37	43		
Stage 3 (8-9 months)							
Working	44	48	48	57	45		
On paid maternity leave	1 ]	1 ]	1 ]	2 ]	1		
On unpaid maternity leave	14 5	<sup>15</sup> 11 ∫	12 <sub>13</sub> ∫	<sup>14</sup> 6∫	<sup>8</sup> 13		
Not working	40	39	37	34	39		
Bases:			<b>•</b> /• /	/	/		
All Stage 1 mothers All Stage 2 mothers	6075 5287	2135 1854	2194 1918	1886 1755	12290 10814		
All Stage 3 mothers	4563	1582	1666	1605	9416		

Table 9.3: Age of baby when mother returned to work by country (2005)								
	England	Wales	Scotland	Northern Ireland	United Kingdom			
Age on return	%	%	%	%	%			
Less than 3 months	5	5	4	4	5			
3, less than 4 months	5	5	4	4	5			
4, less than 5 months	10	10	9	10	10			
5, less than 6 months	23	24	21	25	23			
6, less than 9 months	48	47	55	49	49			
9 months or older	8	8	6	6	8			
Base: Stage 3 mothers in work	2001	766	807	912	4242			

# Table 9.4: Age of baby when mother returned to work by mother's socio-economic classification, (NS-SEC) (United Kingdom, 2005)

	Mother's socio-economic group (NS-SEC) All							
	Managerial and professional	Intermediate occupations	Routine and manual	Unclassified	mothers in work			
Age on return Less than 3 months	% 3	% 8	% 4	% 3	<b>%</b> 5			
3, less than 4 months	4	4	7	3	5			
4, less than 5 months	9	9	12	9	10			
5, less than 6 months	20	23	26	20	23			
6, less than 9 months	54	48	41	51	49			
9 months or older	8	6	9	15	8			
Base: Stage 3 mothers in paid work	1958	996	1,180	79	4242			

Table 9.5: Number of hours worked per week by country (2000 and 2005)							
	England	Wales	2005 Scotland	Northern Ireland	United Kingdom	United Kingdom (2000)	
Hours worked per week	%	%	%	%	%	%	
Under 15	15	10	12	5	14	18	
15 – 30	56	60	60	48	56	50	
31 or more	26	28	26	44	27	28	
Varies	2	2	1	1	2	2	
Base: Stage 3 mothers in work	2001	766	807	912	4242	3547	

and birth order (United	hours worked per d Kinadom. 2005)	week by mothe	er's socio-eco	nomic cla	ssification	(NS-SEC)		
	Mother's socio	-economic grou	ıp (NS-SEC)	Birth	order	All		
	Managerial & professional	Intermediate occupations	Routine & manual	First birth	Later birth	mothers in work <sup>†</sup>		
Hours per week	%	%	%	%	%	%		
Under 15	10	16	18	10	19	14		
15 – 30	51	61	62	57	56	56		
31 or more	36	21	18	31	22	27		
Varies	2	2	2	2	2	2		
Base: Stage 3 mothers in work	1958	996	1180	2401	1841	4242		
Table 9.7: Family friendly working policies offered to working mothers by country (2005)								
--	-----------------	------------------	--------------	---------------------	-------------------	--	--	--
	England	Wales	Scotland	Northern Ireland	United Kingdom			
	%	%	%	%	%			
Part-time working hours	69	67	71	58	69			
Extra leave if your baby is ill	36	39	38	37	36			
Flexi-time	33	37	28	30	33			
Different shift patterns	22	21	22	15	22			
Shorter working days	19	17	18	16	19			
Additional leave/holiday	9	10	12	11	10			
Longer/extended breaks	6	6	6	5	6			
I'm self-employed	3	3	3	2	3			
None of these	10	12	9	16	10			
Base: Stage 3 mothers in work	2001	766	807	912	4242			
Percentages do not add to 100%	as some mothers	s gave more that	n one answer					

Table 9.8: Facilities to express milk and breastfeed at work by country (United Kingdom 2005)							
	England	Wales	Scotland	Northern Ireland	United Kingdom		
	%	%	%	%	%		
Facilities to express milk	13	13	21	8	14		
Facilities to breastfeed	8	8	12	6	8		
Either of the above	15	14	23	10	15		
Base: Stage 3 mothers in work	2001	766	807	912	4242		

Table 9.9: Childcare used by mothers working at Stage 3 of the survey by country (2000 and 2005)								
	England	Wales	2005 Scotland	Northern Ireland	All mothers in work	2000 All mothers in work		
	%	%	%	%		%		
Grandparent(s)	48	58	54	54	50	46		
Husband or partner	35	36	36	23	34	34		
Non-workplace crèche or nursery	23	21	23	15	22	15		
Childminder/nanny	16	10	11	21	15	19		
Another relative	9	11	12	13	10	9		
Workplace crèche or nursery	7	7	5	3	6	4		
Friend	4	3	4	2	4	4		
Other	1	1	1	*	1	1		
Do not use childcare	3	3	3	1	3	4		
Base: Stage 3 mothers in work	2001	766	807	912	4242	3547		
Percentages do not add to 100% as so	me mothers g	ave more the	an one answer	-				

Table 9.10: Childcare used by mother's working hours (United Kingdom, 2005)								
	Under 15 hours	15-30 hours	31 or more hours	Hours vary	All mothers in work <sup>†</sup>			
	%	%	%	%	%			
Grandparent(s)	46	53	46	47	50			
Husband or partner	48	34	29	49	34			
Non-workplace crèche or nursery	7	24	29	9	22			
Childminder/nanny	9	14	23	16	15			
Another relative	8	11	9	11	10			
Workplace crèche or nursery	3	7	8	1	6			
Friend	5	4	3	15	4			
Other	4	1	*	3	1			
Do not use childcare	9	2	2	15	3			
Base: Stage 3 mothers in work 598 2393 1143 75 4242								
<sup>T</sup> Includes some mothers for whom work	king hours not kn	iown						
Percentages do not add to 100% as so	me mothers gave	e more than or	ne answer					

	All Stage	At relevant a was	age, mother		If in work:	
	3 mothers <sup>†</sup>	Not in work	Working <sup>††</sup>	Weekly wo	orking hours age 15-30	at relevant 31+
Feeding method at 5 months	%	%	%	%	%	%
Breast milk only	9	10	5	15	3	2
Formula milk only	71	70	80	69	83	84
Mixed breast/formula	20	20	15	16	14	14
Any breast milk at 5 months	29	30	21	31	17	16
Feeding method at 6 months						
Breast milk only	8	9	3	11	2	3
Formula milk only	75	73	83	75	86	85
Mixed breast/formula	17	19	13	15	11	14
Any breast milk at 6	25	27	16	26	13	16
months						
Bases: Stage 3 mothers at 5	9416	8413	868	141	397	293

Table 9.11. Milk provided to babies at 5 and 6 months by working status and working hours (United

Table 9.12: Milk provided to babies at 5 and 6 months by working status and mother's socio-							
economic classification	(NS-SEC) (U	nited Kin	igdom, 2005)				
	All Stage	At rel	evant age,	If in work:			
	3	Not in	Working <sup>††</sup>	Mot	her's occupatio	n	
	mothers <sup>™</sup>	work	Ternig	Managerial	Intermediate	Routine	
				&		& manual	
	0/	0/	0/	professional	0/	0/	
Feeding method at 5	%	%	%	%	%	%	
months							
Breast milk only	9	10	5	8	7	3	
Formula milk only	71	70	80	73	78	86	
Mixed breast/formula	20	20	15	19	15	11	
Any breast milk at 5	29	30	21	27	22	14	
months							
Feeding method at 6							
months							
Breast milk only	8	9	3	5	4	1	
Formula milk only	75	73	83	78	87	90	
Mixed breast/formula	17	19	13	17	10	10	
Any breast milk at 6	25	27	16	22	13	11	
months							
Bases:							
Stage 3 mothers at 5	9416	8413	868	327	216	278	
Stage 3 mothers at 6	9416	7373	1908	726	448	582	
months							
Includes some mothers for y <sup>††</sup> Includes some working mot	whom working	status not	known vas unclassified				

Table 9.13: Milk provided to babies at 5 and 6 months by working status and whether or not							
	All Stage	At relevant a	age, mother	If in v	work:		
	3	Was	S	14/hathay faailit	iss sweetided to		
	<i>mothers</i> <sup>†</sup>	Not in work	Working	breastfeed/e	ies proviaea to express milk		
				Yes	No		
E Buon modele di et E	%	%	%	%	%		
Feeding method at 5 months							
Breast milk only	9	10	5	9	5		
Formula milk only	71	70	80	58	83		
Mixed breast/formula	20	20	15	33	12		
Any breast milk at 5	29	30	21	42	17		
months							
Feeding method at 6							
months							
Breast milk only	8	9	3	8	2		
Formula milk only	75	73	83	66	87		
Mixed breast/formula	17	19	13	26	10		
Any breast milk at 6	25	27	16	33	12		
months							
Bases:	0.440	0.440	000	100	700		
Stage 3 mothers at 5 months	9416	8413	868	130	703		
Stage 3 mothers at 6	9416	7373	1908	275	1521		
months							
<sup>†</sup> Includes some mothers for whom working status not known							

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Table 9.14: Milk provided to babies at 5 and 6 months by working status and whether or not							
employer provided flexible hours (United Kingdom, 2005)							
	All Ctore	At valourant and	mathan	If in works			

Not in s <sup>t</sup> work	/as Working <sup>††</sup>	Whether empl	
WOIN		flexible	oyer provided hours <sup>†††</sup>
		Yes	No
%	%	%	%
10	5	6	6
70	80	78	80
20	15	17	14
30	21	22	20
9	3	2	4
73	83	85	83
19	13	13	13
27	16	15	16
8413 7373	868 1908	859 380	936 454
	8413 7373 ng status not knov	8413 868 7373 1908 ng status not known	8413 868 859 7373 1908 380

<sup>††</sup>Includes some working mothers for whom working arrangements were not recorded <sup>†††</sup> This includes flexi-time, different shift patterns, extended breaks & shorter working days

	All Stage	Ill Stage At relevant age,			If in work:			
	3 matharat	Not in	Working	С	hildcare u	sed <sup>††</sup>		
	mothers	work		Child- minder or nanny	Nursery or Crèche	Partner/ family/ relative/frienc		
Feeding method at 5 months	%	%	%	%	%	%		
Breast milk only	9	10	5	6	2	4		
Formula milk only	71	70	80	75	81	81		
Mixed breast/formula	20	20	15	19	17	14		
Any breast milk at 5 months	29	30	21	25	19	19		
Feeding method at 6 months								
Breast milk only	8	9	3	4	1	2		
Formula milk only	75	73	83	80	86	85		
Mixed breast/formula	17	19	13	15	13	12		
Any breast milk at 6 months	25	27	16	19	14	14		
Bases: Stage 3 mothers at 5 months	9416	8413	868	133	199	610		
Stage 3 mothers at 6 months	9416	7373	1908	251	448	1356		

<sup>††</sup>These categories are not mutually exclusive; mothers were able to record more than one type of childcare

Table 9.16: Whether return to work affected the way the baby was fed by working hours and mother's socio-economic classification (NS-SEC) (United Kingdom, 2005)						
	Per cent saying baby's feeding has been affected	Base: All mothers working at Stage 3				
All mothers working at Stage 3	% 19	4242				
	10					
Mothers socio-economic classification (NS-SEC)						
Managerial & professional	27	1958				
Intermediate occupations	13	996				
Routine & manual	10	1180				
Working hours						
Under 15	9	597				
15-30	18	2393				
31or more	24	1143				

Table 9.17: How return to work affected the way the baby was fed (United Kingdom, 2005	i)
	%
Stopped or cut down breastfeeding	69
Not able to/difficulties expressing sufficient milk	13
Some one else feeds baby while at work	9
Less time to prepare home-made food	6
Used expressed milk to feed baby at work	5
Had to introduce/change feeding routine	5
Baby had to feed from bottle	5
Base: Mothers working at Stage 3 who said feeding had been affected	796
Percentages do not add to 100% as some mothers gave more than one answer	

to breastfeed in public (Scotland, 2005 <sup>†</sup> )		-
	Per cent aware of law	Base: All Stage 2 mothers in Scotland
All mothers in Scotland <sup>††</sup>	% 62	1918
Never breastfed	54	456
Breastfed initially	67	1185
Breastfed for		
less than 2 weeks	57	247
2 weeks, less than 6 weeks	60	174
6 weeks, less than 4 months	71	219
4 months or longer	73	518
Mother's socio-economic classification (NS-SEC) <sup><math>\pm\pm</math></sup>		
Managerial & professional occupations	70	713
Intermediate occupations	60	419
Routine & manual occupations	59	640
Never worked	43	97
Age mother left full-time education		
16 or under	52	523
17 or 18	62	638
19 or over	69	735
Mother's age		
Under 24	55	471
25-29	61	499
30 or over	67	933

## Table 9.18: Proportion of Scottish mothers aware of law in Scotland which protects mothers' right

<sup>†</sup> Data was collected in January/February 2006
 <sup>††</sup> Includes some cases where mother's classification into the subgroups shown below was not known
 <sup>†††</sup> The subgroup of mothers whose NS-SEC was unclassified is not presented in this table due to small base size

Table 9.19: Percentage of mothers at Stages 2 and 3 of the survey who had breast or bottle fed in a public place by country (2005)										
		Stage	2 (4-6 ma	onths)			Stage 3	8 (8-10 m	onths)	
	Eng	Wales	Scot	NI	UK	Eng	Wales	Scot	NI	UK
	%	%	%	%	%	%	%	%	%	%
Breast-fed in public	40	31	38	24	39	41	30	39	25	39
Bottle-fed in public	66	72	67	74	67	77	84	78	85	78
Never fed in public	9	9	9	11	9	6	4	4	5	6
Bases: All mothers	5287	1854	1918	1755	10,814	4563	1582	1666	1605	9416

Table 9.20: Percentage of mothers at Stage 3 of the survey who breastfed initially who had ever breastfed in a public place by duration of breastfeeding and country (2005)						
	by duratio	Duratio	n of breastfe	edina	,	All mothers
	Less than 2 weeks	2 weeks, less than 6 weeks	6 weeks, less than 4 months	<i>4</i> <i>months,</i> <i>less than</i> <i>6 months</i>	6 months or longer	breastfeeding initially <sup>†</sup>
% who have breastfed in public United Kingdom	% 4	% 23	% 54	% 76	<b>%</b> 86	<b>%</b> 51
England	4	24	53	75	86	52
Scotland	3	24	62	81	90	55
Wales	2	16	58	76	86	44
Northern Ireland	3	18	42	78	89	40
Bases: Stage 3 mothers breastfeeding initially United Kingdom England Scotland Wales Northern Ireland	1503 719 253 298 292	1104 543 178 175 183	1404 697 219 217 212	801 408 122 94 97	2271 1153 383 265 206	7186 3568 1180 1068 1002
<sup>†</sup> Includes some cases where r	nother's breas	stfeeding durat	ion not known	01	200	,002

breastfed in public by various demographic subgroups	(United Kingdom, 2005)	
	Percent feeding in public	Base: Stage 3 mothers who breastfed initially
All UK mothers who breastfed initially (Stage 3) <sup>†</sup>	<b>%</b> 51	7186
Mothers' socio-economic classification (NS-SEC)		
Managerial & professional occupations	63	3071
Intermediate occupations	49	1501
Routine & manual occupations	40	2004
Never worked	40	418
Unclassified	51	194
Age left full-time education		
16 or under	37	1561
17 or 18	48	2277
19 or over	61	3288
Mother's age		
Under 20	27	324
20-24	34	1163
25-29	49	1869
30-34	60	2269
35 or over	60	1538
Birth order		
First baby	45	3841
Second or later baby	59	3345
Mother's ethnic origin		
White	54	5096
Mixed	49	107
Black	62	217
Asian	26	452
Chinese/Other/Mixed	39	83
All Scottish mothers breastfeeding initially (Stage 3) <sup>†</sup>	55	1180
Aware of new law	58	947
Not aware of new law	42	226
<sup>†</sup> Includes some cases where mother's classification into the subg	roups shown below was not knowi	1

Table 9.21: Proportion of mothers at Stage 3 of the survey who breastfed initially and who had

Table 9.22: Where mothers prefer to feed in public by country (2005)						
	England	Wales	Scotland	Northern Ireland	United Kingdom	
When in public mother usually prefers:	%	%	%	%	%	
To use a mother a baby room if available	43	41	35	50	42	
To breastfeed where she is but find a quiet place to sit	40	38	44	39	40	
To breastfeed where she is without going to a special place	7	10	10	7	8	
No preference	9	9	10	4	9	
Base: Stage 2 mothers breastfeeding in public	2127	568	720	422	4201	

# Table 9. 23: Where Scottish mothers prefer to feed in public by awareness of the new law (Scotland, 2005)

(000111113, 2000)			
	All Scottish mothers breastfeeding initially <sup>†</sup>	Aware of new law	Not aware of new law
	%	%	%
When in public mother usually prefers: To use a mother a baby room if available	35	33	41
To breastfeed where she is but find a quiet place	44	44	41
to sit			
To breastfeed where she is without going to a	10	11	9
special place			
No preference	10	11	7
Base: Stage 2 mothers breastfeeding in public	720	526	191
<sup>†</sup> Includes some cases where awareness not recorded			

	White	Asian or Asian British	Black or Black British	Chinese/ Other/ Mixed	All mothers <sup>†</sup>
When in public mother usually prefers:	%	%	%	%	%
To use a mother a baby room if available	39	82	58	51	42
To breastfeed where she is but find a quiet place to sit	42	15	22	32	40
To breastfeed where she is without going to a special place	8	3	7	6	8
No preference	9	1	13	11	9
Base: Stage 2 mothers breastfeeding in public	3133	151	152	124	3586

Table 9.25: Percentage of mothers having problems finding somewhere to breastfeed in public and           percentage who had been stopped or made to feel uncomfortable by country (2005)						
	England	Wales	Scotland	Northern Ireland	United Kingdom	
Percentage of mothers breastfeeding in public who have	%	%	%	%	%	
had problems finding somewhere to breastfeed baby	47	48	33	50	46	
ever been stopped or made to feel uncomfortable about breastfeeding in public	13	16	8	10	13	
Base: Stage 2 mothers breastfeeding in public	2127	568	720	422	4201	

Table 9.26: Percentage of mothers having problems finding somewhere to breastfeed in public and
percentage who had been stopped or made to feel uncomfortable by where prefer to feed (United
Kingdom, 2005)

	All mothers breast- feeding in public <sup>†</sup>	When ir Mother & baby room	n public moth Quiet place to sit	ner usually   No special place	prefers No preference
Percentage of mothers breastfeeding in public who have	%	%	%	%	%
had problems finding somewhere to breastfeed baby	46	63	40	19	25
ever been stopped or made to feel uncomfortable about breastfeeding in public	13	13	13	12	15
Base: Stage 2 mothers breastfeeding in public	4201	1775	1675	322	367

Table 9.27: Percentage of mothers having problems finding somewhere to breastfeed in public and percentage who had been stopped or made to feel uncomfortable by mother's ethnic group (Great Britain, 2005)

Britain, 2005)					
	White	Asian or Asian British	Black or Black British	Chinese/ Other / Mixed	All mothers <sup>†</sup>
	%	%	%	%	%
Percentage of mothers breastfeeding in public who have					
had problems finding somewhere to breastfeed baby	45	64	46	48	46
ever been stopped or made to feel uncomfortable about breastfeeding in public	13	11	13	18	13
Base: Stage 2 mothers breastfeeding in public	3133	151	152	124	3586
<sup>†</sup> Includes some cases where mother's ethnic	city not reco	rded			

Table 9.28: Where mother had been stopped or made to feel uncomfortable about breastfpublic (United Kingdom, 2005) <sup>†</sup>	eeding in
Specific places	%
Café/restaurant	41
Shop/shopping centre	20
Children's play area park	8
General answers	
Negative reaction or disapproving looks from public	44
Embarrassed/ self-conscious	18
Forced /asked to feed in toilet or other room	8
Lack of baby rooms/facilities	5
Mention of older people disapproving	5
Base: Stage 3 mothers who had been stopped or made to feel uncomfortable about breastfeeding in public	466
<sup>†</sup> Only answers mentioned by at least 5% are shown	
<sup>†</sup> Only answers mentioned by at least 5% are shown Percentages do not add to 100% as some mothers gave more than one answer	

## Table 9.29: Factors which have put off or discouraged breastfeeding mothers from feeding in public (United Kingdom, 2005)

	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Lack of suitable places to breastfeed (e.g. M&B room)	43	44	32	51	42
Concerns about hygiene	28	31	26	35	29
Not feeling confident enough	24	26	26	30	25
Being made to feel uncomfortable	20	26	19	23	21
Baby won't always feed	17	18	16	14	17
Being stopped/asked not to breastfeed	3	4	1	4	3
Base: Stage 3 mothers breastfeeding in public	1856	476	645	397	3700

Table 9.30: Percentage of mothers at Stage 3 of the survey who breastfed initially and who had ever breastfed in a public place or wanted to breastfeed in a public place by country (2005)					
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Have breastfed in public	52	44	55	40	51
Not breastfed in public					
- wanted or tried to	7	10	7	9	8
- not wanted or tried to	39 > 48	43 > 56	37 - 45	50 ≻ 60	39 > 49
- not stated	2	ر2	2	1	ل2
Base: Stage 3 mothers breastfeeding initially	3568	1068	1180	1002	7186

Table 9.31: Factors which had put off or discouraged mothers who would have liked to breastfeed in public but who had not done so (United Kingdom 2005)				
	%			
No suitable places to breastfeed (e.g. mother & baby room)	60			
Did not feel confident enough	60			
Just prefer to breastfeed at home	40			
Concerns about hygiene	18			
Someone made you feel uncomfortable	9			
Baby would not feed when you tried	8			
Someone stopped you/asked you not to breastfeed	1			
Base: Stage 3 mothers breastfeeding initially who had not breastfed in public but would have liked to 542				

## Table 9.32: Places where mothers think it is important to have facilities for feeding babies (including breast and bottle feeding) (United Kingdom, 2005)

(including breast and bottle recardy) (officer thingaoni, 2000)					
	All	All At Stage 3 mother was:			
	Stage 3	Breast-	Formula-	Mixed	
	Stage 5	feedina	feedina	feedina	
	mothers	Jeeung	Jooung	Jeeung	
	%	%	%	%	
Shops/shopping centres	96	94	96	95	
Restaurants	82	74	84	75	
Leisure centres	70	67	71	65	
Public transport	50	53	49	53	
Libraries	38	49	38	42	
Public toilets	33	35	33	32	
Pubs/bars	20	18	21	14	
Cinemas	20	24	20	19	
Base: All Stage 3 mothers	9416	862	7813	741	

# 10 Dietary supplements, smoking and drinking during pregnancy

### Key findings

#### Taking of dietary supplements during pregnancy

- Over eight in ten mothers (83%) reported that they took some action to increase their intake of folic acid during pregnancy, with three-quarters (75%) taking supplements and 28% changing their diet.
- Over half (54%) of all mothers took vitamin or iron supplements (apart from folic acid) during pregnancy, with 46% taking iron either as a single supplement or in combination with vitamins.

#### Smoking during pregnancy

- A third of mothers (33%) in the United Kingdom smoked in the 12 months before or during their pregnancy. Of mothers who smoked before or during their pregnancy, about half (48%) gave up at some point before the birth. One in six mothers (17%) continued to smoke throughout their pregnancy.
- Mothers in Wales and Scotland were the most likely to have smoked before or during pregnancy
- Smoking rates among mothers before or during pregnancy fell between 2000 and 2005 in England and Northern Ireland but remained at a similar level in Scotland.
- The highest levels of smoking before or during pregnancy were found among mothers in routine and manual occupations and among those aged 20 or under. These mothers were also the least likely to have given up smoking at some point before or during pregnancy.
- Almost nine in ten mothers (87%) who were smoking before pregnancy received some type of advice or information on smoking. Midwives, books, leaflets and magazines and doctors were the most common sources of advice.
- About one in five mothers were currently smoking at Stage 3 of the survey when babies were about 9 to 12 months old. Three in ten mothers (30%) who had stopped smoking during pregnancy were smoking again at Stage 3, while about one in ten mothers (11%) who smoked throughout pregnancy had stopped at Stage 3.
- At Stage 2, only nine per cent of all mothers said that anyone (including themselves) ever smoked in the home, while this was seven per cent at Stage 3. Infants in Scotland were more likely than elsewhere to live in a household where at least one person ever smoked in the home.

#### Drinking during pregnancy

- Over half (54%) of mothers drank alcohol during pregnancy. Older mothers, mothers from managerial and professional occupation groups, and mothers in England and Wales were the most likely to drink during pregnancy.
- The proportion of mothers drinking alcohol during pregnancy fell between 2000 and 2005. Among mothers who drank during pregnancy consumption levels were low. Only eight per cent of all mothers drank more than two units of alcohol per week on average.
- Almost three-quarters of mothers (73%) who drank during pregnancy received advice about drinking, with midwives being the most common source.

This Chapter examines the antenatal behaviour of mothers in terms of whether or not they took dietary supplements during pregnancy, whether or not they smoked before or during pregnancy, and whether or not they drank alcohol before or during pregnancy. For each of these behaviours the Chapter examines how, if at all, mothers changed their behaviour as a result of becoming pregnant and the impact of any advice they received.

#### **10.1** Taking of dietary supplements during pregnancy

#### 10.1.1 Folic acid

Increasing the intake of folic acid in early pregnancy helps to reduce the risk of neural tube defects, such as spina bifida, in unborn babies. The United Kingdom Health Departments advise pregnant women to take a daily supplement of 400 micrograms of folic acid prior to conception and during the first 12 weeks of pregnancy. Additionally pregnant women are advised to ensure their diet is rich in foods containing folic acid.

#### Awareness of why folic acid is recommended

At Stage 1 of the survey all mothers were asked how much they knew about the benefits of folic acid and whether they had taken any action during early pregnancy to increase their intake. Across the United Kingdom almost eight in ten mothers (79%) reported that they knew why increasing the intake of folic acid in the early stages of pregnancy was recommended. Mothers in Northern Ireland were more likely (88%) than mothers in other countries to say that they knew why increasing the intake of folic acid to the early stages.

#### Table 10.1

Mothers from managerial and professional occupation groups, older mothers, and mothers with the highest education level were the most likely to know why increased intake of folic acid was recommended before and during early pregnancy. For example, 89% of mothers in managerial and professional occupations said they knew why increased folic acid intake was recommended compared with 71% of mothers in routine and manual occupations.

Mothers who said they knew why increasing their intake of folic acid was recommended were asked if they knew the reasons for this recommendation. Answers were collected in an open format and later coded into categories.

Half of all mothers (50%) who said they knew why increased folic acid was recommended during pregnancy mentioned the reduced risk of spina bifida, while a further 13% mentioned something to do with reducing the risk of neural defects. A further 10% of mothers mentioned that folic acid helped with the development of the spine or spinal cord, without being any more specific.

Some mothers knew that increasing folic acid intake had a positive benefit on the development of the baby, without being able to be more precise. For example, 14% of mothers said that increased folic acid intake helped with the growth or development of the baby, while 12% said that it helped to reduce the risks of abnormalities.

#### Action taken to increase folic acid intake

All mothers, whether they knew about the benefits of folic acid or not, were asked whether they had taken any action to increase their own intake of folic acid in the first few months of their pregnancy.

Table 10.2 shows that 83% of mothers in the United Kingdom took some action during pregnancy to increase their intake of folic acid. Three-quarters of mothers (75%) said they took supplements, while 28% said they changed their diet to eat more foods rich in folic acid.

Mothers in Northern Ireland (88%) and Scotland (85%) were more likely than mothers in England (82%) or Wales (81%) to have done something to increase their intake of folic acid. This difference was mainly due to the fact that mothers in both these countries were more likely to have taken supplements. For example, in Northern Ireland 80% of mothers took folic acid supplements compared with 73% of mothers in Wales and 74% of mothers in England.

#### Table 10.2

There was a clear association between mothers' awareness about the benefits of taking folic acid during pregnancy and action taken. Almost nine in ten mothers (89%) who said they knew why pregnant women were recommended to increase the intake of folic acid during pregnancy actually took action to do so, compared with 60% of mothers who did not know why pregnant women were recommended to increase their intake.

Table 10.3 shows that mothers from managerial and professional occupation groups were more likely than mothers from routine and manual occupations to have done something to increase their folic acid intake. Thus, 93% of mothers in managerial and professional occupations increased their intake of folic acid during early pregnancy compared with 77% of mothers in routine and manual groups. Mothers who had never worked were the least likely to have done something, with only 51% taking some action.

#### Table 10.3

Mothers from black and minority ethnic groups were less likely than white mothers to have increased their intake of folic acid during pregnancy. Just over two-thirds of Asian mothers (68%) and 61% of Black mothers had taken some action compared with 85% of white mothers. This difference was mainly due to mothers from black and minority ethnic groups being less likely than white mothers to have taken supplements.

#### Table 10.4

#### 10.1.2 Other dietary supplements taken during pregnancy

Apart from increasing their intake of folic acid, pregnant women are recommended to ensure they take sufficient iron and vitamin D during pregnancy. Pregnant women are also specifically recommended to avoid taking supplements with high levels of vitamin A. At Stage 1 of the survey all mothers were asked if they had taken extra vitamin or iron supplements while they were pregnant. (apart from folic acid).

Although the proportion of pregnant women taking supplements during pregnancy has increased over the longer term these results need to be considered in the context of the wider

population. According to the 2002 National Diet and Nutrition Survey, a third of all women aged 19-34 reported taking some type of dietary supplements<sup>27</sup>. It may, therefore, be the case that some mothers were taking supplements as part of their usual diet, rather than specifically because they were pregnant.

Table 10.5 shows that over half (54%) of mothers across the United Kingdom took some form of vitamin or mineral supplements (apart from folic acid) during their pregnancy. This was exactly the same proportion of mothers who reported taking supplements in 2000. Mothers in Northern Ireland were the most likely to have taken supplements during pregnancy (68%), while mothers in Scotland were the least likely (50%).

The most common type of supplement taken by mothers during their pregnancy was iron, taken either as a single supplement or in combination with vitamins. Across the United Kingdom, about three in ten (29%) mothers took an iron only supplement during pregnancy, while a further 17% took iron combined with vitamins. Mothers in Northern Ireland were the most likely to take some form of iron supplements (62%).

The proportion of mothers taking iron supplements during pregnancy fell from 54% in the 2000 survey to 46% in the 2005 survey. In Northern Ireland the proportion of mothers taking iron supplements fell from 70% in 2000 to 62% in 2005.

#### Table 10.5

There was some variation in the proportion of mothers taking supplements during pregnancy by socio-demographic characteristics. For example, 61% of mothers from managerial and professional occupation groups took some form of dietary supplements compared with 48% of mothers from routine and manual occupations.

#### 10.2 Smoking

Efforts to reduce the proportion of women who smoke during pregnancy was recognised as a priority in the White Paper 'Smoking Kills' published in 1998. This set a target of reducing the proportion of women in England who continued to smoke during pregnancy to 15% by 2010, with a fall to 18% by 2005 (from a baseline of 23%). Since then specific targets to reduce smoking in pregnancy have also been set in Scotland<sup>28</sup>.

At Stage 1 of the survey, when most babies were between four and ten weeks, all mothers were asked a number of questions about their smoking: if they had ever smoked, if they had smoked at all in the two years before the survey, and if they smoked at all now. They were also asked questions about the smoking habits of other people who lived with them. At Stages 2 and 3 of the survey, mothers were asked about their current smoking behaviour meaning that any changes to their smoking behaviour could be tracked after the birth.

<sup>&</sup>lt;sup>27</sup> Henderson L and Gregory J (2002) The National Diet and Nutrition Survey: adults aged 19 to 64 years (Volume 1) (London: HMSO)

<sup>&</sup>lt;sup>28</sup> In Scotland a different data source is used to measure the target for smoking in pregnancy.

The questions asked in the 2005 survey were exactly the same as those asked in the 2000 survey, meaning that changes between the two surveys can be examined.

#### 10.2.1 Smoking during pregnancy

Table 10.6 shows a detailed breakdown of mothers smoking behaviour in each country. Twothirds of mothers (67%) across the United Kingdom were classified as non-smokers. Just over half of all mothers (53%) had never smoked, while a further 14% had given up smoking more than a year before their current pregnancy.

A third of mothers (33%) were classified as smokers, meaning that they smoked during their pregnancy or in the year before it. In fact, 17% of mothers smoked throughout their pregnancy, while 16% of mothers smoked in the year before but gave up at some point either before or during their pregnancy.

Of the 16% of mothers who gave up before or during pregnancy, four per cent gave up in the year before pregnancy, 10% gave up on confirmation of their pregnancy, while one per cent gave up later in pregnancy and stayed stopped throughout.

Of the 17% of mothers who smoked throughout their pregnancy, five per cent tried to give up during pregnancy but started again before the birth, while 11% cut down the amount they smoked.

#### Table 10.6

The rest of the analysis on mothers smoking behaviour summarises the detailed information presented in Table 10.6 into three main categories as follows:

- *Smoked before or during pregnancy* is the proportion of all mothers who smoked **at all** in the two years before they completed Stage 1 of the survey. This roughly covers the period of their pregnancy plus the year before conception. This group equates to the 33% of mothers in Table 10.6 classified as smokers.
- Smoked throughout pregnancy is the proportion of all mothers who smoked in the two years before they completed Stage 1 of the survey and who were smoking at the time of birth. It included mothers who may have given up smoking before or during their pregnancy, but who had restarted before the birth. This measure represents the target figure for England set out in the tobacco White Paper.
- *Gave up smoking before or during pregnancy* is the proportion of mothers who smoked in the two years before they completed Stage 1 of the survey and who gave up during this period and had not restarted at the time of birth. While the first two groups are always expressed as a proportion of all mothers, this group is expressed as a proportion of all smokers.

Table 10.7 shows that in 2005 a third of mothers (33%) in the United Kingdom smoked before or during their pregnancy. Smoking levels before or during pregnancy were highest among mothers in Wales (37%) and Scotland (36%) and were lowest among mothers in England (32%).



Among mothers who smoked before or during pregnancy, nearly half (48%) gave up at some stage before the birth. Mothers in England were the most likely to have given up smoking before or during pregnancy (49%), while mothers in Wales were the least likely to have given up (41%).

About one in six mothers (17%) across the United Kingdom smoked throughout their pregnancy, and were still smoking at the time their baby was born. Mothers in Wales were the most likely to smoke throughout their pregnancy (22%).

#### Table 10.7, Figure 10.1

Between 2000 and 2005 the proportion of mothers smoking before or during pregnancy fell from 35% to 33% across the United Kingdom. Lower smoking levels were seen in both England and Northern Ireland in 2005 compared with 2000, although there was no change in the proportion of mothers smoking before or during pregnancy in Scotland over the five year period.

Mothers who smoked were more likely to give up before or during pregnancy in 2005 compared with 2000 (48% and 44% respectively). This was true for all countries where time trend data were available.

#### Table 10.7

The proportion of mothers who smoked throughout pregnancy fell from 20% in 2000 to 17% in 2005. This fall was seen in all countries for which time trend data were available, and was greatest in Northern Ireland where the proportion of mothers who smoked during pregnancy fell from 23% in 2000 to 18% in 2005.

Although direct comparisons are not possible with surveys prior to 2000 because of changes to the questions, the 2005 results continue the general downward trend in smoking during pregnancy seen since about 1990.

#### 10.2.2 Variation in smoking behaviour

#### Socio-economic classification (NS-SEC) of mother

It is well known that among the general population there is a strong association between smoking levels and socio-economic status. This pattern was also evident among mothers in the survey.

Across the United Kingdom, mothers in managerial and professional occupations were the least likely to have smoked before or during pregnancy (20%), while those in routine and manual occupations were the most likely to have smoked (48%). Among mothers who did smoke, those in managerial and professional occupations were more likely than those in routine and manual occupations to have given up at some point before or during pregnancy (63% and 39% respectively).

Mothers in routine and manual occupations were more than four times as likely as those in managerial and professional occupations to have smoked throughout pregnancy (29% and 7% respectively).

Between 2000 and 2005 the gap in smoking levels between mothers in different socioeconomic groups increased for the United Kingdom as a whole. While the proportion of mothers in managerial and professional occupations who smoked before or during pregnancy decreased from 22% in 2000 to 20% in 2005, the proportion of mothers in routine and manual occupations who smoked before or during pregnancy increased from 46% to 48% over the same period. However, smoking levels among mothers who had never worked fell from 50% in 2000 to 35% in 2005.

#### Table 10.8, Figure 10.2

All countries in the United Kingdom showed a broadly similar pattern of smoking by socioeconomic classification and broadly similar patterns of change between 2000 and 2005.

Tables 10.9-10.13



#### Age of mother

Table 10.14 shows the association between the age of the mother and smoking status. Across the United Kingdom as a whole, mothers aged 20 or under were more than three times as likely to smoke before or during pregnancy compared with mothers aged 35 or over (68% and 21% respectively). Among mothers who did smoke, younger mothers were less likely than older mothers to have given up. Thus, 34% of mothers aged 20 or under gave up before or during pregnancy compared with 54% of mothers aged 35 or over.

Mothers aged 20 or under were five times as likely as those aged 35 or over to have smoked throughout pregnancy (45% and 9% respectively).

Between 2000 and 2005 the proportion of mothers who smoked before or during pregnancy fell amongst mothers of all ages, except for those aged 20 or under. Among mothers aged 20 or under smoking levels were 65% in 2000 compared with 68% in 2005, although this difference was not statistically significant.

#### Table 10.14, Figure 10.3

All countries in the United Kingdom showed a broadly similar pattern of smoking by age of the mother. However, in Northern Ireland this pattern was not obvious. Thus, 43% of mothers

aged under 20 who smoked before or during pregnancy gave up compared with 44% of mothers aged 35 or over.





#### **10.2.3 Smoking behaviour of other household members**

Apart from the mother, an unborn baby can also be exposed to tobacco smoke if anyone else in the household smokes. Therefore, at Stage 1 of the survey all mothers were asked whether anyone else in the household smoked at all during their pregnancy.

Overall, a third of mothers (33%) reported that they lived with at least one other person who smoked during their pregnancy. In most cases this was their partner (28%).

Table 10.20 shows that there was a strong association between a mother's own smoking behaviour during her pregnancy and whether or not she lived with other smokers. As has already been seen, 17% of all mothers smoked throughput their pregnancy. However, among mothers who lived with at least one other smoker, 36% continued to smoke throughout their pregnancy compared with only eight per cent of mothers who did not live with any other smokers.

Table 10.20

By considering the smoking behaviour of everyone in the household it is possible to work out the proportion of mothers who had any exposure to tobacco smoke in the home during their pregnancy.

Table 10.21 shows that across the United Kingdom 62% of mothers lived in a household where no-one, including themselves, smoked during their pregnancy, while 38% lived in a household where at least one person smoked during their pregnancy. Just over one in five mothers (21%) lived in a household where only other people smoked, while five per cent lived in households where only the mother herself smoked during pregnancy. In 12% of households **both** the mother and others in the household smoked during the pregnancy. In most cases the other person who smoked was the mother's partner.

Mothers in Wales (42%) and Scotland (41%) were more likely to live in a household where at least one person smoked during their pregnancy compared with mothers in England (38%) and Northern Ireland (37%).

Table 10.21

#### 10.2.4 Advice received on smoking during pregnancy

All mothers were asked whether or not they had received any advice or information about smoking during their pregnancy. Those who reported that they had received some advice were asked what sort of advice they had received. Answers were collected in an open format and later coded into categories.

Almost nine in ten mothers (87%) who were smoking before or during their pregnancy said they had received some type of advice or information about smoking. Among those who had received advice or information, 82% said they had been given general information about the effects of smoking on the baby, 61% had been advised to stop smoking, 34% had been advised that their partner should stop smoking, and 27% had been advised to cut down.

Midwives were the most common source of advice or information about smoking, with 89% of mothers who had received advice about smoking getting it from a midwife. About a third (34%) of those who received advice on smoking got it from a doctor, while 17% got it from a health visitor. More informal sources of advice or information about smoking that mothers had used included books, leaflets or magazines (37%), friends or relatives (27%), and TV or radio (17%).

Sources of smoking advice were broadly similar in all countries. However, mothers in Northern Ireland were more likely than mothers in other countries to have received advice about smoking from a doctor (47%) or a nurse (13%).

Across all countries the proportion of mothers who received advice or information about smoking from a doctor was lower in 2005 compared with 2000. For example, in England and Wales the proportion of mothers who received advice from a doctor fell from 47% in 2000 to 33% in 2005. In Northern Ireland the drop was from 60% in 2000 to 47% in 2005.

Table 10.22

Among mothers who smoked before or during pregnancy, those who received advice about smoking were not more likely to change their smoking behaviour compared with mothers who received no advice. More than half of all mothers (57%) who received some sort of advice on smoking continued to smoke throughout pregnancy compared with 22% of mothers who received no advice. Although mothers who received no advice were more likely to give up smoking than mothers who did receive advice (78% compared with 43%), this could have been because many mothers who gave up smoking had already decided to do so before they became pregnant, and so did not need any advice.

#### Table 10.23

As has already been seen some mothers were advised to stop smoking completely, other mothers were advised to cut down the amount they smoked, while others were just given general advice about the health effects of smoking. Some mothers also reported that they had received advice from more than one source and had been given mixed messages in terms of what they should do. In particular, some mothers said they had been advised to stop smoking completely and to cut down.

Among mothers who had received information or advice about smoking during their pregnancy, the type of information or advice they received was associated with how they actually changed their behaviour.

Mothers who had only received advice to give up smoking completely were much more likely to have actually done so compared with mothers who were advised to cut down (36% and 8% respectively). By contrast mothers who only received advice to cut down on the amount they smoked were more likely to have done so compared with mothers who had been advised to stop completely. Thus, 69% of mothers who had only been advised to cut down did so compared with 41% of mothers who had been advised to stop completely.

Mothers who had received mixed messages (i.e. both to stop completely and to cut down) were much more likely to have cut down the amount they smoked rather than give up completely (58% of these mothers cut down compared with 14% who gave up completely).

#### Table 10.24

#### 10.2.5 Smoking behaviour after the birth

Although the survey was primarily interested in smoking behaviour during pregnancy, questions about smoking after the birth were also asked at all Stages of the survey. Using this information it is possible to examine whether mothers who gave up during pregnancy remained stopped in the months after the birth, and also whether mothers who smoked throughout pregnancy changed their smoking behaviour after the baby was born.

Table 10.25 shows that about a third of mothers (32%) were smoking before or during pregnancy<sup>29</sup>. At Stage 1 of the survey, the proportion of mothers who reported they were currently smoking (i.e. when the baby was about four to six weeks old) was 19%, reflecting

<sup>&</sup>lt;sup>29</sup> This figure is slightly different from the 33% quoted in Table 10.6 because the analysis is based only on mothers who completed all three Stages of the survey

the fact that many mothers had quit during pregnancy and had remained stopped after the birth. At Stages 2 and 3 of the survey a similar proportion of mothers reported currently smoking (19% at Stage 2 and 20% at Stage 3).

Although these figures might suggest that there was not much change in the smoking behaviour of mothers in the year after birth, the overall smoking rate at each Stage of the survey actually hides the fact that a lot of mothers did change their smoking behaviour during this period, although these changes tended to cancel each other out. In other words, while some mothers who had stopped smoking during pregnancy started again after the birth, others who had smoked throughout pregnancy stopped or made attempts to stop once their baby was born.

Table 10.25 shows the smoking behaviour of mothers after birth broken down by their smoking behaviour during pregnancy. This shows that while most mothers who gave up before or during pregnancy managed to stay stopped after the birth, a sizeable minority did start smoking again. At Stage 1, 81% of mothers who had quit before or during pregnancy were still not smoking, although this had fallen to 76% by Stage 2 and to 70% by Stage 3. This means that less than a year after the birth of their baby, three in ten mothers (30%) who had stopped during pregnancy were smoking again.

Among mothers who continued to smoke throughout pregnancy, almost all (97%) were smoking at Stage 1 of the survey, while 88% were smoking at Stage 2 and 89% at Stage 3. This means that at both Stages 2 and 3 of the survey just over one in ten mothers who had smoked throughout their pregnancy were not currently smoking. It is worth noting, however, that the 12% of these mothers who had stopped smoking at Stage 2 and the 11% who had stopped smoking at Stage 3 were not all the same mothers. In fact, among mothers who had smoked throughout pregnancy only six per cent were not smoking at **both** Stage 2 and Stage 3 of the survey. This suggests that there is a lot of fluctuation in mothers smoking behaviour, with some mothers making repeated quit attempts in the period immediately after birth and going from smoking to not smoking at different times.

#### Table 10.25

#### 10.2.6 Smoking behaviour of partners after the birth

At all Stages of the survey mothers were also asked whether anyone else in the household was currently smoking, meaning that a similar analysis of changes in partners smoking behaviour after the birth can be done.

Table 10.26 shows that 28% of all mothers had a partner who smoked during their pregnancy. At Stage 1 of the survey, 24% of mothers reported that their partner currently smoked, while at both Stages 2 and 3 it was 22%. This suggests that while pregnancy and the birth of their baby did motivate some partners to quit smoking, the impact was not as great as the impact on mothers smoking behaviour.

However, among partners who smoked during the pregnancy a sizeable minority did try to give up after the birth. Thus, 15% of partners who smoked during the pregnancy were not smoking at Stage 1, and this had risen to almost a quarter at both Stage 2 (24%) and Stage 3 (24%). As with mothers themselves, there was quite a bit of fluctuation in smoking behaviour

over time. Thus, only seven per cent of partners who smoked during pregnancy were not smoking at all three Stages after the birth.

#### Table 10.26

#### **10.2.7 Smoking in the home**

At Stages 2 and 3 of the survey mothers were asked not only whether they or anyone else in the household smoked, but also whether anyone ever smoked inside the home. This gives some indication of the proportion of young infants who are likely to be exposed to tobacco smoke in the home.

Table 10.27 shows that at Stage 2 of the survey only 28% of mothers who were currently smoking said they ever smoked in the home. Mothers in Scotland were the most likely to say they ever smoked in the home (47%), while mothers in Northern Ireland were the least likely to smoke in the home (23%). At Stage 3 of the survey a broadly similar pattern was evident, although in all countries except for Northern Ireland the proportion of mothers who said they ever smoked in the home was lower compared with Stage 2. Thus, across the United Kingdom 23% of mothers who smoked at Stage 3 said they ever smoked in the home.

In households where there were other smokers, at Stage 2 of the survey a quarter of mothers (24%) across the United Kingdom said they lived with at least one other smoker who ever smoked in the home. Again, mothers in Scotland were most likely to live with a smoker who ever smoked in the home (35%). At Stage 3, 18% of mothers said that they lived with at least one other person who ever smoked in the home. The proportion of mothers who lived with at least one other person who ever smoked in the home was lower at Stage 3 of the survey than at Stage 2 in all countries.

#### Table 10.27

Table 10.28 shows the proportion of **all** households where someone ever smoked in the home at Stage 2 or Stage 3 of the survey. At Stage 2, five per cent of all mothers said they smoked in the home, while six per cent of mothers said they lived with at least one other person who ever smoked in the home. Overall, this meant that nine per cent of infants lived in a household where at least one person ever smoked in the home. Infants in Scotland were more likely than children in other countries to live in a household where someone ever smoked in the home (14% at Stage 2). At Stage 3 the proportion of infants living in a household where at least one person ever smoked in the home was seven per cent.

Table 10.28

#### **10.3 Drinking during pregnancy**

Evidence about how much is safe to drink during pregnancy is not clear cut. Current guidelines on drinking during pregnancy advise that drinking up to 1 or 2 units of alcohol no more than once or twice a week is regarded as safe for pregnant women<sup>30</sup>.

At Stage 1 of the survey mothers were asked whether they had drunk alcohol in the past two years and whether they had done so while they were pregnant. Mothers who had drunk during pregnancy were asked how often they drank different types of alcohol and the amount they usually consumed each time they had a drink. From this information it was possible to assess the number of units consumed per week during pregnancy. The questions on drinking asked in the 2005 survey were exactly the same as in 2000 allowing comparisons to be made.

#### **10.3.1 Trends in drinking during pregnancy by country**

In 2005, 83% of mothers across the United Kingdom had drunk alcohol in the two years before they were pregnant, while over half (54%) had drunk during their pregnancy. Mothers in Northern Ireland (46%) and Scotland (50%) were less likely to have drunk during pregnancy compared with mothers in England (55%) and Wales (55%).

Among mothers who drank alcohol before pregnancy, about a third (34%) gave up drinking completely during pregnancy, while 61% cut down the amount they drank. Only four per cent of mothers who drank before pregnancy said they made no change to their drinking behaviour as a result of their pregnancy. Mothers who drank before pregnancy in Northern Ireland (43%) and Scotland (41%) were the most likely to give up drinking.

The most common reason given by mothers for giving up or cutting down on drinking was because of a concern that alcohol might harm the baby, which was mentioned by 83% of mothers who cut down or stopped. Other reasons mentioned by mothers were because they disliked the taste of alcohol (12%) and because it made them feel sick or unwell (12%).

The proportion of mothers drinking during pregnancy fell between 2000 and 2005 in all countries. In England and Wales the proportion of mothers who drank during pregnancy fell from 62% in 2000 to 55% in 2005. In Scotland the fall was from 59% in 2000 to 50% in 2005, while in Northern Ireland the proportion drinking during pregnancy fell from 52% to 46%.

This fall in the proportion of mothers who drank during pregnancy between 2000 and 2005 was due to an increase in the proportion of mothers giving up drinking when they became pregnant. Thus, in England and Wales 29% of mothers who drank before pregnancy gave up in 2000 compared with 33% in 2005. In Scotland the increase was from 34% in 2000 to 41% in 2005, while it Northern Ireland it was from 37% in 2000 to 43% in 2005.

Table 10.29, Figure 10.4

<sup>&</sup>lt;sup>30</sup> Department of Health (2006) How much is too much? Pregnancy and Alcohol



#### 10.3.2 Variations in drinking during pregnancy

#### Socio-economic classification (NS-SEC) of mother

Table 10.30 shows that mothers from managerial and professional occupations (90%) and from intermediate occupations (89%) were the most likely to drink before pregnancy, while mothers who had never worked (46%) were the least likely. A similar difference was evident in terms of drinking during pregnancy, with 63% of mothers from managerial and professional occupations drinking during pregnancy compared with only 26% of mothers who had never worked.

Among mothers who drank before pregnancy, mothers who had never worked (41%) and mothers from routine and manual occupations (39%) were the most likely to have given up drinking, while mothers from managerial and professional occupations (29%) were the least likely to have given up. In fact, mothers from managerial and professional occupations were more than twice as likely to cut down on drinking rather than give up completely (67% and 29% respectively). Although mothers who never worked were the most likely to give up drinking they were also slightly more likely than other groups to make no change to their drinking behaviour (7%).

Table 10.30

#### Age of mother

Table 10.31 shows that across the United Kingdom there was no clear pattern between drinking before pregnancy and the age of the mother. For example, 85% of mothers aged under 20 drank alcohol in the two years before pregnancy compared with 86% of mothers aged 35 or over. However, there was a clear association between drinking during pregnancy and mother's age, with older mothers being more likely than younger mothers to do so. Thus, for example, 47% of mothers aged under 20 drank during pregnancy compared with 61% of mothers aged 35 or over.

Among mothers who drank before pregnancy, younger mothers were more likely than older mothers to give up. For example, 44% of mothers aged under 20 who drank before pregnancy gave up drinking alcohol during their pregnancy compared with 28% of mothers aged 35 or over. By contrast, older mothers were more likely to cut down compared with younger mothers. Thus, 67% of mothers aged 35 or over cut down on drinking during pregnancy compared with 50% of mothers aged under 20.

Table 10.31

#### **10.3.3 Consumption of alcohol during pregnancy**

Mothers had an extremely low alcohol consumption level in terms of average weekly units. Across the United Kingdom, 85% of mothers either did not drink at all during pregnancy or drank less than one unit per week on average. A further seven per cent of mothers drank one to two units per week on average, within the recommended guidelines. Only eight per cent of mothers exceeded the recommended guidelines and drank more than two units per week on average, while two per cent drank more than seven units per week on average. There was no difference in the levels of alcohol consumption by mothers from different socio-demographic groups.

Levels of alcohol consumption were broadly the same across all countries, although mothers in both England (8%) were more likely than those in Scotland (5%) and Northern Ireland (5%) to have drunk more than two units per week on average during pregnancy.

#### Table 10.32

#### 10.3.4 Advice received on drinking during pregnancy

Almost three-quarters of mothers (73%) who drank during pregnancy received some sort of advice or information about drinking during pregnancy. Mothers in Northern Ireland (82%) and Wales (78%) were the most likely to receive advice or information about drinking.

Three-quarters (75%) of those who had received advice on drinking said they had been given general information about the effects of drinking alcohol on the baby. Almost half (46%) said they had been advised to cut down or limit the amount they drank during pregnancy, while almost a quarter (24%) said they had been advised to stop drinking alcohol completely.

Among those who received advice about drinking the most common source of advice was from a midwife (89%), followed by advice or information from leaflets, booklets or magazines (32%), and advice from a doctor (20%). Mothers in Northern Ireland were the most likely to
receive advice about drinking from a doctor (30%), while mothers in Wales were the least likely (11%).

In 2005 mothers who had received advice on drinking were more likely compared with the 2000 survey to have received it from a midwife (83% in 2000 compared with 89% in 2005), but were less likely to have received advice from a doctor (31% in 2000 compared with 20% in 2005).

### Table 10.33

Table 10.34 shows that being given advice on drinking during pregnancy had little effect on how mothers actually changed their drinking behaviour. Mothers who had received some form of advice or information about drinking during pregnancy were slightly more likely than mothers who had not received advice to drink less (62% compared with 57%) but were consequently less likely to have given up drinking alcohol completely (33% compared with 37%).

### Table 10.34

As has already been seen some mothers were advised to stop drinking completely, other mothers were advised to limit the amount of alcohol they drank, while others were just given general advice about the health effects of drinking. As with smoking advice, some mothers reported that they had received advice from more than one source and had been given mixed messages in terms of what they should do. In particular, some mothers said they had been advised to stop drinking completely and to limit the amount they drank.

Among mothers who had received information or advice about drinking during their pregnancy, the type of information or advice they received was associated with how they actually changed their behaviour.

Mothers who had only received advice to stop drinking were much more likely to have actually given up drinking during pregnancy compared with mothers who had only been advised to limit the amount of alcohol they drank (45% and 22% respectively). By contrast mothers who had only been advised to limit the amount they drank were much more likely to cut down compared with those who had been advised to stop completely (74% and 52% respectively).

Mothers who reported they had been advised both to stop drinking completely during pregnancy and to limit the amount of alcohol they drank were much more likely to cut down on the amount they drank rather than stop completely (71% cut down and 23% stopped completely).

Table 10.35

### **Chapter 10 Tables**

Table 10.1: Proportion of women who knew why increasing their intake of folic acid is         recommended during pregnancy by country (2005)         England       Sectiond										
	England	Wales	Scotland	Northern Ireland	United Kingdom					
	%	%	%	%	%					
Proportion aware of recommendation to increase intake of folic acid	78	77	80	88	79					
Base: All Stage 1 mothers	6075	2135	2194	1886	12290					

Table 10.2: Action taken to increase folic acid intake by country (2005)										
	England	Wales	Scotland	Northern Ireland	United Kingdom					
	%	%	%	%	%					
Changed diet	28	28	31	29	28					
Took supplements	74	73	77	80	75					
Took some action	82	81	85	88	83					
Took no action	18	19	15	12	17					
Base: All Stage 1 mothers	6075	2135	2194	1886	12290					

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(NS-SEC) (United Kir	ngdom, 2005)		-			
	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers
	%	%	%	%	%	%
Changed diet	34	29	24	19	22	28
Took supplements	87	80	67	39	50	75
Took some action	93	88	77	51	64	83
Took no action	7	12	23	49	36	17
Base: All Stage 1 mothers	4462	2536	4047	868	376	12290

# Table 10.3: Action taken to increase folic acid intake by mother's socio-economic classification (NS-SEC) (United Kingdom, 2005)

Table 10.4: Action ta	Table 10.4: Action taken to increase folic acid intake by mother's ethnic group (Great Britain, 2005)										
	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	All mothers <sup>†</sup>					
	%	%	%	%	%	%					
Changed diet	28	30	28	24	27	28					
Took supplements	78	63	54	45	55	74					
Took some action	85	74	68	61	70	83					
Took no action	15	26	32	39	30	17					
Base: All Stage 1 mothers	9023	182	634	352	133	10404					
<sup>†</sup> Includes some mothers	for whom ethn	ic group was no	ot recorded								

Table 10.5: Type of supp	olements taken	by mothers di	uring pregnancy	by country (20	05)
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Iron only	28	33	29	45	29
Vitamins and iron	18	13	14	17	17
Vitamins only	8	7	6	5	7
Other supplements	1	1	1	1	1
Any supplements taken	54	54	50	68	54
No supplements taken	46	46	50	32	46
Base: All Stage 1 mothers	6075	2135	2194	1886	12290

Table 10.6: Smoking behaviour of all m	others by cou	intry (2005)	)		
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Non smokers	68	63	65	68	67
Never smoked	53	50	52	55	53
Gave up smoking over a year before pregnancy	14	13	12	13	14
All smokers	32	37	35	32	33
Smoked before pregnancy but gave up	16	15	16	14	16
Gave up less than a year before pregnancy	4	4	4	3	4
Gave up on confirmation of pregnancy	10	10	10	10	10
Gave up later in pregnancy and stayed quit	1	1	2	1	1
Smoked throughout pregnancy	17	22	20	18	17
Gave up, but started again	5	5	5	4	5
Cut down	11	14	14	12	11
Did not cut down	1	2	2	2	1
Base: All Stage 1 mothers <sup>†</sup>	5896	2076	2137	1830	11933
' Excludes mothers who did not supply sufficier	nt information to	classify their	smoking status	6	

Table 10.7: Smoking	during	j pregn	ancy b	y cour	ntry (20	)00 and	1 2005)		Table 10.7: Smoking during pregnancy by country (2000 and 2005)												
	Engla Wa	and & ales	Scol	tland	Nort Irel	hern and	L	JK	Eng	land	Wa	iles									
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005									
	%	%	%	%	%	%	%	%	%	%	%	%									
Percentage who smoked before or during pregnancy	35	33	36	35	36	32	35	33	35	32	n/a	37									
Percentage who smoked throughout pregnancy	19	17	22	20	23	18	20	17	19	17	n/a	22									
Base: All Stage 1 mothers	5225	7969	2206	2137	1722	1830	9126	11933	4921	5896	n/a	2076									
	%	%	%	%	%	%	%	%	%	%	%	%									
Percentage who gave up before or during pregnancy	45	48	39	44	38	43	44	48	45	49	n/a	41									
Base: Mothers who smoked before or during pregnancy	1844	2595	802	758	625	583	3233	3915	1720	1905	n/a	761									

Table 10.8: Smoking (NS-SEC) (2000 and 2	Table 10.8: Smoking during pregnancy in the United Kingdom by mother's socio-economic group(NS-SEC) (2000 and 2005)										
•	Percentage who smoked before or during pregnancy		Percentage Percentage who smoked who smoked before or throughout during pregnancy pregnancy		Base: All Stage 1 mothers <sup>†</sup>		Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy		
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	
	%	%	%	%			%	%			
Managerial & professional	22	20	8	7	2684	4322	63	63	589	853	
Intermediate occupations	29	30	13	12	1837	2460	55	60	531	749	
Routine & manual	46	48	29	29	2510	3940	38	39	1164	1899	
Never worked	50	35	36	24	1233	846	29	32	617	299	
Unclassified	38	32	22	17	863	365	43	45	332	115	
All mothers	35	33	20	17	9126	11933	44	48	3233	3915	
<sup>†</sup> Excludes mothers who did not supply sufficient information to classify their smoking status											

Table 10.9: Smoking during pregnancy in England and Wales by mother's socio-economic group(NS-SEC) (2000 and 2005)											
	Percentage who smoked before or during pregnancy		Percentage who smoked throughout pregnancy		Base: All Stage 1 mothers <sup>†</sup>		Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy		
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	
	%	%	%	%			%	%			
Managerial & professional	22	19	8	7	1534	2873	65	64	340	558	
Intermediate occupations	28	30	13	12	1049	1631	55	60	298	494	
Routine & manual	46	48	28	29	1437	2623	39	40	666	1263	
Never worked	49	34	35	23	715	589	30	32	352	201	
Unclassified	38	31	22	17	489	254	44	44	188	78	
All mothers	35	33	19	17	5224	7969 heir smok	45	48	1844	2595	

Table 10.10: Smoking during pregnancy in Scotland by mother's socio-economic group (NS-SEC)(2000 and 2005)										
	Percentage who smoked before or during pregnancy		Percentage who smoked throughout pregnancy		Base: All Stage 1 mothers <sup>†</sup>		Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%			%	%		
Managerial & professional	21	23	10	10	691	787	53	58	143	182
Intermediate occupations	34	32	14	14	450	463	58	56	153	150
Routine & manual	48	49	33	33	593	725	31	33	283	357
Never worked	52	44	40	31	259	117	23	29	135	51
Unclassified	42	[39]	27	[17]	211	[45]	34	[57]	88	[17]
All mothers	36	35	22	20	2206 classify t	2137 heir smok	39	44	802	758

Table 10.11: Smokir (NS-SEC) (2000 and	Table 10.11: Smoking during pregnancy in Northern Ireland by mother's socio-economic group(NS-SEC) (2000 and 2005)											
	Percentage who smoked before or during pregnancy		Percentage who smoked throughout pregnancy		Base: All Stage 1 mothers <sup>†</sup>		Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy			
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005		
	%	%	%	%			%	%				
Managerial & professional	20	18	11	8	475	703	46	55	96	127		
Intermediate occupations	31	29	16	13	349	393	48	55	108	114		
Routine & manual	45	46	29	30	485	607	35	34	219	282		
Never worked	60	53	46	34	223	83	24	[36]	134	[44]		
Unclassified	36	[36]	19	[24]	189	[44]	49	[33]	68	[16]		
All mothers	36	32	23	18	1722 classify ť	1830 heir smok	38	43	625	583		

Table 10.12: Smoking during pregnancy in England by mother's socio-economic group (NS-SEC)           (2000 and 2005)										
	Percentage who smoked before or during pregnancy		Percentage Percentage who smoked who smoked before or throughout during pregnancy pregnancy		Base: All Stage 1 mothers <sup>†</sup>		Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%			%	%		
Managerial & professional	22	19	7	7	1450	2142	66	64	321	418
Intermediate occupations	29	30	13	12	986	1202	56	61	284	363
Routine & manual	46	48	28	29	1356	1920	38	40	619	918
Never worked	48	33	34	23	672	442	30	32	324	148
Unclassified	38	31	21	17	457	190	45	45	173	58
All mothers	35	32	19	17	4921	5896	45	49	1720	1905
' Excludes mothers who	did not su	ipply suffi	cient infor	mation to	classify t	heir smok	ing status	6		

Table 10.13: Smoki (2005)	ng during pregna	ncy in Wales by	mother's socio	economic grou	p (NS-SEC)				
	Percentage who smoked before or during pregnancy	Percentage who smoked throughout pregnancy	Base: All Stage 1 mothers <sup>†</sup>	Percentage who gave up before or during pregnancy	Base: Mothers who smoked before or during pregnancy				
	2005	2005	2005	2005	2005				
	%	%		%					
Managerial & professional	18	7	652	60	120				
Intermediate occupations	31	14	452	55	142				
Routine & manual	53	36	802	33	424				
Never worked	50	35	114	30	57				
Unclassified	33	24	56	[29]	[19]				
All mothers	37	22	2076	41	761				
<sup>†</sup> Excludes mothers who	<sup>†</sup> Excludes mothers who did not supply sufficient information to classify their smoking status								

Table 10.14: Smokir	Smoking during pregnancy in the United Kingdom by mother's age (2000 and 2005)									005)
	Percentage who smoked before or during pregnancy		Percentage who smoked throughout pregnancy		Base: All Stage 1 mothers <sup>†</sup>		Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%			%	%		
20 or under	65	68	40	45	624	879	38	34	403	598
20 – 24	53	49	30	29	1583	2289	43	42	841	1132
25 – 29	36	30	20	15	2588	3099	45	51	930	936
30 – 34	25	23	13	10	2806	3396	48	58	697	775
35 or over	24	21	13	9	1502	2239	45	54	355	464
All mothers <sup>††</sup>	35	33	20	17	9126	11933	44	48	3233	3915
<sup>†</sup> Excludes mothers who did not supply sufficient information to classify their smoking status <sup>††</sup> Includes some mothers for who age was not recorded										

Table 10.15: Smokin	noking during pregnancy in England and Wales by mother's age (2000 and 2005)									005)
	Percentage who smoked before or during pregnancy		Percentage who smoked throughout pregnancy		Base: All Stage 1 mothers <sup>†</sup>		Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%			%	%		
20 or under	65	68	41	45	365	584	38	34	237	400
20 – 24	53	49	30	28	921	1554	44	42	485	759
25 – 29	36	30	20	14	1475	2069	45	52	527	613
30 – 34	25	23	12	9	1595	2260	49	59	394	516
35 or over	23	20	12	9	855	1484	47	56	197	303
All mothers <sup>††</sup>	35	33	19	17	5225	7969	45	48	1844	2595
<sup>†</sup> Excludes mothers who <sup>††</sup> Includes some mother	<sup>†</sup> Excludes mothers who did not supply sufficient information to classify their smoking status <sup>††</sup> Includes some mothers for who age was not recorded									

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Table 10.16: Smo	Table 10.16: Smoking during pregnancy in Scotland by mother's age (2000 and 2005)									
	Perce who si befo dui pregi	Percentage who smoked before or during pregnancy		ge Percentage ked who smoked or throughout pregnancy cy		∖II Stage 'hers <sup>†</sup>	Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%			%	%		
20 or under	61	65	36	44	134	174	41	32	82	113
20 – 24	59	54	39	30	341	371	34	45	202	200
25 – 29	37	35	20	18	640	555	45	48	234	194
30 – 34	26	23	16	12	693	601	39	48	183	140
35 or over	25	25	16	14	395	423	35	42	99	105
All mothers <sup>††</sup>	36	35	22	20	2206	2137	39	44	802	758
<sup>†</sup> Excludes mothers	who did not su	upply suffi	cient infor	rmation to	classify t	heir smok	ing status	3		

<sup>++</sup> Includes some mothers for who age was not recorded

Table 10.17: Smoking during pregnancy in Northern Ireland by mother's age (2000 and 2005)										
	Percentage who smoked before or during pregnancy		Percentage who smoked throughout pregnancy		Base: All Stage 1 mothers <sup>†</sup>		Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%			%	%		
20 or under	61	66	43	38	95	113	29	43	58	74
20 – 24	54	54	34	34	259	303	37	38	139	164
25 – 29	39	32	23	18	508	478	41	45	196	153
30 – 34	25	22	15	11	578	575	41	48	143	125
35 or over	31	18	21	10	276	354	31	44	85	63
All mothers <sup>††</sup>	36	32	23	18	1722	1830	38	43	625	583
<ul> <li><sup>†</sup> Excludes mothers who did not supply sufficient information to classify their smoking status</li> <li><sup>††</sup> Includes some mothers for who age was not recorded</li> </ul>										

Table 10.18: Smokir	8: Smoking during pregnancy in England by mother's age (2000 and 2005)									
	Percentage who smoked before or during pregnancy		Percentage who smoked throughout pregnancy		Base: All Stage 1 mothers <sup>†</sup>		Percentage who gave up before or during pregnancy		Base: Mothers who smoked before or during pregnancy	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%			%	%		
20 or under	64	68	39	45	341	424	38	34	217	288
20 – 24	52	49	29	28	863	1137	44	42	447	554
25 – 29	36	29	19	14	1391	1534	45	52	497	451
30 – 34	25	23	12	9	1523	1682	50	59	373	383
35 or over	23	20	12	9	808	1108	48	58	187	224
All mothers <sup>††</sup>	35 32 19 17					5896	45	49	1720	1905
<sup>†</sup> Excludes mothers who did not supply sufficient information to classify their smoking status <sup>††</sup> Includes some mothers for who age was not recorded										

Table 10.19: Smo	oking during pregna	ncy in Wales by	mother's age (2	:005)	
	Percentage who smoked before or during pregnancy	Percentage who smoked throughout pregnancy	Base: All Stage 1 mothers <sup>†</sup>	Percentage who gave up before or during pregnancy	Base: Mothers who smoked before or during pregnancy
	2005	2005	2005	2005	2005
	%	%		%	
20 or under	73	51	201	30	147
20 – 24	50	32	476	37	237
25 – 29	33	17	523	47	172
30 – 34	23	10	533	56	124
35 or over	23	15	331	34	76
All mothers <sup>††</sup>	37	22	2076	41	761
<sup>†</sup> Excludes mothers v	who did not supply suffice	cient information to not recorded	classify their smok	ing status	

Table 10.20: Smoking behaviour of mot (United Kingdom, 2005)	hers and other house Mother lived with	hold members durin Mother did not	g pregnancy All mothers
	a smoker	live with a smoker	
	%	%	%
Mother smoked throughout pregnancy	36	8	17
Mother did not smoke during pregnancy	64	92	83
Base: All Stage 1 mothers <sup>†</sup>	3884	7984	11868
<sup>T</sup> Excludes cases where mothers smoking stat	us or smoking status of he	ousehold members not k	nown

Table 10.21: Exposure of unborn baby to tobacco smoke during pregnancy by country (2005)								
	England	Wales	Scotland	Northern Ireland	United Kingdom			
	%	%	%	%	%			
Only mother smoked	5	7	6	7	5			
Only other household member(s) smoked	21	20	21	19	21			
Both mother and other household member(s) smoked	11	15	14	11	12			
At least one smoker in household during pregnancy	38	42	41	37	38			
No smokers in the household during pregnancy	62	58	59	63	62			
Base: All Stage 1 mothers <sup>†</sup>	5863	2062	2129	1825	11869			
'Excludes cases where mothers smoothered	oking status or si	moking status o	t household mem	bers not known				

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and 2005)												
	Engla Wa	and & les	Scot	Scotland No.		Northern Ireland		UK		England		les
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%	%	%	%	%	%	%
Percentage of smokers who received advice on smoking	85	87	85	87	91	94	86	87	n/a	86	n/a	89
Base:												
Stage 1 mothers smoking before or during pregnancy <sup>†</sup>	1844	2595	802	758	625	583	3233	3915	n/a	1905	n/a	761
Source of information:	%	%	%	%	%	%	%	%	n/a	%	n/a	%
Midwife	89	89	83	90	82	82	88	89	n/a	89	n/a	92
Books/leaflets/ magazines	49	37	52	38	52	40	49	37	n/a	37	n/a	34
Doctor/GP	47	33	60	37	60	47	49	34	n/a	34	n/a	28
Friend or relative	31	27	34	29	35	26	31	27	n/a	27	n/a	33
TV/Radio	14	17	19	15	18	18	19	17	n/a	17	n/a	16
Health visitor	19	17	28	20	18	14	15	17	n/a	17	n/a	16
Nurse	7	6	8	7	18	13	8	6	n/a	6	n/a	5
Voluntary Organisation	1	1	1	2	1	*	1	1	n/a	2	n/a	*
Base: Stage 1 mothers who received advice on smoking <sup>†</sup> Excludes mothers who	1572 did not	2249	685 sufficient	661	569 Ition to c	550 classify t	2764	3406 oking sta	n/a atus	1647	n/a	681

(United Kingdom, 2005)			
	Received advice on smoking	Did not receive advice on smoking	All mothers who smoked before or during pregnancy
	%	%	%
Smoked before pregnancy but gave up	43	78	48
Gave up less than a year before pregnancy	10	28	13
Gave up on confirmation of pregnancy	29	48	32
Gave up later in pregnancy and stayed quit	4	2	3
Smoked throughout pregnancy	57	22	52
Gave up, but started again	15	8	14
Cut down	38	12	34
Did not cut down	5	2	4
Base: Stage 1 mothers who smoked before or during pregnancy <sup>†</sup>	3407	502	3915
' Excludes cases where mothers smoking status	s or smoking status of ho	ousehold members not	known

# Table 10.23: Changes to smoking behaviour during pregnancy by whether received advice or not (United Kingdom, 2005)

# Table 10.24: Changes to smoking behaviour during pregnancy by type of advice received (United Kingdom, 2005)

	Only advised to stop completely	Only advised to cut down	Advised to stop completely and to cut down	Some other advice/ information	All mothers given advice on smoking
	%	%	%	%	%
Smoked before pregnancy but gave up	36	8	14	77	43
Gave up less than a year before pregnancy	4	*	2	26	10
Gave up on confirmation of pregnancy	27	6	9	48	29
Gave up later in pregnancy and stayed quit	5	2	2	3	4
Smoked throughout pregnancy	64	92	86	23	57
Gave up, but started again	18	19	21	6	15
Cut down	41	69	58	14	38
Did not cut down	5	5	7	3	5
Base: Stage 1 mothers who received advice on smoking	1391	236	677	1103	3407

2005)	ur during pregna	ancy and after the	Daby was DOTT (U	nneu Kingdolli,
	Before or during pregnancy	Stage 1 (baby 4-10 weeks old)	Stage 2 (baby 4-6 months old)	Stage 3 (baby 8-10 months old)
	%	%	%	%
Percentage of mothers smoking	32	19	19	20
Base: All Stage 3 mothers <sup>†</sup>	9136	9415	9389	9381
Smoking behaviour after birth of mothers who gave up before or during pregnancy:		%	%	%
Currently smoking		19	24	30
Not smoking		81	76	70
Base: Stage 3 mothers who gave up smoking before or during pregnancy <sup>†</sup>		1447	1445	1445
Smoking behaviour after birth of mothers who continued smoking throughout pregnancy:		%	%	%
Currently smoking		97	88	89
Not smoking		3	12	11
Base: Stage 3 mothers who continued smoking throughout pregnancy <sup>†</sup>	iere smoking status	1501	1496	1496

T

Kingdom, 2005)				
	During pregnancy	Stage 1 (baby 4-10 weeks old)	Stage 2 (baby 4-6 months old)	Stage 3 (baby 8-10 months old)
	%	%	%	%
Proportion of mothers with a partner who smokes	28	24	22	22
Base: All Stage 3 mothers	9416	9416	9416	9416
Smoking behaviour after birth of partners who were smoking during pregnancy:		%	%	%
Currently smoking		85	76	76
Not smoking		15	24	24
Base: Stage 3 mothers whose partner smoked during pregnancy <sup>†</sup>		2525	2486	2451
<sup>†</sup> Excludes mothers who had a part subsequent stage	tner who smoked	d during pregnancy bu	it who did not have	a partner at each

Table 10.26: Partners smoking behaviour during pregnancy and after the baby was born (United

	England	Wales	Scotland	Northern Ireland	United Kingdom
Proportion of mothers who smoked in the home:	%	%	%	%	%
At Stage 2 (4-6 months)	26	29	47	23	28
At Stage 3 (8-10 months)	20	24	40	23	23
Bases:					
Stage 2 mothers who	965	399	405	354	2029
Stage 3 mothers who smoked <sup>†</sup>	893	375	359	347	1887
Proportion of mothers who lived with someone else who smoked in the home:	%	%	%	%	%
At Stage 2 (4-6 months)	23	26	35	23	24
At Stage 3 (8 -10 months)	17	22	28	20	18
Bases:					
Stage 2 mothers who lived with someone who smoked	1374	522	512	420	2821
Stage 3 mothers who lived with someone who smoked	1161	427	421	393	2398

### Table 10.27: Smoking in the home at Stages 2 and 3 of the survey by country (2005)

nome at Stages 2 and 3 of t	ne survey by c	ountry (2005)			
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Proportion of mothers who ever smoked in the home:					
At Stage 2 (4-6 months)	5	6	10	5	5
At Stage 3 (8-10 months)	4	6	9	5	5
Proportion of mothers living with someone else who ever smoked in the home:					
At Stage 2 (4-6 months)	6	7	9	5	6
At Stage 3 (8-10 months)	4	6	7	5	5
Proportion of mothers living with anyone who ever smoked in the home:					
At Stage 2 (4-6 months)	8	10	14	8	9
At Stage 3 (8-10 months)	6	9	12	7	7
Bases:					
All Stage 2 mothers <sup>†</sup>	5287	1854	1918	1755	10814
All Stage 3 mothers <sup>†</sup>	4563	1582	1666	1605	9416
<sup>†</sup> Excludes cases where mothers	smoking status o	r smoking status	s of household me	mbers not known	

# Table 10.28: Proportion of all mothers living in a household where someone ever smoked in the home at Stages 2 and 3 of the survey by country (2005)

Table 10.29: Drinking	nking behaviour before and during pregnancy by country (2000 and 2005)											
	Engla Wa	and & les	Scol	tland	Nort Irel	hern and	Un King	ited gdom	Eng	land	Wa	les
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%	%	%		%		%
Drank before pregnancy	87	83	89	88	82	84	87	83	n/a	83	n/a	88
Drank during pregnancy	62	55	59	50	52	46	61	54	n/a	55	n/a	55
Base: All stage 1 mothers	5440	8210	2274	2194	1778	1886	9492	12290	n/a	6075	n/a	2135
	%	%	%	%	%	%	%	%		%		%
Gave up drinking	29	33	34	41	37	43	30	34	n/a	33	n/a	37
Drank less	66	62	61	54	59	53	65	61	n/a	62	n/a	58
No change/drank more	5	4	5	3	4	2	5	4	n/a	4	n/a	4
Base: Stage 1 mothers who drank before pregnancy	4744	6804	2030	1924	1464	1575	8267	10244	n/a	5014	n/a	1888

# Table 10.30: Drinking behaviour before and during pregnancy by mother's socio-economic classification (NS-SEC) (United Kingdom, 2005)

	Managerial and professional	Intermediate occupations	Routine and manual	Never worked	Unclassified	All mothers
	%	%	%	%	%	%
Drank before pregnancy	90	89	83	46	64	83
Drank during pregnancy	63	57	50	26	40	54
Base: All Stage 1 mothers	4463	2536	4047	868	376	12290
	%	%	%	%	%	%
Gave up drinking	29	36	39	41	34	34
Drank less	67	60	55	50	58	61
No change/drank more	3	4	5	7	5	4
Base: Stage 1 mothers who drank before pregnancy	4011	2248	3350	395	239	10244

Table 10.31: Drinking behaviour before and during pregnancy by mother's age (United Kingdom,2005)						
	Under 20	20-24	25-29	30-34	35 or over	All mothers <sup>†</sup>
	%	%	%	%	%	%
Drank before pregnancy	85	81	80	86	86	83
Drank during pregnancy	47	48	49	60	61	54
Base: All stage 1 mothers	905	2397	3179	3487	2287	12290
	%	%	%	%	%	%
Gave up drinking	44	40	38	30	28	34
Drank less	50	55	58	65	67	61
No change/drank more	5	4	3	4	4	4
Base: Stage 1 mothers who drank before pregnancy	768	1945	2532	3013	1964	1244
<sup>†</sup> Includes some mothers for whom age was not recorded						

Table 10.32: Estimate	d weekly alcohol o	consumption I	oy country (2005	5)	
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Did not drink	45	45	49	54	46
Less than 1 unit	39	40	40	36	39
1 – 2 units	8	7	6	5	7
3 – 7 units	6	6	4	4	6
8 – 14 units	1	1	1	1	1
15 units or more	1	*	*	*	1
Base: All Stage 1 mothers <sup>††</sup>	5956	2085	2142	1839	12040
<sup>TT</sup> Excludes some mothers for whom units could not be calculated					

	Engla Wa	and & les	Scot	tland	Nort Irel	hern and	Un King	ited gdom	Eng	land	Wa	les
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
	%	%	%	%	%	%	%	%		%		%
Percentage of drinkers who received advice on drinking	77	73	74	73	82	82	77	73	n/a	72	n/a	78
Base: Stage 1 mothers who drank during pregnancy	4744	6804	2030	1924	1464	1575	8267	10244	n/a	5014	n/a	1888
3 / · · 3 · · · · · ·	%	%	%	%	%	%	%	%		%		%
Source of information												
Midwife	84	89	77	88	78	85	83	89	n/a	89	n/a	93
Books/leaflets/ magazines	48	32	51	34	50	32	50	32	n/a	32	n/a	31
Doctor	30	19	44	26	41	30	31	20	n/a	20	n/a	11
Friend or relative	18	12	19	12	20	10	18	12	n/a	12	n/a	11
TV/Radio	14	7	17	8	16	7	15	8	n/a	7	n/a	7
Health Visitor	11	10	19	12	13	8	12	10	n/a	10	n/a	9
Nurse	4	3	6	5	14	8	7	3	n/a	3	n/a	2
Voluntary Organisation	2	3	1	1	*	*	2	2	n/a	3	n/a	*
Base: Stage 1 mothers who received advice on drinking Percentages do not add	3650	4934	1497	1404	1194	1292	6360	7472	n/a	3619	n/a	1467

drinking (United Kingdom, 2005)			
	Given advice	Not given advice	All mothers who drank before pregnancy
	%	%	%
Gave up drinking during pregnancy	33	37	34
Drank less during pregnancy	62	57	61
No change/drank more	4	4	4
Base: Stage 1 mothers who drank before pregnancy	7472	2724	10244

## Table 10.34: Changes to drinking habits during pregnancy by whether woman was given advice on drinking (United Kingdom, 2005)

 Table 10.35: Changes to drinking behaviour during pregnancy by type of advice received (United Kingdom, 2005)

	Only advised to stop completely	Only advised to limit alcohol	Advised to stop completely and to limit alcohol	Some other advice/ information	All mothers given advice on drinking
	%	%	%	%	%
Gave up drinking during pregnancy	45	22	23	42	33
Drank less during pregnancy	52	74	71	52	62
No change/drank more	2	3	5	4	4
Base: Stage1 mothers who received advice on drinking	1164	2824	626	2858	7472

### Appendix I: Survey Methodology

### A1 Sample design

The sample design and procedures were broadly similar to those used in previous surveys, although a number of changes were made to the design of the 2005 survey compared with previous surveys.

The samples were drawn from birth registration records and covered births occurring between August and September 2005. The aim was to achieve a sufficiently large sample in each country of the United Kingdom to allow for separate country analyses to be carried out. The target sample sizes by Stage 3 of the survey in each country were as follows:

England	5,000
Wales	1,800
Scotland	1,800
Northern Ireland	1,800
United Kingdom	10,400

Because of the different target sample sizes the precise length of the sampling period varied in each country. The 2005 survey was the first time that estimates were required for England and Wales separately, rather than combined. This design requirement meant that births in Scotland, Northern Ireland and Wales had a much greater chance of selection compared with births in England. In fact, in both Wales and Northern Ireland all births in the sample period were included.

In all previous surveys a two-stage design was carried out in England and Wales, whereby a sample of registration sub-districts was initially selected, from which a random sample of births was then drawn. In the 2005 survey it was decided to move away from the two-stage approach and instead draw a completely unclustered sample in England. This meant that births were drawn at random from all those registered in England during the defined sampling period. Moving to an unclustered design has the effect of reducing design effects and so making the survey estimates more precise (see Appendix 2).

In previous surveys the survey was designed to over-sample mothers in Social Class V, births where there was no partner on the birth certificate and mother's whose social class could not be classified. This was done largely to ensure these groups (especially mothers in Social Class V) could be analysed separately. In 2005, it was decided not to over-sample particular Social Class groups for two reasons.

First, Social Class had been replaced by the National Statistics socio-economic classification (NS-SEC) for official statistics. This meant that it was not possible to adopt a design similar to previous surveys. While over-sampling of particular NS-SEC categories was considered it was felt that the association between infant feeding practices and NS-SEC was not as well understood as the association between infant feeding practices and Social Class. Therefore, the value of over-sampling mothers from a particular NS-SEC category was less clear.

Second, the sample size was significantly larger than previous surveys. This meant that the need for over-sampling particular groups in order to ensure large enough sub-samples was not considered so critical.

In the end it was decided only to over-sample births where no partner details were recorded at registration. This was done because mothers who do not register a partner are likely to be younger and from a lower socio-economic group, both of which are groups which required sufficient numbers for analysis. Over-sampling of mothers who registered no partner occurred only in England and Scotland because, as already mentioned, all births in Wales and Northern Ireland were sampled.

### A2 Drawing the sample in each country

The samples in each country were selected from births occurring in a given range of dates between August and September 2005 and were designed to be representative of all births during that period. The exact sampling period in each country varied depending upon the estimated number of births within different categories (partner or no partner on birth certificate) that would be registered within the broad sampling period and the exact sample design that was being applied in each country. Since the precise number of births in any period is subject to inevitable variation and could not be known in advance, the actual numbers being sampled were reviewed on an ongoing basis and decisions made about extending or shortening the sampling period as thought necessary in order to achieve the required target numbers.

In the end the time periods used were almost identical to those used in the 2000 survey. These were as follows:

England	15 <sup>th</sup> August to 25 <sup>th</sup> September
Wales	15 <sup>th</sup> August to 25 <sup>th</sup> September
Scotland	15 <sup>th</sup> August to 25 <sup>th</sup> September
Northern Ireland	8 <sup>th</sup> August to 27 <sup>th</sup> September

The sampling frame in each country consisted of all birth registrations on the selected dates that were received by each Registration Office within the specified sampling period.

#### Drawing the sample in England

As mentioned earlier in all previous surveys a two-stage design was used in England and Wales, whereby a sample of registration sub-districts was selected initially. In 2005 it was decided to draw a completely unclustered sample in England from all registration districts.

In England the sample was designed to be drawn from all births in the five week period from 15<sup>th</sup> August to 18<sup>th</sup> September. The number of births was estimated to be about 52,000 a month based on the number registered in the same quarter of 2004. It was also estimated that about 7% of births were registered with no partner on the birth certificate. The selection fractions were estimated to be 1 in 3.6 births where no partner was registered and 1 in 7.1 of

all other births. These sampling fractions would mean sampling about 15% of all births in England during the designated period.

In the event the actual number of births registered in England was slightly lower than had been anticipated and the sampling period was extended by one week until the 25<sup>th</sup> September. A total of 9,973 births were sampled during this period.

#### Drawing the sample in Wales

In Wales the sample was designed to be a Census of all births in the five week period from 15<sup>th</sup> August to 18<sup>th</sup> September. The number of births was estimated to be about 2,600 a month based on the number registered in the same quarter of 2004.

In the event the actual number of births registered in Wales was slightly less than anticipated and the sampling period was extended by one week until the 25<sup>th</sup> September. A total of 3,314 births were sampled during this period.

### Drawing the sample in Scotland

In Scotland the sample was designed to be drawn from all births in the five week period from 15<sup>th</sup> August to 18<sup>th</sup> September. The number of births was estimated to be about 4,700 a month based on the number registered in the same quarter of 2004. It was also estimated that about 7% of births were registered with no partner on the birth certificate and that all these births during the period should be sampled, along with 1 in 2 births where the partner was registered on the birth certificate. These sampling fractions would mean sampling about 54% of all births in Scotland during the designated period.

In the event the actual number of births registered in Scotland was slightly lower than had been anticipated and the sampling period was extended by one week until the 25<sup>th</sup> September. A total of 3,342 births were sampled during this period.

### Drawing the sample in Northern Ireland

In Northern Ireland the sample was designed to be a Census of all births in the seven week period from 8<sup>th</sup> August to 25<sup>th</sup> September. This was longer than in the other countries simply because the lower number of births in Northern Ireland meant that the required sample could not be achieved in the shorter period. The number of births was estimated to be about 1,850 a month based on the number registered in the same quarter of 2004.

In the event the actual number of registrations was close to the estimate and the sampling period was extended by only two days to the 27<sup>th</sup> September. A total of 3,219 births were sampled during this period.

### A3 Questionnaire design

The 2005 survey was largely based on the content of the previous survey, although a number of amendments were made to reflect the current policy requirements. The most significant change across all three Stages of the survey was the re-design of the feeding questions to enable exclusive breastfeeding to be measured. While this required existing questions to be

adapted, it had to be done in a way that would not affect the trend data on the incidence, prevalence and duration of breastfeeding.

In summary, the main changes made to the 2005 questionnaire compared with the previous survey were as follows:

- Changes to the questions on feeding behaviour to allow the measurement of exclusive breastfeeding at different ages. This required changes to some questions related to all aspects of feeding, including milk, other liquids, and solids;
- A greater focus on the difference between infant formula and follow-on milk and when mothers switched from one to the other. This was balanced by dropping a lot of the questions relating to the specific brands of formula used by mothers;
- New questions on how mothers prepared and stored powdered infant formula;
- Changes to the questions on receipt of welfare tokens or vouchers to reflect the replacement of Welfare Food Scheme with Healthy Start; and
- Revised questions on feeding in public places, which reflected the greater interest in this topic, especially in Scotland where there was new legislation since the last survey.

In previous surveys slightly different versions of the questionnaire were used at Stages 2 and Stage 3 depending upon whether the mother was still breastfeeding or not at the time of the previous survey. Due to the re-design of the feeding questions it was decided not to tailor the questionnaire for the later Stages.

In order to test out the new version of the questionnaire, a small scale pilot was conducted among 10 mothers. Mothers who participated in the pilot were recruited through clinics in Oxford and Glasgow and included a mixture of mothers who were breastfeeding and those who were not. Mothers were asked to complete the questionnaire in the presence of a researcher and any problems regarding wording or routing were noted.

At Stage 2 a smaller pilot was conducted among 8 mothers in Glasgow and London to further test some of the new questions particularly relevant to that Stage of the survey.

### A4 Fieldwork procedures

The fieldwork procedures for the survey were broadly the same as those carried out for the 2000 survey, although some minor modifications to the process were made.

### Stage 1 fieldwork

At Stage 1 of the survey the drawing of the sample and the despatch of questionnaires and reminders was done through the respective Registration Offices in the different countries. In England and Wales this part of the survey was carried out by the Office for National Statistics (ONS), in Scotland it was done by the General Register Office (GRO-S), and in Northern Ireland it was carried out by the Northern Ireland Statistics and Research Agency (NISRA).
This system was followed because names and addresses collected as part of the birth registration process could not be released to any third party.

Although the sampling and despatch was done by the respective Registration Offices, BMRB was responsible for the printing and packing of all questionnaire packs and reminder letters and worked closely with the different organisations to manage the process efficiently.

The fieldwork period for Stage 1 of the survey was from October to December 2005. Questionnaires were sent to all mothers included in the initial sample, with the aim of contacting them when their babies were between six and ten weeks old. In order to try and ensure babies fell into this age range, sampling was conducted on a weekly basis in all countries and the despatch of questionnaires was staggered in relation to the sampling week, with the aim of making sure mothers received the first questionnaire when their baby was as close to six weeks old as possible.

Although the sample period in each country was over approximately six weeks, and the majority of births were registered during this period, some additional sampling weeks were added at the end of fieldwork in order to mop-up any late-registered births. This meant that in England and Wales there were eight weekly despatches in total, in Scotland it was six<sup>31</sup>, and in Northern Ireland it was nine.

At Stage 1 a total of up to four mailings were sent to mothers in the sample. These were as follows:

- an initial mailing which contained a letter from ONS/GROS/NISRA, a questionnaire with a unique serial number on it, and a reply paid envelope for returning the questionnaire to BMRB. In Wales both an English and Welsh language version of the questionnaire was sent to mothers;
- a first reminder letter that was sent about a week after the initial mailing. This letter was sent as a blanket reminder to all mothers in the sample irrespective of whether they had completed the questionnaire or not;
- a second reminder pack was sent approximately two weeks after the first reminder. This contained a letter, another copy of the questionnaire, and a reply paid envelope. This reminder was targeted only at those mothers who had not yet returned their questionnaire; and
- a final reminder letter was sent out another two weeks after the second reminder. Again, this was targeted only at those mothers who had not returned the questionnaire.

In addition to these planned reminders, an additional final reminder was sent out to mothers in England and Wales towards the end of the fieldwork period. This was agreed because of

<sup>&</sup>lt;sup>31</sup> The period allowed for registering a birth in Scotland is xx days compared to xx days in the rest of the United Kingdom. This meant that late-registration was less of an issue in Scotland.

concerns over the response rate, which was lower compared with previous surveys (see section 1.5)

Although the design and implementation of the fieldwork procedures at Stage 1 were intended to ensure babies were as close to six to ten weeks old as possible, there was clearly no control over when mothers chose to complete and return the questionnaire. Thus, the actual age distribution of babies at Stage 1 was wider than the target age band, something which has been a feature of all previous surveys (see Chapter 1).

All questionnaires returned were booked-in at BMRB's central data capture facility in Warwick on a daily basis. The serial numbers of the booked-in questionnaires were passed to the respective Registration Offices on a regular basis, to allow them to target the reminder mailings.

After booking-in the questionnaires were sent to be coded, before being scanned in Warwick.

# Stage 2 fieldwork

At the end of Stage 1 the names and addresses of all mothers who had returned a questionnaire were given to BMRB by the respective Registration Offices. Additionally, all mothers were asked at Stage 1 to give any forwarding details if they were planning to move in the near future. This meant that BMRB was able to update any contact information received from the Registration Offices prior to the Stage 2 despatch. Mothers were also asked to provide a contact telephone number since it was felt this would be useful for future contact.

The fieldwork period for Stage 2 was from January to April 2006.

The first part of Stage 2 fieldwork involved a postal survey which followed a similar process to Stage 1 in terms of the number of mailings, the content of each mailing, and the staggering of the despatch. At this Stage the despatch was handled entirely by BMRB and all the letters were on BMRB letter head. The despatch was divided into a total of four batches, based on when the Stage 1 questionnaire had been returned. This was done in order to try and ensure a reasonably constant time period for all mothers between them completing the Stage 1 survey and completing the Stage 2 survey. The fieldwork period for the postal part of Stage 2 was from January to March 2006.

All mothers who did not return a Stage 2 questionnaire in response to the postal enquiries were followed up by a face-to-face interviewer. At this Stage interviewers tried to make contact with mothers who had not yet responded and, if successful, asked them to complete a questionnaire. Interviewers then returned any completed questionnaires for processing in the normal way.

Additionally, a small number of mothers were contacted by telephone and the survey was completed over the telephone. This was the first time a telephone approach had been tried on the survey. It was attempted only in cases where a mother lived in a remote area or there was some other practical reason which made it extremely inefficient for a face-to-face interviewer to be allocated. Interviews were conducted by a small team of interviewers from

BMRB's central telephone Unit in Ealing. A total of 103 interviews were carried out by telephone at Stage 2.

The fieldwork period for the follow-up part of the survey was from March to April 2006.

# Stage 3 fieldwork

The fieldwork period for Stage 3 was from May to August 2006, when all mothers who had completed and returned a questionnaire at Stage 2 were contacted for the last time.

The fieldwork procedures for Stage 3 were exactly the same as for Stage 2. The fieldwork period for the postal survey was from May to July 2006, while the fieldwork period for the follow-up part of the survey was from July to August 2006. A total of 82 interviews were conducted by telephone at Stage 3 as part of the follow-up process.

# A5 Response

# Response at Stage 1

Table 1.1 gives details of response by country at Stage 1. Overall, 12,290 mothers returned a questionnaire at Stage 1 which represented a response rate of 62%, Response rates ranged from 66% in Scotland to 59% in Northern Ireland.

Efforts were made by the Registration Offices to identify any baby deaths among the sampled births before sending out the questionnaire and these cases were removed from the sample before despatch. However, mothers who received the questionnaire and whose baby was no longer with them, for example if the baby had died, been adopted or was in hospital, were not expected to complete a questionnaire but were asked to return it so that they would not be contacted again. In total, 29 mothers were identified in this category at Stage 1.

There were a small number of refusals to participate (134) which included questionnaires returned with an explicit refusal or a refusal via telephone. However, by far the biggest category of non response was mothers who did not reply to any of the mailings. Across the United Kingdom, 37% of mothers did not reply. This could have been because they did not wish to take part in the survey, or because they had moved address since the birth was registered and so may never have received a questionnaire.

## Table A.1

# Response at Stage 2

The issued sample at Stage 2 comprised all mothers who responded at Stage 1. A small number of mothers (87) completed the Stage 1 questionnaire but also specifically requested not to be contacted again. These mothers are included in the Stage 2 response rate, but were not actually sent a questionnaire. Overall, response at Stage 2 of the survey was 88%, which ranged from 93% in Northern Ireland to 87% in all other countries. Just less than three-quarters of mothers (74%) responded to the postal survey, and 14% of mothers responded to the interviewer follow-up (either face-to-face or by telephone). Again, levels of refusal were

extremely low (2%) and the major reason for non response was due to either no reply or not being able to make any contact with the mother (8%).

# Response at Stage 3

The issued sample at Stage 3 comprised all mothers responding at Stage 2. Again a small number of mothers (260) requested at the end of Stage 2 not to be contacted again and these mothers were not sent anything further.

The overall response rate at Stage 3 was 87%, similar to that achieved at Stage 2, and ranged from 91% in Northern Ireland to 85% in Wales. Most mothers (77%) again responded to the postal survey, although 10% responded to the interviewer follow-up (either face-to-face or by telephone). No reply was again the main reason for non response (9%).

# Table A.3

# Cumulative response across all Stages

Since mothers were only contacted in later Stages of the survey if they had responded to the previous one, the effect of non-response at each Stage is cumulative. Table I.4 shows the final response rates at each Stage of the survey calculated on the basis of the initial sample of mothers. This shows that 47% of all mothers who were initially sampled responded to all three Stages of the surveys, and this ranged from 50% in both Scotland and Northern Ireland to 46% in England.

## Table A.4

## Comparison with previous surveys

Table I.5 shows the response rates at all Stages of the survey compared with the last survey in 2000. Results for England and Wales have been combined to allow for comparison. Response at Stage 1 of the 2005 survey was significantly lower in all countries compared to the previous survey. This may partly reflect the trend of declining response rates that has affected all government surveys over the last 10 years. Beyond this, there were no obvious factors why response to the survey should have declined from 72% at Stage 1 in 2000 to 62% in 2005 since all the survey procedures were the same.

Response rates at Stages 2 and 3 of the survey were broadly similar compared to the previous survey. There was a noticeable difference in the response to the postal survey and response to the interviewer follow-up (either face-to-face or by telephone). In 2005 more mothers responded at Stages 2 and 3 to the postal survey compared with 2000, meaning that fewer had to be followed up by interviewer. The difference was particularly noticeable in Northern Ireland, with 79% of mothers in 2005 responding to the postal survey at Stage 2 compared with 69% in 2000. A similar differential also occurred at Stage 3 in Northern Ireland (78% and 68% respectively).

Table A.5

# A6 Comparison of the sample profile with the population

Apart from the overall level of non-response outlined in the previous section it is also the case that different sub-groups of the population are likely to have differential levels of non-response which can lead to non-response bias. For this reason it is important to compare the profile of the final sample of mothers against the population on key demographic variables<sup>32</sup>.

The survey was compared against the population on two key variables, namely the age of the mother and the socio-economic characteristics of the mother. The population was defined as the total number of births within the defined sampling period in each country. As mentioned earlier since data on the socio-economic classification (NS-SEC) of all mothers was not available in all countries, the Index of Deprivation was used as a proxy for socio-economic characteristics. Birth counts by ward were provided for each country to allow this comparison to be made and results are presented as deciles from the 10% least deprived areas through to the 10% most deprived areas. In England, Wales and Scotland the Index of Multiple Deprivation for each country was used, while in Northern Ireland the Index of Economic Deprivation was used<sup>33</sup>.

On the whole the data shows that the sample was similar to the population in terms of these two attributes. In all countries younger mothers were slightly under represented in the sample compared to the population of all births during the sampling period, while older mothers were slightly over represented. For example, in Wales, mothers aged under 20 constituted only 7% of the sample compared with 10% of the population. Similarly, in Scotland mothers aged 30 or over constituted 55% of mothers in the survey compared with 49% of mothers in the population.

## Table A.6

The deprivation profile of the sample was also similar to the population profile. In all countries, mothers living in the most deprived areas were slightly under represented in the survey, while mothers in the most affluent areas were slightly over represented.

## Table A.7

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The under representation of younger mothers and mothers living in the most deprived areas was likely to be due to the differential levels of non-response already mentioned. In order to take account of this the data have to be weighted to take account of these differences and this is discussed in the next section.

<sup>&</sup>lt;sup>32</sup> Comparisons are, of course, limited to the information that is available on the population.

<sup>&</sup>lt;sup>33</sup> The Indices of Deprivation are computed separately for each country. In Northern Ireland there is no composite index of 'multiple' deprivation similar to that which exists for the other countries.

# A7 Weighting of the data

Various weights were applied to the data at each Stage of the survey. These compensated for differences in the probability of selection for mothers in different countries, for mothers without partners and for differential non response at each Stage of the survey.

# Stage 1 weighting

The different components of the weights at Stage 1 were as follows:

- To correct for over-sampling of mothers where no partner details were recorded at registration. Over-sampling of these mothers only occurred in England and Scotland, since all births in Wales and Northern Ireland were sampled.
- To correct for different probabilities of selection in each country of the United Kingdom. The probability of selection in the different countries ranged from 1 in Northern Ireland and Wales (i.e. all births selected in the sample period) to 0.54 in Scotland and 0.15 in England.
- To correct for differential non-response at Stage 1 the sample was adjusted so that within each country it correctly represented the age profile and the deprivation profile of all mothers who gave birth during the sampling period. Analysis within each country showed that there was a consistent pattern of lower response rates amongst younger mothers and also lower response rates in areas of higher deprivation. Deprivation levels were assessed by using deciles of the Index of Multiple Deprivation (IMD) for England, Wales and Scotland, and deciles of the Index of Economic Deprivation for Northern Ireland. This area-based measure of deprivation was essentially used as a proxy for socio-economic classification (NS-SEC) since information about the profile of the population was not available in all countries.

# Stages 2 and 3 weighting

The profiles of several key variables were compared at Stages 2 and 3 of the survey against Stage 1. In particular the response rates of mothers at Stages 2 and 3 by their feeding behaviour at Stage 1 was examined since previous surveys have shown lower response at later Stages of the survey among mothers who do not breastfeed. The same was true in the 2005 survey with 88% of mothers who breastfed initially at Stage 1 responding to Stage 2 survey compared with 84% of mothers who did not breastfeed initially. The same differential was evident at Stage 3 as well with response rates of 87% and 83% respectively.

## Tables A.8-A.9

To prevent any biases in the key feeding measures becoming more pronounced over the course of the survey it was necessary to apply adjustments to the weights at Stages 2 and 3.

The weights for Stages 2 and 3 of the survey used the weights from the previous Stage after adjusting them for differential non-response. The CHAID<sup>34</sup> analysis method was used to identify the characteristics that differed significantly between responders and non-responders at Stages 2 and 3. The variables used in the analysis were feeding status, socio-economic classification, mother's age, age of the baby, area deprivation deciles, ACORN<sup>35</sup> area classification, region, ethnicity, and smoking and drinking behaviour during pregnancy.

The analysis produced 32 weighting classes at Stage 2 and 38 weighting classes at Stage 3. The weight for each class was simply the reciprocal of the response rate for that class. Response rates for the classes ranged from 59% to 98% at Stage 2 and 53% to 99% at Stage 3.

The best predictor of response at Stage 2 of the survey was the socio-economic classification (NS-SEC) of the mother, with response ranging from 91.8% among mothers from managerial and professional occupation groups to 76.9% among mothers who had never worked or whose socio-economic grouping was unclassified. The best predictor of response at Stage 3 of the survey was the age of the baby at the previous Stage of the survey, with response ranging from 91.2% among mothers of the youngest babies at Stage 2 (20 weeks or less) to 73.5% among mothers of the oldest babies at Stage 2 (28 weeks or more).

# Presentation of the weights

When results for each country are shown separately, they are weighted only to compensate for differential non-response and the over-sampling of mothers where no partner details were recorded at registration (England and Scotland only). Separate weights were created for England only, Wales only, as well as England and Wales combined. Where results are based on the United Kingdom as a whole, an additional weight is applied to compensate for the over-sampling in Scotland, Northern Ireland and Wales.

All weights have been scaled to the unweighted sample sizes for each country and for the United Kingdom as a whole, a practice similar to that adopted on the 2000 survey.

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<sup>&</sup>lt;sup>34</sup> CHAID is an acronym that stands for Chi-squared Automatic Interaction Detection. CHAID uses chi-squared statistics to identify optimal splits or groupings of independent variables to predict the outcome of dependent variables (e.g. whether an individual responds to a survey or not).

<sup>&</sup>lt;sup>35</sup> The ACORN classification is a means of classifying areas according to various Census characteristics devised by CACI Limited (see www.caci.co.uk).

# **Appendix I Tables**

Table A.1: Response rates and non-response at Stage 1 of the survey by country (2005)											
	England		Wales		Scot	Scotland		Northern Ireland		United Kingdom	
	No.	%	No.	%	No.	%	No.	%	No.	%	
Stage 1 issued sample	9973	100	3314	100	3342	100	3219	100	19848	100	
Total response	6075	61	2135	64	2194	66	1886	59	12290	62	
Total non-response	3898	39	1179	36	1148	34	1333	41	7557	38	
Baby not with mother	20	*	4	*	3	*	2	*	29	*	
Refusal	91	1	17	1	13	*	13	*	134	1	
Incomplete questionnaire	4	*	1	*	1	*	1	*	7	*	
Post returned/not delivered	81	1	6	*	12	*	5	*	104	1	
No reply	3702	37	1151	35	1119	33	1312	41	7284	37	

	Eng	land	Wa	Wales		Scotland		Northern Ireland		United Kingdom	
	No.	%	No.	%	No.	%	No.	%	No.	%	
Stage 2 issued sample	6075	100	2135	100	2194	100	1886	100	12290	100	
Total response	5287	87	1854	87	1918	87	1755	93	10814	88	
Due to postal enquiry	4380	72	1536	72	1650	75	1487	79	9053	74	
Due to face-to-face interview	847	14	296	14	248	11	267	14	1658	13	
Due to telephone interview	60	1	22	1	20	1	1	*	103	1	
Total non-response	788	13	281	13	276	13	131	7	1476	12	
Refused after Stage 1 <sup>†</sup>	46	1	13	1	17	1	11	1	87	1	
Baby not with mother	15	*	5	*	1	*	2	*	23	*	
Refusal	154	3	44	2	45	2	17	1	260	2	
Incomplete questionnaire	4	*	2	*	1	*	2	*	9	*	
Post returned/ not delivered	54	1	15	1	18	1	7	*	94	1	
No reply	515	8	202	9	194	9	92	5	1003	8	

Table A.3: Response rate	es and n	on-resp	oonse at	: Stage	3 of the	survey	by coun	itry (20	05)	
	Eng	England		Wales		Scotland		hern and	United Kingdom	
	No.	%	No.	%	No.	%	No.	%	No.	%
Stage 3 issued sample	5287	100	1854	100	1918	100	1755	100	10814	100
Total response	4563	86	1582	85	1666	87	1605	91	9416	87
Due to postal enquiry	4101	78	1397	75	1486	77	1374	78	8358	77
Due to face-to-face interview	425	8	169	9	157	8	225	13	976	9
Due to telephone interview	37	1	16	1	23	1	6	*	82	1
Total non-response	724	14	272	15	252	13	150	9	1398	13
Refused after Stage 3 <sup>†</sup>	154	3	44	2	45	2	17	1	260	2
Baby not with mother	2	*	1	*	1	*		*	4	*
Refusal	36	1	16	1	13	1	3	0	68	1
Incomplete questionnaire	0	-	0	-	0	-	0	-	0	-
Post returned/not delivered	70	1	28	2	31	2	14	1	143	1
No reply	462	9	183	10	162	8	116	7	923	9
<sup>†</sup> Questionnaires not sent at \$	Stage 3									

Table A.4: Summary of response at Stages 1, 2 and 3 by country (2005)										
	England		Wales Scotland		land	Northern Ireland		United Kingdom		
	No.	%	No.	%	No.	%	No.	%	No.	%
Initial Sample	9973	100	3314	100	3342	100	3219	100	19848	100
Response at Stage 1	6075	61	2135	64	2194	66	1886	59	12290	62
Response at Stage 2	5287	53	1854	56	1918	57	1755	55	10814	54
Response at Stage 3	4563	46	1582	48	1666	50	1605	50	9416	47

Table A.5: Response ra	Table A.5: Response rates at all three stages of the survey by country (2000 and 2005)									
	Engla Wa	and & les	Scot	land	Northeri	n Ireland	United F	Kingdom		
	2000	2005	2000	2005	2000	2005	2000	2005		
	%	%	%	%	%	%	%	%		
Stage 1										
Response to postal	74	62	73	66	68	59	72	62		
Response to interviewer <sup>†</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Total response rate	74	62	73	66	68	59	72	62		
Stage 2										
Response to postal	70	72	70	75	69	79	70	74		
Response to interviewer	17	15	16	12	22	14	17	14		
Total response rate	87	87	86	87	91	93	87	88		
Stage 3										
Response to postal	75	77	75	77	68	78	74	77		
Response to interviewer	12	9	13	10	12	13	14	10		
Total response rate	87	86	88	87	89	91	88	87		
Cumulative response										
Initial sample	100	100	100	100	100	100	100	100		
Response at Stage 1	74	62	73	66	68	59	72	62		
Response at Stage 2	64	54	63	57	62	55	63	54		
Response at Stage 3	56	46	55	50	55	50	55	47		
<sup>†</sup> No interviewer administer	ed fieldwork	at Stage 1								

Table A.6: Di	Table A.6: Distribution of the population and the sample by age of mother and country (2005)									
	Engla	nd	Wale	Wales		and	Northern	Ireland		
	Population Survey		Population	Population Survey		Population Survey		Survey		
	%	%	%	%	%	%	%	%		
Under 20	7	5	10	7	8	6	6	5		
20-24	20	17	23	20	18	14	17	15		
25-29	26	25	25	24	26	25	26	26		
30-34	29	32	26	31	29	32	32	33		
35 or over	19	22	16	18	20	23	19	22		
All aged 30	48	53	42	49	49	55	51	55		
Base:	56161	6075	3466	2135	6484	2194	3253	1886		

Table A.7:	Distribution	of the pop	oulation and	the samp	le by deprivat	ion decile	s by country	(2005)
	Engla	nd	Wal	es	Scotla	nd	Northern	Ireland
	Population	Survey	Population	Survey	Population	Survey	Population	Survey
	%	%	%	%	%	%	%	%
Decile								
1 (most deprived)	10	10	10	8	10	7	10	8
2	10	9	10	9	10	8	10	8
3	10	10	10	9	10	8	10	10
4	10	10	10	10	10	10	10	9
5	10	10	10	10	10	10	10	10
6	10	9	10	10	10	11	10	10
7	10	10	10	10	10	11	10	11
8	10	10	10	11	10	12	10	12
9	10	10	10	12	10	11	10	11
10 (least deprived)	10	12	10	11	10	12	10	11
Base:	56161	6075	3466	2135	6484	2194	3253	1886

Table A.8: Response to	o Stage 2 of the su	rvey by initial	method feeding	and country (2	2005)
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Breastfed	88	88	90	94	88
Not breastfed	84	83	80	92	84
All mothers	87	86	87	93	87

Table A.9: Response to	o Stage 3 of the su	rvey by initial	method feeding	and country (2	2005)
	England	Wales	Scotland	Northern Ireland	United Kingdom
	%	%	%	%	%
Breastfed	87	86	87	91	87
Not breastfed	82	81	82	91	83
All mothers	86	84	86	91	86

# **Appendix II: Sampling errors**

# B1 Sources of error in surveys

As with any survey, estimates resulting from the Infant Feeding Survey are subject to different sources of error. Sampling theory describes two sources of error: *systematic error* (or bias) and *random error*.

Systematic error or bias arises when respondents to the survey are not representative of the population of interest. This can arise if either the original selected sample was unrepresentative or if the response rate to the survey is low and varies significantly across different groups of participants. A rigorous sample design with a sample selected from an exhaustive sampling frame will eradicate the former, while high response rates across all respondent groups will resolve difficulties of the latter type.

The sample for the 2005 Infant Feeding Survey was drawn from all live births registered during a defined sampling period in August and September 2005. In Wales and Northern Ireland all mothers giving birth in this period were selected to be part of the study, while in England and Scotland a random sample of mothers were selected.

Overall, the main source of error is sampling error. The extent of this depends on the natural variation in any measure that is collected and the sample size achieved. The following formulae and discussion explain how to estimate the sampling error around the survey estimates.

# **B2** Standard errors and confidence limits

For any percentage estimate *p*, the 95% confidence interval for the population statistic P is:

$$p \pm 1.96 * se(p)$$
 (A)

where se(p) is the standard error of the estimate

The standard error of p is unknown but for a Simple Random Sample (SRS) survey estimate it is estimated by the quantity:

$$\sqrt{p(1-p)/n} \tag{B}$$

where n is the sample size for a particular group

This SRS formula applies to a sample and sub-groups when the design is a random selection, the sample size is a small proportion of the population, and respondents have equal selection probabilities. However, the 2005 Infant Feeding Survey sample design differed from a SRS in three ways.

 In all four countries, a high proportion of the population of mothers giving birth in August-September was selected and took part in the survey; this by itself would mean that the survey estimates have smaller sampling errors than those suggested by the formula.

- Within England and Scotland, where only a sample of mothers was selected, the sample was stratified by whether a father was recorded on the birth certificate, geographic region, and the age of the mother. This by itself would also mean that the survey estimates have smaller sampling errors than those suggested by the formula.
- There were unequal selection probabilities in England, Scotland and also overall, for UK estimates. In England and Scotland, birth records where there was no partner recorded were sampled at a higher rate. Overall the whole sample was skewed towards Wales, Scotland and Northern Ireland, meaning that UK estimates will also be affected by unequal selection probabilities. Also within all countries, although non-response was relatively low, it was higher amongst certain groups so weighting was applied to try to reduce any bias arising from this. This factor by itself would mean that the survey estimates have larger sampling errors than those suggested by the formula.

The effect of these three differences means that the formula for the standard error is not correct and an adjustment factor, called a **design factor**, needs to be calculated to account for these differences. The design factor is the ratio of the standard error of the complex design to that of the standard error of a simple random sample of the same size.

Put another way, the design factor (deft) is the factor by which the standard error of an estimate from a simple random sample has to be multiplied to give the true standard error of the complex design (this is referred to as the complex standard error or the true standard error).

A design factor of less than one arises when a sample is more precise and has smaller standard errors than a SRS, while a design factor of greater than one arises when a sample has standard errors larger than those that would be obtained from a SRS of the same size.

The complex standard errors and design factors for selected Infant Feeding Survey measures are given in the following tables II.1-II.10 together with unweighted and weighted bases for selected measures in each country and for the United Kingdom. The weighted bases are given simply as an indication of the sample sizes in particular sub-groups and to be consistent with the conventions used throughout the rest of the Report. However, the calculation of design standard error and design factor are always based on the unweighted sample size for any particular sub-group.

Design factors in Wales and Northern Ireland are smaller than for a SRS since a high proportion of mothers were surveyed; design factors for Scotland are sometimes smaller but sometimes larger; while design factors for England are generally larger than for a SRS. Design factors for United Kingdom estimates are higher than those in the individual countries due to the skew in the sample towards the smaller countries.

As an illustration the following explains how to calculate a confidence interval for the incidence of breastfeeding figure for the United Kingdom quoted in table B.9

Characteristic	Sample sub-group	Percentage	Complex Standard Error	Design factor	Weighted base
Incidence of breastfeeding	Overall	76.2%	0.4%	1.16	12,190

Using the above figures, the 95% Confidence Interval is then calculated as

 $76.2\% \pm 1.96*0.4\% = 75.4\%$  to 77.0%

It is important that complex standard errors or design factors are used for confidence intervals and significance tests for the United Kingdom, England, and in some cases, in Scotland since the complex standard errors are generally greater than those produced by the SRS formula. If the SRS formula is used, significant differences may be found erroneously.

For survey estimates that are not included in tables II.1-II.10, the 95% confidence intervals for a percentage p can be calculated using the formula:

$$p \pm 1.96$$
\*deft\*se (p) (C)

Where se(p) is the standard error from equation (B) assuming a simple random sample, and the 'deft' is the design factor. A suitable value for deft can be estimated from tables II.1-II.10, by selecting a measure in the table for the country which is as similar as possible and based on a similar weighted base size.

# **Appendix II Tables**

Table B.1 Design star	ndard errors for incid	dence & dur	ation of brea	astfeeding:	England	
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base
Proportion of mother	rs who breastfed init	ially				
	Overall	78.2%	0.5%	1.01	6022	6025
Birth order	First birth	81.0%	0.7%	1.04	3005	3087
	Later birth	75.2%	0.8%	1.00	3017	2937
Mother's age	Under 20	53.9%	2.7%	1.12	356	430
	20 - 24	69.3%	1.4%	1.06	1067	1187
	25 - 30	77.8%	1.1%	1.03	1475	1558
	30 - 34	85.4%	0.8%	0.97	1837	1717
	35 or over	86.2%	1.0%	0.95	1272	1122
Age completed FTE	16 or under	62.4%	1.2%	1.02	1640	1660
	17-18	75.0%	1.0%	1.03	1945	2025
	19 and over	92.4%	0.6%	1.01	2385	2293
Mother's NS-SEC	Managerial & professional Intermediate occupations	89.0% 78.9%	0.7% 1.3%	1.00 1.03	2282 1214	2202 1024
	Routine & manual	82.9%	2.7%	1.01	1882	204
	Never worked	68.7%	2.3%	1.04	443	453
	Unclassified	74.2%	3.2%	1.00	201	189
Proportion of mother	s who breastfed initi	ally who bre	eastfed for a	t least 6 we	eks after b	irth
	Overall	63.8%	0.8%	1.03	3672	3568
Birth order	First birth	59.5%	1.2%	1.05	1916	1913
	Later birth	68.7%	1.1%	1.02	1756	1656
<i>Mother's age</i>	Under 20	27.7%	4.0%	1.15	119	159
	20 - 24	47.8%	2.3%	1.13	479	586
	25 - 30	63.1%	1.7%	1.07	856	925
	30 - 34	70.5%	1.3%	0.96	1285	1126
	35 or over	74.6%	1.5%	0.94	925	764
Age completed FTE	16 or under	44.7%	1.8%	1.05	782	800
	17-18	58.9%	1.5%	1.06	1102	1128
	19 and over	76.6%	1.0%	1.00	1764	1611
Mother's NS-SEC	Managerial & professional Intermediate	74.1% 61.2%	1.1% 1.8%	0.97 1.02	1720 768	1513 741
	Routine & manual	49.6%	1.7%	1.07	920	990
	Never worked	60.5%	3.8%	1.19	176	223
	Unclassified	74.9%	4.7%	1.10	88	100

Table B.1 Design	standard errors	for incidence	& duration o	of breastfeed	ing: England (d	cont.)
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base
Proportion of mo	others who breast	fed initially w	ho breastfed	for at least	4 months after	birth
	Overall	45.2%	0.8%	1.01	3672	3568
Birth order	First birth Later birth	40.6% 50.5%	1.1% 1.2%	1.02 1.00	1916 1756	1912 1656
Mother's age	Under 20 20 - 24 25 - 30 30 - 34 35 or over	17.2% 27.9% 44.2% 50.7% 57.6%	3.3% 2.1% 1.7% 1.4% 1.6%	1.13 1.13 1.07 0.95 0.93	119 479 856 1285 925	159 586 924 1126 764
Age completed FTE	16 or under 17-18 19 and over	28.6% 39.0% 57.8%	1.6% 1.5% 1.2%	1.03 1.04 0.99	782 1102 1764	800 1128 1611
Mother's NS-	Managerial &	53.9%	1.2%	0.96	1720	1514
020	Intermediate	41.2%	1.8%	1.00	768	741
	Routine & manual	33.3%	1.5%	1.05	920	990
	Never worked Unclassified	49.3% 52.2%	3.9% 5.4%	1.18 1.11	176 88	223 100
Proportion of mo	others who exclus	ively breastf	ed initially wl	ho exclusive	ly fed for at lea	st 6 weeks
	Overall	33.2%	0.8%	1.00	3106	3011
Birth order	First birth Later birth	27.7% 39.4%	1.1% 1.3%	1.01 0.99	1607 1499	1603 1407
Mother's age	Under 20 20 - 24 25 - 30 30 - 34 35 or over	12.1% 22.0% 33.1% 38.0% 38.6%	3.3% 2.0% 1.8% 1.5% 1.7%	1.12 1.11 1.07 0.95 0.92	86 404 722 1098 790	116 490 777 968 653
Age completed FTE	16 or under	23.8%	1.7%	1.03	633	647
	17-18 19 and over	29.8% 40.2%	1.5% 1.3%	1.04 0.98	927 1526	943 1395
Mother's NS- SEC	Managerial & professional	39.3%	1.3%	0.95	1504	1321
	Intermediate occupations Routine &	32.8% 24.6%	1.9% 1.6%	1.00 1.05	643 762	626 815
	manual Never worked	27.5%	4.1%	1.19	126	166
	Unclassified	34.2%	5.7%	1.11	71	82

Table B.1 Design standard errors for incidence & duration of breastfeeding: England (cont.)							
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base	
Proportion of women who exclusively breastfed initially who exclusively fed for at least 4 months after birth							
	Overall	12.1%	0.6%	0.99	3106	3011	
Birth order	First birth Later birth	10.0% 14.5%	0.8% 0.9%	1.02 0.97	1607 1499	1603 1407	
Mother's age	Under 20 20 - 24 25 - 30 30 - 34 35 or over	3.4% 4.5% 12.1% 13.4% 17.7%	1.9% 1.1% 1.3% 1.0% 1.3%	1.15 1.15 1.09 0.93 0.92	86 404 722 1098 790	116 490 777 968 653	
Age completed FTE	16 or under 17-18 19 and over	8.9% 7.6% 16.8%	1.2% 0.8% 1.0%	1.05 1.00 0.97	633 927 1526	647 943 1395	
Mother's NS- SEC	Managerial & professional Intermediate occupations Routine & manual Never worked Unclassified	15.0% 13.1% 7.5% 8.0% 12.9%	0.9% 1.3% 1.0% 2.6% 4.1%	0.94 0.99 1.05 1.26 1.12	1504 643 762 126 71	1321 626 815 166 82	

Table B.2 Design standard errors for selected measures of sample: England								
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base		
Smoking status								
Non-smokers		67.7%	0.6%	1.01	5897	5896		
Never smoked		53.2%	0.7%	1.00	5897	5896		
before pregnancy	joverayear ∕	14.5%	0.5%	0.99	5697	5690		
All smokers		32.3%	0.6%	1.01	5897	5896		
Smoked before	pregnancy	15.8%	0.5%	1.02	5897	5896		
Gave up smoking	less than a	4.2%	0.3%	1.01	5897	5896		
year before	,			-				
Gave up on confi	irmation of	10.5%	0.4%	1.02	5897	5896		
pregnancy								
Gave up later, sta	ayed quit	1.1%	0.1%	0.98	5897	5896		
Smoked throug	hout	16.5%	0.5%	1.01	5897	5896		
Gave up but star	ted again	1 5%	0.3%	1 0/	5897	5896		
Cut down	leu again	10.7%	0.5%	1.04	5897	5896		
Did not cut down		1.3%	0.2%	1.02	5897	5896		
-			0.270					
Proportion of m	others who smo		during pregn	ancy but gav	/e up	1005		
Mathan'a ana	Overall	48.8%	1.2%	1.01	1004	1905		
wother's age		34.1%	3.1%	1.12	230 519	200		
	20 - 24	42.3%	2.2%	1.05	518 445	554 151		
	20 - 30	52.4%	2.4%	0.04	445	401		
	30 - 34 35 or over	57.6%	2.470	0.94	250	224		
	55 01 0VEI	57.070	5.170	0.95	200	227		
Mother's NS- SEC	Managerial & professional	63.8%	2.3%	0.98	439	418		
	Intermediate	60.7%	2.6%	1.00	363	33		
	Routine &	40.2%	1.7%	1.03	878	918		
	Never worked	32.2%	4.1%	1.07	144	148		
	Unclassified	44.9%	6.6%	1.00	60	58		
Proportion of al	I mothers who si	moked throug	nhout pregnan					
	Overall	16.5%	0.5%	1.01	5897	5896		
Mother's age	Under 20	44.8%	2.7%	1.13	349	423		
	20 - 24	28.0%	1.4%	1.05	1030	1137		
	25 - 30	14.0%	0.9%	1.01	1452	1533		
	30 - 34	9.2%	0.7%	0.94	1798	1682		
	35 or over	8.6%	0.8%	0.93	1254	1108		
Mother's NS-	Managerial &	7.1%	0.5%	0.98	2220	2143		
SEC	Intermediate	11.9%	0.9%	0.99	1191	1202		
	occupations Routine &	28.6%	1.1%	1.04	1853	1920		
	Never worked Unclassified	22.7% 16.9%	2.0% 2.7%	1.02 0.99	433 200	442 189		

Table B.2 Design standard errors for selected measures of sample: England (cont.)							
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base	
Drinking status							
Proportion of m	others who dran	k before preg	nancy				
	Overall	82.8%	0.5%	1.00	6052	6055	
Mother's age	Under 20	84.3%	2.0%	1.14	360	435	
, i i i i i i i i i i i i i i i i i i i	20 - 24	79.9%	1.2%	1.06	1071	1190	
	25 - 30	78.7%	1.1%	1.02	1482	1565	
	30 - 34	86.2%	0.8%	0.95	1847	1725	
	35 or over	86.1%	1.0%	0.93	1278	1128	
Mother's NS- SEC	Managerial &	89.9%	0.6%	0.99	2290	2209	
	Intermediate	88.2%	0.9%	1.02	1222	1236	
	Routine & manual	82.1%	0.9%	1.02	1895	1966	
	Never worked	44.1%	2.4%	1.03	443	452	
	Unclassified	63.9%	3.5%	1.00	202	191	
Proportion of all	mothers who d	rank during p	regnancy				
	Overall	55.2%	0.6%	1.00	6004	6011	
Mother's age	Under 20	47.4%	2.7%	1.12	355	430	
, i i i i i i i i i i i i i i i i i i i	20 – 24	48.9%	1.5%	1.06	1061	1180	
	25 – 30	49.9%	1.3%	1.02	1474	1556	
	30 – 34	61.3%	1.1%	0.96	1835	1715	
	35 or over	63.0%	1.4%	0.94	1265	1118	
Mother's NS- SEC	Managerial & professional	64.5%	1.0%	0.99	2275	2196	
	Intermediate occupations	57.8%	1.4%	1.01	1216	1230	
	Routine and manual	50.9%	1.2%	1.03	1879	1952	
	Never worked	26.2%	2.2%	1.05	438	447	
	Unclassified	42.4%	3.6%	1.00	196	187	
Proportion of m	others who dran	k before preg	nancy who ga	ave up			
-	Overall	33.2%	0.7%	1.01	5013	5014	
Mother's age	Under 20	43.6%	2.9%	1.13	305	367	
	20 - 24	38.7%	1.7%	1.06	859	950	
	25 - 30	36.6%	1.4%	1.03	1165	1232	
	30 - 34	28.8%	1 1%	0.96	1582	1486	
	35 or over	26.7%	1.3%	0.94	1093	971	
Mother's NS- SEC	Managerial & professional	28.2%	1.0%	0.99	2062	1987	
	Intermediate	34.4%	1.5%	1.01	1077	1090	
	Routine & manual	37.9%	1.3%	1.04	1548	1615	
	Never worked	39.8%	3.6%	1.04	197	199	
	Unclassified	32.7%	4.2%	0.98	129	122	

Table B.2 Design standard errors for selected measures of sample: England (cont.)						
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base
Proportion of m	others who plan	ned to breast	feed			
	Overall	72.4%	0.6%	1.01	6048	6050
Mother's age	Under 20 20 - 24 25 - 30 30 - 34	48.6% 62.4% 72.1% 79.7%	2.7% 1.5% 1.2% 0.9%	1.13 1.06 1.03 0.97	358 1068 1486 1845	433 1186 1568 1724
	35 or over	81.6%	1.1%	0.95	1276	1125
Mother's NS- SEC	Managerial & professional	84.2%	0.8%	0.99	2292	2213
	Intermediate occupations	74.5%	1.3%	1.02	1219	1234
	Routine & manual	61.5%	1.1%	1.03	1892	1962
	Never worked Unclassified	60.2% 64.9%	2.4% 3.5%	1.04 1.01	443 202	452 191
Proportion of m	others who had i Overall	9.4%	0.5% 0.5%	1.06	4563	4563
Mother's age	Under 20 20 - 24 25 - 30 30 - 34 35 or over	24.1% 15.4% 8.9% 5.8% 5.0%	3.0% 1.4% 0.9% 0.6% 0.7%	1.19 1.13 1.06 0.95 0.93	215 688 1103 1491 1055	298 848 1200 1323 883
Mother's NS- SEC	Managerial & professional	5.4%	0.5%	0.99	1905	1694
	Intermediate occupations	8.9%	1.0%	1.06	954	941
	Routine & manual	13.6%	1.0%	1.09	1323	1451
	Never worked Unclassified	12.4% 10.8%	2.1% 2.8%	1.15 1.08	261 120	336 141
Given solids by	4 months					
	Overall	49.6%	0.8%	1.02	4563	4563
<i>Mother's age</i>	Under 20 20 - 24 25 - 30 30 - 34 35 or over	73.1% 65.6% 51.2% 43.2% 33.5%	3.1% 1.9% 1.5% 1.3% 1.5%	1.21 1.14 1.06 0.94 0.92	215 688 1103 1491 1055	298 848 1200 1323 883
Mother's NS- SEC	Managerial & professional	39.6%	1.1%	0.95	1905	1694
	Intermediate occupations Routine and	51.6% 58.9%	1.6% 1.4%	1.00	954 1323	941 1451
	manual Never worked	55.9%	3.2%	1 18	261	336
	Unclassified	43.5%	4.6%	1.10	120	141

Table B.3 Desig	n standard errors	s for incidenc	e & duration of	of breastfeed	ing: Wales		
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base	
Proportion of mothers who breastfed initially							
	Overall	67.0%	0.7%	0.64	2118	2118	
Pirth order	First birth	70 7%	0.0%	0.66	1010	1050	
Birtir order	Later hirth	63.4%	0.9%	0.00	1108	1059	
		00.470	0.070	0.02	1100	1000	
Mother's age	Under 20	42.0%	2.5%	0.72	149	202	
	20 - 24	57.6%	1.5%	0.67	414	492	
	25 - 30	70.5%	1.3%	0.64	513	536	
	30 - 34	76.3%	1.0%	0.57	645	543	
	35 or over	75.5%	1.4%	0.58	383	333	
Age completed FTF	16 or under	49.3%	1.3%	0.65	591	627	
	17-18	64 7%	1 1%	0.64	717	740	
	19 and over	84.9%	0.8%	0.61	784	727	
		01.070	0.070	0.01			
Mother's NS- SEC	Managerial & professional	84.0%	0.9%	0.60	730	667	
		72.2%	1.4%	0.63	466	384	
	Routine &	69.6%	3.2%	0.62	764	78	
	Never worked	41.3%	3.1%	0.67	98	113	
	Unclassified	61.7%	3.9%	0.61	60	57	
Proportion of m	others who brea	stfed initially	who breastfee	d for at least	6 weeks after l	birth	
	Overall	55.1%	1.0%	0.64	1127	1068	
Birth order	First birth	49.6%	1.3%	0.65	577	563	
	Later birth	61.2%	1.4%	0.64	550	505	
Mother's age	Under 20	31.5%	4.5%	0.78	41	61	
	20 - 24	35.0%	2.4%	0.72	154	197	
	25 - 30	55.3%	1.8%	0.66	284	297	
	30 - 34	62.8%	1.5%	0.57	390	304	
	35 or over	69.3%	1.8%	0.58	251	203	
Age completed	16 or under	39.1%	2.1%	0.68	218	233	
FIE	17 10	50 6%	1 70/	0.66	362	364	
	17-10 10 and over	50.0%	1.770	0.00	534	450	
	19 and over	00.0%	1.3%	0.01	554	409	
Mother's NS-	Managerial &	68.6%	1.3%	0.59	509	422	
	Intermediate	50.4%	2.0%	0.64	260	248	
	Routine & manual	41.9%	1.8%	0.68	314	341	
	Never worked	48.6%	6.7%	0.80	22	33	
	Unclassified	61.5%	6.6%	0.70	22	25	

Table B.3 Design standard errors for incidence & duration of breastfeeding: Wales (cont.)									
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base			
Proportion of mo	others who brea	stfed initially	who breastfee	d for at least	4 months after	r birth			
	Overall	35.6%	0.9%	0.63	1127	1068			
Birth order	First birth	31.1%	1.2%	0.63	577	563			
	Later birth	40.6%	1.3%	0.62	550	505			
Mother's age	Under 20	18.3%	3.6%	0.76	41	61			
	20 - 24	18.2%	1.9%	0.72	154	197			
	25 - 30	29.1%	1.7%	0.66	284	297			
	30 - 34	46.1%	1.6%	0.57	390	304			
	35 or over	50.8%	2.0%	0.58	251	203			
Age completed FTE	16 or under	22.9%	1.8%	0.66	218	233			
	17-18	28.7%	1.5%	0.64	362	364			
	19 and over	47.1%	1.4%	0.60	534	459			
Mother's NS-	Managerial &	47.4%	1.4%	0.59	509	422			
SEC	professional								
	Intermediate occupations	30.6%	1.8%	0.62	260	248			
	Routine &	23.6%	1.5%	0.66	314	340			
	Never	29.1%	5.9%	0.78	22	34			
	worked	2011/0	0.070	0.10					
	Unclassified	57.0%	6.7%	0.70	22	25			
Proportion of me	others who excl	usivoly bross	tfod initially w	vho ovclusiv	alv fod for at lo	ast 6 wooks			
after birth		usively bleas	stied mitially w		ery red for at re	ast o weeks			
	Overall	25.7%	0.9%	0.62	975	915			
Birth order	First birth	20.1%	1.1%	0.62	495	478			
	Later birth	31.7%	1.3%	0.61	480	437			
Mother's age	Under 20	19.5%	4.1%	0.76	34	50			
	20 - 24	7.6%	1.4%	0.70	120	155			
	25 - 30	23.0%	1.6%	0.65	248	260			
	30 - 34	30.4%	1.5%	0.56	341	263			
	35 or over	39.6%	2.0%	0.58	225	181			
Age completed	16 or under	18.3%	1.7%	0.65	184	194			
FIL	17-18	22 1%	1 /1%	0.64	317	318			
	19 and over	32.1%	1.3%	0.59	463	394			
		021170	11070	0.00					
Mother's NS- SEC	Managerial & professional	33.7%	1.4%	0.59	453	375			
		21.1%	1.6%	0.61	230	219			
	Routine &	18.4%	1.5%	0.65	253	269			
	Never	17.2%	4.9%	0.76	21	32			
	Unclassified	36.6%	7.1%	0.68	18	20			
Table B.3 Design standard errors for incidence & duration of breastfeeding: Wales (cont.)									
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Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base			
Proportion of women who exclusively breastfed initially who exclusively fed for at least 4 months after birth									
	Overall	6.7%	0.5%	0.60	975	915			
Birth order	First birth Later birth	4.9% 8.7%	0.6% 0.8%	0.60 0.60	495 480	478 437			
Mother's age	Under 20 20 - 24 25 - 30 30 - 34 35 or over	5.1% 1.6% 3.9% 9.1% 12.5%	2.2% 0.7% 0.8% 1.0% 1.4%	0.73 0.72 0.65 0.55 0.59	34 120 248 341 225	50 155 260 263 181			
Age completed FTE	16 or under 17-18 19 and over	3.2% 5.6% 9.5%	0.8% 0.8% 0.8%	0.62 0.63 0.58	184 317 463	194 318 394			
Mother's NS- SEC	Managerial & professional Intermediate occupations Routine & manual Never worked Unclassified	9.4% 5.5% 4.1% 0% 15.4%	0.9% 0.9% 0.8% 5.2%	0.58 0.58 0.66 0.67	453 230 253 21 18	375 219 269 32 20			

Table B.4 Design standard errors for selected measures of sample: Wales								
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base		
Smoking status								
Non-smokers Never smoked Gave up smoking before pregnancy	over a year	63.3% 49.9% 13.4%	0.7% 0.7% 0.5%	0.64 0.63 0.61	2077 2077 2077	2077 2077 2077		
All smokers		36.7%	0.7%	0.64	2077	2077		
Smoked before pr Gave up smoking year before	less than a	15.0% 3.8%	0.5% 0.3%	0.64 0.63	2077 2077	2077 2077		
Gave up on confir	rmation of	10.0%	0.4%	0.64	2077	2077		
Gave up later, sta	ayed quit	1.3%	0.2%	0.67	2077	2077		
Smoked throughout pregnancy Gave up but started again Cut down Did not cut down		21.7% 5.3% 14.0% 2.4%	0.6% 0.3% 0.5% 0.2%	0.65 0.65 0.65 0.66	2077 2077 2077 2077	2077 2077 2077 2077 2077		
Proportion of mothers who smoked before or during pregnancy but gave up								
	Overall	40.9%	1.2%	0.62	708	761		
<i>Mother's age</i>	Under 20 20 - 24 25 - 30 30 - 34 35 or over	29.9% 36.6% 47.5% 56.2% 33.8%	2.7% 2.1% 2.4% 2.6% 3.2%	0.69 0.65 0.61 0.55 0.56	109 199 164 144 86	147 237 172 124 76		
Mother's NS- SEC	Managerial & professional	60.3%	2.7%	0.59	126	120		
	Intermediate occupations Routine &	54.9% 32.6%	2.7%	0.62	136 377	142 424		
	manual Never	30.4%	4.2%	0.66	49	57		
	worked	20 00/	6 20/	0.59	20	10		
Proportion of all		20.9%	0.2%	0.00	20	19		
Proportion of all	Overall	21.7%	0.6%	0.65	2077	2077		
<i>Mother's age</i>	Under 20 20 - 24 25 - 30 30 - 34 35 or over	51.5% 31.5% 17.3% 10.2% 15.2%	2.5% 1.4% 1.0% 0.8% 1.1%	0.72 0.67 0.63 0.58 0.58	148 401 501 633 381	200 477 524 533 331		
Mother's NS-	Managerial &	7.3%	0.6%	0.62	715	652		
JEU	Intermediate	14.2%	1.1%	0.65	457	452		
	Routine & manual	35.6%	1.1%	0.66	747	801		
	Never worked	35.0%	3.0%	0.67	99	114		
	Unclassified	23.8%	3.5%	0.61	59	56		

Table B.4 Design standard errors for selected measures of sample: Wales (cont.)								
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base		
Drinking status								
Proportion of mothers who drank before pregnancy								
	Overall	88.8%	0.4%	0.63	2126	2126		
Mother's age	Under 20	92.6%	1.3%	0.72	150	203		
_	20 - 24	89.0%	1.0%	0.68	417	495		
	25 - 30	86.8%	0.9%	0.64	515	538		
	30 - 34	89.5%	0.7%	0.57	645	543		
	35 or over	88.5%	1.0%	0.58	386	335		
Mother's NS- SEC	Managerial & professional	93.0%	0.6%	0.60	726	662		
	Intermediate occupations	91.4%	0.8%	0.62	472	467		
	Routine & manual	89.2%	0.7%	0.64	768	824		
	Never worked	58.3%	3.1%	0.67	100	115		
	Unclassified	73.6%	3.6%	0.61	60	57		
Proportion of all	mothers who d	rank during p	regnancy					
	Overall	55.3%	0.7%	0.63	2109	2109		
Mother's age	Under 20	59.4%	2.5%	0.72	149	202		
_	20 – 24	48.2%	1.5%	0.67	414	492		
	25 – 30	51.4%	1.4%	0.63	510	533		
	30 – 34	57.9%	1.2%	0.57	640	539		
	35 or over	65.3%	1.5%	0.58	383	332		
Mother's NS- SEC	Managerial & professional	60.6%	1.1%	0.60	722	659		
	Intermediate occupations	56.7%	1.4%	0.62	467	462		
	Routine & manual	54.1%	1.1%	0.65	763	818		
	Never worked	32.8%	3.0%	0.68	97	112		
	Unclassified	43.9%	4.0%	0.61	60	57		
Proportion of mo	others who dran	k before preg	nancy who ga	ive up	1001	1000		
	Overall	31.1%	0.7%	0.63	1891	1888		
Mother's age	Under 20	35.8%	2.5%	0.72	139	188		
	20 - 24	45.8%	1.6%	0.67	372	441		
	25 - 30	40.6%	1.4%	0.63	449	467		
	30 - 34	35.2%	1.2%	0.57	578	486		
	35 or over	26.1%	1.5%	0.58	343	297		
Mother's NS- SEC	Managerial & professional	34.9%	1.2%	0.60	676	616		
	Intermediate occupations	37.9%	1.5%	0.63	431	427		
	Routine & manual	39.3%	1.2%	0.65	683	735		
	Never worked	42.4%	4.2%	0.68	57	67		
	Unclassified	40.3%	4.7%	0.62	44	42		

Table B.4 Design	standard errors	for selected	d measures o	f sample: Wa	les (cont.)			
Characteristic	Sample	Estimate	Complex	Design	Sample size	Weighted		
	sub-group		Standard	factor		base		
			error					
Proportion of mothers who planned to breastfeed								
•	Overall	63.2%	0.7%	0.63	2128	2128		
Matharia ana	Linder 20	29 60/	2 40/	0.70	151	205		
wollier's age	20 - 24	55.0%	2.4%	0.72	417	205 496		
	25 - 30	65.6%	1.3%	0.63	515	538		
	30 - 34	71.5%	1.0%	0.00	648	545		
	35 or over	72.8%	1.4%	0.58	383	332		
					. – .			
Mother's NS-	Managerial &	38.6%	2.4%	0.72	151	205		
SEC	professional		1 50/	0.67	117	406		
		55.5%	1.5%	0.67	417	490		
	Routine &	65.6%	1.3%	0.63	515	538		
	manual	00.070	1.070	0.00				
	Never	71.5%	1.1%	0.57	648	545		
	worked							
	Unclassified	72.8%	1.4%	0.58	383	332		
Proportion of mo	there who had i	ntroduced s	olide by 3 mo	onthe				
	Overall	13 4%	0.103 by 3 110 0.6%	0.68	1582	1582		
	overall	10.470	0.070	0.00	1002	1002		
Mother's age	Under 20	25.3%	2.8%	0.76	93	142		
	20 - 24	21.9%	1.6%	0.72	269	353		
	25 - 30	11.3%	1.0%	0.65	388	413		
	30 - 34	7.4%	0.8%	0.59	500	399		
	35 or over	7.2%	0.9%	0.59	323	267		
Mother's NS-	Managerial &	6.3%	0.6%	0.59	597	498		
SEC	professional							
	Intermediate	11.0%	1.2%	0.69	352	345		
	occupations							
	Routine &	18.7%	1.1%	0.69	540	614		
	manual							
	Never	18.7%	3.3%	0.78	57	84		
	Worked	20 7%	F 0%	0.60	36	11		
	Uliciassilleu	50.7 /0	5.078	0.09	50	71		
Given solids by 4	4 months		0.00/		4500	1500		
	Overall	64.5%	0.8%	0.63	1582	1582		
Mother's age	Under 20	81.6%	2.5%	0.77	93	142		
5	20 - 24	74.2%	1.7%	0.72	269	353		
	25 - 30	66.7%	1.5%	0.65	388	413		
	30 - 34	56.3%	1.4%	0.56	500	399		
	35 or over	51.9%	1.7%	0.57	323	267		
Mother's NS-	Managerial &	52.2%	1.3%	0.57	597	498		
SEC	professional	/0		0.07				
	Intermediate	63.5%	1.6%	0.63	352	345		
	occupations							
	Routine &	73.3%	1.2%	0.68	540	614		
	manual		<b>•</b> -• <i>i</i>	<b>-</b>		• :		
	Never	72.7%	3.7%	0.77	57	84		
	Unclassified	76.0%	4 4%	0.66	36	41		
	Shoussined	10.070	T.T /0	0.00				

Table B.5 Design standard errors for incidence & duration of breastfeeding: Scotland									
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base			
Proportion of mo	others who brea	stfed initially	0.00/	0.00	0170	0100			
	Overall	69.7%	0.8%	0.86	2179	2180			
Birth order	First hirth	73.2%	1.2%	0.88	1077	1113			
Birthorder	Later birth	66.0%	1.2%	0.84	1102	1067			
		00.070	1.270	0.01					
Mother's age	Under 20	39.7%	3.5%	0.95	139	177			
J	20 - 24	59.0%	2.3%	0.91	324	384			
	25 - 30	70.3%	1.7%	0.87	530	563			
	30 - 34	77.2%	1.4%	0.81	673	612			
	35 or over	80.2%	1.5%	0.79	497	419			
Age completed	16 or under	48.2%	1.8%	0.87	570	608			
FTE									
	17-18	68.2%	1.5%	0.86	717	729			
	19 and over	87.0%	1.0%	0.85	866	818			
	Manager de la O	04.40/	4 40/	0.00	0.07	000			
Mother's NS-	Managerial &	84.1%	1.1%	0.83	807	802			
SEC	protessional	70.00/	4.00/	0.05	470	200			
	Intermediate	70.2%	1.9%	0.85	473	396			
	occupations	00.00/	2 70/	0.94	605	71			
	Routine &	82.8%	3.1%	0.84	095	//			
	Novor	52 20/	1 20/	0.01	00	117			
	worked	52.5%	4.270	0.91	33	117			
	Unclassified	53.2%	6.3%	0.88	45	48			
	0.1010.000	00.270	0.070	0.00		-			
Proportion of mo	others who brea	stfed initially	who breastfed	d for at least	6 weeks after b	oirth			
	Overall	61.7%	1.2%	0.88	1244	1180			
Birth order	First birth	56.2%	1.7%	0.89	632	624			
	Later birth	67.9%	1.7%	0.86	612	555			
Mother's age	Under 20	27.8%	5.7%	0.99	39	57			
	20 - 24	40.1%	3.7%	1.01	128	170			
	25 - 30	61.7%	2.4%	0.89	288	303			
	30 - 34	69.4%	1.8%	0.79	445	373			
	35 or over	71.8%	2.1%	0.78	338	269			
A	10	00.00/	0.00/	0.00	014	222			
Age completed	16 or under	38.2%	2.8%	0.90	214	220			
FIE	17-18	51 3%	2.2%	0.80	380	376			
	10 and over	75.8%	2.270	0.09	637	565			
		75.070	1.570	0.05	037	505			
Mother's NS-	Managerial &	73.4%	1.5%	0.82	628	529			
SEC	professional	7 <b>0</b> <del>1</del> /0	1.070	0.02	020	020			
	Intermediate	56 7%	2.6%	0.85	264	249			
	occupations	00.170	2.075	0.00					
	Routine &	50.1%	2.5%	0.93	304	331			
	manual								
	Never	37.9%	7.1%	1.07	32	50			
	worked								
	Unclassified	68.7%	10.0%	1.00	16	20			

Table B.5 Design standard errors for incidence & duration of breastfeeding: Scotland (cont.)								
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base		
Proportion of mo	Overall		uno preastre	0.85	4 months after 1244	1180 °		
	Overall	77.270	1.2 /0	0.00	1211	1100		
Birth order	First birth	38.4%	1.6%	0.86	632	624		
	Later birth	50.8%	1.7%	0.84	612	555		
Mother's age	Under 20	9.9%	3.4%	0.89	39	57		
	20 - 24	24.6%	3.3%	1.02	128	170		
	25 - 30	44.4%	2.5%	0.89	288	303		
	30 - 34	52.6%	2.0%	0.79	445	373		
	35 or over	51.9%	2.3%	0.77	338	269		
		01.070	2.070	0.77	000	200		
Age completed	16 or under	21.2%	2.3%	0.89	214	228		
	17-18	35.7%	2.1%	0.87	380	376		
	19 and over	59.2%	1.7%	0.83	637	565		
Mother's NS-	Managerial &	54.5%	1.7%	0.80	628	529		
SEC	professional	27 40/	2 50/	0.94	264	240		
	occupations	37.170	2.5%	0.04	204	249		
	Routine &	33 5%	2.3%	0.92	304	331		
	manual	00.070	2.070	0.02		001		
	Never	34 9%	7.0%	1.06	32	50		
	worked	011070	1.070	1100				
	Unclassified	61.6%	10.5%	1.00	16	20		
Proportion of mo after birth	others who excl	usively breas	tfed initially w	vho exclusive	ely fed for at le	ast 6 weeks		
	Overall	31.1%	1.2%	0.85	1091	1023		
Birth order	First birth	23.7%	1.5%	0.86	550	536		
	Later birth	39.3%	1.8%	0.84	541	487		
Matharia	Linden 00	44.00/	4 70/	0.05	22	40		
wother's age		14.0%	4.7%	0.95	33	49		
	20 - 24	19.3%	3.3%	1.01	103	137		
	25 - 30	29.9%	2.5%	0.91	253	200		
	30 - 34	35.2%	2.0%	0.79	391	326		
	35 or over	36.0%	2.3%	0.77	306	242		
Age completed FTE	16 or under	16.6%	2.3%	0.87	174	182		
	17-18	28.5%	2.1%	0.88	333	324		
	19 and over	37.1%	1.7%	0.82	574	509		
Mother's NS-	Managerial &	37.2%	1.7%	0.79	568	475		
SEC	Intermediate	30.6%	2.6%	0.85	224	209		
	Routine &	22.3%	2.2%	0.92	257	278		
	Never worked	18.1%	6.2%	1.07	27	41		
	Unclassified	41.8%	10.9%	1.00	15	19		

Table B.5 Design standard errors for incidence & duration of breastfeeding: Scotland (cont.)								
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base		
Proportion of women who exclusively breastfed initially who exclusively fed for at least 4 months after birth								
	Overall	10.3%	0.8%	0.83	1091	1023		
Birth order	First birth Later birth	6.5% 14.4%	0.9% 1.3%	0.86 0.82	550 541	536 487		
<i>Mother's age</i>	Under 20 20 - 24 25 - 30 30 - 34 35 or over	0.0% 4.8% 11.2% 12.3% 11.6%	1.8% 1.7% 1.4% 1.5%	1.01 0.92 0.78 0.76	33 103 253 391 306	49 137 266 326 242		
Age completed FTE	16 or under 17-18 19 and over	5.6% 7.3% 13.7%	1.5% 1.2% 1.2%	0.91 0.85 0.82	174 333 574	182 324 509		
Mother's NS- SEC	Managerial & professional Intermediate occupations Routine & manual Never worked Unclassified	12.9% 12.0% 4.9% 8.2% 8.9%	1.2% 1.9% 1.0% 4.7% 5.1%	0.80 0.87 0.83 1.13 0.81	568 224 257 27 15	475 209 278 41 19		

Table B.6 Design standard errors for selected measures of sample: Scotland								
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base		
Smoking status								
Non-smokers Never smoked Gave up smoking before pregnancy	over a year	64.5% 52.5% 12.1%	0.9% 0.9% 0.6%	0.85 0.84 0.82	2136 2136 2136	2137 2137 2137		
All smokers		35.5%	0.9%	0.85	2136	2137		
Smoked before pr Gave up smoking year before Gave up on confin	egnancy less than a mation of	15.6% 4.0% 9.8%	0.7% 0.4% 0.6%	0.86 0.85 0.86	2136 2136 2136	2137 2137 2137		
pregnancy Gave up later, sta	ved auit	1.8%	0.3%	0.88	2136	2137		
Smoked throughou Gave up but starte Cut down Did not cut down	ut pregnancy ed again	19.9% 4.5% 13.8% 1.6%	0.7% 0.4% 0.6% 0.2%	0.86 0.89 0.86 0.84	2136 2136 2136 2136 2136	2137 2137 2137 2137 2137		
Proportion of mo	thors who smo	kad bafara a	r during progn	anov but aa	<i>(0,110)</i>			
Froportion of mo	Overall	43.9%	1.6%	0.84	715	758		
Mother's age	Under 20 20 - 24 25 - 30 30 - 34 35 or over	32.2% 44.7% 48.3% 47.6% 42.1%	4.3% 3.2% 3.1% 3.3% 3.8%	0.94 0.88 0.84 0.77 0.76	86 170 182 155 117	113 200 194 140 105		
Mother's NS- SEC	Managerial & professional	42.1% 44 1%	3.1% 3.5%	0.81 0.83	187 145	182 150		
	occupations Routine &	66.8%	2.2%	0.86	325	357		
	manual Never	70.6%	6.0%	0.91	43	51		
	worked Unclassified	43.3%	10.8%	0.88	15	17		
Smoked through	out pregnancy							
omeneu in eugn	Overall	19.9%	0.7%	0.86	2136	2137		
Mother's age	Under 20 20 - 24 25 - 30 30 - 34 35 or over	44.2% 29.9% 18.1% 12.2% 14.4%	3.6% 2.1% 1.4% 1.1% 1.4%	0.95 0.90 0.87 0.80 0.79	136 315 522 661 488	174 372 555 601 423		
Mother's NS- SEC	Managerial & professional	9.7%	0.9%	0.85	851	787		
	Intermediate occupations	14.3%	1.4%	0.85	467	463		
	Routine & manual	32.9%	1.5%	0.88	679	725		
	worked	31.1%	3.9%	0.91	90	110		
	Unclassified	16.7%	4.6%	0.83	41	46		

Table B.6 Design	standard errors	s for selected	I measures of	sample: Sco	otland (cont.)				
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base			
Drinking status									
Proportion of mo	Proportion of mothers who drank before pregnancy								
-	Overall	88.0%	0.6%	0.86	2185	2185			
Mothor's ago	Under 20	87 4%	2 20%	0.80	130	177			
wollier's age		86 Q%	2.270	0.09	327	387			
	20 - 24	85.9%	1.0 %	0.95	534	566			
	20 34	01.9%	0.0%	0.09	675	613			
	35 or over	91.170 87.6%	0.9%	0.03	497	429			
		07.070	1.570	0.75	401	425			
Mother's NS- SEC	Managerial & professional	93.0%	0.7%	0.81	872	807			
	Intermediate occupations	93.5%	1.0%	0.85	475	471			
	Routine & manual	85.4%	1.2%	0.89	699	748			
	Never	54.9%	4.2%	0.90	98	116			
	Unclassified	70.3%	6.1%	0.88	41	44			
Proportion of all	mothers who d	rank during p	oregnancy						
	Overall	51.3%	0.9%	0.84	2159	2159			
Mother's age	Under 20	44.0%	3.6%	0.95	137	175			
	20 – 24	43.4%	2.3%	0.91	324	383			
	25 – 30	48.7%	1.8%	0.86	529	560			
	30 – 34	56.5%	1.6%	0.80	667	607			
	35 or over	57.1%	1.9%	0.77	489	422			
Mother's NS- SEC	Managerial & professional	60.3%	1.4%	0.81	861	797			
	Intermediate	54.0%	1.9%	0.84	470	467			
	Routine &	44.7%	1.6%	0.87	689	736			
	Never	24.8%	3.6%	0.91	98	116			
	Unclassified	38.7%	6.5%	0.88	41	44			
Proportion of ma	others who dran	k before pred	nancy who a	ave up					
	Overall	41.7%	1.0%	0.85	1941	1924			
Mother's age	Under 20	49.5%	3.9%	0.96	120	155			
	20 - 24	50.0%	2.5%	0.91	286	336			
	25 - 30	43.2%	1.9%	0.86	465	486			
	30 - 34	38.0%	1.6%	0.80	620	559			
	35 or over	34.7%	1.9%	0.78	438	376			
Mother's NS-	Managerial &	35.2%	1.4%	0.81	812	751			
	Intermediate	42.2%	2.0%	0.84	445	440			
	Routine &	47.5%	1.7%	0.87	603	639			
	Never	54.8%	5.8%	0.93	52	64			
	Unclassified	44.9%	7.9%	0.89	29	31			

Table B.6 Design	standard error	s for selected	I measures of	sample: Sco	tland (cont.)				
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base			
Proportion of mothers who planned to breastfeed									
r toporaon or me	Overall	65.4%	0.9%	0.85	2179	2180			
Mother's age	Under 20 20 - 24 25 - 30 30 - 34	38.5% 56.9% 66.6% 70.8%	3.5% 2.3% 1.7% 1.5%	0.96 0.91 0.86 0.80	140 323 536 671	179 382 569 610			
	35 or over	75.1%	1.6%	0.78	495	427			
Mother's NS- SEC	Managerial & professional	79.0%	1.2%	0.82	868	803			
	Intermediate occupations	65.7%	1.8%	0.84	472	468			
	Routine &	53.9%	1.6%	0.87	696	745			
	Never	49.0%	4.2%	0.91	98	116			
	Unclassified	53.7%	6.3%	0.88	45	48			
Proportion of mo	others who had	introduced so	olids by 3 mon	ths					
	Overall	12.6%	0.7%	0.91	1666	1666			
Mother's age	Under 20	24.6%	3.8%	0.93	79	113			
	20 - 24	21.2%	2.4%	1.01	213	293			
	25 - 30	13.1%	1.5%	0.92	397	435			
	30 - 34	7.1%	1.0%	0.84	557	481			
	35 or over	8.0%	1.2%	0.79	409	334			
Mother's NS- SEC	Managerial & professional	6.2%	0.8%	0.84	733	629			
	Intermediate occupations	11.1%	1.5%	0.87	358	351			
	Routine & manual	17.4%	1.5%	0.94	491	564			
	Never worked	25.0%	4.7%	0.98	54	83			
	Unclassified	32.2%	7.5%	1.00	30	40			
Given solids by 4	4 months								
-	Overall	60.3%	1.0%	0.86	1666	1666			
Mother's age	Under 20	84.2%	3.6%	1.04	79	113			
	20 - 24	74.4%	2.6%	1.01	213	293			
	25 - 30	61.3%	2.1%	0.89	397	435			
	30 - 34	51.9%	1.8%	0.78	557	481			
	35 or over	49.3%	2.1%	0.76	409	334			
Mother's NS- SEC	Managerial & professional	49.5%	1.6%	0.78	733	629			
	Intermediate occupations	61.5%	2.2%	0.84	358	351			
	Routine &	68.9%	1.8%	0.93	491	564			
	Never	71.0%	5.0%	1.01	54	83			
	Unclassified	74.7%	7.0%	1.01	30	40			

Table B.7 Design	standard errors	s for incidence	e & duration	of breastfeed	ing: Northern I	reland			
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base			
Bronartian of mathers who broastfod initially									
	Overall	63.0%	0.7%	0.66	1865	1864			
Birth order	First birth	67.3% 58.9%	1.1% 1.0%	0.68 0.65	876 989	909 955			
	Lator birth	00.070	1.0 / 0	0.00					
Mother's age	Under 20	34.9%	3.4%	0.77	83	115			
	20 - 24	49.1%	2.0%	0.70	273	313			
	25 - 30	63.5%	1.4%	0.66	482	492			
	30 - 34	71.5%	1.2%	0.63	615	578			
	35 or over	69.7%	1.5%	0.62	405	359			
Age completed	16 or under	38.1%	1.8%	0.68	306	326			
FIE	17-18	55.2%	1.3%	0.67	619	633			
	19 and over	78.1%	0.9%	0.65	924	885			
Mother's NS-	Managerial &	80.4%	0.9%	0.64	765	715			
SEC	Intermediate	58.8%	1.7%	0.66	407	352			
	Routine &	57.6%	4.3%	0.63	580	52			
	Never	37.0%	3.8%	0.72	68	83			
	Unclassified	63.5%	4.7%	0.66	45	46			
Proportion of mo	thors who brog	stfod initially	who broastfo	d for at loast	6 wooks after l	oirth			
	Overall	52 0%	1 0%		1045	1002			
	overall	02.070	1.070	0.00	1010	1002			
Birth order	First birth	48.7%	1.4%	0.68	523	523			
	Later birth	55.5%	1.4%	0.65	522	478			
Mother's and	Under 20	22.6%	5.8%	0.81	21	32			
would saye	20 24	11 3%	3.0%	0.01	100	122			
	20-24	45.3%	2.0%	0.74	266	270			
	20 - 30	55.8%	2.0%	0.64	396	358			
	35 or over	63.4%	2.0%	0.62	256	213			
		001170	,	0.02		-			
Age completed FTE	16 or under	41.2%	3.3%	0.70	96	102			
	17-18	35.7%	1.8%	0.67	299	300			
	19 and over	62.7%	1.3%	0.65	643	591			
Mother's NS-	Managerial &	63.5%	1.4%	0.64	555	493			
	Intermediate	43.4%	2.2%	0.66	211	203			
	Routine & manual	39.2%	2.1%	0.69	240	257			
	Never	25.6%	6.6%	0.75	18	23			
	Unclassified	49.8%	7.2%	0.72	21	24			

Table B.7 Design	n standard erro	ors for incide	ence & duration	on of breast	feeding: North	ern Ireland			
Characteristic	Sample sub-group	Estimate	Complex standard	Design factor	Sample size	Weighted base			
error									
Proportion of mo	thers who brea	stfed initially	who breastfee	d for at least	4 months after	birth			
	Overall	31.7%	0.9%	0.65	1045	1002			
Birth order	First birth	27.6%	1.3%	0.66	523	523			
	Later birth	36.2%	1.4%	0.64	522	478			
Mothor's 200	Linder 20	1 3%	2 8%	0.78	21	32			
would saye	20 - 24	18 7%	2.0%	0.70	100	122			
	20 - 24	25.4%	2.5%	0.74	266	270			
	20 24	20.4%	1.770	0.07	396	358			
	30 - 34 35 or over	30.4 % 44 0%	2.0%	0.03	256	213			
	35 01 0VEI	44.0%	2.0%	0.01	250	215			
Age completed FTE	16 or under	25.8%	2.9%	0.69	96	102			
	17-18	17.5%	1.4%	0.66	299	300			
	19 and over	40.3%	1.3%	0.64	643	591			
Mother's NS-	Managerial &	42.5%	1.4%	0.63	555	494			
020	Intermediate	22.9%	1.9%	0.65	211	204			
	Routine & manual	20.4%	1.7%	0.68	240	257			
	Never	14.5%	5.2%	0.72	18	23			
	Unclassified	23.7%	6.2%	0.73	21	24			
Proportion of mo	others who excl	usively breas	tfed initially w	ho exclusive	ely fed for at le	ast 6 weeks			
after birth	Oursell	04 40/	0.00/	0.04	016	001			
	Overall	24.4%	0.9%	0.64	976	66 I			
Birth order	First birth	19.9%	1.2%	0.66	465	463			
	Later birth	29.3%	1.4%	0.63	457	417			
Matharia ana	Linder 20	0.0%			15	22			
wouller's age		0.0%	2 40/	0.74	01	112			
	20 - 24	10.2%	2.4 %	0.74	220	234			
	20 - 30	19.2 /0	1.7 /0	0.07	250	316			
	35 or over	21.470	2.0%	0.00	231	192			
		54.570	2.070	0.00	201	152			
Age completed FTE	16 or under	19.0%	2.8%	0.68	83	89			
	17-18	16.9%	1.5%	0.66	248	249			
	19 and over	29.0%	1.2%	0.64	585	535			
Mother's NS- SEC	Managerial & professional	30.5%	1.3%	0.63	511	454			
-	Intermediate	17.6%	1.8%	0.65	180	173			
	Routine & manual	20.5%	1.8%	0.68	196	211			
	Never worked	6.5%	4.1%	0.77	16	21			
	Unclassified	4.1%	2.6%	0.63	19	22			

Table B.7 Desig (cont.)	n standard erro	ors for incide	ence & duratio	on of breas	tfeeding: North	nern Ireland
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base
Proportion of wo after birth	omen who exclu	sively breast	fed initially wh	o exclusivel	ly fed for at lea	st 4 months
	Overall	7.7%	0.6%	0.63	916	881
Birth order	First birth Later birth	5.7% 10.0%	0.7% 0.9%	0.65 0.62	465 457	463 417
<i>Mother's age</i>	Under 20 20 - 24 25 - 30 30 - 34 35 or over	0.0% 2.1% 5.2% 9.8% 11.8%	1.0% 0.9% 1.0% 1.4%	0.73 0.67 0.63 0.60	15 91 230 351 231	23 112 234 316 192
Age completed FTE	16 or under 17-18 19 and over	4.9% 3.1% 10.5%	1.4% 0.7% 0.8%	0.63 0.65 0.63	83 248 585	89 249 535
Mother's NS- SEC	Managerial & professional Intermediate occupations Routine & manual Never worked Unclassified	10.4% 5.7% 5.2% 0.0% 0.0%	0.9% 1.1% 1.0%	0.62 0.64 0.68	511 180 196 16 19	454 173 211 21 22

Table B.8 Design	standard error	s for selected	measures of	sample: North	ern Ireland	
Characteristic	Sample sub-group	Estimate	Complex Standard	Design factor	Sample size	Weighted base
Smoking status			error			
Non-smokers Never smoked Gave up smoking before pregnancy	over a year	68.1% 55.4% 12.7%	0.7% 0.8% 0.5%	0.67 0.66 0.64	1832 1832 1832	1830 1830 1830
All smokers		31.9%	0.7%	0.67	1832	1830
Smoked before pr Gave up smoking year before Gave up on confin	egnancy less than a mation of	13.7% 3.0% 9.9%	0.5% 0.3% 0.5%	0.67 0.67 0.67	1832 1832 1832	1830 1830 1830
pregnancy Gave up later, sta	yed quit	0.8%	0.1%	0.68	1832	1830
Smoked throughou Gave up but starte Cut down Did not cut down	ut pregnancy ed again	18.2% 4.5% 12.0% 1 7%	0.6% 0.3% 0.5% 0.2%	0.68 0.68 0.68 0.70	1832 1832 1832 1832	1830 1830 1830 1830
				0.10		
Proportion of mo	Overall	43.0%	1.4%	0.66	<b>ир</b> 545	583
<i>Mother's age</i>	Under 20 20 - 24 25 - 30 30 - 34 35 or over	43.0% 37.9% 44.7% 48.3% 44.5%	4.4% 2.7% 2.7% 2.9% 3.9%	0.75 0.68 0.64 0.62 0.59	53 141 147 130 70	74 164 153 125 63
Mother's NS- SEC	Managerial & professional Intermediate	55.2% 54.7%	2.9% 3.1%	0.63 0.65	130 110	127 114
	occupations Routine &	34.5%	1.9%	0.66	256	282
	Never	35.9%	5.4%	0.72	34	44
	Unclassified	32.8%	7.9%	0.65	15	16
Smoked through	<b>out pregnancy</b> Overall	18.2%	0.6%	0.68	1832	1830
<i>Mother's age</i>	Under 20 20 - 24 25 - 30 30 - 34 35 or over	37.6% 33.6% 17.7% 11.3% 9.9%	3.5% 1.9% 1.2% 0.9% 1.0%	0.77 0.70 0.66 0.64 0.63	81 264 469 611 399	112 303 478 575 354
Mother's NS- SEC	Managerial & professional Intermediate	8.1% 13.2%	0.7% 1.1%	0.66 0.66	752 397	703 394
	occupations Routine & manual	30.4%	1.3%	0.69	572	607
	Never worked	33.9%	3.8%	0.73	68	83
	Unclassified	24.2%	4.3%	0.67	43	44

Table B.8 Design	standard erro	rs for selecte	ed measures o	f sample: Nort	hern Ireland	(cont.)
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base
Drinking status						
Proportion of mo	thers who drar	nk before pre	egnancy			
	Overall	83.8%	0.6%	0.65	1880	1880
Mother's age	Under 20	85 7%	2.5%	0 77	83	116
mouner o uge	20 - 24	88.7%	1.3%	0.71	274	315
	25 - 30	83.5%	1.1%	0.66	486	496
	30 - 34	81.9%	1.0%	0.63	624	587
	35 or over	82.6%	1.2%	0.61	406	360
Mother's NS-	Managerial &	83.8%	0.9%	0.63	772	723
SEC	professional					
	Intermediate	88.7%	1.0%	0.65	408	405
	Routine &	84.4%	1.0%	0.66	585	622
	Never	62.3%	3.8%	0.72	70	85
	worked Unclassified	72 1%	4.3%	0.66	45	46
Proportion of all	mothers who o	Irank during	pregnancy	0.00		
r roporaon or an	Overall	47.0%	0.8%	0.66	1859	1858
Mother's age	Under 20	37.3%	3.5%	0.77	83	116
-	20 – 24	52.1%	2.0%	0.70	267	307
	25 – 30	45.7%	1.5%	0.66	482	492
	30 – 34	45.4%	1.3%	0.63	617	581
	35 or over	50.0%	1.6%	0.61	403	357
Mother's NS-	Managerial &	51.2%	1.2%	0.63	767	718
020	Intermediate	49.3%	1.6%	0.65	402	398
	Routine and manual	44.4%	1.4%	0.68	578	615
	Never worked	27.4%	3.6%	0.73	68	83
	Unclassified	29.5%	4.5%	0.66	44	45
Proportion of moth	ers who drank b	efore pregnar	ncy who gave u	p		
-	Overall	43.8%	0.8%	0.66	1573	1575
Mother's age	Under 20	56.4%	3.8%	0.77	71	99
	20 - 24	41.1%	2.1%	0.70	244	279
	25 - 30	45.2%	1.6%	0.66	406	414
	30 - 34	44.4%	1.4%	0.63	511	481
	35 or over	39.4%	1.8%	0.61	336	297
Mother's NS- SEC	Managerial & professional	38.8%	1.3%	0.63	649	606
-	Intermediate	44.3%	1.7%	0.65	361	359
	Routine &	47.3%	1.5%	0.68	488	525
	Never	55.2%	5.1%	0.73	43	53
	Unclassified	58.9%	5.8%	0.67	32	33

Table B.8 Design	standard error	s for selected	I measures of s	sample: North	ern Ireland (	cont.)
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base
Proportion of mo	others who plan	ned to breast	feed			
	Overall	56.7%	0.8%	0.66	1874	1874
Mother's age	Under 20	30.6%	3 3%	0.77	85	118
women's age	20 - 24	42 7%	1.9%	0.77	273	313
	25 - 30	58.8%	1.5%	0.66	482	491
	30 - 34	62.7%	1.3%	0.63	622	585
	35 or over	64.6%	1.6%	0.62	404	357
Mother's NS- SEC	Managerial & professional	72.1%	1.1%	0.64	770	720
	Intermediate	53.2%	1.6%	0.65	407	404
	Routine &	45.2%	1.4%	0.68	581	619
	Never	30.8%	3.6%	0.72	70	85
	Unclassified	50.0%	4.8%	0.66	46	48
Proportion of mo	there who had	introduced s	olide by 3 mon	the		
	Overall	11.2%	0.5%	0.69	1605	1605
Mother's age	Under 20	19.0%	3.2%	0.82	64	99
	20 - 24	20.8%	1.8%	0.72	213	264
	25 - 30	10.0%	1.0%	0.66	408	421
	30 - 34	9.1%	0.8%	0.63	549	503
	35 or over	5.4%	0.8%	0.63	364	311
Mother's NS- SEC	Managerial & professional	6.0%	0.6%	0.64	685	617
	Intermediate occupations	9.7%	1.1%	0.66	351	349
	Routine & manual	16.4%	1.1%	0.69	488	535
	Never worked	25.0%	4.1%	0.78	49	67
	Unclassified	11.2%	3.5%	0.68	32	38
Given solids by 4	<b>4 months</b> Overall	50.8%	0.8%	0.66	1605	1605
Mother's age	Under 20	59.0%	4.0%	0.81	64	99
	20 - 24	68.8%	2.1%	0.73	213	264
	25 - 30	53.9%	1.6%	0.66	408	421
	30 - 34	44.4%	1.4%	0.63	549	503
	35 or over	38.6%	1.7%	0.61	364	311
Mother's NS- SEC	Managerial & professional	42.9%	1.2%	0.62	685	617
	Intermediate	53.2%	1.8%	0.66	351	349
	Routine & manual	57.5%	1.5%	0.69	488	535
	Never worked	62.3%	4.6%	0.78	49	67
	Unclassified	43.8%	5.8%	0.71	32	38

Table B.9 Design	n standard error	s for incidenc	e & duration	of breastfeedin	q: United Ki	ngdom
Characteristic	Sample	Estimate	Complex	Desian	Sample	Weighted
	sub-group		Standard	factor	size	base
	0 1		error			
Proportion of mo	others who brea	stfed initially				
	Overall	76.2%	0.4%	1.16	12184	12190
		=0.00/	0.00/	4.00	5000	0005
Birth order		79.3%	0.6%	1.20	5968	6225
	Later birth	73.1%	0.7%	1.15	0210	5964
Mother's age	Under 20	51.0%	2.2%	1.31	727	891
mouloi o ugo	20 - 24	67.1%	1.2%	1 24	2078	2385
	25 - 30	76.2%	0.9%	1 10	3000	3151
	20 00	83.6%	0.5%	1.10	3770	3462
	35 or over	94 59/	0.7 /0	1.10	2557	2266
	55 01 0vei	04.570	0.076	1.07	2007	2200
Age completed FTE	16 or under	59.7%	1.0%	1.20	3107	3327
	17-18	73.0%	0.8%	1.19	3998	4104
	19 and over	90.8%	0.5%	1.11	4959	4654
Mother's NS- SEC	Managerial & professional	88.0%	0.6%	1.15	4644	4437
	Intermediate	76.8%	1.1%	1.17	2560	2512
	Routine &	81.3%	2.2%	1.15	3921	4014
	Never	65.7%	2.0%	1.23	708	863
	Unclassified	71.8%	2.8%	1.18	351	365
Proportion of me	others who brea	stfed initially	who breastfe	d for at least 6	veeks after	hirth
	Overall	62 8%	0.7%	1 21	7088	7186
	overall	02.070	0.170			
Birth order	First birth	58.5%	1.0%	1.23	3648	3841
	Later birth	67.8%	1.0%	1.19	3440	3345
Mother's age	Under 20	27.8%	3.4%	1.35	220	324
	20 - 24	46.5%	2.0%	1.35	861	1164
	25 - 30	62.0%	1.4%	1.25	1694	1869
	30 - 34	69.5%	1.1%	1.12	2516	2268
	35 or over	73.7%	1.2%	1.09	1770	1539
Age completed	16 or under	43.9%	1.6%	1.25	1310	1561
	17-18	57.3%	1.3%	1 24	2143	2277
	19 and over	75.5%	0.9%	1.15	3578	3289
Mother's NS- SEC	Managerial & professional	73.4%	0.9%	1.13	3412	3070
-	Intermediate	59.7%	1.5%	1.19	1503	1500
	Routine &	48.9%	1.4%	1.26	1778	2004
	Never	58.4%	3.5%	1.43	248	418
	Unclassified	73.2%	4.2%	1.29	147	194
	worked Unclassified	73.2%	4.2%	1.29	147	194

Table B.9 Desig	n standard erro	ors for incide	ence & duration	of breast	feeding: United	l Kingdom
(cont.)					-	-
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base
Proportion of mo	others who brea	stfed initially	who breastfed fo	or at least 4	4 months after	birth
	Overall	44.2%	0.7%	1.19	7088	7186
Birth order	First birth	39.6% 49.6%	1.0% 1.0%	1.21 1.18	3648 3440	3841 3345
•• ·• •		40.070	1.070	1.10	0000	0070
Mother's age	Under 20	16.3%	2.8%	1.34	220	324
	20 - 24	26.9%	1.8%	1.35	001	1104
	25 - 30	42.9%	1.4%	1.26	1694	1869
	30 - 34	50.1%	1.2%	1.11	2576	2268
	35 or over	56.3%	1.4%	1.09	1770	1539
Age completed FTE	16 or under	27.7%	1.4%	1.23	1310	1561
	17-18	37.5%	1.3%	1.23	2143	2277
	19 and over	56.7%	1.0%	1.15	3578	3289
Mother's NS- SEC	Managerial & professional	53.2%	1.0%	1.13	3412	3070
	Intermediate occupations	39.7%	1.5%	1.18	1503	1500
	Routine & manual	32.4%	1.3%	1.24	1778	2004
	Never worked	47.4%	3.5%	1.43	248	418
	Unclassified	52.0%	4.8%	1.33	147	194
Proportion of mo	others who excl	usively breas	tfed initially who	exclusive	ly fed for at lea	st 6 weeks
	Overall	32.3%	0.7%	1.19	6094	6091
Birth order	First birth	26.7%	0.9%	1.21	3117	3235
	Later birth	38.7%	1.1%	1.18	2977	2856
Mother's age	Under 20	12.5%	2.8%	1.30	168	241
	20 - 24	20.9%	1.8%	1.35	718	971
	25 - 30	31.8%	1.5%	1.27	1453	1581
	30 - 34	37.1%	1.2%	1.12	2181	1955
	35 or over	38.2%	1.5%	1.09	1552	1326
Age completed FTE	16 or under	22.9%	1.5%	1.25	1074	1264
	17-18	28.9%	1.3%	1.23	1825	1913
	19 and over	39.1%	1.0%	1.15	3148	2863
Mother's NS- SEC	Managerial & professional	38.5%	1.1%	1.12	3036	2696
	Intermediate occupations	31.5%	1.6%	1.20	1277	1271
	Routine & manual	23.9%	1.3%	1.25	1468	1650
	Never worked	26.2%	3.6%	1.47	190	315
	Unclassified	33.8%	5.0%	1.34	123	159

Table B.9 Desig (cont.)	n standard erro	ors for incide	ence & duratio	on of breastfe	eding: Unite	d Kingdom
Characteristic	Sample sub-group	Estimate	Complex standard error	Design factor	Sample size	Weighted base
Proportion of wo after birth	omen who exclu	sively breast	fed initially wh	o exclusively	fed for at leas	st 4 months
	Overall	11.6%	0.5%	1.19	6094	6091
Birth order	First birth Later birth	9.3% 14.1%	0.6% 0.8%	1.24 1.16	3117 2977	3235 2856
<i>Mother's age</i>	Under 20 20 - 24 25 - 30 30 - 34 35 or over	3.1% 4.3% 11.4% 13.0% 16.7%	1.6% 0.9% 1.1% 0.8% 1.1%	1.39 1.40 1.32 1.12 1.10	168 718 1453 2181 1552	241 971 1581 1955 1326
Age completed FTE	16 or under 17-18 19 and over	8.3% 7.3% 16.0%	1.0% 0.7% 0.8%	1.30 1.20 1.16	1074 1825 3148	1264 1913 2863
Mother's NS- SEC	Managerial & professional Intermediate occupations Routine & manual Never worked Unclassified	14.4% 12.4% 7.1% 7.6% 12.3%	0.8% 1.1% 0.8% 2.3% 3.6%	1.12 1.20 1.27 1.56 1.37	3036 1277 1468 190 123	2696 1271 1650 315 159

Table B.10 Desig	n standard erro	rs for selecte	d measures of	f sample: Unite	ed Kingdom	
Characteristic	Sample sub-group	Estimate	Complex Standard	Design factor	Sample size	Weighted base
Smoking status			error			
Non omekore		67.00/	0.5%	1 10	11040	11022
Non-Smokers		07.2% 53.1%	0.5%	1.18	11942 11942	11933
Gave up smoking	over a vear	1/ 1%	0.5%	1.19	11942	11933
before pregnancy		14.170	0.470	1.10	11012	11000
All smokers		32.8%	0.5%	1.18	11942	11933
Smoked before pr	egnancy	15.6%	0.4%	1.21	11942	11933
Gave up smoking	less than a	4.1%	0.2%	1.21	11942	11933
year before						
Gave up on confir	mation of	10.3%	0.3%	1.21	11942	11933
Gave up later, sta	yed quit	1.1%	0.1%	1.14	11942	11933
Smoked througho	ut pregnancy	17 2%	0.4%	1 18	11942	11933
Gave up but starte	ed again	4.6%	0.2%	1.22	11942	11933
Cut down		11.2%	0.3%	1.17	11942	11933
Did not cut down		1.4%	0.1%	1.17	11942	11933
Proportion of ma	thore who emo	kad bafara ar	during progra	anov but govo	up	
Proportion of mo	Overall	47.6%	n 9%	1 18	ир 3852	3916
	overall	47.070	0.070	1.10	0002	0010
Mother's age	Under 20	33.9%	2.5%	1.30	486	598
	20 - 24	42.1%	1.8%	1.23	1028	1132
	25 - 30	51.4%	1.9%	1.17	938	937
	30 - 34	57.7%	2.0%	1.11	848	775
	35 or over	54.2%	2.5%	1.08	532	464
Mother's NS- SEC	Managerial & professional	62.7%	1.9%	1.14	882	853
	Intermediate	59.6%	2.1%	1.16	754	749
	Routine &	38.8%	1.4%	1.21	1836	1899
	Never	32.0%	3.4%	1.26	270	299
	worked					
	Unclassified					
Smoked through	out pregnancy					
	Overall	17.2%	0.4%	1.18	11942	11933
Mother's age	Under 20	45.0%	2.2%	1.32	714	879
	20 - 24	28.6%	1.2%	1.23	2010	2290
	25 - 30	14.7%	0.7%	1.18	2944	3099
	30 - 34	9.7%	0.6%	1.09	3703	3396
	35 or over	9.5%	0.7%	1.06	2522	2239
Mother's NS- SEC	Managerial &	7.4%	0.5%	1.14	4538	4321
	Intermediate	12.3%	0.8%	1.16	2512	2461
	Routine & manual	29.5%	0.9%	1.21	3851	3941
	Never worked	24.1%	1.8%	1.21	698	847
	Unclassified	17.5%	2.3%	1.18	343	365

Table B.10 Desig	n standard erro	rs for selecte	ed measures of	f sample: Unite	ed Kingdom	(cont.)
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base
Drinking status						
Proportion of mo	others who dran	k before preg	nancy			
•	Overall	83.6%	0.4%	1.20	12243	12243
Mother's age	Under 20	85.2%	1.6%	1.36	732	901
mouner o uge	20 - 24	81.3%	1.0%	1 29	2089	2392
	25 - 30	80.0%	0.9%	1.23	3017	3165
	30 - 34	86.6%	0.7%	1.13	3791	3480
	35 or over	86.2%	0.8%	1.10	2567	2279
Mother's NS-	Managerial &	90.1%	0.5%	1.17	4660	4450
SEC	Intermediate	88.9%	0.8%	1.22	2577	2529
	Routine &	83.0%	0.7%	1.22	3947	4038
	Never worked	45.9%	2.1%	1.24	711	862
	Unclassified	65.0%	3.0%	1.21	348	368
Proportion of all	mothers who d	rank during p	oregnancy			
	Overall	54.5%	0.5%	1.18	12131	12152
Mother's age	Under 20	47.5%	2.2%	1.31	724	891
	20 – 24	48.5%	1.3%	1.26	2066	2371
	25 – 30	49.7%	1.1%	1.21	2995	3145
	30 – 34	60.0%	0.9%	1.13	3759	3458
	35 or over	62.0%	1.1%	1.10	2540	2257
Mother's NS- SEC	Managerial & professional	63.4%	0.8%	1.16	4625	4420
	Intermediate occupations	57.0%	1.2%	1.18	2555	2512
	Routine and manual	50.3%	1.0%	1.21	3909	4005
	Never worked	26.4%	1.9%	1.26	701	853
	Unclassified	41.8%	3.1%	1.20	341	359
Proportion of mo	others who dran	k before pred	nancv who ga	ve up		
	Overall	34.7%	0.6%	1.19	10418	10244
Mother's age	Under 20	44.1%	2.4%	1.32	635	768
	20 - 24	40.3%	1.4%	1.25	1761	1946
	25 - 30	37.8%	1.2%	1.21	2485	2531
	30 - 34	30.6%	0.9%	1.13	3291	3013
	35 or over	27.9%	1.1%	1.11	2210	1965
Mother's NS- SEC	Managerial & professional	29.6%	0.8%	1.16	4199	4011
	Intermediate occupations	35.8%	1.2%	1.18	2314	2248
	Routine & manual	39.3%	1.0%	1.22	3322	3350
	Never worked	41.7%	3.1%	1.24	349	396
	Unclassified	34.9%	3.6%	1.17	234	238

Table B.10 Desig	n standard erro	rs for selecte	ed measures of	sample: Unite	ed Kingdom	(cont.)
Characteristic	Sample sub-group	Estimate	Complex Standard error	Design factor	Sample size	Weighted base
Proportion of mo	thers who plan	ned to breast	feed			
	Overall	70.7%	0.5%	1.17	12229	12236
Mathar's ago	Under 20	46 20/	2 20/	1 2 2	734	900
women's age		40.2%	2.270	1.52	2081	2384
	20 - 24	00.9%	1.3%	1.20	2001	2304
	20 - 30	70.7%	1.0%	1.20	3019	3170
	30 - 34 25 ar aver	77.0%	0.0%	1.11	3700	3477
	35 01 0Vel	19.9%	0.9%	1.09	2556	2212
Mother's NS- SEC	Managerial & professional	83.0%	0.6%	1.15	4656	4453
	Intermediate occupations	72.3%	1.0%	1.17	2570	2521
	Routine & manual	59.5%	0.9%	1.20	3938	4030
	Never worked	57.9%	2.1%	1.24	712	862
	Unclassified	63.5%	3.0%	1.20	353	369
Proportion of mo	others who had	introduced so	olids bv 3 mon	ths		
	Overall	10.0%	0.4%	1.24	9416	9416
Mother's age	Under 20	24.0%	2.4%	1.41	451	625
	20 - 24	16.5%	1.2%	1.32	1383	1750
	25 - 30	9.4%	0.7%	1.24	2296	2472
	30 - 34	6.1%	0.5%	1.11	3097	2721
	35 or over	5.4%	0.6%	1.08	2151	1817
Mother's NS- SEC	Managerial & professional	5.6%	0.5%	1.18	3920	3479
	Intermediate	9.3%	0.8%	1.24	2015	1955
	Routine & manual	14.4%	0.8%	1.26	2842	3051
	Never worked	13.8%	1.8%	1.36	421	650
	Unclassified	13.2%	2.5%	1.23	218	280
Given solids by 4	4 months					
	Overall	51.4%	0.6%	1.21	9416	9416
Mother's age	Under 20	74.1%	2.5%	1.44	451	626
	20 - 24	67.0%	1.5%	1.37	1383	1750
	25 - 30	53.0%	1.3%	1.26	2296	2473
	30 - 34	44.6%	1.1%	1.12	3097	2721
	35 or over	36.1%	1.2%	1.08	2151	1818
Mother's NS- SEC	Managerial & professional	41.3%	0.9%	1.13	3920	3479
	Intermediate	53.3%	1.3%	1.19	2015	1955
	Routine & manual	60.7%	1.1%	1.27	2842	3050
	Never worked	57.7%	2.8%	1.45	421	650
	Unclassified	47.2%	4.0%	1.33	218	280

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# Appendix IV: Survey documents

### **Covering letters**

There were several different versions of covering letters depending on the stage of the survey, whether it was an initial approach or a reminder, and depending on which country the mother lived in. At Stage 1, when the initial approach was made from the respective registration offices, there were separate versions for each of England, Wales, Scotland and Northern Ireland. Within each of these countries, there were four letters – an initial letter and three reminders. Mothers in England and Wales also received an additional fifth reminder letter at stage 1. At Stages 2 and 3 when the fieldwork in England, Wales, Scotland and Northern Ireland was handled fully by BMRB, there were four letters (initial & 3 reminders) for all countries.

Three letters have been appended here:

- the initial letter at Stage 1 for sampled addresses in England
- the initial letter at Stage 2 for sampled addresses in England, Wales, Scotland and Northern Ireland
- the initial letter at Stage 3 for sampled addresses in England, Wales, Scotland and Northern Ireland

All mothers in Wales received a copy of the letters in English and Welsh.

### Questionnaires

At Stage 1, there were three different versions of the questionnaire, one for each country. The only differences between the country versions was that the Northern Ireland questionnaire replaced the question asking about mother's ethnic background with a question about religion. At stage 1 all mothers in Wales received two copies of the questionnaire, one in English and one in Welsh.

At Stages 2 and 3, there was no tailoring to country. Mothers who returned the Welsh language questionnaire at Wave 1 were sent both an English and Welsh copy of the questionnaire at stages 2 and 3.

Three questionnaires have been appended here:

- the Stage 1 questionnaire sent to all mothers in England, Wales and Scotland
- the Stage 2 questionnaire sent to all mothers
- the Stage 3 questionnaire sent to all mothers

## **Further information**

If you would like any further information about the Survey of Infant Feeding in the United Kingdom in 2005, please contact us on the number given below:

BMRB Social Research
Alex Harvey – Freephone 0800 015 3001
·

For further information about previous Infant Feeding studies, please visit the Department of Health website at:

## www.dh.gov.uk

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Thank you for your help with this survey.

Please return your questionnaire in the reply paid envelope. You do not need a stamp. If you have lost the reply paid envelope, please return the completed questionnaire to the following address:

FREEPOST LG59 BMRB Social Research The Operations Centre Harrison Way Spa Park Leamington Spa Warks CV31 3BR





Ref: 45103277

Dear New Mother,

## **Survey of Infant Feeding 2005**

I would like to ask for your help with the 2005 Survey of Infant Feeding that is being carried out jointly by the Health Departments of England, Northern Ireland, Scotland and Wales. The survey is being conducted, on behalf of the Departments, by *BMRB Social Research*, an independent research organisation.

If, for any reason, your baby is no longer with you, please tick the box on the front page of the questionnaire and return it in the envelope provided so that we do not trouble you further and I apologise for any distress this letter may have caused you.

The purpose of the survey, which has been conducted every five years since 1975, is to identify current feeding practices including what and how mothers feed their babies and where they receive advice. Your name has been drawn at random from the register of births for the months of August and September 2005. We would very much like you to take part in this year's survey and, for this reason, I am enclosing a copy of the survey questionnaire, together with a reply paid envelope.

I do understand that the arrival of a new baby does not leave much in the way of spare time. However, I would be very grateful if you would spare half an hour or so of your valuable time to complete the questionnaire and return it in the envelope provided. **You do not need a stamp.** 

Any information that you give will be treated in the strictest confidence. The results will be used for research purposes only and **no** information that could identify you will be passed on to anyone outside the research team.

Some more information about the survey and some results from previous years can be found over the page.

The success of this research depends entirely on your help, and we do hope that you will be able to take part in this important study. If you have any questions about the survey, please call Alex Harvey of BMRB Social Research on free-phone 0800 015 3001.

Thank you in anticipation for your help.

Yours faithfully,

Isobel Macdonald Davies Director: Registration

### **GENERAL REGISTER OFFICE** Smedley Hydro · Trafalgar Road · Southport PR8 2HH

### September/October 2005

# Survey of Infant Feeding in the United Kingdom in 2005

BMRB Social Research has been commissioned by the Health Departments of England, Northern Ireland, Scotland and Wales to conduct an important national study – called the *Survey of Infant Feeding in the United Kingdom in 2005*.

The survey asks new mothers, such as yourself, about what they feed their babies throughout their first year. This leaflet contains more information about this survey and why we are carrying it out.

We depend on individuals' voluntary co-operation and hope that you are able to take part and will find the survey interesting.



# What is the 2005 Survey of Infant Feeding?

This is the seventh time the Survey of Infant Feeding has been carried out in the UK. The first survey took place in 1975 and it has been conducted every five years since then. It is used, amongst other things, to monitor how infant feeding practises have changed over the years.

This survey is being carried out in order to find out how infants born in England, Wales, Northern Ireland and Scotland in 2005 are being fed at different times throughout their first year. In particular, the survey aims to find out:

- How new mothers feed their babies
- When solid foods are introduced into a baby's diet
- What factors influence the feeding practises of new mothers
- What antenatal, birth and post-natal care new mothers have received

## Why have I been chosen?

You are one of more than 18,000 new mothers who have been randomly selected from all the births that were registered in the UK during August and September 2005. It is important that we have a strictly random selection so that the survey results reflect the experiences and attitudes of all mothers.

Although your name has been selected from birth registration records, the General Register Office has not passed any of your details to BMRB, the research agency conducting the survey. Only when you return the questionnaire will your name and address be passed to BMRB Social Research.

# What do I have to do?

Along with this letter, you should have received a blank questionnaire. Please complete this and return it to us in the reply paid envelope provided.

# Will I be contacted again?

As we would like to find out how you are feeding your baby as he or she gets older, BMRB Social Research hope to contact you again in a few months time. This is why at the end of the survey we ask you to let us know if the address on the envelope was incomplete or you are planning to move in the near future. If you do not want to be contacted again you should let BMRB know when you return the questionnaire.

# Is the information I give confidential?

It is **entirely confidential**. We will not pass your details on to any other organisation outside of the research team. In addition, your address details will be kept separately from your answers and no individual will be identifiable from the results. Your answers will be combined with the thousands of other people taking part in the survey.

# What does the Infant Feeding Survey show?

The Infant Feeding Survey asks many different questions relating to the feeding of infants. For example:

# Help or advice with feeding problems

The survey asks mothers whether they have experienced any problems feeding their babies and what these problems were. The survey also asks whether they received any help or advice relating to these difficulties and where this help came from.



This graph shows that the most commonly used source of help or advice for mothers was their health visitor. The survey also asks who or what mothers found to be the most useful source of advice and if this depends on whether this is a first-born or a subsequent baby.

Results from the Infant Feeding Survey are very important for the Health Departments and are vital for developing and monitoring policies in this area.



45104412 / Stage 2 Ref:



## January 2006

Dear

### Survey of Infant Feeding 2005

We contacted you a few months ago asking for your help with a study of Infant Feeding which is being carried out by BMRB Social Research on behalf of the Health Departments of England, Northern Ireland, Scotland and Wales. On that occasion, you kindly completed our questionnaire and I am writing to ask if you would help us again.

I would be very grateful if you would spare half an hour or so of your valuable time to complete the enclosed questionnaire and return it in the envelope provided. You do not need a stamp.

The second questionnaire covers some of the same topics from first survey so some questions will look familiar to you. This is so we can see if anything has changed in the weeks since you first took part. There are also some brand new sections including things like solid foods for your baby and your plans for returning to work.

If, for any reason, your baby is no longer with you, please tick the box on the front page of the questionnaire and return it to us so that we do not trouble you further. I apologise for the distress this letter may have caused you.

Any information that you give will be treated in the strictest confidence. The results will be used for research purposes only and **no** information which could identify you will be passed on to anyone outside the BMRB research team.

The success of the survey depends on getting a reply from as many of the mothers we have written to as possible, and we do hope that you help us with the second part of this important study. If you have any questions about the survey, **please call Tara Mackey on free-phone 0800 015 3001**. You can find more information about the survey on the back of this letter.

Thank you in anticipation for your help.

Yours sincerely,

Alex Thornton Senior Research Executive

BMRB Social Research Ealing Gateway 26-30 Uxbridge Road Ealing London W5 2BP Telephone +44 (0)20 8433 4000 Facisimile +44 (0)20 8433 4002 Website www.bmrb.co.uk



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# Survey of Infant Feeding in the United Kingdom in 2005 / 2006

## Dear Mother,

We hope you and your baby are both well and that you enjoyed filling in the last questionnaire. We would really appreciate your help with this next stage of the research.

The first year after your baby is born is an exciting (and challenging!) time and we appreciate how quickly your baby must be growing up. So now your baby is that bit older we want to know how you are both getting on since we last heard from you.

You are one of about 13,000 mothers taking part the research in 2005/6.

For further information about previous Infant Feeding studies, please visit the Department of Health website at: <u>www.dh.gov.uk</u>

## Thank you for your help with this survey

Please return your questionnaire in the reply paid envelope. You do not need a stamp. If you have lost the reply paid envelope, please return the completed questionnaire to the address below:

If for whatever you lose the questionnaire you can call us on freephone number **<u>0800 015 3001</u>** and we can send you another copy

FREEPOST LG59 BMRB Social Research The Operations Centre Harrison Way Spa Park Leamington Spa Warks CV31 3BR



Ref: 45105002 / Final Stage



June 2006

# Survey of Infant Feeding – The Final Questionnaire

## Dear

I'd like to thank you for completing the second questionnaire of this important study of Infant Feeding. This is the **final** stage of the Infant Feeding study. I would be very grateful if you would spare half an hour or so of your valuable time to complete the enclosed questionnaire and return it in the envelope provided. **You do not need a stamp**.

You'll notice that quite a lot of the questionnaire is very similar to the previous two you filled out. Some of the questions need to be repeated so we can see how things have changed for you and your baby at different points in the first year since he/she was born. It would be really helpful if you would follow the instructions on the questionnaire.

# This is the final stage of the survey and the last questionnaire we will be asking you to complete.

If, for any reason, your baby is no longer with you, please tick the box on the front page of the questionnaire and return it to us so that we do not trouble you further. I apologise for the distress this letter may have caused you.

We do hope that you help us with the final part of this important study. If you have any questions about the survey, **please call Andrew Goldstein on free-phone 0800 015** 3001.

Thank you in anticipation for your help.

Yours sincerely,

Alex Thornton Senior Research Executive

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## England/Scotland/Wales 45103277

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Survey of Infant Feeding 2005

### IN CONFIDENCE

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- 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.

### For 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



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

### Example:



By following the arrows carefully you will miss out some questions which do not apply, so the amount you have to fill in will make the questionnaire 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. 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.

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## What is the questionnaire about? This questionnaire asks about you and your new baby.

If, rather than a single baby, you have twins or triplets, please answer the questionnaire in relation to the one who was born first.

If, for any reason, 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  $\Box$ 

#### Our guarantee of confidentiality

The names and addresses of people who co-operate in surveys are held in strict confidence by BMRB. We will never pass your name or address to any Government Department, business, or anyone else.

#### How to fill in the questionnaire

1. Please fill in this questionnaire using black biro.

Please enter numbers as figures rather than words.

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:

Sometimes you are asked to write in a number or the answer in your own words.



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Q11.	Which of the following best describes how long you breastfed for?		If you currently use infant formula milk AT ALL, please	answer the following questions.
	I would like to have breastfed for longer		If not, please go to Q22	
	I breastfed for as long as I intended $\square$ $ ightarrow$ Go to Q12			
	I breastfed for longer than I intended		The following questions are about how you make up infa how you usually make up the feeds. If this varies think a	nt formula feeds. Please think about bout the way you do it most often.
If ye	ou have only ever breastfed your baby please go to Q14		Q16. When making infant formula feeds do you USUAL	LY
Q12.	How old was your baby when he/she was FIRST given infant formula milk?		Please cross one box only	
	Please write the age in the appropriate box			Go to Q17
	Either in days		$\Box \rightarrow \Box$	Go to Q22
	Days S Go to Q13			
	Or in whole weeks plus any additional days and		Q17. When making infant formula feeds for your baby o	do you USUALLY
	Weeks Days		Please cross one box only	
			Use water that has just boiled $\Box$	
Q13.	Since your baby was born, how often has he/she been fed infant formula milk? If your pattern of using infant formula milk has varied, please select the answer you feel comes closest to describing your situation		Use water that has boiled and been left to cool for 30 minutes	
	All or almost all feeds		Use water that has boiled and been left to cool between 30 and 45 minutes	Go to Q18
	About half of all feeds		Use water that has boiled and been	
	One or two feeds a day $\Box$ $\langle$ Go to Q14		left to cool for more than 45 minutes $\Box$ [	
	A few feeds a week, but not every day $\Box$			
A few	feeds since he/she was born, but not every week		Q18. When making infant formula feeds do you USUAL	LY
	Only once or twice since he/she was born		Please cross one box only	
Q14.	Since your baby was born, has anyone advised you not to breastfeed or to stop		Put the powder in the bottle first and then add the water	
	breastreeding due to any medicines or pills your doctor has prescribed?		$\rangle$ o	Go to Q19
	$ \begin{array}{c} \text{Yes} & \square \\ \text{No} & \square \end{array} \right\rangle $ Go to Q15		OR Put the water in the bottle first and then add the powder	
Q15.	Have you ever seen an advertisement on television, radio or in a magazine or newspar for infant formula milk?	per		
	$\begin{array}{c c} Yes & \Box \\ No & \Box \end{array} \end{array} > Go to Q16$			
+	5	+	+ 6	+

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Q19.	. If you need to feed your baby when you are out do you US	ALLY Q23. How did you find out about the Welfare Food Tokens or Healthy Start vouchers?
	Please cross one box only	
	Make up an infant formula feed	
	before leaving home □ → Go to Q20	Health visitor
	Make up an infant formula feed while you are out $\Box \rightarrow Go \text{ to } Q2^{\circ}$	Doctor/GP $\square$ Go to Q24
	Take a ready to feed formula with you	
	Take expressed breast milk with you $\square$ $\Big angle$ Go to Q2:	
	Only breastfeed when out	Somewhere else ( <i>Please cross and write in</i> )
	Never feed your baby away from home	
Q20.	. When you are out, do you USUALLY keep the feeds you ha	e made chilled? Section 3: About other drinks and food that you may give to your baby
	$\begin{array}{c c} Yes & \square \\ No & \square \end{array} \end{array} > Go to Q2$	Q24. Over the last 7 DAYS has your baby had anything else to drink apart from milk, such as tap or mineral water, fruit juice, squash or herbal drink?
Q21.	. When you are out do you USUALLY	No $\Box \rightarrow$ Go to Q25
	OR Go to Q2	Q25. Has your baby EVER had anything else to drink apart from milk, such as tap or mineral water, fruit juice, squash or herbal drink?
(e a	Make feeds with hot water	Yes (even if only occasionally) □ → Go to Q26
(0.9.		$\square \rightarrow Go to Q28$
Q22.	Since the birth, have you received any Welfare Food Toker vouchers that you can exchange for free or reduced price milk (for either yourself or your baby)?	r or Healthy Start nilk or infant formula Q26. How old was your baby when he or she was FIRST given something apart from milk to drink, such as tap or mineral water, fruit juice, squash or herbal drink? Please write the age in the appropriate box
	Yes □ → Go to Q23	
	No $\Box \rightarrow Go to Q24$	Either in days
		Or in whole weeks plus any additional days Weeks Days

+ 7 + + 8 +

+ + + + Q27. Do you give your baby drinks mainly ...? Section 4: About vitamins for your baby and yourself Please cross one Q32. Do you give your baby any extra vitamins (apart from fruit drinks mentioned at Q24)? or more boxes Yes  $\Box \rightarrow$  Go to Q33 Because he/she is thirsty □ → Go to Q34 No To give him/her extra vitamins To help his/her colic/wind Go to Q28 Q33. How do you usually get the vitamins for your baby? To help his/her constipation Please cross To settle him/her one box only Buy the vitamins myself at the Some other reason (Please cross and write in) child health clinic/hospital Buy the vitamins somewhere else Go to Q34 Get the vitamins free at the child health clinic/hospital Q28. Has your baby EVER had any foods such as cereal, rusks, baby rice or any other kind of solid food? Get vitamins on prescription Yes  $\Box \Rightarrow$  Go to Q29 Other (Please cross and write in) No □ → Go to Q32 Q29. How old was your baby when he/she FIRST had any food apart from milk? Q34. Are you taking any extra vitamin or iron supplements yourself either in tablet, Please write a number in the box drop or liquid form? Please write in the age Weeks old - Go to Q30  $\Box \Rightarrow$  Go to Q35 to the nearest whole week □ → Go to Q36 No Q30. At present, are you regularly giving your baby cereal, rusks, baby rice or any other solid food? Q35. What type of supplements are you taking? Yes □ → Go to Q31 Please cross No  $\square \Rightarrow$  Go to Q32 one box only Iron only Q31. What sort of solid food did your baby eat yesterday? Multi-vitamins only Please cross one or more boxes Go to Q36 Multi-vitamins and iron combined Tinned food Single vitamin supplement Powder Something else (Please cross and write in) Jar Homemade foods Go to Q32 Fruit Other (Please cross and write in) Didn't have solids yesterday + + 9 + 10 +



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Q46.	Who discussed feeding your baby with you?	Q51.	When you were pregnant did anyone giv	e you	any advice or information about smoking	
	Please cross one		during pregnancy? Yes		→ Go to Q52	
	Doctor		No		→ Go to Q54	
	Health visitor					
	Midwife D Go to Q47	Q52.	What advice or information did they give Please	you? cross	one	
	Nurse		or mo	re box	res.	
	Someone else (Please cross and write in)		Information/advice on the effects of smoking on your baby			
			Advised to stop smoking			
Q47.	While you were pregnant with this baby, did you go to any classes to prepare you	-	Advised to cut down smoking		Go to Q53	
	for having the baby?		Advised that partner should stop smoking			
	Yes □ → Go to Q48		Advised to continue smoking			
	No □ → Go to Q51	S	Something else (Please cross and write in))			
Q48.	Who were the classes organised by?	-				
	Please cross one	Q53.	Who gave you this advice?			
	or more boxes	Please cross one				
	A hospital		Or ma	re bo	kes I	
	A clinic/doctor's surgery/health centre		Health visitor			
	Voluntary organisation (such as the National Childbirth Trust)		Midwife (including at antenatal classes)			
	Someone else (Please cross and write in)		Nurse (including at antenatal classes)			
			Voluntary organisation (such as the		Ga to 054	
		-	National Childbirth Trust)			
Q49.	Did you attend any classes that included talks or discussions about feeding babies?		Partner, friend or relative			
	Yes $\Box \Rightarrow$ Go to Q50		Books/leaflets/magazines			
	No $\Box \rightarrow$ Go to Q51		Television/radio			
		-	Someone else (Please cross and write in)			
Q50.	your baby to your breast?					
	$\begin{array}{c c} Yes & \square \\ No & \square \end{array} \end{array} > \textbf{Go to Q51}$	Q54.	When you were pregnant did anyone giv alcohol during pregnancy?	e you	advice or information about drinking	
		-	Yes		→ Go to Q55	
		_	No		→ Go to Q57	
+	13 +	+		14	+	



+		+ +	+
Q61.	Would you say that most of the mothers you know with young babies breastfeed	Q65. Thinking now of the birth itself, what type of delivery did you have?	
	or give infant formula milk?	Normal	
	box only		
	Most of them give infant formula milk	Vacuum extraction (ventouse) $\Box$	
	Most of them breastfeed	Caesarean Section	
	About half of them give infant formula milk $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$		
	and half of them breastfeed	Q66. While you were in labour were you given any of these?	
	Don't know	Please cross one	
		or more boxes	
Q62.	Do you know whether you were breastfed or fed with infant formula milk when you were a baby?	An epidural (spinal) injection	
	Please cross	Another type of injection to	
	one box only		
	Breastfed entirely		
	Fed entirely with infant formula milk 🛛 🗌 🖌 Go to Q63	(to make you unconscious)	
Bo	oth breastfed and fed with infant formula milk $\Box$	Something else (Please cross and write in)	
	Don't know		
		Nothing at all	
Se	ction 6: About the birth of your baby		
Q63.	Was your baby born in hospital or at home?	Q67. How much did your baby weigh when he/she was born?	
	In hospital		
	At home	Either in pounds and ounces:	
Q64.	How long after the baby was born did you stay in hospital? Please enter number in one box only	Or in kilograms:	Go to Q68
	Fither in hours	kg	ms
		Q68 Did you have skin-to-skin contact with your haby within the first 24 hours	after
	Or in days	he/she was born?	
		(By skin-to-skin contact we mean you were holding the baby so that his/l bare skin was next to your bare skin)	ner
	Days	$\longrightarrow \text{ So to } 0.000$	
+	17	+ + 18	+

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Q69.	About how long after your baby was born did you first have skin-to-skin contact?	Q75.	Who was this?		
	Please cross one box only		Please or mo	cross o bre box	one es
	Immediately/within a few minutes		Midwife/Midwifery Assistant		
	Within an hour		Nurse/Auxillary Nurse		
	More than 1 hour, up to 12 hours later		Doctor		Go to Q76
	More than 12 hours later		Friend/relative		
Q70.	After the birth did you have any health problems that affected your ability to feed your baby the way you wanted to?		Someone else (Please cross and write in)		
	Yes $\square$ $\langle$ Go to Q71 $\langle$ No $\square$	 Q76.	Did he/she stay with you while you were	first bi	reastfeeding?
			Please	cross	one
Q71.	Was your baby put into special care at all, or put under a lamp for jaundice?		DO. Staved the whole time until	x only	
	Please cross one or more boxes		the baby fell asleep		
	Yes, put into special care $\Box$ <b>Go to Q72</b>		Left once baby was feeding		
	Yes, put under a lamp $\Box$ (		but came back to check on you		Go to Q//
	No, neither □ → Go to Q74		Left once baby had started feeding		
072	For how long was your beby put into aposial care or put under a long?		Leit before baby had started reeding		
Q72.		Q77.	How useful did you find this help at the t	time?	
	Two or three days		Extremely useful		
			Very useful	$\Box$	Go to 079
			Not very useful		
Q73.	Did having your baby in special care or under a lamp affect your ability to feed your baby the way you wanted to?		Not useful at all		
	$Y_{es} \square \bigvee$ Go to Q74	Q78.	Would you have liked any help or advice	on hov	w to put your baby to the breast?
	No ( Coold and		Yes		Go to Q79
074			No	$\Box$ (	
Q74.	During the first few days, did anyone snow you now to put your baby to the breast?				
+	19	+ +		20	+

+ +	+ +
Section 7: About the times that you feed your baby	Section 8: About when you were in hospital
If you ever breastfed your baby please answer Question 79	If your baby was born at home please go to Question 92
If your baby was fed entirely with infant formula milk from birth go on to Section 8 (Q82)	Q82. Did your baby stay beside you all the time you were in hospital?
Q79. How soon after your baby was born did you first put him/her to the breast?	Yes $\Box \rightarrow Go to Q85$
Please cross	No $\Box \rightarrow$ Go to Q83
Immediately/within a few minutes	
Within half an hour	Q83. Even though he/she was not always beside you, did you always feed your baby yourself or did the midwives or nurses ever feed him/her?
More than 1/2 hour, up to 1 hour later	Always fed baby myself $\Box \rightarrow Go to Q85$
More than 1 hour, up to 4 hours later $\Box igslash$ Go to instruction	Midwives/nurses sometimes fed baby $\Box \rightarrow Go to Q84$
More than 4 hours, up to 8 hours later $\Box$ in shaded box below	
More than 8 hours, up to 12 hours later	Q84. What did the midwives/nurses give your baby?
More than 12 hours, up to 24 hours later	Please cross one
More than 24 hours later	
If your baby was born in hospital please answer Question 80	Infant formula milk
If your baby was born at home please go on to Question 92	Dextrose or glucose water $\Box$ $\rangle$ Go to Q85
	Water
Q80. While you were in hospital, as well as being breastfed, did your baby have any infant formula milk, water or glucose?	Don't know
Yes □ → Go to Q81	
No 🗆 🗸 e ees	Q85. Were there any problems feeding your baby while you were in hospital?
Don't know	Yes $\Box \rightarrow Go \text{ to } Q86$
	No $\Box \rightarrow Go \text{ to } Q89$
Q81. Were you advised to give something else to your baby other than breast milk or did	
Please cross	Please write in
one box only	
Advised to give something else $\Box$	
I wanted my baby to have something else $\square$ $ angle$ Go to Q82	
No, neither	

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21

→ Now go to Q87

22

- Yes  $\square \rightarrow$  Go to Q88
- No □ → Go to Q89

Q88. Who helped or advised you?		Yes $\Box$ > Go to Q93
Please cross one or more boxes		No [/
Midwife		Q93. Has anyone given you the telephone number of any voluntary group or organisation which
Nurse		helps new mothers (such as the National Childbirth Trust)?
Healthcare assistant	Go to Q89	Yes $\Box$ > Go to Q94
Doctor/GP		No 🗌 🖊
Friend/relative		
Someone else (Please cross and write in)		Q94. Since your baby was born has a health visitor been to see you?
		Yes □ → Go to Q95
		No □ → Go to Q96
Q89. While you were in hospital did you get er	nough help or advice?	
Yes – received enough help	Go to Q90	Q95. How old was your baby when the health visitor first came?
No – would have liked more help		Please write in the total number of days
Q90. When you left hospital, were you		days old → Go to Q96
Only giving breast milk		
Only giving infant formula milk	$\Box$ Go to Q91	Q96. Since you left hospital have you received help or advice from any voluntary group
Giving both breast milk and infant formula milk		or organisation which helps new mothers?
		$-$ Yes $\square$ Go to Q97
Q91. After you left hospital for how long did you Please write in the total number of days	our midwife continue to visit you?	No L /
	→ Go to Q92	Q97. Since you left hospital 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).
Did not have a visit from a midwife		Yes □ → Go to Q98
		$- No \square \rightarrow Go to Q101$

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Section 9: About help for you at home

feeding your baby if you need to?

Q92. Since leaving hospital has anyone given you information on how to get help with

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

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Section 10: About yourself	Q110. During your pregnancy, did any of the people you lived with smoke cigarettes?	
Q104. Have you ever smoked cigarettes?	Please cross one or more boxes	
Yes ☐ ➡ Go to Q105	Yes, my partner smoked	
No □ → Go to Q110	Yes, someone else I lived with smoked $\Box$	
	No, nobody else who I lived with smoked	
Q105. Have you smoked at all in the last two years, that is since September 2003?	Not applicable – I lived alone	
Yes ☐ ➡ Go to Q106		<u> </u>
No □ → Go to Q110	Q111. Do any of the people who live with you now smoke cigarettes?	
	Please cross one	
Q106. Do you smoke cigarettes at all now?	Yes, my partner smokes	
Yes □ → Go to Q107	Yes, someone else I live with smokes $\Box$	
No □ → Go to Q108	No, nobody else who I live with smokes	
Q107. Did you smoke cigarettes at all during pregnancy, after you found out you were pregna	Not applicable – I live alone with my baby	
$Ves \square \Rightarrow Go to Q109$		
No $\square \Rightarrow$ Go to Q110	Q112. Do you ever drink alcohol at all now? (Please exclude low or non alcoholic drinks)	
	$\underline{\qquad} \qquad $	
Q108. When did you finally give up?	No $\Box \rightarrow$ Go to Q113	
Please cross		
one box only	Q113. Have you drunk alcohol at all during the past two years?	
Before you knew you were pregnant $\Box$ Go to Q110	Yes □ → Go to Q114	
As soon as you found out you were pregnant	No □ → Go to Q119	
Later on during your pregnancy		
After the birth		
Q109. Since you knew about your pregnancy, did you do any of the following DURING		
your pregnancy? Please cross one		
or more boxes		
Gave up but started again $\Box$ $\rangle$ Go to Q110		
Increased the amount you smoked $\Box$		
None of the above		

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Q114. 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. (Please exclude low or non alcoholic drinks) During pregnancy I usually drank:

	Most days	3-4 times a week	Once or twice a week	Once or twice a month	Very occasionally	Not at all	
Shandy							
Beer/lager/stout/cider							
Wine/champagne							
Sherry/martini/ vermouth/port							
Spirits/liqueurs (e.g. gin, whisky, rum, brandy, vodka)							
Alcopops							
Please check that there	is a cros	s in one box	c on each lii	пе		➡ Go to Q <sup>*</sup>	115

Q115. 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)



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Q116. 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				
3-4 times a week				
Once or twice a week		Go to 0117		
Once or twice a month				
Less than once a month				
Not at all				

Q117. During your pregnancy would you say you drank more, less or about the same amount of alcohol than before you were pregnant?



Q118. Why did you change your drinking habits during pregnancy?



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#### If this is your first baby, please go on to Question 120

Q119. 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.

Previous children	Q119a Was he/she breastfed at all?	Q119b If breastfed, how long did you continue breastfeeding?
Eldest child	Yes □ → Go to Q119b	days
	No 🗆	OR weeks
		OR months
Second eldest child	Yes □ → Go to Q119b	days
	No 🗆	OR weeks
		OR months
Third eldest child	Yes □ → Go to Q119b	days
	No 🗆	OR weeks
		OR months
Fourth eldest child	Yes  Go to O119b	davs
	No 🗋	OR weeks
		OR months

➡ Now go to Q120

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Q120. Thinking about all the advice and information you received on how to feed your baby, who or what had the MOST influence on you?



If your baby was fed entirely with infant formula milk from birth please go to Q123 If you ever breastfed your baby, please answer Q121

Q121. If you had another baby would you breastfeed again?

 $\begin{array}{c|c} \text{Yes} & \square \\ \text{No} & \square \end{array} \end{array} \right\rangle \text{ Go to Q122}$ 

If you are now only feeding your baby infant formula milk, go to Q123 If you are breastfeeding your baby, answer Q122

#### Q122. For how long do you think you will continue breastfeeding your baby?



Q123. Are you aware of any health benefits in breastfeeding, either for the mother or the baby?

Yes □ → Go to Q124 No Go to Q126



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And finally, a few questions about yourself ...

Q128. What is your current age?

ss 1ly	se cro box or	Pleas one l
		Under 20
		20, up to 24
Go		25, up to 29
(		30, up to 34
		35, up to 39

to Q129

Q129. How old were you when you finished full-time education? (School or college,



Please cross one box only Go to Q132 No □ → Go to Q131

Please cross one box only Go to Q139 +

+			+	+		+
Q132.	. What is the title of your job (or the job y	ou're on maternity leave from	)?	Q138. How ma	any employees are there at the place where yo	u work?
	(If you have more than one job please g	ive details of your main job)			1-24	
	Please write in				25 - 499	
					$500 \text{ or more} \square$ Go to	o Q146
				0		
				On o	wn/with partners but no employees	
			➡ Now go to Q133	Q139. Have yo	ou EVER done any paid work?	
Q133.	. What do you mainly do in your iob?			-	Yes □ → Go to	Q140
Q.000	Please write in					0146
		0	ffice use only			0140
				Q140. What w (If you h Please	<i>v</i> as the title of your last job? had more than one job, please give details of yow <i>write in</i>	our main job)
			➡ Now go to Q134			
			→ Now go to Q135	Q141. What di Please	lid you mainly do in your last job? write in	→ Now go to Q141 Office use only
Q135.	. Are you					
	an employee	□ → Go to Q136				
	or self-employed?	Go to Q137				
0100						→ Now go to Q142
Q136.	. Do you have any managerial duties or d	o you supervise any other em	ipioyees?	Q142. What di	lid the firm or organisation you worked for mak	e or do at the place where
	Yes, manager			you las	st worked?	
	Yes, supervisor			Please	write in	
	No, neither					
Q137.	. Do you work mainly at home or do you g	go out to work?				
	Mainly at home	☐ ➡ Go to Q146				➡ Now go to Q143
	Go out to work	□ → Go to Q138				
+		35	+	+	36	+
+	+ +					
--	---					
Q143. Were you an employee □ → Go to Q144	Q147. What is your ethnic group? Please cross one box only					
or self-employed? □ → Go to Q145	A White					
	British					
Q144 Did you have any managerial duties or did you supervise any other employe	Irish					
Yes manager	Any other White background					
Yes supervisor $\square$ Go to Q145	(Please cross and write in)					
	B Mixed					
0145 How many amployees were there at the place where you worked?	White and Black Caribbean					
	White and Black African					
	White and Asian					
$23 - 499 \square$ Go to Q146	Any other mixed background					
On own with partners but no employees	C Asian or Asian British					
	Indian					
Q146. Are you	Pakistani 🗖 🗸 Go to Q1					
	Bangladeshi					
living together	Any other Asian background					
single L	(Please cross and write in)					
widowed, divorced or separated?						
	D Black or Black British					
	(Please cross and write in)					
	E Chinese or Other ethnic group					
	Chinese					
	Any other					
	(Please cross and write in)					

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#### Q148. Is there anything else you would like to say about feeding your baby?





#### Thank you very much for your help.

We hope to contact mothers again later to see how they are feeding their babies when they are older. If the address on the envelope was not complete or if you expect to move house in the near future and know your new address, it would help us if you could write it below:





+ Stage 2 45104412



#### IN CONFIDENCE

#### What is the questionnaire about?

Thank you for filling in the first questionnaire we sent you. This questionnaire asks some more questions about you and your baby.

If, rather than a single baby, you have twins or triplets, please answer the questionnaire in relation to the one who was born first. That is the one you completed the last questionnaire about.

If, for any reason, 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

The names and addresses of people who co-operate in surveys are held in strict confidence by BMRB. We will never pass your name or address to any Government Department, or anyone else.

#### How to fill in the questionnaire

- 1. Please fill in this questionnaire using 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:



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

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- 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.

#### For example:

How old is your baby?

If your baby is 15 weeks and 2 days old enter the number of whole weeks plus any additional days

#### Please enter numbers in both boxes



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:



By following the arrows carefully you will miss out some questions which do not apply, so the amount you have to fill in will make the questionnaire 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. 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



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+ Se	+ ction 1: About the milk that you give your baby	+ Q6.	How old was your baby when he/she was LAST given breast milk or you put them to your breast?
lf y one	ou have twins or triplets please complete this questionnaire with respect to the who was born first.		Write in how many whole weeks and and Go to Q7
Q1.	May I just check, what is your baby's first name? Please write in below – 1 letter per box.	 Q7.	Weeks     Days       What were your reasons for stopping breastfeeding?       Please write in the reasons
Q2.	How old is your baby? Please write numbers in both boxes	_	
	Write in how many whole weeks plus any additional days Weeks Days → Go to Q3	_	Office use only
Q3.	Thinking about the milk that your baby has been given over the last 7 days has he/she had?		
	Please cross one box only         Only breast milk       → Go to Q4         Only formula milk       → Go to Q5         Breast milk AND formula milk?       → Go to Q9		
Q4.	Has your baby EVER been given any kind of milk other than breast milk, such as formula milk or liquid cow's milk (even if this was only once)?		→ Go to C
	Yes (even if only once) $\square$ No $\square$ <b>Go to Q9</b>	Q8.	Which of the following best describes how long you breastfed for? I would like to have breastfed for longer I breastfed for as long as I intended Go to Q11
Q5.	Has your baby EVER been given breast milk or have you put your baby to the breast, even if this was only once?		I breastfed for longer than I intended
	Yes (even if only once) No → Go to Q6 No → Go to Q12	Q9.	Is your baby being breastfed on demand or is he/she generally fed at set feeding times? On demand Generally keep to set times It depends on the circumstances
+	3 +	+	· 4 +



#### Q10. How often has your baby been given breast milk over the last 7 days?



Q11. Since your baby was born, have you had any of the following problems as a result of breastfeeding?

Pleas or m	e cros ore b	s one oxes	
Mastitis			
Blocked ducts			
Thrush			
Nipple pain		instructions over page	Office use only
Something else (Please write in)			
None of these			

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If you have only ever breastfed your baby please go to Q21 If your baby has ever been given any sort of milk other than breast milk (even if only once) please go to Q12

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Q12. Which of the following kinds of milk has your baby EVER been given, even if this was only once?

Please cross one or more boxes					
Infant formula (or "first" milk)					
Follow-on formula milk		l			
Liquid cow's milk		Go to Q13			
Another kind of milk (Please cross and write in the name)			Office use only		

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Q13. How old was your baby when he/she was FIRST given any kind of milk other than breast milk, such as formula milk or liquid cow's milk?



Q14. Excluding breast milk, which of the following kinds of milk has your baby been given most often over the last 7 days?

Plea one	ase cross box only	
Infant formula (or "first" milk)	Go to Q16	
Follow-on formula milk		
Liquid cow's milk	□ → Go to Q15	
Another kind of milk (Please cross and write in the name)	$\Box \Rightarrow$ Go to Q16	
		Office use only
None of these	$\Box \Rightarrow$ Go to Q17	

6

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Q15. If your baby is given liquid cow's milk, is it who	ole milk, semi-skimmed or skimmed?	Q18. How old was your baby when he/she was	first given FOLLOW-ON milk?
Whole		Please write in the age	Weeks → Go to Q19
Semi-skimmed	Go to Q17	to the nearest whole week	
Skimmed			
		Q19. Why did you start to give this kind of milk	to your baby?
Q16. Excluding breast milk, thinking of the milk that the last 7 days does he/she normally have pow	t your baby has been given most often over wdered milk, ready to feed milk or both?	Please or mo	cross one pre boxes
		Doctor/Health visitor advised me to	
Ready to feed	Go to Q17	Friend or relative advised me to	
Both	(	Previous experience (with another baby)	
		Read leaflats (seen information that advised me to	Go to Q21
The next few questions are about types of baby milk	that can be given as your baby 	Reby was not gaining apough weight	
starts to get older. These are called FOLLOW-ON mill	KS W. ON milk has your beby over been siven?	Baby was not gaining enough weight	
Include both READY-MADE and POWDERED for	ormula	This better for my baby/contains more nutrition	
Please cros	ss one	Some other reason (Please cross and write in)	
or more b	oxes		—
Cow & Gate Next Steps	Office use only		
Cow & Gate Step-Up		Q20. Do you know what the difference is betwee	een infant formula and follow-on formula?
Cow & Gate Omneo Comfort Follow-on		Yes	Go to Q21
Cow & Gate Organic Follow-on		No	
Cow & Gate Organic Second Milk			
		Q21. Since your baby was born, have you recei	ived any Welfare Food Tokens or 'Healthy Start
		(for either yourself or your baby)?	or reduced price milk, or infant formula milk
	Go to Q18	Yes	$\Box \Rightarrow$ Go to Q22
		No	$\Box \Rightarrow$ Go to Section 2
Hipp Organic Vanilla Havour Growing Up Milk			
Another kind of Follow-on milk			
Another kind of milk (Please cross and write in the name)			
None of these	➡ Go to Q20		
+ 7	+	+ :	8 +

+				+	+ +
Q22.	What have you exchanged Welfare Food	Token	s or 'Healthy Start voucl	hers' for?	Section 2: About other drinks and food that you may give to your baby
	Please or m	e cross ore bo	s one oxes		Q24. Over the last 7 DAYS has your baby had anything else to drink apart from milk such as tap or mineral water, fruit juice, squash or herbal drink?
	Baby milk/infant formula for baby				Yes □ → Go to Q26
	Cow's milk for myself		Go to Q23		No □ → Go to Q25
	Something else (Please cross and write in below)			Office use only	Q25. Has you baby EVER had anything else to drink apart from milk such as tap or mineral
					water, fruit juice, squash or herbal drink?
					Yes (even if only occasionally) $\Box \rightarrow$ Go to Q26
					No $\Box \rightarrow$ Go to Q28
Q23.	Where have you exchanged the Welfare	Food T	okens or 'Healthy Start	vouchers'?	
	Please or m	e cross ore bo	s one oxes		Q26. How old was your baby when he or she was FIRST given something apart from milk, such as tap or mineral water, fruit juice, squash or herbal drink?
	At the health clinic/hospital				Please write number in the
	With the milkman				box nearest whole week Go to Q27
	At a supermarket		Go to Section 2		Weeks old
	At another type of shop			Office use only	Q27. Do you give your baby drinks mainly?
	(Please cross and write in below)				Please cross one or more boxes
					Because he/she is thirsty
					To give him/her extra vitamins
					To help his/her colic/wind/hiccups
					To help his/her constipation
					To settle him/her
					Some other reason (Please cross and write in)

+ 9 + + 10

+	+	+	+
Q28. Has your baby ever had any solid foods such a	as cereal, rusk, baby rice, fruit, vegetables	Q31. What sorts of solid food has your baby e	ever had?
or any other kind of solid food?	➡ Co. to 020	Pleas or m	se cross one nore boxes
	$\Rightarrow Go to G29$	Tinned baby food	
		Powdered baby food	
Q29. How old was your baby when he/she first had	any solid food apart from milk?	Baby food from a jar	
Please write in the age		Homemade foods	Go to Q32
to the nearest whole week	→ Go to Q30	Fruit	
Weel	ks old	Vegetables	
Q30. Why did you start giving your baby solid foods	at that age?	Any other foods (for example, yoghurt fromage frais or breakfast cereal)	
Diagon area	25 ONA		
or more b	oxes	Q32. What sort of solid food did your baby ea	at yesterday?
Doctor/Health visitor/Other health professional advised me to	oxes	Q32. What sort of solid food did your baby ea Pleas or m	at yesterday? se cross one nore boxes
Doctor/Health visitor/Other health professional advised me to	oxes	Q32. What sort of solid food did your baby ea Pleas or m Tinned baby food	at yesterday? se cross one nore boxes
Doctor/Health visitor/Other health         professional advised me to         Friend or relative advised me to         Read leaflets/seen information that advised me to	oxes	Q32. What sort of solid food did your baby ea Pleas or m Tinned baby food Powdered baby food	at yesterday? se cross one nore boxes
Doctor/Health visitor/Other health         professional advised me to         Friend or relative advised me to         Read leaflets/seen information that advised me to         Previous experience (with another baby)	oxes → Go to Q31	Q32. What sort of solid food did your baby ear Please or m Tinned baby food Powdered baby food Baby food from a jar	at yesterday? se cross one more boxes
Doctor/Health visitor/Other health       Image: Cross or more b         Doctor/Health visitor/Other health       Image: Cross or more b         professional advised me to       Image: Cross or more b         Friend or relative advised me to       Image: Cross or more b         Read leaflets/seen information that advised me to       Image: Cross or more b         Previous experience (with another baby)       Image: Cross or more b         Baby was not satisfied with milk       Image: Cross or more b	Go to Q31	Q32. What sort of solid food did your baby ear Pleas or m Tinned baby food Powdered baby food Baby food from a jar Homemade foods	at yesterday? se cross one more boxes
Doctor/Health visitor/Other health         professional advised me to         Friend or relative advised me to         Read leaflets/seen information that advised me to         Previous experience (with another baby)         Baby was not satisfied with milk         Baby was not gaining enough weight	Go to Q31	Q32. What sort of solid food did your baby ear Please or m Tinned baby food Powdered baby food Baby food from a jar Homemade foods Fruit	at yesterday? se cross one more boxes
Doctor/Health visitor/Other health         professional advised me to         Friend or relative advised me to         Read leaflets/seen information that advised me to         Previous experience (with another baby)         Baby was not satisfied with milk         Baby was not gaining enough weight         Some other reason (Please cross and write in)	Go to Q31	Q32. What sort of solid food did your baby ear Pleas or m Tinned baby food Powdered baby food Baby food from a jar Homemade foods Fruit Vegetables	at yesterday? se cross one more boxes
Doctor/Health visitor/Other health	Go to Q31	Q32. What sort of solid food did your baby ear Pleas or m Tinned baby food Powdered baby food Baby food from a jar Homemade foods Fruit Vegetables Any other foods (for example, yoghurt fromage frais or breakfast cereal)	at yesterday? se cross one nore boxes Go to Q33 Go to Q33
Doctor/Health visitor/Other health         professional advised me to         Friend or relative advised me to         Read leaflets/seen information that advised me to         Previous experience (with another baby)         Baby was not satisfied with milk         Baby was not gaining enough weight         Some other reason (Please cross and write in)	Go to Q31	Q32. What sort of solid food did your baby ear Please or m Tinned baby food Powdered baby food Baby food from a jar Homemade foods Fruit Vegetables Any other foods (for example, yoghurt fromage frais or breakfast cereal) Didn't have solids yesterday	at yesterday? se cross one more boxes Go to Q33 Go to Q33

Q33. Do you use milk to mix up your baby's food?

Yes	$\Box \Rightarrow$ Go to Q34
No	□ → Go to Q35

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+	+	+ +			+
Q34.	When you mix up your baby's food do you usually use?	Q38.	Did anyone give you any advice or inforn to your baby?	nation	about when to start giving solid foods
	Please cross one box only		Yes		
	Infant formula milk		No		Go to Q39
	Liquid cow's milk		Have not asked for help or advice		
	Breast milk				
	Or something else	Q39.	Did anyone give you any advice or inforn to give your baby?	nation	about the types of solid foods
	(Please cross and write in the name)		Voc		
					✓ Please follow
Q35.	When you give your baby solid food, do you give him/her fruit juice or other drinks		No Have not asked for help or advice		/ instructions below
	one box only	lf v	ou answered Yes at Q38 or Q39 please go	to Q4	0 otherwise go to Section 3
	Yes, usually		,		
	Yes, sometimes	Q40.	Who gave you this advice?		
	Yes, but not at the same time $\Box$		Pleas	e cros	s one
	No 🔲		Dector/CP		ixes
Q36.	How many meals of solid food does your baby usually have a day?		Health Visitor		
	Please cross		Nurse		
	one box only		Voluntary organisation (such as the National Childbirth Trust)		
			Friend or Belative		angle Go to Section 3
	2 meals				
	3 meals (or more) <b>Go to Q37</b>		Books/leanets/magazines		
007			Television/radio		Office use only
Q37.	of solid foods a day?		Someone else (Please cross and write in)		
	Please write in the age $\Rightarrow$ Go to Q38				
	to the nearest whole week				
	Weeks old				

13 + + 14

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+		+	+			+
Section 3: About vitamins for	your baby and yourself		Q46. How do you us	ually get the vitamins or iron	supplements?	
Q41. Do you give your baby an	y extra vitamins (apart from fruit drinks m Yes $\square \Rightarrow$ Go to Q42 No $\square \Rightarrow$ Go to Q44	entioned earlier)?	<b>Buy</b> the vit myself at the suj	tamins or iron supplements e child health clinic/hospital Buy the vitamins or iron pplements somewhere else		
Q42. Do you use Children's Vita Children's Other brand ( <i>Please cross</i>	amin Drops from the child health clinic or s Vitamin Drops s and write in)	another brand?	Get the vitamin Get vitamins or iron sup Other <b>(P</b>	is or iron supplements free         at the child clinic/hospital         oplements on prescription         Vlease cross and write in)	Go to Section 4	Office use only
Q43. How do you usually get the Buy the vitamin child healt Buy the vitamins s Get the vitamins free at the child Get vitamins o Some other way ( <i>Please cross</i> )	he vitamins for your baby? Please cross one box only ns myself at the th clinic/hospital Id clinic/hospital on prescription s and write in)	Office use only	Section 4: About cl Q47. Do you take yo Yes, for a	heck-ups for your baby and y our baby to a child health clinio advice or regular check-ups No No	our baby's health c or GP for advice or regu → Go to Q48 → Go to Q49	ular check ups?
Q44. Are you taking any extra v drop or liquid form? Q45. What type of supplements	vitamin or iron supplements yourself eithe Yes □ → Go to Q45 No □ → Go to Section 4 s are you taking?	r in tablet,	Q48. About how ofte	an do you take your baby to a Please one box Once a week Once a fortnight Once a month	child health clinic or GP cross conly Go to Q49	at the moment?
Mul Multi-Vitamins and Single vitamin supplement (e.g. folic Something else <b>(Please cross</b>	Please cross one box only Iron only Iti-Vitamins only d iron combined c acid/vitamin D) s and write in)	Office use only		Less than once a month		
+	15	+	+	16		+



Q49. Has your baby ever suffered from any of the following problems?



Q50. For each of the problems your baby has suffered from please indicate who if anyone gave you help or advice about what to do?

Please cross one or has suffered from.	ease cross one or more boxes for each of the problems that your baby as suffered from.						
	Health visitor	GP	Hospital	Voluntary organisation	Family/ friend	Someone else	No advice
Sickness or vomiting							
Constipation							
Diarrhoea							
Chest infection							
Ear infection							
Urinary tract infection							
Colic/wind							
Thrush							
Not gaining enough weight							
Gaining too much weight							
Something else							
						➡ Go to	Section 5
+			17				+

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## Section 5: About advice for you on feeding your baby

Q51. Have you had any problems with feeding your baby since the time you filled in the previous questionnaire?



Q52. What feeding problems have you had? (Please describe)



#### ➡ Go to Q53

#### Q53. Did anyone give you any help or advice about this/these feeding problems?

Yes $\frown \rightarrow$  Go to Q54No $\frown \rightarrow$  Go to Q55

#### Q54. Who helped or advised you?



- Q55. Has anyone given you help or advice on breastfeeding since the time you filled in the previous questionnaire?
  - Yes  $\square \rightarrow$  Go to Q56 No  $\square \rightarrow$  Go to Section 6
- Q56. Who has given you help or advice about breastfeeding?

Please cross one or more boxes					
Doctor/GP					
Health visitor					
Nurse					
Partner, friend or relative					
Support or peer group		to Section 6			
Books/leaflets/magazines					
Voluntary organisation					
Breastfeeding clinic			Office use onl		
Someone else (Please cross and write in)					

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Q58. When you are out and about in a public place and you want to breastfeed do you usually:

Please cross one box only						
<b>prefer</b> to use a mother and baby room if one is available						
prefer to breastfeed where you are but look for a quiet place to sit		Go to Q59				
prefer to breastfeed where you are without going to a special place						
<b>no</b> preference						

Q59. Have you ever had problems finding somewhere to breastfeed your baby when you were out in a public place?

Yes	$\Box$ (	. Go to 060
No	$\Box$ (	

Q60. Have you ever been stopped from or made to feel uncomfortable about breastfeeding in a public place?

Yes	$\Box \Rightarrow$ Go to Q61
No	$\Box \Rightarrow$ Go to Q62

Q61. Where were you stopped from or made to feel uncomfortable about breastfeeding in a public place? (Please describe below)



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Office use only

Q62. Have any of the following things pu	t you off or d	liscouraged you from breastfeeding	Now	Now thinking about both breastfeeding AND bottle feeding in public places		
in a public place?			Q65.	Q65. Where do you think that it is important to have facilities for f		
,	or more box	ies		(including both breast and bottle feeding	<u>))?</u>	
Not feeling confident end	ough 🔲			Pleas or n	e cross one nore boxes	
Being stopped/asked not to breast	feed			Shops/shopping centres		
Being made to feel uncomfor	able			Restaurants		
Look of quitable places qualiable to broad	food	Go to Q65		Public toilets		
(e.g. mother and baby re				Pubs/bars		
Concerns about hygiene in public pl	aces 🗆			Cinemas	$\square  ightarrow$ Go to Q66	
Baby won't always feed when yo	u try	Office use only		Libraries		
Some other reason (Please writ	e in)			Leisure centres		
				Public transport (e.g. on trains/ in train and bus stations)		
Even though you may not have broastford	vour boby in	a public place, there may have been	-	Other places (Please cross and write in)		
imes when you wanted to or tried to						
imes when you wanted to or tried to Q63. Since your baby was born have you	ever wanted	t o or tried to breastfeed him/her				
imes when you wanted to or tried to Q63. Since your baby was born have you in a public place?	ever wanted	I to or tried to breastfeed him/her	 Q66.	Are you aware of a new law in Scotland		
imes when you wanted to or tried to 263. Since your baby was born have you in a public place?	ever wanted Yes □ →	d to or tried to breastfeed him/her Go to Q64	 Q66.	Are you aware of a new law in Scotland in public places?	protecting mothers' rights to fee	
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<ul> <li>imes when you wanted to or tried to</li> <li>263. Since your baby was born have you in a public place?</li> <li>264. Pam nad ydych wedi bwydo eich bab wedi dymuno gwneud hynny neu geis me</li> <li>Ddim yn teimlo'n ddigon hyc</li> <li>Mae rhywun wedi eich atal / gofyn i chi b</li> <li>Mae rhywun wedi peri i chi deimlo'n anghyffyrd</li> <li>Dim lle addas ar gael i fwydo o'r (e.e. ystafell mamau a baba</li> <li>Pryderon am hylendid mewn mannau cyhoed</li> <li>Baby would not feed when you</li> <li>Just prefer to breastfeed at h</li> </ul>	Yes → No → an o'r fron me sio gwneud hy <i>Rhowch gro</i> <i>wn un bocs i</i> erus ↓ eidio ↓ ddus ↓ fron nod) ↓ ddus ↓ tried ↓ ome ↓	d to or tried to breastfeed him/her Go to Q64 Go to Q65 ewn man cyhoeddus er eich bod ynny? bes neu fw Ewch i C65	Q66. Q67. Q68.	<ul> <li>Are you aware of a new law in Scotland in public places?         Yes         No     </li> <li>ection 7: About yourself</li> <li>Do you smoke cigarettes at all now?         Yes         No     </li> <li>About how many cigarettes a <u>day</u> do you</li> <li>Please write a number in the box</li> </ul>	protecting mothers' rights to fee $ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \end{array} > Go to Section 7$ $ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \rightarrow Go to Q68$ $ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \rightarrow Go to Q72$ u usually smoke now? $ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \end{array} $	
<ul> <li>imes when you wanted to or tried to</li> <li>263. Since your baby was born have you in a public place?</li> <li>264. Pam nad ydych wedi bwydo eich bab wedi dymuno gwneud hynny neu geis me</li> <li>Ddim yn teimlo'n ddigon hyc</li> <li>Mae rhywun wedi eich atal / gofyn i chi b</li> <li>Mae rhywun wedi peri i chi deimlo'n anghyffyr</li> <li>Dim lle addas ar gael i fwydo o'r (e.e. ystafell mamau a baba</li> <li>Pryderon am hylendid mewn mannau cyhoed</li> <li>Baby would not feed when you Just prefer to breastfeed at h</li> </ul>	Yes → No → an o'r fron me sio gwneud hy <i>Rhowch gro</i> <i>wn un bocs f</i> erus ↓ eidio ↓ ddus ↓ fron nod) ↓ ddus ↓ tried ↓ ome ↓ <i>wch</i> ) ↓	d to or tried to breastfeed him/her Go to Q64 Go to Q65 ewn man cyhoeddus er eich bod ynny? res neu fw Ewch i C65	Q66. Q67. Q68.	Are you aware of a new law in Scotland in public places?     Yes No ection 7: About yourself     Do you smoke cigarettes at all now?     Yes No     About how many cigarettes a <u>day</u> do you     Please write a number in the box	protecting mothers' rights to fee $\begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array} \end{array} \rightarrow Go to Section 7$ $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \rightarrow Go to Q68$ $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \rightarrow Go to Q72$ u usually smoke now? $\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \end{array} \rightarrow Now go to Q69$	

Office use only

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Q69.	Do you ever smoke inside your home? Yes	$\left  \begin{array}{c} \Box \\ \Box \end{array} \right\rangle$ Go to Q70	If your baby has <u>ever</u> been given breast milk since birth please answer Q75 If your baby has <u>never</u> been given breast milk since birth go to Section 8
	NO		The following question is about your use of contraception.
070	Did		Q75. Since your baby was born have you used the combined pill to prevent pregnancy?
J/U.	Did you smoke at all during your pregna	$\square \Rightarrow 0.5 \pm 0.70$	Yes □ → Go to Q76
	No	$\Box \rightarrow Go \text{ to } Q71$	No $\Box \rightarrow$ Go to Section 8
			Q76. Has using the combined pill affected how often you breastfeed your baby?
271.	How old was your baby when you starte	d to smoke again?	Yes – stopped breastfeeding completely
			Yes – breastfeed less often $\Box$ $\rangle$ Go to Q77
	Please write in the age to the nearest whole week	→ Go to Q72	No – made no difference
		Weeks old	Q77. How old was your baby when you began to take the combined pill?
72.	Do any of the people who live with you n	now smoke cigarettes?	
	Yes, my husband/partner smokes	$\Box \Rightarrow$ Go to Q73	Please write in the age to the hearest whole week
	Yes, someone else I live with smokes	$\Box \Rightarrow$ Go to Q74	Weeks old
	No, nobody else I live with smokes	□ \ Please follow instructions	
	Not applicable - I live alone	☐ ∕ over the page	
273.	About how many cigarettes a <u>day</u> does y	our husband/partner usually smoke?	
	Please write the number in the box	$\Rightarrow$ Go to Q74	Section 8: About your plans for work
			Q78. Are you doing any paid work at the moment?
			Yes □ → Go to Q80
74.	Does anyone you live with ever smoke in	nside your home?	On paid maternity leave
	Yes	□ \ Please follow	On unpaid maternity leave
	No	$\Box /$ instructions over the page	No □ → Go to Q79
			Q79. Do you intend to return to work within the next year?
			Yes $\Box \rightarrow$ Go to Q88
			No $\Box \rightarrow$ Go to Q93
+		23 +	+ 24 +

+				+	+					+
Q80.	How many hours a week do you work?				<b>Q</b> 84.	How has this affected the way in which	you fee	ed your baby?	Office use only	,
	Less than 15					Please write in				l
	Between 15 and 30		o to 081							l
	31 or more hours									l
	Varies									
								→ Now go to Q85		
Q81.	What age was your baby when you retur	ned to wor	rk?		Q85.	Does your employer provide facilities at	work f	or you to express milk,		1
	1 month, less than 2 months					or breastfeed your baby?		L		1
	2 months, less than 3 months					Pleas or m	e cros nore bo	s one oxes		
	3 months, less than 4 months		o to Q82			Yes – to express milk				
	4 months, less than 5 months					Yes – to breastfeed		> Go to Q86		
	5 months, less than 6 months					No – neither				
	6 months or older									
					Q86.	Does your employer offer any of the follo	owing	to you?		
Q82.	How is your baby cared for while you are	e at work?				Pleas	e cros	s one		
	Pleas or n	e cross on ore boxes	e			Part-time working hours		763		
	Childminder/Nanny					Flevi-time				
	Work-place crèche or nursery					Shorter working days				
	Other crèche or nursery									
	Husband or partner					Additional loave /boliday				
	The child's grandparent(s)					Extra loave if your baby is ill		Go to Q93		
	Another relative		o to Q83					1		
	Friend					Other support or advise				
	Other person/place		Office up	o oply		(Please cross and write in)			Office use on	iy T
	(Please cross and write in)									
						None of these				
	Do not use any childcare									
					<b>Q</b> 87.	Do you intend to return to work when yo	our ma	ternity leave has come to	an end?	
Q83.	Has your return to work affected the wa		you are feeding your baby at a	111 2		Yes	□-	➡ Go to Q88		
	Yes		o to Q84			No		Go to Q93		
	No	L → Go	o to Q85			Undecided	$\Box$ (	1		
+		25		+	+		26			+



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

#### Thank you very much for your help.

We hope to contact mothers again later to see how they are feeding their babies when they are older. If the address on the envelope was not complete or if you expect to move house in the near future and know your new address, it would help us if you could write it below:

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We may wish to contact you by telephone in relation to the 2005/06 Infant Feeding Survey. Please enter your telephone number in the boxes below if you are willing to be contacted by telephone in relation to this survey.

Please enter your landline telephone number in the boxes below – 1 number per box.

Please enter your mobile number if you have one – 1 number per boy											
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Final	stage
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Survey of Infant Feeding

#### IN CONFIDENCE



# THE FINAL QUESTIONNAIRE

# Thank you for filling in the two previous questionnaires. <u>This is the third and final questionnaire for the Infant Feeding Survey.</u>

If, rather than a single baby, you have twins or triplets, please answer the questionnaire in relation to the one who was born first.

If, for any reason, 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  $\Box$ 

#### Our guarantee of confidentiality

The names and addresses of people who co-operate in surveys are held in strict confidence by BMRB. We will never pass your name or address to any Government Department, business or anyone else.

#### How to fill in the questionnaire

- 1. Please fill in this questionnaire using 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.

1

Example: Yes X

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

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- 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.

#### For example:

How old is your baby?

If your baby is 32 weeks and 2 days old enter the number of whole weeks plus any additional days

#### Please enter numbers in both boxes



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:



By following the arrows carefully you will miss out some questions which do not apply, so the amount you have to fill in will make the questionnaire 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. 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



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S	ection 1: About the milk that you give your baby	Q6.	How old was your baby when he/she was to your breast?	LAST given breast milk or you put the	m
lf y one	ou have twins or triplets please complete this questionnaire with respect to e who was born first.	the	10 weeks or less More than 10 weeks, up to 4 months	□   □   _ } Go to Q11	
Q1.	May I just check, what is your baby's first name? Please write in below – 1 letter per box.		More than 4 months, up to 5 months More than 5 months, up to 6 months More than 6 months, up to 7 months More than 7 months, up to 8 months More than 8 months, up to 9 months	□   □   □   Go to Q7	
Q2.	How old is your baby? Please write numbers in both boxes		More than 9 months		
	Write in how many whole weeks plus any additional days Weeks Days	Q3 Q7.	What were your reasons for stopping brea Please write in the reasons	Stfeeding? Office us	e only
Q3.	Thinking about the milk that your baby has been given over the last 7 days he/she had?	has			
	Please cross one box only         Only breast milk $\rightarrow$ Go to Q4         Only formula milk $\rightarrow$ Go to Q5         Breast milk AND formula milk? $\rightarrow$ Go to Q9				
Q4.	Has your baby EVER been given any kind of milk other than breast milk, su formula milk or liquid cow's milk (even if this was only once)? Yes (even if only once) $\square$ No $\square$ Go to Q9	Q8.	Which of the following best describes how I would like to have breastfed for longer I breastfed for as long as I intended I breastfed for longer than I intended	v long you breastfed for?	
Q5.	Has your baby EVER been given breast milk or have you put your baby to the even if this was only once? Yes (even if only once) □ → Go to Q6 No □ → Go to Q12	the breast, Q9.	Is your baby being breastfed on demand o On demand Generally keep to set times It depends on the circumstances	or is he/she generally fed at set feeding	ı times?
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#### Q10. How often has your baby been given breast milk over the last 7 days?







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If you have only ever breastfed your baby please go to Q20 If your baby has ever been given any sort of milk other than breast milk (even if only once) please go to Q12

Q12. Which of the following kinds of milk has your baby EVER been given, even if this was only once?



Q13. How old was your baby when he/she was first given FOLLOW-ON MILK?

Please write in the age to the nearest whole month Months → Go to Q14

Q14. If your baby has ever been given LIQUID COW'S MILK, how old was he/she when this was <u>first</u> given?



Q15. How old was your baby when he/she was <u>first</u> given ANY KIND OF MILK OTHER THAN BREAST MILK, such as formula milk or liquid cow's milk?



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- Q16. Excluding breast milk, which one of the following kinds of milk has your baby been given most often over the last 7 days?

Plea one	ase cross box only	Office use only
Infant formula (or "first" milk)	□ → Go to Q18	
Follow-on formula milk	□ → Go to Q18	
Liquid cow's milk	□ ➡ Go to Q17a	
Another kind of milk (Please cross and write in the name)	$\Box \Rightarrow$ Go to Q18	
None of these	$\Box \Rightarrow$ Go to Q20	

Q17a. How old was your baby when he/she was first given liquid cow's milk as their MAIN FEED?

Please write in the age to the nearest whole month		➡ Go to Q17b
	Months	

#### Q17b. If your baby is given liquid cow's milk, is it whole milk, semi-skimmed or skimmed?

Whole Semi-skimmed Skimmed Skimmed

Q18. Excluding breast milk, thinking of the milk that your baby has been given most often over the last 7 days does he/she normally have powdered milk, ready to feed milk or both?

	Powdered
Go to Q19	Ready to feed
	Both

Q19. Do you ever add anything to the baby milk in his/her bottle?

Go to Q20 No

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- Q20. <u>Since the time you filled in the previous questionnaire</u>, have you received any Welfare Food Tokens or 'Healthy Start vouchers' that you can exchange for free or reduced price milk, or infant formula milk (for either yourself or your baby)?

Yes	$\Box \Rightarrow$ Go to Q21
No	$\Box \Rightarrow$ Go to Q23

#### Q21. What have you exchanged Welfare Food Tokens or 'Healthy Start vouchers' for?

Please cross one or more boxes					
Baby milk/infant formula for baby					
Cow's milk for myself	Go to Q22	Office use only			
Something else (Please cross and write in below)					

Q22. Where have you exchanged the Welfare Food Tokens or 'Healthy Start vouchers'?



Q23. Has your baby ever drunk from a cup or beaker with a spout?

Yes  $\Box \Rightarrow$  Go to Q24 No  $\Box \Rightarrow$  Go to Q25

Months

Q24 How old was your baby when he/she first began to use the cup or beaker?

Please write in the age to the nearest whole month

→ Go to Q25

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#### Q33. What sorts of solid foods has your baby EVER had?



### Q34. What sorts of solid foods did your baby eat yesterday?

oss one boxes	e cros ore b	Pleas or m
		Tinned baby food
		Powdered baby food
		Baby food from a jar
		Homemade foods made for the baby
Go to Q35		Homemade foods made for you/your family
(		Fruit
		Vegetables
		Any other foods (for example, yoghurt, Fromage frais or breakfast cereal)
		Didn't have solid foods yesterday

#### Q35. How often do you usually give your baby these sorts of solid foods? Please cross one box for each type of food

Type of food	More than once a day	Once a day	3 or more times a week	Once or twice a week	Less than once a week	NEVER
Fresh Foods (such as fruit, vegetables, home made foods)						
Bought ready made foods (such as tinned or powdered foods						
					→	Go to Q36

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Q36. And how often do you usually give your baby these particular TYPES of solid foods? Please cross one box in each row

Type of food tl	More nan once	Once a day	3 or more times a	Once or twice a	Less than once a	NEVER
Breakfast Cereals						
Rice or pasta						
Bread						
Potatoes						
Butter/Margarine and other fat spreads						
Meat						
Chicken						
Fish (including tuna)						
Eggs						
Beans, lentils, chickpeas						
Tofu, Quorn, TVP						
Nuts (including ground nuts)						
Raw vegetables						
Cooked vegetables						
Raw fruit						
Cooked fruit						
Tinned fruit						
Potato products (inc. chips, waffles, shapes)						
Crisps and corn snacks						
Cheese, yoghurt, fromage frais						
Puddings or desserts						
Sweets, chocolate or biscuits						
					<b>→</b>	Go to Q37

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- Q37. Do you use milk to mix up your baby's solid food?
  - Yes  $\Box \rightarrow$  Go to Q38 No  $\Box \rightarrow$  Go to Q40
- Q38. When you mix up your baby's solid food do you usually use ...?

Please cross one box only					
Infant formula milk			Office use only		
Liquid cow's milk					
Breast milk		Go to Q39			
Or something else (Please cross and write in the name)					

→ Go to Q40

Q39. How old was your baby when you first used this milk to mix up your baby's solid food?

Please write in the age to the nearest whole month Months

Q40. When you give your baby solid food, do you give him/her fruit juice or other drinks containing vitamin C at the same time?



Q41 Did anyone give you any advice or information about when to start giving solid foods to your baby?

Yes  $\square$ No  $\square$  Go to Q42 Have not asked for help or advice

+

+

+ Q42.	Did anyone give you any advice or inform	ation	about the types of solid foods to	+ +	How would you des	scribe the variety of s	olid foods that your baby generally eats?	+
Q.121	give your baby?				Does he/she			
	Yes No		angle Please follow instructions below			Plea one	ase cross box only	
	Have not asked for help or advice					eat most things		
If ye	au anaward Vac at 041 ar 042 places as t	- <b>0</b> 4	2  otherwise so to  0.11		eat a reaso	onable variety of things		
пус	ou answered tes at Q41 or Q42 please go t	0 04			or is he/she	a fussy or faddy eater		
Q43.	Who gave you this advice?			Q46.	Do you avoid giving	your baby solid food	Is with particular ingredients?	
	Please	cros	s one			Yes	$\Box \Rightarrow$ Go to Q47	
	Or ma	bre bo	Dxes			No	$\Box \Rightarrow$ Go to Q48	
	Nurse			Q47.	Which ingredients d Please write in the i	to you avoid and why ingredient(s) and the	? reason you avoid it below	
	Voluntary organisation (such as the National Childbirth Trust)		Office use only	ly	Ingredient (a)	Reason for avoidir	ng (b)	
	Friend or Relative		Go to Q44					
	The Internet							
	Books/leaflets/magazines			-				
	Television/radio			_				
	Someone else (please cross and write in)			_				
Q44	Do you ever add salt to your baby's solid are cooking the food?	food,	including adding salt when you					
	Yes, often							
	Yes, sometimes		Go to Q45				→ (	Go to Q48
	Never			Q48.	Has it been difficult	to introduce your ba	by to solid foods?	
						Yes	$\Box \Rightarrow$ Go to Q49	
						No	$\Box \Rightarrow$ Go to section 3	

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Q53. What type of supplements are you taking?

Once a fortnight

Once a month

Less than once a month

18

Go to Q56



Q52. Are you taking any extra vitamin or iron supplements yourself either in tablet, drop or liquid form?

> Yes □ → Go to Q53 No □ → Go to Section 4

> > 17

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Q49. In what way has it been difficult?

+

Office use only



Q56. Has your baby ever suffered from any of the following problems?



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Q57. For each of the problems your baby has suffered from please indicate who, if anyone, gave you help or advice about what to do?

Please cross one or more boxes for each of the problems that your baby has suffered from.

	Health visitor	GP	Hospital	Voluntary supporter	Family/ friend	Someone else	NO ADVICE
Sickness or vomiting							
Constipation							
Diarrhoea							
Chest infection							
Ear infection							
Urinary tract infection							
Colic/wind							
Thrush							
Not gaining enough weight							
Gaining too much weight							
Skin problems							
Something else							

#### ➡ Go to Section 5

#### Section 5: About advice for you about feeding your baby

Q58. Have you had any problems with feeding your baby <u>since the time you</u> <u>filled in the previous questionnaire?</u>

Yes  $\Box \rightarrow$  Go to Q59 No  $\Box \rightarrow$  Go to Section 6

### Q59. What feeding problems have you had? (Please describe)



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- Yes  $\Box \Rightarrow$  Go to Q61
- No □ → Go to Section 6

#### Q61. Who helped or advised you?



+

+

Q63. When you are out and about in a public place and want to breastfeed do you usually:

Plea	Please cross one box only				
<b>prefer</b> to use a mother and baby room if one is available					
<b>prefer</b> to breastfeed where you are but look for a quiet place to sit		Go to Q64			
<b>prefer</b> to breastfeed where you are without going to a special place					
no preference					

Q64. Have you ever had problems finding somewhere to breastfeed your baby when you were out in a public place?

Yes		Go to Q65
No	$\Box$ (	

Q65 Have you ever been stopped from or made to feel uncomfortable about breastfeeding in a public place?

Yes	$\Box \Rightarrow$ Go to Q66
No	$\Box \Rightarrow$ Go to Q67

Q66. Where were you stopped from or made to feel uncomfortable about breastfeeding in a public place?

(Please describe below)

Section 6: About feeding your baby in public places

Q62. Since your baby was born have you ever fed him/her in a public place?

#### Please cross one or more boxes



Office u	ise only
	1

➡ Go to Q67

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Q67. Have any of the following things put you off or discouraged you from breastfeeding in a public place?



Even though you may not have breastfed your baby in a public place, there may have been times when you wanted to or tried to.

Q68. Since your baby was born have you ever wanted to or tried to breastfeed him/her in a public place?



Q69. Why have you not breastfed your baby in a public place even though you wanted to or tried to?



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Office use only

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- Now thinking about both breastfeeding AND bottle feeding in public places...
- Q70. Where do you think that it is important to have facilities for feeding babies (including both breast and bottle feeding)?

Plea one or	ase cr more	ross e boxes		
Shops/shopping centres				
Restaurants				
Public toilets				
Pubs/bars			0.0	
Cinemas		Go to Q71	Office us	e only
Libraries		(		
Leisure centres				
Public transport (e.g. on trains/in train and bus stations)				
Other places (please cross and write in)				_

Q71. Are you aware of a new law in Scotland protecting mothers' rights to feed in public places?



#### Section 7: About yourself

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Q72. Do you smoke cigarettes at all now?

es	⇒	Go to Q73	
lo	→	Go to Q77	

24

Q73. About how many cigarettes a day do you usually smoke now?

Please write the number in the box



+			+ +		+
Q74.	Do you ever smoke inside your home? Yes No	□	lf yo If yo	our baby has <u>ever</u> been given breast milk s our baby has <u>never</u> been given breast milk	since birth please answer Q80 since birth go to Section 8
			The f	ollowing question is about your use of cor	traception.
Q75.	Did you smoke at all during your pregnane	cy, after you found out you were pregnant?	? Q80.	Since your baby was born have you used	I the combined pill to prevent pregnancy?
	Yes	□ → Go to Q77		Yes	$\Box \Rightarrow$ Go to Q81
	No	$\Box \Rightarrow$ Go to Q76		No	$\Box \Rightarrow$ Go to Section 8
Q76.	How old was your baby when you started	to smoke again?	Q81.	Has using the combined pill affected how	v often you breastfeed your baby?
	Please write in the are			Yes – stopped breastfeeding completely	
	to the nearest whole month	→ Go to Q77		Yes – breastfeed less often	$\Box$ > Go to Q82
		Months		No - made no difference	
Q77.	Do any of the people who live with you no	w smoke cigarettes?		How old was your baby when you began	to take the combined nill?
	Yes, my husband/partner smokes	□ → Go to Q78	Q02.	now old was your baby when you began	
	Yes, someone else I live with smokes	□ → Go to Q79		Please write in the age	→ Go to Q83
	No, nobody else I live with smokes		0	to the nearest whole month	Months
	Not applicable - I live alone		9		
079	About hou monu cincustes a dou doos us		Se	ection 8: About your plans for work	
Q78.	About now many cigarettes <u>a day</u> does yo	our nusband/partner usually smoke?	Q83.	Which of the following best describes yo	ur work situation at the moment?
		→ Go to Q79		In paid work	$\Box \Rightarrow$ Go to Q85
	Please write the number in the box			On paid maternity leave	
				On unpaid maternity leave	
Q79.	Does anyone you live with ever smoke ins	ide your home?		Not in paid work	$\Box \rightarrow Go to Q84$
	Yes	$\square$ Please follow instructions on page	26	· · · · ·	
	No		Q84.	Do you intend to return to work within th	e next year?
				Yes	$\Box \rightarrow$ Go to Q93
				No	
				Undecided	

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If yo	u are currently working please go to Q85				Q88.	Has your return to work affected the way	in wł	nich you are feeding	your baby at all?
lf yo	u are currently on paid or unpaid matern	ity leav	ve please go to Q92			Yes	<b>-</b>	✤ Go to Q89	
Q85.	How many hours a week do you work?					No	└ -	➡ Go to Q90	
	Less than 15				Q89.	How has this affected the way in which y	ou fee	ed your baby?	Office use only
	Between 15 and than 30		Co to O%			Please write in			
	31 or more hours	$\Box$ (							
	Varies								
Q86.	What age was your baby when you retur	ned to	work?		_				
	less than 3 months								
	3 months, less than 4 months								
	4 months, less than 5 months		Go to Q87						➡ Go to Q90
	5 months, less than 6 months				Q90.	Does your employer provide facilities at v	vork 1	or you to express mi	lk, or breastfeed
	6 months, less than 9 months					your baby?	150 CT	055	
	9 months or older					one or	more	boxes	
097	How is your beby saved for while you or	ot wo			_	Yes – to express milk		,	
Q07.		s at wo	2005			Yes – to breastfeed		Go to Q91	
	one or	more	boxes			No – neither			
	Childminder/Nanny				 Q91	Does your employer offer any of the follo	wina	to you?	
	Work-place crèche or nursery				Qui	Plea	ise cr	oss	
	Other crèche or nursery					one or	more	boxes	
	Husband or partner		Office use on			Part-time working hours			
	The child's grandparent(s)		> Go to Q88	_		Flexi-time			
	Another relative	Ц(				Shorter working days			Office use only
	Friend					Longer/extended breaks			
	Other person/place (Please write in)			-		Additional leave/holiday		Go to Q98	
				_		Extra leave if your baby is ill		/	
	Do not use any childcare					Different shift patterns			
					_	Other support or advice (please write in)			
							_		
		07		,		None of these			· ·
+		21		Ŧ	+		20		+

Q92. Do you intend to return to work when your maternity leave has come to an end?

No

Undecided

Yes  $\Box \rightarrow$  Go to Q93

Go to Q106

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+	
Q96. Do you think your return to w	vork will affect the way in which you feed your baby?
	Yes $\square \rightarrow$ Go to Q97
	No □ → Go to Q98

+

Q97. How do you think that this will affect the way in which you feed your baby? (Please write in)



+ Q99.	+ What do you mainly do in your iob (or the iob you are on maternity leave from)?	+ + Q104. Do you work on your own or do you have any employees?	
	Please write in Office use only	On own/with partners but no employees □ → Go to Q106	
		With employees $\Box \rightarrow Go \text{ to } Q105$	
		Q105. How many people do you employ at the place where you work?	-
		1-24	
		$_{25-499}$ $\square$ $ angle$ Go to Q106	
	→ Go to Q100	500 or more	
Q100	. What does the firm or organisation you work for make or do at the site where you work?	Q106. Is there anything else you would like to say about feeding your baby?	_
	Please write in	Yes Please write in below	
		No $\square \rightarrow$ Please fill in the date below	
Q101	∴ Are you an employee $\Box \rightarrow Go to Q102$ or self-employed? $\Box \rightarrow Go to Q104$		
Q102	Do you have any managerial duties or do you supervise any other employees?		
	Yes, manager	➡ Please fill in the date belo	w
	Yes, supervisor $\Box$ $\rightarrow$ Go to Q103		_
	No. neither	Please give the date when you filled in this questionnaire	
	How many employees are there at the place where you work?	day month year	
	1-24		
	25-499 🗌 🔪 Go to Q106	was there anything you intended to go back and complete? Please check.	
	500 or more	This was the third and final part of the Infant Feeding Survey 2005/06 and we would like to thank you very much for taking part.	
+	31 +	+ 32 +	

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# About BMRB Social Research

BMRB Social Research is a specialist division of BMRB Ltd., which provided dedicated expertise in conducting social policy and public interest research. We have extensive experience of both quantitative and qualitative research, and conduct research using a wide variety of research methods including face-to-face, telephone, postal and online surveys. We are one of the largest providers of public policy research in the UK and our clients include government departments and agencies, academic institutions, and other public and voluntary sector bodies. We work in all areas of public policy including crime and criminal justice, education and skills, employment, health, pensions and personal finance, public sector communications, and transport.

Lifestyle Statistics	Published by the Information Centre
Price: Free	Part of the Government Statistical Service
	ISBN: 1-84636-124-9
	This publication may be requested in large print or other formats.
	For further information contact:
	online: www.ic.nhs.uk
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