From babies to toddlers: first-time mothers’ and fathers’ experiences from a longitudinal study

First 1,000 Days final study report

Abigail Easter and Mary Newburn
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<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>Abigail Easter</td>
<td>Research and Evaluation Manager, NCT</td>
</tr>
<tr>
<td>Mary Newburn</td>
<td>Strategic Ambassador, NCT (Chair)</td>
</tr>
<tr>
<td>Alex Bollen</td>
<td>Postnatal Group Leader, NCT</td>
</tr>
<tr>
<td>Angela Sweeney</td>
<td>Parent Representative</td>
</tr>
<tr>
<td>Caroline Seddon</td>
<td>Education and Research Director, NCT</td>
</tr>
<tr>
<td>Christine Bidmead</td>
<td>Health visitor representative, King’s College London</td>
</tr>
<tr>
<td>Elizabeth Duff</td>
<td>Senior Policy Advisor, NCT</td>
</tr>
<tr>
<td>Ian St James Roberts</td>
<td>Professor Emeritus, Institute of Education</td>
</tr>
<tr>
<td>Margaret Reid</td>
<td>Trustee, NCT</td>
</tr>
<tr>
<td>Rosemary Dodds</td>
<td>Senior Policy Advisor, NCT</td>
</tr>
<tr>
<td>Sally Horrox</td>
<td>Marketing and Corporate Communications Director, NCT</td>
</tr>
<tr>
<td>Susan Pawlby</td>
<td>Lecturer, Institute of Psychiatry, King’s College London</td>
</tr>
<tr>
<td>Tina Miller</td>
<td>Professor, Oxford Brookes University</td>
</tr>
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Executive Summary

The First 1,000 Days study
During 2013-2014, NCT’s Research and Quality Department conducted a mixed-methods longitudinal research study of first-time mothers’ and fathers’ experiences and attitudes during the first two years following the birth of their baby. The study was designed to broaden our understanding of the First 1,000 Days of parenthood and a child’s life (from the start of pregnancy to a child’s second birthday), as well as to inform NCT’s education, support and lobbying.

The study is broad-ranging to provide a picture of the key dimensions of the needs, concerns, attitudes and experiences of parents of different ages and from a range of different social and ethnic backgrounds.

To understand more about life as a new first-time parent men and women were invited to complete online questionnaires at two time-points: one during their baby’s first year (6-9 months), the other one year later (18-21 months), following eight focus groups to inform the survey design.

In line with the focus of Pampers’ campaign, this final report focuses particularly on babies’ and toddlers’ sleep and play, and how parents’ experience and express their love for their child. It also includes findings on parental attitudes during the first two years of parenthood.

Study participants
In total, 869 first-time mothers and 296 first-time fathers responded in full to the first questionnaire when their babies were on average eight months old. Of these parents, 423 mothers (53%) and 60 fathers (20%) responded in full to the second questionnaire when their child was on average 21 months old.

Women in the First 1,000 Days study had a mean age of 31 years and men had a mean age of 33 years. Just over half of the babies in the women (54%) and men’s (55%) surveys were male. Over a fifth of women reported either that they had already had another baby (5%) or were pregnant (17%).

At 21 months, 93% of the women said they were currently in a relationship, of which 1% of women were living with a same-sex parent partner, and 7% were lone parents. Overall, 81% of the mothers and 95% of fathers were in employment at 21 months. Many worked full-time for 35 hours a week or more (30% women and 88% men), though part-time work was more common among the women (44% working 3-4 days per week and 7% working 1-2 days). One in eight of the fathers were not in full-time work, in addition to those employed part-time (2%), some were self-employed (5%), a small group were ‘stay at home dads’ (2%) or students (3%).

At the time of the second survey, 11% of mothers and 10% of fathers indicted that their physical health was either poor or very poor and 6% of toddlers had a chronic health condition or disability.

In terms of ethnicity, country of birth and geographical distribution, response to the first questionnaire was broadly representative (see appendix B). Parents taking part in the First 1,000 Days study are somewhat older on average than the general UK population of parents. Older fathers and more educated parents and those from white ethnic backgrounds were more likely to complete the second questionnaire.
LOVE: Caring for babies as they become toddlers

In order to explore parent-child relationships during the first two years three aspects of the caring relationship were explored: provision of physical care during the first two years, the rewards of being the parent of a toddler and parents’ experiences of and responses to toddler behaviour.

Physical care during the first two years
During early infancy the close bonds of normal parent-child relationships develop as mothers and fathers get to know their baby, and as they provide for their baby’s physical care needs. As they feed, change, bathe and comfort their babies, they develop feelings of attachment and, when things go well, a growing sense of self efficacy as a parent. As couples become parents there is a period of transition as they adjust to these new roles and work out between them how to share responsibility for the practical care of their baby.

• There was a strong message from both men and women that mothers took the lead on their babies’ and toddlers’ feeding, bathing, care at night and nappy-changing.

• Men indicated a greater degree of involvement in practical child caring tasks than the women suggested. For example, two thirds of men (67%) reported equally sharing the responsibility for responding to their baby during the night, compared to 45% of women.

• While there seemed to be a small shift towards fathers doing more in the second year, on the whole, patterns set in the first year persisted, and over half of the women said they did all or most of these caring activities across both years.

• Women who were in full-time employment at 21 months were significantly more likely to say that they shared feeding, nappy changing and bathing their baby equally with their partner.

Rewards of being the parent of a toddler
As toddlers begin to talk and become more mobile in the second year the dynamic of the parent-child relationship changes. When asked about the most rewarding aspects of being a parent, mothers and fathers described how their relationship with their child had developed and strengthened as their child became more mobile and able to communicate. Four key themes encompassed changes to the parent-child relationship:

1. Witnessing development – “I love the development of his language and to see him trying to achieve independence.”

2. Expressions of love – “Him telling me he loves me.”

3. Easier communication – “She can tell me what she wants and it makes everything so much easier.”

4. Enjoyment of life – “I love seeing him laughing.”

Child development and behaviour
During the second year, alongside all of the physical and cognitive development, toddlers also begin to assert a desire for greater autonomy by challenging and questioning their parents. Although this is an important aspect of child development, it is sometimes referred to as the ‘terrible twos’ and can put strain on the parent-child relationship.
When asked about their attitudes to toddler development and behaviour at 21 months:

- Around three quarters of mothers and fathers (74% and 73%, respectively) seemed to have a similar outlook, feeling that difficult behaviour, such as tantrums, could be managed by understanding child development, using distractions and setting boundaries.

- Some gender differences in parents’ understanding and interpretation of toddler behaviour were apparent:
  - Mothers were more likely to feel that toddlers have tantrums as a way of expressing difficult emotions (92% vs. 83% of fathers) and that having an understanding about child development could help parents know how to respond to more difficult aspects of child behaviour (96% vs 88% of fathers).
  - Fathers more frequently agreed that young children have tantrums to get what they want from parents (68% vs. 50% of mothers) and were somewhat more inclined to think smacking a toddler helped them to behave appropriately (13% vs 10% of mothers).

SLEEP: Patterns of sleep and waking in the first two years

From a parent’s perspective, sleep, or rather lack of sleep, is one of the most pertinent and frequently discussed aspects of life with a new baby.

When couples have a baby one of the first decisions to make is where their baby will sleep. Options include cots, Moses baskets, bedside cots, travel cots, slings and their parents’ bed. The First 1,000 Days study sought to explore patterns of sleeping arrangements during the first two years.

Sleeping arrangements

- At both eight and 21 months babies were most frequently sleeping in a cot in a separate room (67% in the first year and 70% in the second year).
- By 21 months there was a decrease in the proportion of mothers reporting that their baby slept in a cot in the same room as them (from 24% to 7%).
- Socio-economic factors appeared to affect where toddlers were sleeping in the second year and lower income families were three and a half times more likely to report that their child slept in a cot in their bedroom at 21 months compared to mothers in the higher-income group (17% vs 5%).
The proportion of mothers who reported bed-sharing remained consistent across the first two years, and in response to both questionnaires around a quarter of mothers said that during a typical week they bed-shared with their baby for all or some of the night.

Up to 1 in 10 mothers reported that their baby or child slept with them throughout the night at eight and 21 months (7% and 10%, respectively).

Disruptions to routine by teething or childhood illness, parental employment demands and lack of space were key factors affecting where toddlers slept at 21 months.

“We live in a one bedroom house so just us going to bed later than our daughter can disturb her. She seems to be a light sleeper and if I have to be up for work at 5am I often bring her into bed with me to get some sleep.” (Mother, 33 years, retail supervisor)

“She’s always in her cot unless she’s sick. Then she sometimes comes in with me and her Mum.” (Father, 37 years, media developer)

Patterns of infant sleep
Sleep is a developmental process, which changes throughout the lifetime. Newborn babies may sleep for up to 18 hours, but wake frequently often at 2-3 hour intervals. While it is normal for babies to wake frequently in the night, especially in the early months after birth, gradually most babies develop more settled sleep patterns; however some continue to wake frequently.

In order to explore babies’ patterns of sleep as they became toddlers, parents were asked about the amount of time their baby spent sleeping and waking and any difficulties or concerns they had about their child’s sleep.

Between the first and second year there was a small increase in the number of hours mothers reported their baby sleeping during the night (from 10.4 to 10.8 hours) and a decrease in daytime naps (from 2.4 to 1.6 hours).

Compared to reports at eight months, at 21 months mothers reported that their babies were waking less often. On average mothers said they were being woken half as many times during the night (overall, mean number of wakings was down from 1.5 to 0.8 times per night), and durations of wakefulness were shorter (from 46 to 23 minutes), between the hours of 7pm-7am.

There was a 20% increase in the number of mothers saying that their baby slept through the night without waking from 7pm-7am (from 30% to 50%).

However, half of all mothers said their baby was still waking one or more times during the night at 21 months. Most frequently this was once (28%) or twice (13%) and few children were waking more than three times at this older age.

Sleep difficulties
The proportion of mothers reporting that their baby had sleep difficulties remained remarkably consistent between eight and 21 months.

In both the first and second year, 30% of mothers considered their baby to have either a small or serious ‘sleep problem’, and the remaining 70% did not view their child’s sleep as a problem. Overall, 2% of mothers in both year one and year two considered their child had a serious sleep problem. Descriptions of concerns included the following:

“He constantly wakes up every 2 or 3 hours, settles reasonably easily again after asking for water and cuddles but can wake up again (after) either 10 minutes to 2 hours, all night relentlessly.” (Mother, 42 years, nurse)

A smaller group of mothers mentioned new disturbances at 21 months:

“She has started having night terrors which can be frightening.” (31 years, teacher)

Parents’ attitudes to infant sleep
Parental attitudes and expectations about infant sleep are thought to be an important mediator between their bedtime behaviours and any perception that their baby has a sleep problem. In the second survey parents were asked how much they agreed with three attitude statements about young children’s sleep and bedtime behaviours.
Men and women held different attitudes about toddlers’ place of sleeping in the second year:

- Fathers were more likely than mothers to agree that ‘it is good for parents’ relationship if young children sleep in their own bedroom’ (90% vs 78%);
- Mothers were more likely to say that ‘bed-sharing is a convenient way to help children get back to sleep if they wake during the night’ (37% vs. 22%).

During the second year, three quarters of mothers (76%) and 85% of fathers said that it was important that ‘children learn to self-soothe themselves to sleep’.

The proportion of mothers reporting that ‘it is good for parents’ relationship if babies sleep in their own bedroom’ increased from 61% in the first year to 78% in the second year.

The proportion of parents agreeing that they felt tired during the day because their baby disturbs their sleep at night had reduced in the second year (from 45% to 29% among mothers and from 21% to 13% among fathers).

PLAY: The development of parent-infant play

Young children spend most of their waking hours in play activities. This includes playing on their own, in interaction with a parent or other care-giver, and playing alongside (and increasingly with) other children. In the last two decades, there has been increasing political and research interest in parent-child interaction and the opportunities that children have to play. Attention has been focused on how these activities relate to parent-child attachment and optimal growth and learning.

Given the limited extent of community-based empirical studies of ordinary family activities and parent-child play in children under two, the 6-9 month questionnaire included questions aimed at exploring parents’ experiences and attitudes towards play.

Parents’ experiences of playing with their infants

In both surveys mothers and fathers were asked to estimate how many hours they played with their baby during a typical week.

- Overall, there appeared to be a decrease in the number of reported hours that mothers and
fathers said that they spent playing with their baby in the second year compared to the first:

- The percentage of mothers saying they played 30-39 hours per week was down from 27% to 19%, and those who said they played for 40 or more hours had also fallen (from 13% to 7%).
- During the second year, a large minority of fathers said they played with their toddler for less than 10 hours a week (44% compared with 18% in year one).
- At 21 months no fathers said they spent more than 30 hours playing during a typical week, whereas around one fifth of fathers had indicated this at eight months.
- The amount of time mothers reported playing with their baby was associated with their socio-economic status and working arrangements:
  - Over half (55%) of all women who were not employed played with their toddler for more than 30 hours per week compared to less than a fifth (17%) of mothers who worked full-time hours.
  - In the second year, mothers in the ‘lower-income’ group were almost twice as likely to report that they played with their child for 40 or more hours (25%) compared to women in the ‘higher income’ group (13%). Again this is likely to reflect the shorter working hours of women in the ‘lower income’ group.

Daily activities with toddlers, limitations and ways round them

Mothers and fathers were asked whether anything restricted the play activities they shared with their toddler, and if there were restrictions whether there were any ways of overcoming them.

- Mothers referred to: the impact of winter weather, physical restrictions due to being pregnant, having a new baby as well as a toddler, or (less frequently) poor health of themselves or their child, a tight family budget, limited time (often associated with juggling work and home responsibilities), and limited space and facilities at home or in the neighbourhood.

"The weather restricts us from going to the local park. Price of local soft play areas are increasing, meaning we aren’t able to go as often as we’d like."
(33 years, not employed)

- Being creative and engaging the support of family and friends were very important ways of extending opportunities.

"For places, e.g. farms, zoos and woodlands, which I cannot get to by bus, I try to plan when others are going and get lifts where possible."
(31 years, not employed)

- Over half of fathers said that lack of time restricted what they were able to do with their child. This was cited almost three times more frequently than any other factor.

- Financial constraints and poor weather were restrictions; both were mentioned by a fifth of the fathers.

"Just playing whenever possible, and when time allows. Making sure I focus the whole day on my daughter on my day off."
(39 years, prison officer)

Patterns of television watching and parental attitudes

Rapid increase in technology over recent years has shaped and changed the way in which children spend their leisure time, and the games they play. However, there is very little research on the effects of television, videos and games apps designed for children, or use of phones, tablets and computers, particularly in children under two years.

- As the babies in this study became toddlers, there was a four-fold increase in the proportion of mothers reporting their child ‘enjoyed watching children’s television programmes’ (from 21% to 80%), and an increase from 35% to 82% among fathers.

- In line with this change there was an overall increase in the amount of television that children were watching:

  - By 21 months half as many mothers said that their baby spent less than 1 hour watching television during a typical day (34%) compared to the first year (69%).
• By contrast the number of women reporting that their baby watched 1-2 hours or 3-4 hours of television per day doubled in the second year.

• During the second year, parents appeared to be making more of a conscious effort to limit the amount of time their child spent actively watching television:
  • The number of mothers and fathers who agreed that they ‘limited the amount of television that their baby/child watched’ increased (from 64% to 71% among mothers and from 60% to 78% among fathers).

• Socio-economic status was associated with the amount of television that toddlers were watching and with mothers’ attitudes towards television in the second year:
  • Women in lower income households were more likely to report that their child watched five or more hours of television per week (7% vs 4%), and less likely to report they watched television for less than one hour per week (25% vs 37%).
  • Compared to women in the ‘higher-income group’ those in the ‘lower-income’ group were significantly more likely to say that they ‘usually have the television on in the background (71% vs 52%) and that their child ‘watches television while playing’ (36% vs 26%).
  • Conversely, mothers in the ‘higher-income’ group were significantly more likely to agree that they ‘limit the amount of television that their child watches’ (74% vs 61%).

Conclusions

The findings highlight changes in parental experiences and babies’ behaviour as they become toddlers, and the influence that this has on the parent-child relationship. The report also identifies some interesting differences in men’s and women’s roles and attitudes during the transition to parenthood and how socio-economic factors, such as employment and household income, are associated with parents’ experiences and behaviours.

Key conclusions from the findings of this report suggest that as babies become toddlers:

• Child development and communication is rewarding and important for parent-child relationships.

• Patterns of infant sleep and wakening become more settled, but some difficulties and parental concerns persist.

• Women remain the primary carer of their toddler, despite the vast majority having returned to paid employment.

• Men’s aspirations of being an ‘involved father’ are restricted in practice.

• Parents have less time to play and interact with their toddlers and feel restricted by a range of factors.

• Use of television and modern technology increases, although parents seek to limit their toddlers’ access.
During 2013-2014, NCT conducted a mixed-methods longitudinal research study of first-time mothers’ and fathers’ experiences and attitudes during the first two years following the birth of their baby. The study was designed to broaden our understanding of the First 1,000 Days of parenthood and a child’s life, as well as to inform NCT’s education, support and lobbying. The First 1,000 Days describes the time from the start of pregnancy to a child’s second birthday.

The study is broad-ranging and provides a picture of the key dimensions of the needs, concerns, attitudes and experiences of parents of different ages and from a range of different social and ethnic backgrounds. To understand more about life as a new first-time parent during this time the study focuses on two time-points: one during their baby’s first year, the other a year later. Mothers and fathers were invited to provide information as part of the study when their babies were between 6-9 months old and were followed up when their babies were around 18-21 months old.

Three reports have been submitted to the funder during the research project. The first reported on themes that emerged from the first year focus groups with mothers and fathers. The second reported on matters relating to love, sleep and play from the first year survey, completed just after the mid-point of the study. The third reported on themes from the second focus groups with parents in year two, relating to love, sleep and play. These unpublished reports have been used to inform the Pampers campaign on the importance of love, sleep and play. Some of the findings have been released to the media or used by Pampers.

This final report provides results from the second year survey, and where appropriate compares responses from parents between years one and two, to explore what is constant and what changes alongside the child’s growth and development. In line with the focus of Pampers’ campaign, this report focuses particularly on babies’ and toddlers’ sleep and play, and how parents’ experience and express their love for their child. It also includes findings on parental attitudes during the first two years of parenthood.

In addition to the reports outlined above, during the course of the project, two First 1,000 days’ articles have been published in NCT’s Perspective journal to inform NCT practitioners, including antenatal teachers, postnatal leaders and breastfeeding counsellors on couple relationships and introduction of solid foods.1,2 Practitioner workshops have also been held at NCT’s annual conference (Babble Live!) to disseminate the learning from the First 1,000 Days study. Findings have also been presented at the Marcé Society international conference on perinatal mental health on persistent crying among babies of mothers with depression and anxiety.

The authors are planning to submit articles on infant crying, parental mental health, fatigue, and parenting confidence and fathers’ roles and experiences to social science and health professionals’ journals.
This study aims to investigate first-time mothers’ and fathers’ experiences during the first two years following the birth of their baby, and to compare how attitudes and experiences remain similar or change in the second year compared to the first. There is an established literature on women’s experiences of pregnancy, birth and the early postnatal period, and a growing body of evidence about how fathers experience these aspects of the transition into parenthood.

Less has been written about the period from six to 24 months, the stage when babies become more self-aware, more mobile and start eating family foods. It is also the stage when, typically, women who are in employment move on from maternity leave and parents consider how to combine the demands of earning enough to cover household expenses, parenting and childcare, and their personal aspirations and career considerations.

The research takes a broad approach to investigating the transition to parenthood and covers a range of inter-related aspects of family life and parenting.

The overall aims of the First 1,000 Days study are:

1. To investigate the experiences, attitudes and concerns of first-time mothers and fathers living within the UK.

2. To investigate how experiences, attitudes and the behavioural or emotional ‘outcomes’ measured change or remain similar in the second year compared to the first.

3. To explore some key domains of the transition to parenthood based on previous literature, including: returning to paid employment and division of household labour, infant sleep, parent and infant patterns of play and development, complementary feeding, parents’ health and wellbeing, and parenting concerns.
3 Research methods

This First 1,000 Days study utilises a longitudinal mixed methods research design.

In the first phase of the study, focus groups were undertaken with groups of parents (four groups of first-time mothers and one group of first-time fathers) when their babies were approximately 6-9 months and 18-21 months old. The findings from these focus groups were used to inform the development of two surveys focused on mothers’ and fathers’ experiences and attitudes in the first two years of parenthood.

In this second phase, first-time mothers and fathers were recruited and asked to complete an online questionnaire about their experiences and attitudes towards parenthood 6-9 months after their babies were born. The same parents were followed up and asked to complete a second online questionnaire one year later when their babies were between 18-21 months.

As part of the online surveys, parents were asked about their feelings for their baby and how they shared the more practical aspects of caring for their baby with their partner. Mothers and fathers were also asked questions about their baby’s sleep habits, how they play and interact with their baby and their use of TV and other technology-based forms of play. Similar questions were asked of mothers and fathers during the first and second year surveys in order to explore how these aspects of becoming a parent changed or remained similar in the second year compared to the first.

Further details of the research methods including: the development and piloting of the questionnaire, data collection and analysis methods are shown in Appendix A of this report.
Response to the surveys
In total, 866 first-time mothers and 296 first-time fathers responded in full to the first online questionnaire when the average age of their child was eight months. The same group of parents were invited to complete a second questionnaire approximately one year later and 423 mothers (53%) and 60 fathers (20%) responded in full. By this time, the average age of their first-born child was 21 months old.

Sample characteristics
Women in the First 1,000 Days study had a mean age of 31 years and men had a mean age of 33 years. Just over half of the babies in the women (54%) and men’s (55%) survey were male. At 21 months, 93% of the women said they were currently in a relationship, of which 1% of women were living with a same-sex parent partner, and 7% were lone parents. Over a fifth of women reported either that they had already had another baby (5%) or were pregnant (17%).

Overall, 81% of the mothers and 92% of fathers were in employment at 21 months. Many worked full-time for 35 hours a week or more (30% women and 88% men), though part-time work was more common among the women (44% working 3-4 days per week and 7% working 1-2 days). One in eight of the fathers were not in full-time work, in addition to those employed part-time (2%), some were self-employed (5%), a small group were ‘stay at home dads’ (2%) or students (3%).

Throughout this report, additional analysis was undertaken to explore whether mothers’ or fathers’ socio-economic status (on the basis of household income) was associated with their attitudes and experiences during the first two years. Median gross income by decile for a two parent one child family for 2014-15, shows that the lowest decile had a median income of £15,300 and the highest decile median income is £113,400. The median income for the third decile is £26,400.17 We divided men and women into two groups according to their total annual household income, selecting less than £25,000, as our threshold for ‘lower income’, so that the ‘higher-income’ group earned £25,000 or more.

In this study, 20% of women and 17% of men fell into the ‘lower income’ group. For a full breakdown of parent’s income see Appendix B. The number of hours worked by women in lower income households tended to be fewer (on average 21 hours per week, compared to 30 hours per week in higher income households.

At the time of the second survey, 11% of mothers and 10% of fathers indicted that their physical health was either poor or very poor and 6% of toddlers had a chronic health condition or disability.

Representativeness and attrition
First-time mothers and first-time fathers from all major geographical regions of the UK and a broad range of ages, education, ethnicity and sexual orientation were represented in the study. There were also lone parents, cohabiting, married and separated parents. Initially, the men who were recruited were from different households from the women, however, in order to boost the number of fathers in the sample, women who had responded were asked to invite their partner to participate, if they had one, see Appendix B.

Parents who took part in the First 1,000 Days study, particularly those who completed both questionnaires, were older on average than the general UK population of parents, though there is still a wide spread in the sample. In terms of ethnicity, country of birth and geographical distribution, the study is broadly representative. Consistent with younger parents being less well represented, there are fewer women with no qualifications or GCSEs as their highest qualification than would be expected.

This study compares well with other survey research in terms of inclusivity. The majority of large population-based cohort studies have under-representation of parents who left school at 16 with no or low qualifications and young parents. Online surveys may increase this long-standing tendency.

There were some differences in the characteristics of men and women who went on to complete the second survey and those that didn’t. Older fathers and more educated women and men were more likely to complete the follow-up survey in year two. White men and women were also more likely to
complete the second survey than ethnic minority parents. See Appendix B.

Throughout this report where year one and two comparisons are made only participants who took part in both surveys are included in the analysis. This is to ensure that any observed differences are due to actual changes over time rather than to any differences in the samples of parents participating.

Further details of how participants were recruited to the study and inclusion and exclusion criteria are shown in Appendix A of this report. A full breakdown of the characteristics of the men and women involved in the First 1,000 Days, including a detailed assessment of the representativeness of the data, is shown in Appendix B of this report.
Background literature

Parent-child relationships in early infancy

Parents’ relationship with their baby develops dramatically over the first two years. During early infancy the close bonds of normal parent-child relationships develop as mothers and fathers get to know their baby, and as they provide for their baby’s physical care needs. As they feed, change, bathe and comfort their babies, they develop feelings of attachment and, when things go well, a growing sense of self efficacy as a parent. As babies grow and develop into toddlers they become more actively involved in daily activities, such as feeding and dressing, copying, expressing preferences, and trying to do things for themselves. Parents show their love by interacting with sensitivity and gentleness; by showing patience and sharing humour.

As couples become parents there is a period of transition as they adjust to their new roles and work out between them how to share responsibility for the practical care of their baby. In the last 60 years there has been a shift in industrialised countries towards more equal and less gender-differentiated roles, however during the transition to parenthood men and women have been found to adopt more traditional roles (e.g. men bread-winner and woman as homemaker and mother). With a larger number of women than in previous decades combining employment and family responsibilities, women with young children have often been described as carrying a ‘double burden’ of paid work plus extensive childcare.

Over a quarter of women in this study (28%) had returned to paid employment within the first 6-9 months, and 80% of women were in employment when surveyed a year later. During this chapter, we will explore how parents share the physical care of their babies during the first two years and what impact paid employment has on the division of these caring activities.

Toddlerhood and parent-child relationships

As toddlers begin to talk and become more mobile in the second year the dynamic of the parent-child relationship changes.

Normal social communication between parents and their baby during the first two years after birth forms the basis for the child’s development. While parents’ contributions are hugely important, the baby is far from a passive recipient. From birth babies want to interact and find sensitive attention from their primary carers a source of comfort, reassurance, excitement and pleasure. By the time they are approaching their second birthday, toddlers are able to be cooperative, and to express their feelings of love towards their parents.

Loving communication in infancy, a time when brain growth is particularly rapid, lays the foundation for later emotional wellbeing, social co-operation, and academic learning. It contributes to a child’s social, emotional and cognitive development. As they care for and interact with their baby, becoming increasingly familiar with the look, feel, smell and behaviour of their child, parents normally form a close bond. In response to being looked after, fed and loved, the child becomes attached to his or her caregivers.

In the first survey, when their babies were approximately eight months old, mothers and fathers were asked about the rewards of parenthood and many, particularly mothers, spontaneously described their feelings towards their baby.

Findings from focus groups with parents during the second year highlighted how parents’ relationship with their baby had developed and changed. Some mothers reflected that they hadn’t had a strong bond with their baby right from the time of birth, but their feelings developed and strengthened over time. Reflecting a theme from Miller’s work, the women appeared to find it easier to admit mixed or negative feelings and experiences as a mother of a young baby in retrospect rather than at the time. By the second survey, when a distance of time had elapsed, it seemed safer for them to admit an absence of feeling or negative emotions during the early months that are inconsistent with the ideal of motherhood. Many mothers also spoke poignantly about the strength of love and commitment they felt towards their child, and how it had helped them to work through some of the more difficult aspects of motherhood.
Toddler behaviour

During the second year, alongside all of the physical and cognitive development, toddlers also begin to assert a desire for greater autonomy by challenging and questioning their parents. Although this is an important aspect of child development, it is sometimes referred to as the ‘terrible twos’ and can put strain on the parent-child relationship. Tantrums during early childhood are among the most common childhood behavioural problems reported by parents, and are thought to represent an emotional crisis for young children and a reflection of their inability to regulate emotions or impulses.

During this time, different aspects of the caring relationship come into play and love for children is also expressed through a parent’s support in coping with the demands and frustrations of everyday activities and opportunities. Parents who are sensitive to their toddler’s needs are able to regulate the demands or stimulation so that they are not overwhelming. They also help their toddler achieve objectives that they are not sufficiently dextrous, coordinated or strong enough to manage on their own, such as helping to build a tower, or piecing together a jigsaw, referred to by child psychologists as the scaffolding of behaviour.

The First 1,000 Days study

In order to explore these complexities of parent-child relationships and interactions during the first two years, three aspects of parents’ experiences of and attitudes towards caring for their baby as they become toddlers are reported below. First, women and men’s descriptions of the rewards of parenting a toddler as they become more communicative and mobile are discussed. Following this we investigate how parents’ share the more physical care of their babies and how consistent this is in the second year, compared to the first, when many women have returned to paid employment. Finally, we look at parents’ attitudes towards their toddler’s development and behaviour.

Results

Rewards of being the parent of a toddler

In order to explore how parents expressed their feelings about their child and the rewards of parenthood during the second year, we asked: ‘What do you find most rewarding now your child can communicate more and is more mobile?’ In total, 389 (92%) women and 56 (93%) men responded to this question.

Qualitative analysis was undertaken to identify key themes from men’s and women’s responses. These themes emerged from close reading and coding of the comments. Examples have been selected below to illustrate each of these themes from parents of different ages and backgrounds. Where parents reported being in current employment their job title is provided. Around 15% of women and 5% of men were not in employment, either because they chose not to return to work after maternity leave, they were in education, or because they were currently looking for suitable work.

Our analysis of mothers’ and fathers responses to the question identified four key themes about the aspects of the relationship they had with their child which they found rewarding. Interestingly, comments made by fathers were broadly very similar to those made by mothers. They principally centred on the increased sophistication of their child’s communication repertoire, which enabled them to understand each other more clearly and enjoyment in being able to exchange messages.
1. Witnessing development – “I love the development of his language and to see him trying to achieve independence”

Enjoyment of their child’s development across the different domains of cognitive, emotional and physical development came up repeatedly. Some mothers emphasised particular aspects of changing behaviour and awareness, others referred to a range of developments. New language and communication skills were most commonly noted as rewarding. New physical skills were mentioned by some, such as walking stamina, others highlighted their toddler having greater consciousness of the consequences of their actions and several referred to ‘greater independence’. There was also evidence of broad variation between the children, such as the extent to which they were talking.

“I enjoy not having to use his buggy all the time. He isn’t really communicating properly with words yet.” (32 years, shop assistant)

“I am amazed at his curiosity and how much he remembers. His talking is fantastic for 21 months.” (26 years, not employed)

“How quickly they learn new things when you spend time showing them.” (21 years, personal shopper)

2. Expressions of love – “Him telling me he loves me”

An aspect of their child’s further development and expanded communication repertoire which mothers and fathers found rewarding was their child being able to express their love. After many months of caring for their child and investing in the relationship, they found it very rewarding to be receiving physical and verbal expressions of love in return. This was the second most common theme.

“There is nothing more rewarding than hearing your child call you mammy!” (28 years, bank clerk)

“I love it when he runs over to me and gives me a kiss.” (31 years, not employed)

“I love when he comes over and hugs me or says wuff dooo!!! [Love you]” (28 years, not employed)

Fathers also often referred to the happiness they felt when their child called them ‘Daddy’ or expressed affection physically.

“(I find it rewarding when he is) speaking my name and giving hugs and kisses.” (44 years, company director)

“I get voluntary cuddles!” (42 years, teacher)

3. Easier communication – “She can tell me what she wants and it makes everything so much easier”

Toddlers in the study may still have had only had a few words of language or two-word phrases but they were becoming able to communicate their views and preferences much more clearly. More than anything else, mothers reported that they found their child’s ability to communicate in a more sophisticated way a rewarding aspect of mothering a toddler rather than a baby. There was less frustration; rather than not knowing what was troubling their child or there being misunderstandings, two-way communication was much more effective.

“She can tell me what she wants and it makes everything so much easier.” (26 years, not employed)

“Interaction, being able to almost have a conversation as he understands everything I say and usually replies with a single word or gesture.” (34 years, teacher)

“I can understand what he wants, likes and dislikes.” (26 years, not employed)

Mothers found this emotionally rewarding, as well as of practical use. They felt that they could have a more fulfilling relationship with their child as a result of being understood and their child being able to express themselves more clearly.

“When he points out new things.” (28 years, analyst)

“Her expressions of joy when she is enjoying something. Also how she wants to communicate with us.” (29 years, teacher)

“I am able to ask him what he wants to do and be able to get a response from him.” (19 years, not employed)
Fathers described how increased communication made it easier for them to understand their child, which some said increased opportunities both for having fun and reducing frustrations (for father and child). Part of this was the child’s language development, though toddlers expressed their preferences, interests and feelings in all kinds of ways.

“(It’s rewarding) Knowing with higher certainty what she likes and doesn’t like; she is able to tell me if she would prefer an apple or a banana, for instance, rather than me guessing.” (20 years, student)

“I can tell what she needs so we’re both less frustrated.” (36 years, credit controller)

“I’m able to give him what he wants and explain things so he can understand; plus he helps tidy up.” (26 years, administrator)

“(I find it rewarding) when she asks ‘Dadda’ for something specific.” (34 years, Air Force Officer)

Fathers expressed pleasure when they came home, and their child wanted to show them things or approached them for help.

“(I enjoy) his excitement when I arrive home from work, he comes straight up to me with a big grin and then shows me all the toys he’s been playing with that day!” (28 years, engineer)

Greater capacity to communicate provided an opportunity to discover more of their child’s personality and to give them the chance to express their thoughts or feelings.

“(I like) letting him make choices. Experiencing his feedback on experiences. Experiencing more of his personality.” (37 years, teacher)

Closely linked with communication, fathers often commented on the pleasure they experienced from their child’s growing vocabulary. Many children are learning a new word every day as they approach their second birthday and are beginning to join words to make simple sentences with a verb and a noun.

“(I like it) when he says ‘Daddy’ to get my attention. Or describes things outside e.g. ‘Lots of cars.’” (26 years, system coordinator)

“The new things he says and does each day and how he can now ask me to do things for him. If his toys are broken he says ‘fix it Daddy.’” (45 years, sales assistant)

“Having conversations with [daughter] as she has started to develop more and more language skills constantly amazes me.” (33 years, consultant)

4. Enjoyment of life – “I love seeing him laughing”

Several other themes emerged, including enjoyment of life or joie de vivre. Mothers found their child’s enthusiasm, expressions of happiness, and physically expressed pleasure immensely rewarding.

“I love it when he gets so excited about something even if it is Mummy or Daddy being silly!” (44 years, events officer)

“Taking her to new places and seeing how excited she always gets.” (21 years, call handler)

“The way she … gets so much joy out of the smallest things.” (35 years, management accountant)

The exuberance and joy expressed by their child could have direct positive impact on mothers’ enjoyment of life. These themes were interwoven, with different aspects of physical, cognitive and emotional development reinforcing each other, providing greater awareness and skills in the child which was rewarding for them, and engendering pride and pleasure in the parent.

“Every new word and new achievements are making me very happy and proud” (37 years, office worker)

“When he demands cuddles, and dances in circles.” (33 years, systems analyst)

Fathers commented on the emergence of their child’s interest in everything, and their sense of fun.

“(I enjoy) her enthusiasm for joining in ordinary things. She wants to help with laundry and putting rubbish in the bin. We can’t always let her do everything she wants though!” (35 years, project manager)

“Having fun together, her understanding me and me understanding her so we can ‘chat’.‘” (38 years, chemist)

Fathers took delight in playing games that created joyful feelings: “She is good fun and makes me laugh” Interestingly, none of these men specifically mentioned physical play and just one of the 56 referred to playing outdoors.
Physical care during the first two years

In both the first and second year questionnaires, mothers and fathers who were in a relationship were asked which parent was usually responsible for the childcare activities (including feeding, bathing and responding to their baby during the night) during a typical week. In order to investigate how patterns of care changed over the first two years, and as many women returned to employment after a period of maternity leave, the same set of questions were included in both questionnaires.

On the whole, patterns set in the first year, were very similar in year two. Women’s responses indicated that they did more of the feeding, care at night and nappy-changing than their partner, with over 50% saying they did all or most of these caring activities across years one and two, see Figure 1. Although women reported a small shift towards fathers being more involved in some caring activities as the baby became a toddler, such as responding to the child if she or he cried (with 45% of women saying that fathers shared this equally in year two), this was the exception rather than the rule. On nappy changing, for example, women reported virtually no change.

According to women, fathers were more likely to do most or all bathing than any other practical caregiving task of five listed. Women suggested that the father was almost as likely as they were to carry out this aspect of caring, by doing it equally or mostly doing it. As in year one, in year two only a small minority of women (under 5%) reported that their partner was the lead parent on feeding or changing the baby, and only 9% said their partner always or usually attended to the toddler if they needed care during the night, see Figure 1.

Further analyses were undertaken to investigate whether women’s employment status was associated with these caring activities were shared with their partner. Women who were in full-time employment at 21 months were significantly more likely to say that they shared feeding, nappy changing and bathing their baby equally with their partner, with women employed part-time more likely to say responsibilities were shared than those not in employment.

Interestingly, any differences in how parents shared responsibility for who responded to their child when crying, or who got up to provide care at night did not reach statistical significant with the findings compared in this way.
Men were also asked to indicate their perceptions of the division of labour on childcare. Of the 60 men who responded to the fathers questionnaire in year two 68% (n=41) also had a partner who had completed the mothers survey. Like the women, they generally regarded their partner as the primary carer of the baby in the sense of taking the lead on practical baby care activities (see Figure 2). Nevertheless, men indicated a greater degree of involvement in practical child caring tasks than the women suggested.

The different perceptions of women and men reported may reflect differing awareness about the domestic division of labour, or it may be that the relatively small sample of fathers is biased towards those who participate more in practical care activities. Unlike the women’s accounts of their partners’ involvement in caring activities, in year two the men indicated carrying out more of all five of the listed childcare activities, than fathers had reported in year one. In particular, they indicated a marked increase in sharing responsibility for caring for their baby during the night and changing their baby’s nappy.

Table 1: Associations between women’s employment status and division of caring activities at 21 months

<table>
<thead>
<tr>
<th></th>
<th>Mother always/usually does this n(%)</th>
<th>It’s about equal n(%)</th>
<th>Partner always/usually does this n(%)</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feeding baby</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed full-time</td>
<td>60 (50)</td>
<td>51 (42)</td>
<td>10 (8)</td>
<td></td>
</tr>
<tr>
<td>Employed part-time</td>
<td>131 (71)</td>
<td>55 (28)</td>
<td>1 (0.5)</td>
<td></td>
</tr>
<tr>
<td>Not employed</td>
<td>59 (83)</td>
<td>12 (17)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Changing baby’s nappy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed full-time</td>
<td>54 (44)</td>
<td>59 (48)</td>
<td>9 (7)</td>
<td>p&lt;0.0001</td>
</tr>
<tr>
<td>Employed part-time</td>
<td>118 (61)</td>
<td>76 (39)</td>
<td>1 (0.5)</td>
<td></td>
</tr>
<tr>
<td>Not employed</td>
<td>58 (82)</td>
<td>11 (16)</td>
<td>2 (3)</td>
<td></td>
</tr>
<tr>
<td><strong>Bathing baby</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed full-time</td>
<td>60 (40)</td>
<td>47 (38)</td>
<td>28 (22)</td>
<td>p=0.034</td>
</tr>
<tr>
<td>Employed part-time</td>
<td>63 (33)</td>
<td>65 (34)</td>
<td>66 (34)</td>
<td></td>
</tr>
<tr>
<td>Not employed</td>
<td>35 (49)</td>
<td>17 (24)</td>
<td>20 (28)</td>
<td></td>
</tr>
<tr>
<td><strong>Responding to baby’s cries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed full-time</td>
<td>62 (49)</td>
<td>62 (49)</td>
<td>3 (2)</td>
<td>p=0.108</td>
</tr>
<tr>
<td>Employed part-time</td>
<td>99 (51)</td>
<td>94 (48)</td>
<td>2 (1)</td>
<td></td>
</tr>
<tr>
<td>Not employed</td>
<td>48 (67)</td>
<td>23 (32)</td>
<td>1 (1)</td>
<td></td>
</tr>
<tr>
<td><strong>Caring for baby at night</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed full-time</td>
<td>65 (51)</td>
<td>49 (39)</td>
<td>13 (10)</td>
<td>p=0.248</td>
</tr>
<tr>
<td>Employed part-time</td>
<td>110 (56)</td>
<td>68 (35)</td>
<td>17 (9)</td>
<td></td>
</tr>
<tr>
<td>Not employed</td>
<td>49 (68)</td>
<td>18 (25)</td>
<td>5 (7)</td>
<td></td>
</tr>
</tbody>
</table>

*Statistical significance derived from chi-square tests
The questionnaire for fathers in both years one and two also enquired about ‘how involved’ they felt in caring for their baby/child. Among those who responded to both surveys, there was a shift of perception which may reflect a change in behaviour. During the first year a large majority of fathers (97%) indicated feeling either completely (52%) or quite involved (45%). This changed a little, to 58% feeling completely involved in year two and rather fewer (40%) feeling only quite involved.

However, it is important to bear in mind that fathers who responded to the second survey were more likely to report being an involved father (56% completely, 37% quite involved) compared to the larger sample of men that responded in year one (52% completed involved, 41% quite involved).

### Child development and behaviour

As discussed earlier, as babies become toddlers their behaviour and ways of communicating change, which can impact on the parent-child relationship. A key focus for the First 1,000 Days study in year two was parents’ understanding and attitudes towards child development, and how they coped with their child’s behaviour. These questions were informed by the findings from the focus group discussions with parents in the second year, during which mothers (in particular) frequently mentioned tantrums as a challenging aspect of toddler behaviour.

Men and women were both asked how much they agreed with a series of statements about child development and behaviour (listed in Figure 3).

Comparing the responses of this group of relatively involved fathers with the responses of mothers, findings suggest that men and women had different understanding of why toddlers have tantrums. Overall, there seemed to be quite a high rate of understanding that ‘young children have tantrums because they have difficulty managing their feelings’ (mothers: 92%; fathers: 83%), however, two thirds of fathers agreed with the statement ‘Young children have tantrums to get what they want from parents’ (68%) compared with half of mothers (50%); Figure 3.

Generally at 21 months almost all parents (97% of mothers and fathers) felt that it was important that parents set boundaries for their children and both mothers and fathers also frequently agreed that ‘It is usually possible to distract a toddler to avoid difficult behaviour’ (79% and 83%, respectively). However, more mothers than fathers felt that ‘understanding about child development helps parents know how to respond to their toddler’ (96% and 88%, respectively).

Overall, a substantial majority of parents agreed that more difficult aspects of toddler behaviour, such as tantrums, could be managed well through setting boundaries, understanding their toddler’s development and, distraction (74% of women and 73% of men agreed with all three of these statements). However, one in eight fathers (13%) and one in ten mothers (10%) agreed that there were ‘times when it is necessary to smack a toddler so they know how to behave’.

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**Figure 2: Division of caring activities during the first two years (men’s responses)**

![Division of caring activities during the first two years (men’s responses)](image)
Additional analysis was undertaken to explore whether mothers’ or fathers’ socio-economic status (on the basis of household income) was associated with their attitudes to child development and behaviour in the second year.

Women in the ‘lower-income’ group were significantly more likely to indicate that young children have tantrums to get what they want from parents compared to mothers in the ‘higher-income’ group (61% vs 46%) and less likely to feel that it is usually possible to distract a toddler to avoid difficult behaviour (68% vs 81%). Household income did not significantly affect mothers’ attitudes to any other of the statements.

Among the fathers there were no significant differences in attitudes to children’s behaviour between the higher and lower income groups. However, the number of fathers was small. Had the sample been larger, differences would perhaps have been evident.

Chapter summary
In order to explore parent-child relationships during the first two years, three aspects of the caring relationship were explored: the rewards of being the parent of a toddler; provision of physical care; and parents’ experiences of and responses to toddler behaviour.

During the second year, mothers and fathers described how their relationship with their child had developed and strengthened as their child became more mobile and able to communicate. Four key themes encompassed changes to the parent-child relationship: ‘witnessing development’, ‘expressions of love’, ‘easier communication’ and ‘enjoyment of life’.

Reinforcing Miller’s analysis that mothers continue to be the primary carer and fathers the secondary carer of their baby, there was a strong message from both men and women that mothers took the lead on their babies’ and toddlers’ feeding, bathing, care at night and nappy-changing, and that patterns set during the first year tended to persist into year two. Where a pattern of shared responsibilities was established by eight months, this was also evident at 21 months, and while there seemed to be a small shift towards...
fathers doing more, particularly feeding the toddler and caring for him or her during the night, this was less pronounced than the persistence of gender-based caring roles over time. Men indicated a greater degree of involvement in practical child caring tasks than the sample of women suggested. It is possible that what men are more inclined to describe as ‘shared responsibility’ women were more likely to feel was mainly their responsibility. It make also be that our relatively small sample of men who responded in year two were more likely to be ‘involved fathers’, participating more in domestic caring activities than is typical overall.

Few previous studies have compared men’s and women’s perspectives on domestic life with a first baby. It is very useful to have both perspectives at this critical stage in a new family’s development. Our sample of fathers said that they were doing more nappy changing in year two than year one, but the sample of mothers told a different story. It seemed that the die was cast in the first year when women had in the main taken six months or more of maternity leave, with patterns established then continuing into the next phase.

Previous studies that have investigated men’s perspective on their involvement in their child’s care have suggested that fathers’ long working hours can prevent them from being more involved. Similarly, we found that women’s employment was associated with how they shared these caring activities with their partner. By 21 months almost four-fifths of the women had returned to either part-time (51%) or full-time (30%) employment, but childcare responsibilities were still frequently ‘her’ domain. Women who had returned to work full time were more likely to indicate that they shared responsibility for feeding, bathing and changing their baby’s nappy equally with their partner compared to women who were not in employment during the second year.

In terms of understanding their child’s needs and attitudes towards toddler behaviour there were some important similarities and differences between different groups of parents. Three quarters of mothers and fathers seemed to have a similar outlook, feeling that difficult behaviour, such as tantrums, could be managed by understanding child development, using distractions and setting boundaries. But there were gender differences, too. Mothers were more likely to feel that toddlers have tantrums as a way of expressing difficult emotions and that having an understanding about child development could help parents know how to respond to more difficult aspects of child behaviour. Fathers more frequently agreed that young children have tantrums to get what they want from parents and were somewhat more inclined to think smacking a toddler was a way to encourage appropriate behaviour. Mothers on lower incomes were more inclined to believe their child was being deliberately manipulative but were no more punitive in their attitude to corporal punishment.
6 SLEEP: Patterns of sleep and waking in the first two years

Background literature

From a parent’s perspective, sleep, or rather lack of sleep, is one of the most pertinent and frequently discussed aspects of life with a new baby. 'Unsettled infant sleep' can include difficulties in settling off to sleep, light sleeping, frequent waking, short day time naps and resistance to re-settling once awake. It can be a major source of stress and fatigue for parents and prompts many to seek help from professionals.

Parents’ responses to unsettled sleep, or infant behaviour in general, have been interpreted as coming from a range of perspectives, which are more or less focused on the perceived needs of the baby or the perceived needs of the parents. The baby-centred approach, which has been called an Intuitive Parenting Position, describes parents who (are encouraged to) trust their instincts and be empathetic and responsive to unsettled behaviours, offering active comforting, including unrestricted holding or 'wearing' their baby in a soft sling. At the other end of the spectrum, the focus is on containing the baby’s behaviour, and has been called Infant Baby Management. From this perspective, after exclusion of health related causes of unsettled behaviour, parents are given active strategies to develop regular routines, manage their baby's behaviour and reduce unsettled sleep.

Parents and professionals have different personal values and priorities, and there are claims and counter-claims about practical strategies and the impact of different approaches. Different perspectives can lead to conflicting information being given to parents, sometimes contributing to parental uncertainty and frustration.

Patterns of infant sleep

Sleep is a developmental process, which changes throughout the lifetime. Newborn babies may sleep for up to 18 hours, but wake frequently often at 2-3 hour intervals. During the first year overall sleep duration decreases to around 15 hours, most of which takes place during the night. While it is normal for babies to wake frequently in the night, especially in the early months after birth, parents can find it difficult to adapt to broken nights.

Gradually most babies develop more settled sleep patterns; however some continue to wake frequently. Disturbed sleep can also be very distressing for parents and affect their physical and mental health. Disrupted sleep and perceived sleep difficulties during infancy have consistently been associated with parental stress, maternal depression, reduced sense of competency as a parent, poor physical health and reduced quality of life. The literature suggests that some infant sleep problems are associated with a more difficult temperament and behavioural problems during childhood, as well as poorer neurological functioning in older children.

Sleeping arrangements

When couples have a baby one of the first decisions to make is where their baby will sleep. Options include: cots, Moses baskets, bedside cots, travel cots, slings and their parents’ bed. In the UK, most babies initially sleep in a Moses basket or a cot depending on their age. Approximately 50% of babies in the UK bed-share at some point during the first few months. A smaller proportion (11%) have been found to bed-share on a regular basis. However, a cot or crib in the parents’ room is consistently found to be the safest place for babies to sleep for the first six months.

Bed-sharing between parents and their babies has been the norm in many societies for thousands of years. Close proximity with an adult provides warmth and security and co-sleeping can be convenient for breastfeeding and minimise the need to get up during the night. Parents also say that they co-sleep for ‘enjoyment’ or to ‘increase time’ spent with their baby.

Several studies have found an increased risk of death for bed-sharing babies younger than about three months. However, the quality of the studies make it difficult to assess whether the risk is due to parental behaviours (such as alcohol, smoking and drug consumption) or if bed-sharing is an independent risk for babies whose parents follow the recommended ‘safe-sleep’ practices. An analysis of UK studies highlighted that the highest SIDS risks were associated with a parent sleeping with their...
baby on a sofa, including falling asleep inadvertently, and parental drug or alcohol consumption prior to co-sleeping.36

Parents’ attitudes to infant sleep
This study sought to find out about the infant sleep experiences of a cohort of ordinary first-time parents, in the context of the infant sleep patterns and behaviours in the family and parental attitudes towards infant sleep. In the focus groups that were undertaken during year one, parents talked a lot about their babies’ sleeping and waking and their own tiredness.38 By the second year, although parents described a more settled pattern of sleep they emphasised that it was not consistent and there was often a ‘bump in the road’ when it came to their toddler’s sleep.39 These discussions contributed to the design of the questionnaires.

Parental attitudes and expectations about infant sleep are thought to be an important mediator between their bedtime behaviours and any perception that their baby has a sleep problem. For example, it has been suggested that parents who are more concerned about their baby learning to self-settle and go for long periods without needing a parent to comfort or soothe them are more likely to report that their child’s sleep is problematic than parents who expect less independence or less settled sleep.40

The First 1,000 Days study
In light of this, the First 1,000 Days study was designed to collect information on all three of these key elements (i.e. patterns of infant sleep, parental involvement in bedtime behaviours and parents’ attitudes to sleep). To date, most of the research on infant sleep has focused solely on mothers. In order to gain an understanding of infant sleep, its meaning for and effects on new families, it is important for the study to also consider the role and attitudes of fathers and partners.

This kind of understanding might inform interventions designed to prepare parents for what to expect of infants, and to develop information about different approaches to sleep-related childcare. It might enable more relevant support to be designed for parents who are experiencing difficulties with their infant’s sleep and, perhaps, help to alleviate infant sleep problems, or the perception of problems.

Results
Sleeping arrangements
In both the year one and year two surveys, mothers were asked to complete questions from the Brief Infant Sleep Questionnaire (BISQ) about their infants’ patterns of sleep.33 This scale includes questions on infants’ sleeping arrangements and patterns of sleep and wakening. Figure 4 shows the proportion of mothers reporting each of the infant sleeping arrangements in response to each questionnaire. Percentages do not add to 100% because parents were asked to tick all options that applied.

During the first year (at around eight months) and also in the second year (at around 21 months) the most common sleeping arrangement was ‘a cot in a separate room’, reported by over two thirds of mothers at both time points (67% in the first year and 70% in the second year). By 21 months, one in seven toddlers were sleeping in a bed (14%), mostly in a separate room, and the proportion of children sleeping in a cot in the same room as their parent(s) had significantly decreased (from 24% to 7%).

The frequency of bed-sharing remained consistent across the first two years. The proportion of mothers who reported bed-sharing remained consistent across the first two years, and in response to both questionnaires around a quarter of mothers said that during a typical week they bed-shared with their baby for all or some of the night. In the second year, there was a slight increase in the proportion of mothers reporting that their baby or child slept with them throughout the night (from 7% to 10%) and a decrease in mothers reporting that their child would come into their bed at some point during the night (from 18% to 14%).
Further analyses were undertaken to explore whether women’s socio-economic status affected where their child slept in the second year. Women in the ‘lower-income’ group were three and a half times more likely to report that their child slept in a cot in their bedroom at 21 months compared to mothers in the ‘higher-income’ group (17% vs 5%), while women in the ‘high-income’ group were significantly more likely to report that their child slept in a cot in a separate room (75% vs 50% in the low-income group).

Mothers in the ‘lower-income’ group were significantly more likely to report that they bed-shared with their toddler throughout the night during the second year (18% vs 8% in the ‘high-income’ group). There was no association with household income for mothers reporting that their toddler slept in their bed for some part of the night.

Influences on sleeping arrangements
As well as asking the mothers about where their toddler usually slept during the night, we asked both mothers and fathers in an open question ‘What affects where your child usually sleeps?’

Mothers’ descriptions
The comments from mothers confirmed that most toddlers were sleeping in a cot or a bed in a separate room. This was seen as age appropriate by most mothers, so was not explained or remarked upon. It was also common for toddlers to sleep independently but to come into their parents’ bed first thing in the morning.

“He will sleep in his toddler bed till 6.30am when he comes in our bed for cuddles.” (28 years, receptionist)

Mothers often said that their toddler might come into bed with them on an occasional basis if they were unwell, and some mentioned bad dreams and teething as other causes of disruption to independent sleeping, which were quite common at around 21 months. For example:

“Any disturbances such as teething, being unwell or nightmares mean he will not remain in his cot all night.” (30 years, teacher)
“At 20 months she has just started to sleep for about 11 hours a night without waking. She tends to come into our room in the morning for a cuddle before getting up. If she is poorly one of us will sleep with her either in her room or ours.”
(31 years, designer)

One mother listed half a dozen possible reasons from including being either too hot or too cold, waking up hungry or ‘needing mummy for comfort’. Others said it depended how much their toddler had slept during the day, and being ‘over-tired’ could disrupt the usual pattern for going off to sleep just as longer day-time sleeps could affect the amount of sleep at night.

For some, noise such as car horns from outside the home could disturb their child’s sleep.

One mother said they had used ‘controlled crying’ because of sleeping difficulties and felt this had been successful as “he always sleeps in his cot now”.

**Impact of employment demands – it depends how tired her parents are!**

A commonly mentioned factor for bed-sharing for part of the night, especially for women or couples who were getting up for work in the morning, was their own tiredness and need for as little disturbance during the night as possible.

“If he wakes up in the night both my husband and I work and it is easier to put him in our bed.”
(33 years, therapist)

“(It all depends) whether I can settle her in her own bed. If I am in work the next day the length of time I will persevere with settling her is reduced.”
(35 years, public health specialist)

Others mentioned that their toddler would be in a cot in an adult’s bedroom occasionally, such as with parents when the family had visitors or when they stayed overnight with grandparents:

“I work shifts and our child has to stay with grandparents some nights, she then sleeps in a cot in grandparents room.”
(32 years, nurse)

**Variation in attitudes as well as practice**

A substantial group of mothers said nothing changed the arrangement of their toddler sleeping independently in their own room, and some took a very firm line.

“Nothing (affects where he sleeps) - he sleeps in his cot, end of!”
(39 years, teacher)

“Nothing we follow a fairly strict routine every day.”
(26 years, not employed)

A few said it was the normal routine for them to co-sleep or share a bedroom.

“Routine, she’s always slept in my bed.”
(27 years, not employed)

“We chose to co-sleep and haven’t tried anything else.”
(39 years, office manager)

“He can only sleep in my room as there isn’t anywhere else for him to go but I quite like it.”
(25 years, sales assistant)

One or two referred to co-sleeping in relation to continued breastfeeding:

“Still breastfeeding to sleep and a couple of times at night.”
(33 years, not employed)

**Lack of space**

For some families, lack of space meant there was little or no alternative to sharing a bedroom on a regular basis. Most commonly this was because they were living in a one-bedroom house or flat.

“We live in a one bedroom house so just us going to bed later than our daughter can disturb her. She seems to be a light sleeper and if I have to be up for work at 5am I often bring her into bed with me to get some sleep.”
(33 years, retail supervisor)

All of the mothers and fathers included in the study were first-time parents but some of their partners had had children before, so there were additional demands on space in their home.

“(Our daughter) sleeps in cot in our room when my husband’s children stay.”
(32 years, teacher)
Differences and particular challenges

Families come in diverse shapes and sizes. Some mothers were looking after twins; some toddlers had health conditions or developmental delay affecting their sleep. When caring for twins, parents may feel they have to be more organised and follow more of a routine in order to be able to cope with the extra work and demands of two. As with the singleton babies, there was variation among the twins, with some sleeping well and others still waking at night. As with so many aspects of family life, mothers had to work out ways of coping.

“If they are ill, they don’t settle easily. If I am super tired and they wake lots during the night (that affects where they sleep).” (35 years, fitness instructor)

“I have had them in a sleeping routine since they were very young. They settle nicely in their beds. They only ever sleep with me if they are very ill.” (31 years, call handler)

“My daughter has ongoing developmental needs following meningitis and septicaemia so her sleeping habits very greatly.” (39 years, self-employed)

Fathers’ explanations

Fathers gave similar explanations for their child’s sleeping arrangements. The most common reason they gave for their toddlers sleeping arrangement was there being a change to usual arrangements, either when their toddler was ill or if there were visitors in the house, or the family were going away, when bedroom (or bed) sharing was necessary. Toddlers also came into their parents’ bed from time to time, fathers told us, if they were afraid or upset.

“She’s always in her cot unless she’s sick. Then she sometimes comes in with me and her Mum.” (37 years, media developer)

“She’ll go to sleep in her cot, but sometimes if she wakes up in the middle of the night will need to be brought into our bed to be calmed down.” (38 years, business manager)

One of the higher-income fathers said that limited space meant their toddler didn’t have a separate room and another said that noisy neighbours meant the toddler had to be in their bedroom, illustrating contemporary housing difficulties that many families face.

Patterns of infant sleep

Mothers were asked about their babies’ patterns of sleep and wakefulness during a typical week. In the second year parents reported that their babies were sleeping for significantly longer periods during the night and less during daytime naps, see Table 2.

Table 2: Patterns of infant sleep and wakefulness during the first two years

<table>
<thead>
<tr>
<th></th>
<th>8 months Mean (s.d.)</th>
<th>21 months Mean (s.d.)</th>
<th>p-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nocturnal sleep duration, hours</td>
<td>10.4 (1.5)</td>
<td>10.8 (1.0)</td>
<td>≤ 0.0001</td>
</tr>
<tr>
<td>Daytime sleep duration, hours</td>
<td>2.4 (0.9)</td>
<td>1.6 (1.1)</td>
<td>≤ 0.0001</td>
</tr>
<tr>
<td>Settling time, minutes</td>
<td>34.8 (28.2)</td>
<td>28.2 (25.8)</td>
<td>≤ 0.0001</td>
</tr>
<tr>
<td>Nocturnal wakefulness, minutes</td>
<td>45.6 (66.0)</td>
<td>23.4 (49.2)</td>
<td>≤ 0.0001</td>
</tr>
<tr>
<td>Night-awakenings, number</td>
<td>1.5 (4.5)</td>
<td>0.8 (1.3)</td>
<td>≤ 0.0001</td>
</tr>
</tbody>
</table>

s.d. = standard deviation; *Statistical significance derived from t-test paired samples t-tests
Overall there was a significant decrease in the frequency of wakings during the night (in the hours 7pm – 7am), and mothers reported that their toddler was waking half as many times as they were when they were eight months (from 1.5 to 0.8 times per night). There was a 20% increase in the number of mothers saying that their baby slept through the night without waking (from 30% to 50%), although half of all mothers said their baby was still waking one or more times during the night at 21 months. Most frequently this was once (28%) or twice (13%), a few children were waking more than three times at this older age. See Figure 5.

There was also a corresponding decrease in the time that toddlers were reported as being awake during the night-time hours of 10pm – 6.00am, down from around 35 to 28 minutes and in the total amount of time taken to settle during these hours (from 46 to 23 minutes).

Sleep difficulties

Mothers were asked whether they considered their infant’s sleeping to be a problem. The proportion of mothers reporting that their child’s sleep was a problem was very similar at eight and 21 months. At both ages, the same proportion, over two thirds felt that it was not a problem at all (70%) or a small problem (28%). However, at both ages 2% of mothers considered their baby’s sleep to be a serious problem. See Figure 6.

In further analysis, mothers’ socio-economic status (based on household income) did not affect their response to this question.

Mothers’ concerns about their toddlers sleep

We said to mothers ‘If there is anything about your child’s sleeping that concerns you please use the box below to tell us about it’. Altogether 119 (28%) mothers responded. Most of the comments provided more information about factors affecting their
toddler’s sleep patterns, rather than concern about their own or their child’s wellbeing, or any particular worry or uncertainty about how to manage. However, messages included words such as ‘struggle’, ‘tiring’, ‘restless’ and ‘teething’.

Many parents indicated that while they would prefer that they didn’t have to get up to their child during the night, it wasn’t a major issue. They implied that they expected that their child would grow out of waking sooner or later.

“I often wish she would sleep all the way through but it doesn’t concern me, I know it’s not forever”. (37 years, project manager)

“I wouldn’t say it’s a problem and nothing of major concern but he is waking up during the night to co-sleep which he is also doing at his dad’s however I can usually have him back in his cot when he goes back to sleep.” (33 years, catering assistant)*

“At 19 months old he has never slept through the night - but I have been told that this is normal.” (27 years, teaching assistant)

A common irritation and cause of tiredness was the early hour when their toddler expected to start the day.

He can survive on 8 hours sleep. Our day normally starts around 4am. (37 years, dental nurse)*

Persistent poor sleepers
In contrast to the many, a smaller number of the mothers indicated that their toddler was a persistent poor sleeper. The comments seemed to reflect frustration, continuing exhaustion or anxiety with the situation. Most of the parents quoted here considered their child had a serious sleep problem.

“She sleeps in my bed. If I put her in her own room, then she will wake several times a night, meaning a disturbed night for both me and her.”(25 years, not employed)*

“Still unreliable. It was very bad up to 14 months, so now I’m very paranoid!”(33 years, vet)*

“She hasn’t slept for more than 40 mins at a time for over three months now.” (27 years, not employed)**

“Our daughter seems to lack the ability to ‘switch off’ when she is tired and has been this way since a few weeks old. We have tried routines, falling asleep with her etc, but nothing seemed to work and at the time it was a very stressful, serious, issue. So we tried dropping the routine and it now works beautifully. We get to around 7.30-8pm each night and she will show signs of tiredness so we go to her room and either watch a short show and read books with a cuddle to sleep.” (27 years, not employed)*

A small number referred to using ‘controlled crying’ or ‘sleep training’ methods, and felt that in general this had contributed to an improvement from their perspective.

“We have not had a full night’s sleep yet! We are up at least twice a night, which is better than the 20 times we used to have, since I started the controlled crying method!” (31 years, consultant)*

Feeding during the night
A small number of mothers mentioned that their baby woke to breastfeed or to have a bottle during the night or was still associating feeding with dropping off to sleep.

“I’m having another baby and I want my toddler to get to sleep without boob as I don’t want to be feeding two children. Also I need more sleep and she wakes me up for boob.”(33 years, not employed)*

“She just won’t sleep. I don’t think she’s ever slept through the night. She doesn’t like to be alone at night.”(29 years, musician)**

He needs to touch me to fall asleep. Occasionally, he latches to my breast and then turns around to fall asleep. If I make a small move at that point, he would complain and latch again.” (40 years, student)**

(i) In this section an asterisk next to a mother’s quotes denotes whether they indicated that they considered their child to have a serious (**) or a small sleep problem (*).
“It used to be a problem until he was 19 months when he was still breastfeeding. He used to wake up 3-5 times a night to breastfeed a bit and sleep again. After stopping the breastfeeding, he now sleeps from 10-12 hours and wakes up once in the morning, or more in the night, but only if he is ill.” (27 years, teaching assistant)

Some mothers referred to their child waking for a drink without specifying what feed or drink they were giving, or where it was given as a breastfeed, or drink from a bottle or cup.

“He wakes up hourly, drinks loads of milk through the night.” (36 years, local government officer)*

**Lack of space**

One mother described the very limited space the family had which was becoming a more pressing problem as their baby grew older.

“We only have room for a travel cot so he’s not in a proper bed or cot, and he doesn’t have his own rom.” (22 years, supermarket cashier)

**New disturbance**

A small number of mothers said their child woke ‘screaming’ during the night, and one said her toddler walked in his sleep. These behaviours were relatively new and could be a worry.

She has started having night terrors which can be frightening. (31 years, teacher)*

We’re going through a stage where she wakes up in the middle of the night screaming. (24 years, nursery nurse)*

**Fathers’ involvement**

Fathers were asked about their involvement in their child’s preparations for bed and night-time waking. The graph below shows the frequency with which fathers said that they settled their baby to sleep at night in a typical week. Overall, patterns set during the first year tended to continue, with around 40% of fathers saying they were often or very often involved and at least one in three saying they rarely or never settled their child at bedtime.

During the first year, around one in 12 fathers (7%) reported never settling their baby to sleep at night and 17% reported often being involved, see Figure 7.

During the second year there were some interesting changes reported as well as persistence in the overall pattern. There were increases at both ends of the scale – more fathers said that they were never or rarely involved (15% and 28% respectively) in settling their toddler to sleep at night and a larger proportion also reported very often putting their toddler to bed (30%), Figure 7.

Conversely, 23% of fathers reported being involved very often in setting their baby to sleep at night and 17% reported often being involved, see Figure 7.

**Figure 7: Fathers’ involvement in settling their baby at bedtime during the first two years**
Parents’ attitudes and experiences of infant sleep

In the second survey, parents were asked how much they agreed with three attitude statements about young children’s sleep and bedtime behaviours, and a question about whether their child’s sleep at age 21 months caused them to be tired during the day.

Figure 8 shows the proportion of mothers and fathers agreeing with each of these statements.

Mothers’ and fathers’ attitudes towards where toddlers sleep during the second year differed. Fathers were more likely than mothers to agree that it is good for parents relationship if young children sleep in their own bedroom (90% vs 78%); whereas mothers were more likely to say that bed-sharing is a convenient way to help children get back to sleep if they wake during the night (37% vs. 22%).

During the second year, three quarters of mothers (76%) and 85% of fathers said that it was important that ‘children learn to self-sooth themselves to sleep’. Over a quarter of mothers (28%) said that they feel tired during the day because their child disturbs their sleep during the night, compared to a fifth of fathers (20%) who agreed or strongly agreed with this statement.

Two of the four statements were asked in both the first and second year surveys to explore how parents’ attitudes changed as their baby became a toddler.

The proportion of mothers reporting that it is good for parents’ relationship if babies (or young children) sleep in their own bedroom increased from 61% in the first year to 78% in the second year, conversely the number of fathers agreeing with this statement decreased somewhat (from 90% to 82%).

The proportion of parents indicating that they felt tired during the day because of disturbed nights had reduced by the second year (down from 45% to 29% among mothers and from 21% to 13% among fathers). However, it is important to note that a least one in four mothers and one in eight fathers were still affected. These changes over time were significant in the women’s but not in the smaller men’s sample.

Figure 8: Mothers’ and fathers’ attitudes and experiences of infant sleep during the second year
Chapter summary

As would be expected, mothers and fathers reported changes in their child’s sleeping arrangements and patterns of sleep and waking, in year two compared with 12 months earlier. A small proportion of the toddlers had already moved on to sleeping in a bed rather than a cot (14%), mostly in a separate room, and the proportion of children sleeping in a cot in the same room as their parent(s) had significantly decreased (from 24% to 7%). Socio-economic factors appeared to affect where toddlers were sleeping in the second year and lower income families were significantly more likely to report that their child slept in a cot in their bedroom at 21 months. This is likely to reflect more limited space among parents on lower incomes. For families living in cramped conditions with only one small double bedroom, as their baby became a toddler and was getting to the stage of needing a bed rather than a cot or travel cot, their limited accommodation was the major cause for concern.

There were also some changes in parents’ attitudes towards their child’s sleep, some of which varied by gender. Although the frequency of bed-sharing remained similar over time, men and women held different attitudes about where their child slept in the second year. While fathers were more likely than mothers to agree that ‘it is good for parents’ relationship if young children sleep in their own bedroom’ (90% vs 78%); mothers were more likely to say that ‘bed-sharing is a convenient way to help children get back to sleep if they wake during the night’ (37% vs. 22%).

Newborn babies wake frequently and, gradually, as they mature, they sleep for longer periods and learn to self-settle. During the second year, there was an increase in the number of hours that mothers reported their babies were sleeping during the night and a decrease in daytime naps. At 21 months they reported that their toddler was waking significantly fewer times during the night and for shorter durations, compared to reports at eight months. There was a 20% increase in the number of mothers saying that their baby slept through the night without waking (from 30% to 50%). However, half the toddlers were still waking and needing parental attention at least once during the night.

Some mothers experienced the pattern of their baby’s sleep and their continued need for parental soothing in the night as problematic. Parents whose toddler was regularly waking at night, who didn’t like to sleep alone, or who seemed to get by on very little sleep, often experienced tiredness and some found it very wearing. Many were comforted to think that their child would soon develop to a stage where they settled off to sleep more readily, slept undisturbed for longer, or learned to self soothe when they woke during the night. They appreciated that ‘teething’ or very early waking in the morning would not go on for ever, and found this reassuring. In some cases going off to sleep or night waking was associated with feeding.

There was another group of mothers who were quite stressed about their child’s persistent waking. Some indicated that their baby woke very frequently or slept for few hours in total. Two per cent considered that their child had a serious sleep problem, and there was remarkable consistency in this between eight and 21 months. Mothers of some of these

Table 3: Mothers’ and fathers’ attitudes and experiences of infant sleep in the first two years

<table>
<thead>
<tr>
<th></th>
<th>Mothers 8 months N=423</th>
<th>Mothers 21 months N=423</th>
<th>Fathers 8 months N=60</th>
<th>Fathers 21 months N=60</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is good for the parents’ relationship if babies/young children sleep in their own bedroom</td>
<td>256 (60.5)</td>
<td>363 (77.5)</td>
<td>54 (90.0)</td>
<td>49 (81.7)</td>
</tr>
<tr>
<td>I feel tired during the day because my baby/child disturbs my sleep during the night</td>
<td>191 (45.1)</td>
<td>120 (28.4)</td>
<td>21 (34.0)</td>
<td>13 (21.7)</td>
</tr>
</tbody>
</table>
toddlers described multiple periods of waking in the night.

Consistent with the finding of more settled sleep patterns, the proportion of parents saying that they felt tired during the day because their baby disturbed their night’s sleep had reduced in the second year, though more than a quarter of mothers and one in five fathers said they were still affected.

For most families, at this stage, infant or parent sleep, or lack of it, was no longer a major challenge, though experiences were quite varied. Mothers and fathers reported many factors affecting how they managed their toddler’s sleep and sleep arrangements. It was evident that their values and beliefs, space and material resources, the child’s health and temperament, and normal but nevertheless trying developmental stages, such as teething, all played a part.
Background literature

Young children spend most of their waking hours in play activities. This includes playing on their own, in interaction with a parent or other carer-giver, and playing alongside (and increasingly with) other children. Play is an ordinary, everyday activity which has been described as 'any activity which is flexible, fun and done voluntarily for its own sake, rather than to achieve something'.

A recent review of research on play, undertaken by NCT, identified that there were no previous large-scale, population based studies on parent-infant play in children under two years. Furthermore, the literature on parent-infant play focuses almost exclusively on mothers; very few studies explored father-infant play.

Developmental psychologists have observed and analysed infant behaviour and play activities at different ages. Murray describes the universality of many features of parent-baby interaction as well as highlighting that there is also considerable variation. She outlines different phases of interaction that develop into play and ‘meaning-making’ as a baby gets older. During the first year of life as babies develop they pass through a phase of ‘topic-based relatedness’ at around 4-5 months, when they are able to reach out and grasp objects, to ‘connected-up relatedness’ at around 9-10 months (p18-19).

At the topic-based stage, babies typically explore the feel of objects, putting everything within reach into their mouths. The connected-up stage involves being able to relate to both an object and a carer at the same time. This development means that the baby can look at a person and actively signal to them that they want an object that is out of reach, by looking from one to the other and signalling their desire. Towards the end of the first year, the baby has greater physical competence and more developed communication skills. They are also conscious that others have a different experience of the world than they have and growing recognition that an adult can help them to achieve what they want (p20).

The importance of play

In the last two decades there has been increasing political and research interest in parent-child interaction and the opportunities that children have to play. Attention has been focused on how these activities relate to parent-child attachment and optimal growth and learning.

In early childhood, play is a key means by which children interact with and learn to understand the complex world around them. Exploratory and fun activities, including those supported and encouraged by parents and other carers, are important for a child’s physical, cognitive, social and emotional development.

Patterns of parent-infant play

Parents can provide a positive framework for their children to play and help to support their learning and development. Reports from the Effective Provision of Pre-School Education (EPPE) study demonstrated that the amount of time parents spend with their pre-school aged child reading and playing with letters and numbers had a greater effect on their cognitive development than their parents’ qualifications or socio-economic status. In the first two years, talking and singing, turn taking, pointing out objects and naming them, and sharing rhymes and songs involving simple words and actions are both emotionally rewarding and important for cognitive learning too.

Use of television and modern technology

Rapid increase in technology over recent years has shaped and changed the way in which children spend their leisure time, and the games they play. However, there is very little research on the effects of television, videos and games apps designed for children, or use of phones, tablets and computers, particularly in children aged under two years.

Studies of older children suggest that long periods of exposure to television leads to poorer quality and quantity of parent-child interaction, and may have adverse effects on early development. It has been argued that children under two do not have the...
capacity to learn from television as much as they do from real-life interactions, and as such media use in children of this age group is discouraged by the American Academy of Pediatrics.  

A study of the impact of exposure to television for young children distinguished between ‘foreground TV’ and ‘background TV’. The researchers proposed that intentional watching of programmes produced for young children with a parent and discussion of the content may provide an opportunity for learning and development, whereas the constant presence of television, with content designed for adult audiences, might reduce parent-child interaction, limiting young children’s development opportunities.  

The First 1,000 Days study

Given the limited extent of community-based empirical studies of ordinary family activities and parent-child play in children under two, the 6-9 month questionnaire included questions aimed at exploring parents’ experiences and attitudes towards play. It included questions about the amount of time spent playing and the types of activities that parents enjoy with their children at 6-9 months. In addition, questions were included to investigate first-time parents’ use of and attitudes towards television and modern technology with children under one year. In year two, some of the same questions were asked for mothers and fathers to see how their play activities were changing as babies became toddlers and how much they said they had television on, either with watching as a planned activity, or as background in the room. We also asked questions about their attitudes towards play, games and television. We have analysed the results by parents’ gender and by income levels, to see how much reported behaviour and attitudes seem to be are affected by these characteristics.

Results

Parents’ experiences of playing with their infants

In both surveys, mothers and fathers were asked to estimate how many hours they played with their baby during a typical week; results are shown in Figure 9 and Figure 10 below. A range of closed options were provided for respondents to select from, ranging from less than four hours to over 50 hours per week. At both time points, the responses covered the entire range and were varied. In an attempt to limit the variation in how parents defined what counted as play activities, in the first survey parents were provided with examples of activities and in the second year they were asked what play activities they recently enjoyed with their toddler before asking how much time they spent playing. However, it is not possible to identify to what extent the differences reported represent real differences in behaviour and to what extent they are to do with mothers’ different interpretations of what kinds of interaction are play activities, or to what extent there is variable recall. Although in the absence of other large population-based studies, the current research adds to what is known and will help to frame future research questions and study design.

Overall, there was a decrease in the number of hours mothers said that they spent playing with their baby in the second year compared to the first. During the second year there was a reduction in the percentage of mothers who said that they played with their baby for more than 30 hours a week. The percentage saying they played 30-39 hours per week was down from 27% to 19%, and those who said they played for 40 or more hours had also fallen (from 13% to 7%). Correspondingly, there was an increase in the number of mothers saying that they played with their baby for less than 20 hours a week, with an increase at 10-19 hours (up from 18% to 28%) and at ten hours or less (up from 3% to 7%). See Figure 9.
These changes are very likely to have been affected by women returning to employment and different working patterns. Further analysis showed that mothers who said they played with their baby for 40 or more hours worked significantly fewer hours per week (on average 23 per week) compared to mothers who played with their baby for ten hours or fewer (who worked on average 35 hours per week).

As shown in Table 4 over half (55%) of all women who were not employed said that they played with their baby for more than 30 hours per week compared to less than a fifth (17%) of mothers who worked full-time hours. Women who worked full-time hours were more likely to say that they played with their toddler for 10-19 hours per week (46%), compared to women who were not in employment (15%).

In the second year, mothers in the ‘lower-income’ group were almost twice as likely to report that they played with their child for 40 or more hours (25%) compared to women in the ‘higher income’ group (13%). Again this is likely to reflect the shorter working hours of women in the ‘lower income’ group who were working on average 21 hours per week, compared to women in the higher income group who typically worked 30 hours per week.

Fathers reported spending less time playing with their baby compared to mothers at both 8 months and 21 months. There also appeared to be much less variation between fathers in the number of hours they played with their child each week, particularly in year two. There appeared to be an overall decrease in the number of hours that fathers spent playing, with no fathers saying they spent more than 30 hours playing during a typical week, whereas around one fifth of fathers had indicated this at eight months. During the second year a large minority of fathers said they played with their toddler for less than 10 hours a week (44% compared with 18% in year one) see Figure 10.

<table>
<thead>
<tr>
<th>Hours play per week</th>
<th>Less than 10 hours</th>
<th>10-19 hours</th>
<th>20-29 hours</th>
<th>30+ hours</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not employed</td>
<td>8 (10)</td>
<td>12 (15)</td>
<td>16 (20)</td>
<td>44 (55)</td>
<td></td>
</tr>
<tr>
<td>1-2 days per week</td>
<td>0</td>
<td>3 (10)</td>
<td>16 (41)</td>
<td>44 (48)</td>
<td></td>
</tr>
<tr>
<td>3-4 days per week</td>
<td>9 (5)</td>
<td>47 (25)</td>
<td>65 (39)</td>
<td>66 (35)</td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>16 (13)</td>
<td>58 (46)</td>
<td>32 (25)</td>
<td>21 (17)</td>
<td>p&lt;0.001</td>
</tr>
</tbody>
</table>

*Statistical significance derived from chi-square tests
Parents’ attitudes towards play

In order to explore parents’ attitudes towards playing with their babies, mothers and fathers were asked how much they agreed or disagreed with different statements about play during the first and second year. Figure 11 shows the frequency of parents strongly agreeing or agreeing with each statement.

Parents’ attitudes towards their child’s play were remarkably consistent across the first two years, and mothers’ and fathers’ attitudes towards playing with their baby were very similar to each other. In both the first and second year nearly all parents agreed that ‘parents should make time to play with their baby’ and that ‘play is important for the development of my child’ (around 99% at both time-points), see Figure 11. Given this degree of agreement it was not possible to explore whether differing attitudes towards play translated into differing behaviour in terms of how many hours parents reporting playing with their baby. Future studies should consider alternative attitude statements in order to investigate further these differences.

A large majority felt it was important for their baby to have the opportunity to play or interact with other children. There was little change in attitudes about what was important for their child at this stage in their development between years one and two, but this was because as early as eight months of age, nine out of 10 mothers and fathers believed this to be important. By comparison less than half (approximately 40%) of parents felt that play should just be for fun, an attitude that was reported consistently across both the first and second year.

Mothers’ and fathers’ socio-economic status (in terms of lower versus higher household income) did not affect their attitudes to parent-infant play.
In the second year survey, mothers and fathers were also asked how much they agreed with the statement ‘ordinary everyday activities are great fun for toddlers’, 95% of mothers and of fathers strongly agreed or agreed with this statement. Mothers in the ‘higher-income’ group were significantly more likely to hold this view compared to mothers in the ‘low-income’ group (97% vs 91%).

**Daily activities with toddlers, limitations and ways round them**

After asking mothers about the kinds of activities they enjoyed with their toddler, we asked two open questions: ‘Is there anything that restricts the type of activities you do with your child? If so please tell us about it.’ Those who said there were restrictions were asked: ‘Are there ways that you can 'get around' these restrictions?’

We divided the responses into two groups, those from mothers in households on lower incomes (bottom 20%) and those from mothers on incomes above this threshold. Common themes across both groups were: the impact of winter weather, physical restrictions due to being pregnant, having a new baby as well as a toddler, or (less frequently) poor health (of themselves or their child), a tight family budget, limited time – often associated with juggling work and home responsibilities, and limited space and facilities at home or in the neighbourhood. In addition, a number of women said that there were restrictions on ‘messy play’ at home either because of their limited accommodation, concern about clearing up afterwards or fear of long-term damage.

1. **The weather - poor weather means less time outside in parks**

   Our survey was carried out during November and December, calendar months that are known for short, often wet and chilly, days. Many mothers said the weather restricted activities such as going to the park or playing outside.

   “The weather and the darker evenings means spending more time indoor.” (33 years, conveyancer)

   For those with more limited indoor space and restricted income or access to transport, this meant play activities were limited during the autumn and winter months.

   “The weather restricts us from going to the local park. Price of local soft play areas are increasing, meaning we aren’t able to go as often as we’d like.” (33 years, not employed)

   “The weather and cost of activities. I’d love to go swimming with her but it’s too expensive.” (34 years, retail manager)

   “The weather. Having enough money to take her places.” (28 years, not employed)

2. **Expecting another baby - Currently being heavily pregnant has its restrictions**

   A factor affecting mothers in both groups was that a considerable number were pregnant with a second baby and this restricted their energy and freedom to run around and play with their toddler.

   “Being pregnant; am too tired most of the time and not finding it easy to get down on the floor with her.” (36 years, head of department)

   Another issue, not to be under-estimated, was that for the small group of mothers who had had twins there were daily logistical challenges:

   “(Having twins) means that there are certain things that I find it quite challenging to do with them on my own, this includes going to the park as they just run in opposite directions.” (33 years, self-employed consultant)

   Some women had already had a second child:

   “I have a younger daughter who is 4 months so it’s hard to let (older daughter) explore the climbing equipment in parks when just the three of us.” (25 years, early years worker)

   “I have a younger baby so reading to my toddler is limited to one story per night.” (26 years, not employed)

   This mother talked about the conflicting demands she juggled:

   “If he really wants more story time I could read to him at his younger brother’s nap time however that’s usually when I get some housework done.”
Others mentioned ways they made adjustments or practical strategies to manage: “Whilst I’m feeding baby I do story time with my eldest”. Support from family and friends was also important.

3. Restrictions due to poor health – I cannot take part in any activity too physical or strenuous.

Some other women mentioned short-term or long-term conditions that affected their physical freedom to play with their toddler or do outdoors activities.

“"My long term health condition affects me, (lower) energy and pain.” (37 years, clinic co-ordinator)

“"I am currently expecting my second child and suffer with SPD so cannot currently take part in any activity too physical or strenuous.” (22 years, not employed)

“Space and the fact that I have a bad back so I’m not able to bend down as much as she likes. Despite this, We go out to the park and I endure my back pain when she wants to ride on my back.” (38 years, not employed)

One woman had a serious acute illness:

"I was diagnosed with cancer at Christmas last year and have not long finished chemo. Whilst on chemo I couldn’t do the usual activates with her.” (37 years, scientist)

Others were restricted due to their child’s ill-health, or a long-term condition:

“He is ill so cannot always play with other children due to a low immune system.” (33 years, sales representative)

“Development delay due to prematurity.” (36 years, administrator)

4. Employment - I don’t get to do as much with him as I would like to.

There were working mothers in both income groups and limited time came up frequently as a barrier limiting activities with their toddler. They tried to get around this by doing more at the weekends, but there were also many other demands on their time on the days when they were not in work.

“I try to bake cakes and do messy activities at weekends but this is not always possible as we have to visit family and clean the house.” (31 years, nursery manager)

Quite a few mothers noted that their toddler had opportunities to run around and do messy play activities as part of their childcare arrangements so that meant their child wasn’t missing out. Several women said tiredness was a barrier. One said: “Exhaustion as her Dad and I work full time.” But added: “She has an amazing childminder who prepares all sorts of adventure and learning opportunities for her.”

Others expressed regret that they were missing out on special experiences with their child:

“I would love more opportunities to go to the park but it’s too late and dark by the time we get home in the week so these are restricted only to the weekends.” (36 years, assistant head teacher)

“Full-time work means that a lot of the fun activities are done at nursery rather than at home with Mummy and Daddy.” (38 years, senior policy officer)

Some of the solutions that women had found, or positive ways of looking at the situation, included:

“I work compressed hours so I work full time hours in four days instead of five days - this means I get to spend Fridays and weekends with my daughter.” (38 years, senior policy officer)

“I’m teacher training so I just make the most of our weekends and school breaks to take him out places, such as the park, soft play or baby gym.” (24 years, student)”
5. Financial restrictions – I find some activities quite expensive

A significant group of mothers from both the lower and higher income groups said that a tight family budget affected what activities they could do. Comments related to income and household outgoings, either implicitly or explicitly:

"Anything that costs is prohibitive as I am a stay at home mum!" (37 years, not employed)

"I can’t spend on classes that require advance payments for whole terms such as water babies swimming etc.” (34 years, not employed)

Mothers also commented on the high cost of activities relative to their budget:

"I can’t afford to go swimming, can’t even afford a swimming suit never mind the entrance fees, also I want to do more creative activities but struggle to buy items such as paint.” (30 years, business owner)

"There isn’t a lot to do in the area where I live. There are plenty of parks but if the weather is bad, there’s not much else to do unless I’m willing to travel by bus or train to take him elsewhere, which involves travel cost for me.” (25 years, sales assistant)

"Money! Would like to take him to more activities but find some quite expensive.” (34 years, receptionist)

These mothers often mentioned going on walks and finding low-cost play groups and other local activities as a necessary solution:

"We play around in the living room but have got to move the furniture back.” (19 years, not employed)

"We go to free things and are thinking about paying for a weekly class for her second birthday and asking family members to contribute.” (32 years assistant manager)

Other factors

Lots of other factors were mentioned that affected opportunities for play, from lack of physical space at home or dislike of messy play to lack of local amenities and restrictions due to pets.

This comment is typical of several: “Living in a flat - we don’t have a garden. But “We go to a park every day to spend time in green spaces”.

Another mother said: “I struggle to offer messy play at home as space is restricted” but added: "She does do some messy play at nursery and when it’s not raining she can do in the garden.”

One family with a dog were finding that: “Dog walks take up a lot of weekend time, otherwise we might visit places e.g. a farm for the whole day.”

As well as having less disposable income, those on a lower household income were more likely to report that there were limited amenities in their area: “The area I live in doesn’t have much for kids.”

Sources of support and practical tips

We asked the mothers whether there were ways they could ‘get around’ the restrictions affecting opportunities for play. One first-time mother found her childminder, who had more experience of looking after young children was a source of good ideas, and also having realistic expectations about the attention span of a toddler.

“Gathering inspiration from childminder, and not expecting long sessions on one activity.” (31 years, not employed)

Pregnant women were particularly likely to rely on their partner to do more active or strenuous play where he or she was available, and many of the toddlers saw their grandparents regularly so had the advantages of other loving adults to give them attention, as well as different activities, sometimes more space and outdoor play equipment, and new places to visit.

Mothers talked about making the housework into a game and ‘lightening up’ about the house getting messy, as making things fun for their child and easier to manage.
"I get her involved in household chores so we are still spending time together and she is learning practical skills." (35 years, manager)

"Putting shower curtains on the floor (for messy play)!" (34 years, planning assistant)

There were frequent references to the value of wrapping up warmly and going out to parks and playgrounds.

"If the weather isn’t too bad we just put her in her wet weather gear and wellies and go splashing in the puddles which she loves.” (37 years, project manager)

Soft play areas, village hall activities, museums, children’s centres and libraries were also mentioned as good places to go that were free or inexpensive. Women who didn’t drive, or had no access to a car or suitable bus services, sometimes referred to arranging outings with other mothers.

"For places, e.g. farms, zoos and woodlands, which I cannot get to by bus, I try to plan when others are going and get lifts where possible.” (31 years, not employed)

One described a community bus resource, CallConnect, which she found useful. It’s a bus service designed to improve transport opportunities in rural communities, whose timetable is not fixed but responds to passenger requests. This means its routes vary according to the bookings made by passengers, requested by telephone or online.

Fathers’ responses

Fathers were asked is there anything that restricts the type of activities you do with your child?

Altogether, 31 fathers responded to this open-ended question. Over half said that lack of time restricted what they were able to do with their child. This was cited almost three times more frequently than the next restricting factors referred to, which were financial restrictions and poor weather, which were each mentioned by a fifth of the fathers.

We also asked ‘are there ways that you can ’get around’ these restrictions?’ Some felt lack of time was insurmountable, unless they moved jobs or ‘won the lottery’, but others emphasised things like prioritising their available time well.

"Making what time I get fun”. (40 years, training assessor)

"Just playing whenever possible, and when time allows. Making sure I focus the whole day on my daughter on my day off.” (39 years, prison officer)

"I work away often during the week which means I often only see him at weekends. I can’t partake in any of the weekday activities, even the general ones like bath time/bedtime routine. So I make sure I spend lots of time with him at the weekend and we have lots of fun together then.” (40 years, IT consultant)

Financial restrictions affected the lower income fathers but were also spoken about by those on higher incomes who still had a tight family budget.

"Not being able to drive limits where we can go e.g. day-trips to the woods/beach. (We can) go with other family members or take costly transport e.g. trains.” (32 years, administrator)

"Money is the only major restriction. But we use our imagination to keep her entertained. We change the room layout; swap some toys around to refresh her scenarios.” (37 years, project manager)

Time and money, space in their home and facilities in their local area were inevitably linked, and one or more were frequently mentioned.

"We live in a rough area so don’t like going out for walks.” (36 years, teacher)

"We live in a flat so space is limited for the latter two, but it’s not a huge issue. We make the best of the space we do have.” (40 years, management consultant)

"Only the weather; She loves to be outside and sometimes that’s not the easiest when it’s throwing it down in Manchester! The closest we can get to the joy of running around outside is to visit a soft play, but these aren’t quite the same and are always pretty busy.” (40 years, senior consultant)
Like the mothers, fathers also mentioned health issues for themselves (e.g. back pain) or their child (e.g. multifactorial wheeze) and features of their particular family. The impact of having twins came up in comments from the mothers and fathers in relation to all aspects of parenting, and is worthy of further research in the context of experiences of parenthood and practical parenting activities. In relation to play activities one father said:

“With twin girls and me working we are only able to take our daughters swimming at weekends. We have looked for a ‘nanny’ who can accompany my wife for 3 hours during the week to go swimming, but this has not proved very successful. (We can’t find) someone who is happy to do this.”

(37 years, finance lead)

Swimming is an activity that many fathers do with their young children, and good local facilities can either make this easier or more difficult to arrange. One father said explicitly that their local pool was closed (during the winter) and this meant travelling further if they were to keep up that shared activity.

Another thing mentioned by fathers affecting the time they had available for their toddler was having a new baby in the family.

“(I’m spending time with) her baby brother. (I’d only have more time if) someone else looked after the baby.”

(24 years, barman)

A couple of fathers also referred to the development stage their child was at.

“As she is mentally older than she is physically, she is interested in things that are currently ‘too old’ for her i.e. cooking or grown up rides. (But, we can use) play dough and plastic food, and cooking utensils are good for imaginative play. Otherwise its distractions from things she is not allowed.”

(20 years, not employed)

“It’s hard to read to her as she wants to play. I try to have quiet time (with her).”

(48 years, clinical skills facilitator)

Use of television and modern technology

Patterns of television watching

Mothers were asked about how much their child watched television and their attitudes towards television. This included programmes watched on laptops, tablets or other devices.

Parents were asked how much television their child watched per week and were given the options to respond: ‘less than one hour’, ‘1-2 hours’, ‘3-4 hours’, ‘5-7 hours’ and ‘8 hours or more’. In the second year there was an overall increase in the amount of television that children were watching. By 21 months half as many mothers said that their baby spent less than 1 hour watching television during a typical day (34%) compared to in the first year (69%), by contrast the number of women reporting that their baby watched 1-2 hours or 3-4 hours of television per day double in the second year. However, the proportion of children said to be watching five or more hours per day remained low in the second year, Figure 12.

Women in lower income households were significantly more likely to report that their child watched 5 or more hours of television per week (7% vs 4%) and were less likely to report they watched television for less than one hour per week (25% vs 37%). These reports refer to ‘foreground TV’ (i.e. intentional watching of programmes) rather than ‘background TV’ (i.e. television on in the background). In addition to the hours that children were said to watch television, over half of mothers said that they usually had television on in the background (see Figure 13).
Parents’ attitudes towards the use of television

In addition to the questions about the estimated number of hours of television their child watched each week, parents were asked how much they agreed or disagreed with different statements about watching television. Parents were provided with a five point Likert scale, which ranged from ‘strongly agree’ to ‘strongly disagree’. In order to explore how parents’ attitudes towards their child watching television changed or remained similar as their baby became a toddler the same statements were repeated in both surveys.

As the babies in this study became toddlers there was an increase in the proportion of parents reporting that they ‘enjoyed watching children’s television programmes’, from 21% to 80% among mothers and from 35% to 82% among fathers.

During the second year, parents appeared to be making more of a conscious effort to limit the amount of time their child spent actively watching television. The number of mothers and fathers who agreed that they ‘limited the amount of television that their baby/child watched’ increased (from 64% to 71% among mothers and from 60% to 78% among fathers). However, messages about background television suggested little change. Although there was a slight decrease in number of mothers who said that they ‘usually had the television on in the background’ (from 60% to 56%) this was offset by a small increase in the proportion who said that ‘their baby/child watches television while playing’ (up from 22% to 28%). See Figure 13.
Socio-economic status was associated with mothers’ attitudes towards television in the second year. Compared to women in the ‘higher-income group’ those in the ‘lower-income’ group were significantly more likely to say that they ‘usually have the television on in the background (71% vs 52%) and that their child ‘watches television while playing’ (36% vs 26%). Conversely, mothers in the ‘higher-income’ group were significantly more likely to agree that they ‘limit the amount of television that their child watches’ (74% vs 61%).

Further analyses were undertaken to explore whether more positive parental attitudes towards television and modern technology and toddlers’ pattern of television watching was associated with fewer hours of reported parent-child play, but no associations were found.

**Chapter summary**

To investigate the development of parent-infant play this chapter explores several aspects of parent’s experiences of and attitudes towards play during the first two years, including: the amount of time spent playing, restrictions on parent-infant play and attitudes towards television and modern technology with children under two.

Overall, there was a decrease in the number of hours that mothers and fathers said that they spent playing with their baby in the second year compared to the first. However, some caution is required as play hours were not directly observed in this study and parents’ interpretation of what they counted as play is likely to have varied. The amount of time mothers reported playing with their baby was associated with their socio-economic status and working arrangements, with full-time working mothers reporting fewer hours of play. Interestingly, twice as many fathers said they played with their baby for 10 or fewer hours compared with the first year.

Parents also identified a number of barriers to the type of play activities they could share with their toddler during the second year. These included winter weather, physical restrictions due to being pregnant or having a new baby as well as a toddler, (less frequently) poor health (of themselves or their child), a tight family budget, limited time – often associated with juggling work and home responsibilities, and limited space and facilities at...
home or in the neighbourhood. Engaging support from family and friends was a very important way of extending opportunities. This included women sharing the demands with their partner or for lone mothers the child’s father, seeking help from their extended family and getting together with other local mothers. With others to lend a hand or give them a break, they felt less isolated and could be more resourceful.

Fathers commonly described how lack of time limited their opportunities to play with their toddler and to take part in ordinary care activities on working days. To a lesser extent, financial limitations were mentioned, and, like the mothers, several mentioned the (winter) weather as a restriction, too. Resources of time and money, space in the home and facilities in the local area are inevitably linked. Opportunities for families, and for young children at the start of life, are affected by these factors individually and in combination.

In year two of the study, toddlers typically enjoyed watching children’s television programmes. Four in five mothers and fathers said this of their toddlers, though they also said that they were making more of a conscious effort to limit the amount of time their child spent actively watching television.

There were differences between the higher and lower income groups in terms of how much television was watched, either as a deliberate ‘foreground’ activity or as a background to other activities. Seven in 10 of the lower income mothers said television was usually on in the background, compared with half of the higher income mothers. Fathers in the study had very similar attitudes to mothers.
The overall aim of this study was to investigate first-time mothers’ and fathers’ experiences during the first two years following the birth of their baby, and to compare how attitudes and experiences remain similar or change in the second year compared to the first. This report describes parents’ experiences and attitudes during the first two years, focusing particularly on babies’ and toddlers’ sleep and play, and how parents’ experience and express their love for their child.

The findings highlight changes in parental attitudes and baby’s behaviour as they become toddlers, and the influence that this has on the parent-child relationship. The report also highlights some interesting differences in men’s and women’s roles and attitudes during the transition to parenthood and how socio-economic factors, such as employment and household income, can affect parents’ experiences and behaviours.

Key conclusions and recommendations from the findings of this report suggest that the following are key experiences as babies become toddlers.

### Child development and communication is rewarding and important for parent-child relationships

During the second year, mothers and fathers described how their relationship with their child had developed and strengthened as their child became more mobile and able to communicate. Mothers described how ‘witnessing development’, ‘expressions of love’, ‘easier communication’ and ‘enjoyment of life’ were among the most rewarding aspects of being the parent of a toddler. Fathers also took enormous pleasure in their toddler’s physical development and expanding communication skills. Many were keen to follow their child’s lead, understanding the importance of sensitivity and appreciating that understanding things from a young child’s perspective was helpful for their child and would create rewarding exchanges.

When it came to toddler behaviour in the second year, men and women had much in common but also some differing views. Fewer men than women felt that understanding child development helped to guide their parenting, and more felt that smacking was sometimes appropriate in order to influence their child’s behaviour. This suggests that fathers may not be exposed to so much information or shared learning opportunities as mothers are. This is likely to be influenced by their limited access to paternity or parental leave and long working hours, as well as differing expectations on mothers to understand and know how to guide their child’s development. Prominent role models, practical incentives and enhanced opportunities to participate and engage in shared learning would be useful to address these gender differences. Evidence shows that children of engaged fathers, who are sensitive and responsive to their needs, are more likely to be school-ready at four years of age. The vast majority of study participants felt that increased understanding about child development helps parents to know how best to respond to their toddler. So, initiatives to engage fathers as well as mothers would benefit children and their parents.

### Patterns of infant sleep and waking become more settled, but some difficulties and parental concerns persist

A key concern of parents during the first year of this study was their babies’ sleep and waking during the night. During the second year there was an increase in the number of hours that mothers reported their baby to be for sleeping during the night and a decrease in daytime naps. At 21 months, they reported that their toddler was waking significantly fewer times during the night and for shorter durations, compared to reports at eight months, although a wide variation in sleep patterns continued to be apparent. Consistent with these findings, the proportion of parents saying that they felt tired during the day because their baby disturbed their night’s sleep had reduced in the second year, though more than a quarter of mothers and one in five fathers said they were still affected.

Some mothers experienced the pattern of their baby’s sleep and their continued need for parental soothing in the night as problematic. Parents whose
toddler was regularly waking at night, who did not
like to sleep alone, or who seemed to get by on very
little sleep, often experienced tiredness and some
found it very wearing. There was another group of
mothers who were quite stressed about their child’s
persistent waking. Some indicated that their baby
woke very frequently or slept for a few hours in
total. Two per cent considered that their child had
a serious sleep problem, and there was remarkable
consistency in this between eight and 21 months.
Mothers of some of these toddlers described
multiple periods of waking in the night.
The authors have fed back to NCT practitioners
these findings of how much babies at eight months
and toddlers at 21 months are reported by their
mothers to be sleeping and waking during the
night. Even experienced practitioners who work
with parents of young children regularly were
surprised by the wide variation in experiences. NCT
has published evidence-based information for
practitioners on what influences sleep patterns
and there is a now a good, evidence-based, book
available for parents and professionals on sleep and
crying in infancy.

A realistic approach to communication with
expectant and new parents is important, drawing on
parents’ real lived experiences, and acknowledging
the wide variation in infants’ sleep patterns. When
working with expectant parents or running
postnatal sessions, practitioners can usefully allow
time to discuss the impact of sleeplessness for
parents, what is normal behaviour at different
ages, the extent of variation between different
babies, and practical ways to cope with the baby’s
needs and to get more rest while minimising
exhaustion and stress for parents. Some of the
potential solutions that parents may adopt, such as
cosleeping on a sofa or chair, are associated with
additional risks of accidental or unexplained infant
death, and bed-sharing remains subject to debate.

Women and men who are learning new skills as
parents may benefit from discussion in a welcoming,
respectful and unpressured environment, with
the support of other parents who have had similar
experiences, and reassurance or guidance from
a qualified practitioner, and referral on to clinical
services where required.

- **Women remain the primary carer of their toddler, despite the vast majority having returned to paid employment**

In the last 60 years there has been a shift in
industrialised countries towards more equal and
less gender-differentiated roles, however during
the transition to parenthood men and women
have been found to adopt more traditional roles
(e.g. men breadwinner and woman as homemaker
and mother). In this study, despite 80% of women
being in employment by 21 months there was a
strong message from both men and women that
mothers took the lead on their babies’ and toddlers’
feeding, bathing, care at night and nappy-changing.
While there seemed to be a small shift towards
fathers doing more in the second year, on the whole,
patterns set in the first year persisted into the
second, and over half of the women said they did all
or most of these caring activities across both years.

Women’s employment status during the second
year was strongly associated with how much they
reported sharing caring tasks with their partner.
Those that were in full-time employment were more
likely to share caring activities with their partner
than women who were employed part-time or not
in employed.

Previously reported findings from this study
demonstrated that there is a demand among new
parents for greater opportunities to work flexibly
after they have become parents. Greater access to
part-time and flexible working arrangements may
also enable parents who want to share these caring
activities more equally the opportunity to do so.

With the majority of fathers in this study taking two
weeks or less paternity leave after the birth of their
baby (90%), men have less opportunity to provide
the same level of physical and emotional care for
their baby during the first year. This can result in
fathers feeling less skilled and less confident in
carrying out these tasks. NCT recommends clearer
guidance for both parents and employers about the
provisions of maternity and paternity leave to enable
parents to make the best use of shared parental leave
and right to request flexible working entitlements.
Men’s aspirations of being the ‘involved father’ are restricted in practice

In line with others studies, such as Miller’s research on motherhood and fatherhood, our study suggests that there is a strong commitment to the ideal of the ‘involved father’.

Findings reported by both women and men tended to suggest that physical childcare, housework, managing their child’s behaviour, supporting sleep at night and engaging in play activities were very much a part of the job description for a modern father, just as they are for mothers. Yet, in practice, women continued to do substantially more of the feeding, changing, bathing and playing with young children. As highlighted above, women who worked full-time were much more likely to report that their partners made a major contribution to childcare.

A major barrier to greater involvement reported by fathers was the demand of being the main bread winner and having limited time at home during their toddlers’ waking hours during the working week. This suggests the need for a further concerted effort to change work-place culture so that it becomes more acceptable for more fathers to work from home and to have flexible hours, creating opportunities for fathers to have later starts and earlier finishes at least one or two days each week.

Parents have less time to play and interact with their toddlers and feel restricted by a range of factors

Despite the great pleasure that mothers and fathers gained from their child’s development as they became toddlers, there appeared to be a decrease in the number of hours that parents said they spent playing with their baby in the second year compared to the first, this was particularly the case for men. Employment seemed to be a key barrier to the amount of time parents spent interacting or playing with their toddler and mothers who were not employed reported playing for longer periods of time compared to mothers that were in full-time employment.

Parents also identified a number of barriers to the type of activities they could do with their toddler during the second year, including the impact of winter weather, physical restrictions due to being pregnant, having a new baby as well as a toddler, or (less frequently) poor health (of themselves or their child), a tight family budget, limited time, often associated with juggling work and home responsibilities, and limited space and facilities at home or in the neighbourhood. Engaging support from family and friends was an important way of extending opportunities. Resources of time and money, space in the home and facilities in the local area are inevitably linked. Opportunities for families, and for young children at the start of their lives, are affected by these factors individually and in combination.

Interestingly, women experience an increase in the domestic and childcare work when they have a second baby, which they found a challenge at times, they may have more time with their toddler when taking further maternity leave, or giving up work, due to the cost of childcare and the increased demands at home. Men, in contrast, take very limited amounts of parental leave and, unless they do things with both the baby and toddler together (which none of the men responding to our survey explicitly mentioned), they have less time with the first-born as a toddler than they did in year one.
Policy makers and researchers are now focusing more than ever before on the role of fathers and the impact they have on children’s development, wellbeing, school-readiness and longer-term opportunities. There is an argument for exploring in more detail the barriers and enablers that men experience in engaging with their children while they are babies and toddlers, to build a close relationship, provide practical care and engage in play activities. It seems that patterns of engagement in the early months tend to continue over time, so creating opportunities for fathers to spend more time with their young children is important.

- **Use of television and modern technology increases, although parents seek to limit their toddlers’ access**

Rapid increase in technology over recent years has shaped and changed the way in which children spend their leisure time, and the games they play. By 21 months there was an increase in the amount of parents who reported that their toddlers enjoyed watching children’s television programmes, as well as an increase in the amount of television parents said that their toddlers watched. Studies of older children suggest that long periods of exposure to television leads to poorer quality and quantity of parent-child interaction, and may have adverse effects on early development.47

It has been argued that children under two do not have the capacity to learn from television as much as they do from real-life interactions and on this basis media use in children of this age group is discouraged by the American Academy of Pediatrics.48 Possibly as a result of these research and policy messages, parents were making more of a conscious effort to limit the amount of time their child spent actively watching television. There were differences between the higher and lower income groups in terms of how much television was watched, either as a deliberate ‘foreground’ activity or as a background to other activities. Seven in 10 of the lower income mothers said television was usually on in the background, compared with half of the higher income mothers. However, in order to make clear evidence-based policy recommendations, further research is needed to investigate the impact of television use, both foreground and background, among families with children under two. With the rapidly increasing development and access to smart phones and tablets there is an increasing need for research to investigate both the developmental benefits and risks of such applications and games targeted at young children.
There are some important strengths and limitations of the First 1,000 Days study, which should be considered when interpreting the findings outlined in this report.

**Strengths**

- A large sample (N=1162) of first-time parents in the UK, with representation from all major groups across region, gender, age, education, ethnicity and sexual orientation.
- A unique investigation of women’s and men’s behaviours and attitudes during the first year of parenthood, at the point in time when they are making crucial decisions about their employment and childcare.
- Consideration of both women’s and men’s experiences and attitudes during the transition to parenthood.
- Mixed-methods approach to understanding first-time parents’ experiences, behaviours and attitudes.
- Prospective longitudinal study, which explores consistency and change in parents’ attitudes and behaviours longitudinally over the first two years of parenthood.
- There was an overall response rate of 42% to the second questionnaire and over half (53%) of all mothers responded in full to both questionnaires.

**Limitations**

- Men were less likely to respond to the second questionnaire (14%) compared to women (53%). Parents who responded to the second questionnaire, particularly men, were more likely to be older fathers and have a higher level of educational attainment.
- ‘Involved fathers’ were more likely to respond to the second questionnaire, therefore the attitudes and experiences are likely to reflect a small more selective group of men and is not generalisable to all fathers.
- Parents completed the first questionnaire when their baby was on average eight months old and the second when they were typically 21 months; however there was a range in children’s ages at the time the parents participated in the survey (5-10 months and 17-24 months). Parents’ views and behaviours about caring for their child, their child’s sleep or play may be affected by the age of their child at the time of participation, though this has been taken into account where possible.
- The study focuses exclusively on first-time parents. Results cannot be generalised to all parents in the first two years, as they do not reflect the experiences and behaviours of parents who already have older children.
- Two thirds of men in the study (68%) were drawn from the same households as women participants, reducing diversity but increasing the validity of gender comparisons of domestic activities.
- This study was based on an online survey and relies on parents understanding of their experiences and perception of their child’s behaviour, rather than actual behaviour that could only be determined through an observational study.
Appendix A: Further details of research methods and recruitment of participants

Questionnaire development
To ensure that the First 1,000 Days study is driven by issues that are important to parents and grounded within current research literature and policy, the two online surveys were developed from three main sources:

- Themes and issues generated from focus groups with first-time parents at 6-9 and 18-21 months;¹⁰,¹⁹
- Four key domains identified by the Department of Health in the ‘Preparation for Birth and Beyond Framework’: Changes for me and us, caring for our baby and our developing child, how it feels being a parent, parent’s health and wellbeing;⁵²
- Social sciences literature on the transition to parenthood and becoming a mother/father.

The findings from the focus groups with parents during the first and second years, and further information about questionnaire development, are presented in previous study reports.¹⁰,¹⁹

Survey questions and validated scales
A review of the literature was undertaken to identify validated and reliable measures within each of the questionnaire domains. Validated and reliable scales and questions were used if they were available and suitable for the study.

If validated and reliable questions were not available from previous research studies questions were developed. The final questionnaire was produced in SurveyMonkey following: 1) review of the questionnaire by the First 1,000 Days study steering committee and research advisors and 2) a pilot of the questionnaire with first-time parents (described below).

Pilot study
The surveys were piloted with parents who had registered to receive information from NCT via Pampers Village (described below) with due dates between September and December 2012 (n=7489). After removing contacts with invalid email addresses or those who requested no further contact from NCT (n=120), 6942 mothers and 427 fathers were invited to complete the online pilot questionnaire.

Complete responses were received from 255 mothers and 210 fathers to the first pilot questionnaire, the second point questionnaire, which was sent to all parents completing the first questionnaire, was completed by 90 (35%) mothers and 20 fathers (10%).

The purpose of the pilot investigation is to establish:

1. Any errors in the survey instruments and online survey procedures
2. The feasibility and success of the recruitment methods
3. Parents’ willingness to respond
4. The demographic characteristics of the parents

Findings from the pilot were discussed with the study steering group and revisions were made, where necessary, to the questionnaire and recruitment methods.

Inclusion and exclusion criteria
Inclusion criteria: All first-time parents from databases (described below) providing valid email address, with a baby estimated to be between 6-9 months old, were eligible for inclusion in the online questionnaire.

Exclusion criteria: Parents under the age of 18, parents that had previous children or a child older or younger than 5-11 months were excluded from the First 1,000 Days study. Since the questionnaire was presented in English, participants unable to understand and write English at a sufficient level were not included.

Recruitment of participants
In order to recruit a diverse sample of parents to take part in the online survey, who were broadly representative of the UK as a whole, a list of names and email addresses was generated from two main sources:
1. Pampers village data

Pampers village is an online community for new parents. Parents register for Pampers village on their website (https://www.pampers.co.uk/registration) to receive newsletters and updates from Pampers. NCT holds contact data on parents that have registered for Pampers Village and opted to receive information from NCT.

All eligible parents that opted to be contacted by NCT, with a due date between February and April 2013 (4314 mothers and 243 fathers) were invited to take part in the First 1,000 Days study.

2. Pampers electronic direct mailout

In order to reach a larger number of parents an electronic direct mailout (EDM) was sent from Pampers to all parents on their database with a baby between 4-6 months (n=120,306), inviting them to register to take part in the First 1,000 Days study. These parents were directed to an online registration form for the study.

Parents meeting the inclusion criteria were invited to take part in the study and complete the online questionnaire. In total, 3780 parents registered for the First 1,000 Day study via the Pampers EDM; 1539 were excluded as they did not meet the inclusion criteria for the study, were duplicate registrations or had invalid email addresses. As a result 2226 eligible mothers and 15 eligible fathers were invited to complete the online questionnaire.

Data collection methods

Year one survey

All eligible participants received an email containing information about the First 1,000 Days study and inviting them to complete an online questionnaire. The questionnaire was administered online through SurveyMonkey and the invitation email to parents contained individual links to the questionnaire.

As fewer fathers’ contact details were provided it was also necessary to ask mothers who were willing to participate to invite the father of their baby to complete the fathers’ version of the online questionnaire. Therefore, mothers were also sent a link to the fathers’ questionnaire and asked to forward it to the father of their baby.

Parents were given 4-6 weeks to complete the questionnaire. During this time parents received four reminders containing links to the questionnaire.

Year two survey

Approximately one year later the second online questionnaire was sent to all mothers and fathers who completed the first survey. The survey was initially sent to mothers and fathers directly and after one month (or once they had completed the survey) they were sent the partners version of the questionnaire if they had completed one in the first year.

Parents were sent reminders at weekly or two weekly intervals between October and December 2014.

Data analysis

Quantitative data analysis

Following completion of the questionnaire, all data was downloaded from SurveyMonkey and analysed in SPSS.

For continuous data means (or the average response) and standard deviations (s.d.) are presented in the results chapters throughout this report. Standard deviations indicate how much variation or dispersion there is in the parents responses from the average response. A low standard deviation indicates that the responses tend to be very similar to the mean; conversely a high standard deviation indicates that the data points are spread out over a large range of values. Standard deviations are expressed in the same unit as the data.

For categorical or ordinal data (e.g. data from ranked scales) the frequency of parents responding are presented in the results chapters of this report, and are expressed as the number of parents giving a particular response (n) and the corresponding proportion (%) of the mothers of fathers responding to the survey.

Statistical tests were undertaken to determine the probability that any observed differences were not due just to chance. P-values (probability value), resulting from these tests, of less than 0.05 (5%)
are considered to be ‘statistically significant’ and therefore unlikely to have occurred by chance. Results referred to throughout this report as significant are therefore ‘statistically significant’. Analysis of Variance (ANOVA) was used to investigate differences in continuous outcomes and chi-squared tests were used with categorical outcomes.

Qualitative data analysis
Responses to each open-ended question were all read and coded in Excel, until data saturation seemed to have had been reached. Themes were identified from the data and grouped into broad categories. All of the responses were read and re-read to check coding. If any new themes were identified, they were added to existing categories or categories were refined.

Ethical considerations
The research was designed and conducted in accordance with the Social Research Association’s research procedures. Parents were provided with a detailed information sheet about the research and required to provide consent prior to completing the questionnaire. In order to preserve parents’ confidentiality and anonymity, parents completing the questionnaire were assigned a unique identifying number. All data was analysed at a group level and no individual parents will be named in the presentation of results.
Appendix B: Participant characteristics and representativeness of the sample

The following tables highlight the characteristics and socio-demographic status of the men and women who completed the First 1,000 Days study surveys.

In order to explore the representativeness of the data the socio-demographic characteristics of women involved in the First 1,000 Days study are compared to women from the National Maternity Survey (NMS), which was conducted by the National Perinatal Epidemiology Unit in 2010. More than 5000 women who had recently given birth responded to the NMS, which enquired about their experience of care during pregnancy, labour and birth and the early months at home. Where data on first-time mothers is available from the NMS (i.e. women’s age and educational data) this data is used as a comparison group.

To investigate if there was systematic attrition in response to the second survey (e.g. mothers with lower educational status less frequently completing both surveys) Z-tests were used to explore potential differences in the socio-demographic characteristics in the men and women who completed the first and second survey. It is not possible to carry out Z-tests where there are fewer than five responses to a particular category.

Child characteristics

At the time of the first survey the babies of parents who completed the survey were on average eight months old in both the women (7.9 months) and men’s (7.7 months) surveys. At the time of the follow-up survey the children of the men and women who completed the second survey was on average 21 months (20.7 months in the mothers’ survey and 21.3 months in the fathers’ survey).

Just over half of the babies in the women (54%) and men’s (55%) survey were male.

Parents’ age

There was a broad distribution of parents’ ages in the First 1,000 Days study sample, including some mothers and fathers aged under 20 and over 40 years, Table B1. However, the study sample had fewer young parents, in particular fewer men and women aged under 20 and fewer aged under 25 years compared to the NMS. Generally, those taking part in the First 1,000 Days study were more likely to be aged 30 or over. The study excluded parents under the age of 18, which would account in small part for these differences.

Women who completed both surveys were on average older than first-time mothers in England and Wales according to the Office of National Statistics (ONS) on live births in 2012 (28.1 years). The age of men who completed the first year survey (32.7 years) sample was more comparable to the age of first-time fathers in England and Wales (32.6 years), however fathers who completed the second survey were significantly older (35.1 years) and therefore not representative of first-time fathers in the UK. See Table B1.

Although women in the younger age brackets were slightly less likely to have completed the second survey there was no significant difference in the age of women in the two year sample. Men under the age of 25 were also less likely to respond to the second questionnaire and older fathers (i.e. those over 40) were significantly more likely to respond to the second questionnaire. See Table B1.

Unpublished data from the National Maternity Survey (2010)
At the time of the first survey, when asked about their official employment status almost half of all women (49%) reported being in full-time employment and over a quarter (28%) were in part-time employment, a further 3% said they were self-employed. During the first survey, when their babies were between 6 and 9 months old, not all mothers had returned to work and over half were still on maternity leave from their role (54%).

The proportion of women in the second year sample reporting that they were in full-time employment was significantly lower (30%) and those in part-time employment was significantly higher. This is likely to reflect both changes in women’s actual job status during the second year as well as differences in the actual sample.

The majority of men were in full-time employment when surveyed at eight and 21 months (78% and 88%, respectively). Fewer fathers who responded to the second survey were in part-time employment (4% vs 2%) or self-employed (11% vs 5%). Although it was not possible to formally test these differences due to the small sample size of men responding to the survey at 21 months.

### Table B1: Grouped age compared with first-time mothers from the NMS

<table>
<thead>
<tr>
<th>Women F1KD study</th>
<th>Men F1KD study</th>
<th>Women NMS 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First survey (N=866) n (%)</td>
<td>Second survey (N=423) n (%)</td>
</tr>
<tr>
<td>Under 20</td>
<td>17 (2.0)</td>
<td>4 (0.9)</td>
</tr>
<tr>
<td>20-24 years</td>
<td>90 (10.4)</td>
<td>34 (8.0)</td>
</tr>
<tr>
<td>25-29 years</td>
<td>220 (25.4)</td>
<td>91 (21.5)</td>
</tr>
<tr>
<td>30-34 years</td>
<td>327 (37.8)</td>
<td>174 (41.1)</td>
</tr>
<tr>
<td>35-39 years</td>
<td>162 (18.7)</td>
<td>97 (22.9)</td>
</tr>
<tr>
<td>40 or over</td>
<td>50 (5.8)</td>
<td>23 (5.4)</td>
</tr>
</tbody>
</table>

* p ≤ 0.05, ** p ≤ 0.01, *** p ≤ 0.001, **** p ≤ 0.0001 Significant differences between cells with less than five respondents were not tested.

### Table B2: Women and men’s employment status in the First 1,000 Days study

<table>
<thead>
<tr>
<th>Women F1KD study</th>
<th>Men F1KD study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First survey (N=866) n (%)</td>
</tr>
<tr>
<td>Employed (full-time)</td>
<td>426 (49.2)</td>
</tr>
<tr>
<td>Employed (part-time)</td>
<td>238 (27.5)</td>
</tr>
<tr>
<td>Self-employed</td>
<td>22 (2.5)</td>
</tr>
<tr>
<td>Student</td>
<td>18 (2.1)</td>
</tr>
<tr>
<td>Registered unemployed (seeking work)</td>
<td>29 (3.3)</td>
</tr>
<tr>
<td>Unwaged (not seeking work)</td>
<td>133 (15.4)</td>
</tr>
</tbody>
</table>

* p ≤ 0.05, ** p ≤ 0.01, *** p ≤ 0.001, **** p ≤ 0.0001 Significant differences between cells with less than five respondents were not tested.
When asked about their highest level of education, the majority of parents who completed the first or second surveys had completed higher or further education, although this was more common among women than men, see Table B3. The proportion of women who responded to the first survey who left formal education at 16 years (17%) was lower compared to 19% first-time mothers who completed the NMS, but a higher proportion of men in the First 1,000 Days study reported leaving formal education by the age of 16 years (28%).

Significantly more women who responded to the follow-up survey had completed AS or A-Levels (23% vs. 18%) or higher or postgraduate education (58% vs 66%) and correspondingly fewer had no formal qualifications. Similarly, significantly more men who completed the second survey had completed AS or A-Levels (15% vs 23%).

### Household income

In the second year survey men and women were also asked what their ‘current annual household income before any deductions (e.g. tax and national insurance?)’, and instructed that this was the total income for themselves and their spouse or significant other during one year.

Table B4: Household income of women and men in the First 1,000 Days study in the second year

<table>
<thead>
<tr>
<th></th>
<th>Women F1KD study</th>
<th>Men F1KD study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Second survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(N=416) n (%)</td>
<td>(N=60) n (%)</td>
</tr>
<tr>
<td>Under £10,000</td>
<td>22 (5.3)</td>
<td>3 (5.0)</td>
</tr>
<tr>
<td>£10-25,000</td>
<td>62 (14.9)</td>
<td>7 (11.7)</td>
</tr>
<tr>
<td>£25-£50,000</td>
<td>183 (44.0)</td>
<td>25 (41.7)</td>
</tr>
<tr>
<td>£50-75,000</td>
<td>93 (22.4)</td>
<td>12 (20.0)</td>
</tr>
<tr>
<td>£75-100,000</td>
<td>35 (8.4)</td>
<td>5 (8.3)</td>
</tr>
<tr>
<td>Over £100,000</td>
<td>21 (5.0)</td>
<td>8 (13.3)</td>
</tr>
</tbody>
</table>

* p ≤ 0.05, ** p ≤ 0.01, *** p ≤ 0.001, **** p ≤ 0.0001 Significant differences between cells with less than five respondents were not tested.
Ethnicity
The ethnicity of men and women involved in the First 1,000 Days study was similar to the women from the MNS. Women in the study were less likely to be from an Asian ethnic background compared to the MNS sample and fathers from Black or Black British backgrounds were less well represented in the First 1,000 Days study. Women from white ethnic backgrounds were significantly more likely to complete the second survey (90% vs 93%) and women from Asian backgrounds were particularly under-represented in the second survey (4% vs 2%). Similarly, men from white ethnic backgrounds were more likely to go onto complete the second survey and there was little or no representation from men of other ethnic backgrounds, Table B5.

Table B5: Grouped age compared with women from the NMS

<table>
<thead>
<tr>
<th></th>
<th>Women F1KD study</th>
<th>Men F1KD study</th>
<th>Women NMS 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First survey</td>
<td>Second survey</td>
<td>First survey</td>
</tr>
<tr>
<td></td>
<td>(N=866) n (%)</td>
<td>(N=423) n (%)</td>
<td>(N=269) n (%)</td>
</tr>
<tr>
<td>White</td>
<td>776 (89.8)</td>
<td>394 (93.1)*</td>
<td>258 (87.2)</td>
</tr>
<tr>
<td>Mixed ethnic groups</td>
<td>20 (2.3)</td>
<td>10 (2.4)</td>
<td>7 (2.4)</td>
</tr>
<tr>
<td>Asian or Asian British</td>
<td>36 (4.2)</td>
<td>8 (1.9)*</td>
<td>26 (8.8)</td>
</tr>
<tr>
<td>Black or Black British</td>
<td>21 (2.4)</td>
<td>7 (1.7)</td>
<td>0</td>
</tr>
<tr>
<td>Other ethnic background</td>
<td>11 (1.3)</td>
<td>4 (0.9)</td>
<td>3 (1.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 (1.7)</td>
</tr>
<tr>
<td></td>
<td>(N=5333) %</td>
<td></td>
<td>86.1</td>
</tr>
</tbody>
</table>

* p ≤ 0.05, ** p ≤ 0.01, *** p ≤ 0.001, **** p ≤ 0.0001 Significant differences between cells with less than five respondents were not tested. Primiparous and multiparous women combined in the NMS

Place of birth and geographical location
In the First 1,000 Days study, the majority of men (82%) and women (84%) who responded to the first survey were born in the UK.

Parents’ country of residence and regional distribution are shown in tables B6 and B7. The majority of mothers and fathers who completed both surveys were living in England. The regional distribution men and women involved in the study was comparable to data from the 2011 NMS. There were no significant differences in the regional distribution of mothers who completed the follow-up survey. However, men who responded to the second survey were more likely to live in England (88% vs 95%) and there was a low response from men living in other countries of the UK, although it was not possible to statistically test these differences due to the lower number of men responding to the second survey.
There was good representation from men and women across all regions of England in response to both surveys see table B7, although women from Yorkshire and Humber and South West England were more likely to complete the second survey.

Table B6: Parents’ country of residence in the First 1,000 Days study sample

<table>
<thead>
<tr>
<th></th>
<th>Women F1KD study</th>
<th>Men F1KD study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First survey</td>
<td>Second survey</td>
</tr>
<tr>
<td></td>
<td>(N=866) n (%)</td>
<td>(N=423) n (%)</td>
</tr>
<tr>
<td></td>
<td>First survey</td>
<td>Second survey</td>
</tr>
<tr>
<td></td>
<td>(N=296) n (%)</td>
<td>(N=60) n (%)</td>
</tr>
<tr>
<td>England</td>
<td>737 (85.1)</td>
<td>360 (85.1)</td>
</tr>
<tr>
<td>Wales</td>
<td>40 (4.6)</td>
<td>24 (5.7)</td>
</tr>
<tr>
<td>Scotland</td>
<td>66 (7.6)</td>
<td>26 (6.1)</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>22 (2.5)</td>
<td>12 (2.8)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (0.1)</td>
<td>1 (0.2)</td>
</tr>
</tbody>
</table>

Table B7: Regional distribution living in England of parents in the First 1,000 Days sample compared with women from the NMS

<table>
<thead>
<tr>
<th></th>
<th>Women F1KD study</th>
<th>Men F1KD study</th>
<th>Women NMS 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First survey</td>
<td>Second survey</td>
<td>First survey</td>
</tr>
<tr>
<td></td>
<td>(N=736) n (%)</td>
<td>(N=325) n (%)</td>
<td>(N=262) n (%)</td>
</tr>
<tr>
<td>North West</td>
<td>93 (12.6)</td>
<td>47 (14.5)</td>
<td>27 (10.3)</td>
</tr>
<tr>
<td>North East</td>
<td>34 (4.6)</td>
<td>18 (5.5)</td>
<td>12 (4.6)</td>
</tr>
<tr>
<td>Yorkshire and Humber</td>
<td>60 (8.2)</td>
<td>39 (12.0)*</td>
<td>21 (8.0)</td>
</tr>
<tr>
<td>West Midlands</td>
<td>71 (9.6)</td>
<td>33 (10.2)</td>
<td>24 (9.2)</td>
</tr>
<tr>
<td>East Midlands</td>
<td>62 (8.4)</td>
<td>36 (8.0)</td>
<td>32 (12.2)</td>
</tr>
<tr>
<td>East of England</td>
<td>58 (7.9)</td>
<td>35 (10.8)</td>
<td>20 (7.6)</td>
</tr>
<tr>
<td>London</td>
<td>102 (13.9)</td>
<td>40 (12.3)</td>
<td>41 (15.6)</td>
</tr>
<tr>
<td>South East England</td>
<td>159 (21.6)</td>
<td>65 (20.0)</td>
<td>51 (19.5)</td>
</tr>
<tr>
<td>South West England</td>
<td>97 (13.2)</td>
<td>57 (17.5)*</td>
<td>34 (13.0)</td>
</tr>
</tbody>
</table>

In both the first and second survey, the majority of mothers (94% in survey one and 93% in survey two) and fathers (99% in first survey and 100% in second survey) said they were in a relationship. In response to the first survey the proportion of lone mothers in the First 1,000 Days study (n=51; 6%) was lower than the proportion of lone mothers in the NMS sample (11.5% of all primiparous and multiparous women). In our sample, lone mothers were younger than mothers who were in a relationship (mean age 27.7 years, compared to 31.0 years). Similarly, lone fathers (n=7; 2%) were younger (mean age 28.4 years) compared with fathers who were in a relationship (mean age 32.9 years).

At the time of the first survey, five (0.6%) mothers and four (1.4%) fathers in the study sample reported being in a same sex relationship. We do not know whether the mothers or fathers in the sample living...
In same-sex relationships were biological or social parents to their children. All mothers’ data have been analysed together, regardless of sexuality and biological relationship with the baby. This also applies to the way the fathers’ data have been analysed.

In conclusion, the parents taking part in the First 1,000 Days study are somewhat older on average than the general UK population of parents, though there is still a wide spread in the sample. In terms of ethnicity, country of birth and geographical distribution, the study is broadly representative. Consistent with younger parents being less well represented, there are fewer women with no qualifications or GCSEs as their highest qualification than would be expected. The majority of large population-based cohort studies have a sample that is biased towards parents that are more highly educated and under-representative of young parents. Online surveys may increase this long-standing tendency.

There were some differences in the characteristics of men and women who went on to complete the second survey and those that didn’t. Older fathers and more educated parents were more likely to complete the second survey. Men and women from white ethnic backgrounds were more likely to complete the second survey and ethnic minority parents were less well represented in year two, particularly within the men’s sample.
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