

New Mothers Speak Out

National Survey Results Highlight Women's Postpartum Experiences

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Preface

Childbirth Connection's ongoing *Listening to Mothers*[®] Initiative is devoted to understanding experiences and perspectives of childbearing women and using this knowledge to improve maternity policy, practice, education and research. *Listening to Mothers* surveys are central to this initiative. They enable us to compare actual experiences of childbearing women and newborns to mothers' preferences, as well as to optimal evidence-based care, optimal outcomes, and protections granted by law. Identified gaps present opportunities to improve conditions during this crucial developmental period for about 4.3 million mothers and babies annually in the United States.

The landmark *Listening to Mothers I* survey (2002) was the first time that women in the United States were surveyed at the national level about their maternity experiences. It offered an opportunity to understand many dimensions of the maternity experience that had not previously been measured nationally, and provided what are likely to be much more accurate figures for numerous items that are measured but have been shown to be undercounted in other national data sources. *Listening to Mothers I* results have been well received and widely cited. Most importantly, health plans, hospitals, professional organizations, advocacy groups and others have used the survey results to inform their efforts to improve maternity care and women's satisfaction with their maternity experiences.

Listening to Mothers II (2006), a national survey of women who gave birth in U.S. hospitals in 2005, continued to break new ground. In addition to continuing to document many core items measured in the first survey, the second survey also explored some topics in greater depth and some new and timely topics. We also recontacted mothers six months after they participated in *Listening to Mothers II*, and most responded to a follow-up survey that provided them with an opportunity to describe their postpartum experiences. This *New Mothers Speak Out* report focuses on postpartum experiences, as measured in both the *Listening to Mothers II* and *Listening to Mothers II Postpartum* surveys.

Childbirth Connection's *Listening to Mothers II* surveys were conducted by Harris Interactive[®] and carried out in partnership with Lamaze International. The *Listening to Mothers II* National Advisory Council provided guidance on survey development, implementation and reporting.

This report and numerous related documents are available at www.childbirthconnection.org/listeningtomothers/ Related documents include survey questionnaires, details on survey methods and reports of the first and second *Listening to Mothers* surveys.

The *Listening to Mothers* survey questionnaires are valuable tools that can be applied to other populations — to understand, for example, maternity experiences at the state level, within a health plan, among women using a particular hospital, or at the national level in another country. We welcome the opportunity to collaborate with others who wish to better understand mothers' experiences in a diverse range of contexts in order to improve conditions for mothers, babies and families.

The survey results reported here reveal a broad array of gaps between the actual experiences of mothers and babies and more optimal conditions. We hope that those involved with maternal and infant health will review the results and identify priority areas for quality improvement within their own work. We also hope survey results will increase awareness among childbearing women of these widespread concerns and motivate them to learn more about safe and effective care, understand their maternity rights and seek the best possible care and life circumstances for themselves and their babies.

Acknowledgments

We want to express our gratitude to the mothers across the United States who freely shared their maternity experiences with us at a time when, as they told us, relatively few were feeling rested and organized, and the majority who again shared their experiences with us six months later. Special thanks to Childbirth Connection's Board of Directors for its vision and financial commitment to Childbirth Connection's ongoing *Listening to Mothers*® Initiative. We are also grateful to Lamaze International for providing partial financial support and working with us to plan the *Listening to Mothers II* and *Listening to Mothers II/ Postpartum* surveys and disseminate survey results. Jason Pike, Paul Robinson and David Liana at Harris Interactive® provided exemplary programming and data analysis support. Eugene Declercq's work was partially supported by grants from the Robert Wood Johnson Foundation and Childbirth Connection. He was very ably assisted in his work by Boston University School of Public Health students Robin Young and Rennie Elliot.

Thank you to Susan Ayers of the Psychology Department, University of Sussex, for freely sharing her research experiences with post-traumatic stress disorder after childbirth and her adaptation of the Post-Traumatic Stress Disorder Symptom Scale (PSS) for childbirth.

We are grateful to members of the *Listening to Mothers II* National Advisory Council, who attended a national planning meeting and provided continuing support on the development, implementation, and reporting of the *Listening to Mothers II* survey and the postpartum follow-up survey six months later. Their multi-disciplinary perspectives have strengthened these projects in many ways. They are:

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Executive Summary

The Surveys

Maternal Well-Being

Child Well-Being

Family and Relationships

Employment, Maternity Leave and Child Care

The Surveys

This report presents results relating to women's postpartum experiences from two national surveys carried out by Childbirth Connection. These surveys continued the work of Childbirth Connection's first national *Listening to Mothers* survey, which was conducted and reported in 2002. Harris Interactive® conducted the *Listening to Mothers II (LTM II)* survey from January 20 to February 21, 2006, among 1,573 respondents. Results of that survey are based on 1,373 self-completed online questionnaires and 200 telephone interviews. Harris Interactive contacted the same women to participate in a follow-up survey, *Listening to Mothers II Postpartum (LTM II/PP)*, six months later, from July 20 to August 23, 2006. Of the original respondents, a total of 903 (57%) completed the postpartum survey (859 online and 44 by telephone). Data from both surveys were weighted to reflect the target population of women who gave birth in U.S. hospitals in 2005 to a single baby, with the baby still living at the time of the survey, and who could respond to the survey in English.

Maternal Well-Being

Postpartum Office Visits

Among the 6% of mothers who did not have a postpartum office visit between 3 and 8 weeks after birth, the leading reasons were that "I felt fine and didn't need to go," (35%), followed by "too hard to get to office" (14%) and "didn't have insurance (10%). Mothers reported traveling an average of twelve miles each way for their maternity care office visits.

Regular Medical Provider

Most mothers relied on a family doctor (47%) as their medical provider after they completed maternity care, with 21% relying on an obstetrician/gynecologist, 11% on an internal medicine doctor and 11% stating that they had no regular medical provider. The remaining responses were divided among midwives, clinics, nurse practitioners and physician assistants. Mothers reported an average of 3.3 visits since birth, but that varied by time since delivery (less than one year: 2.7 visits; more than one year: 3.7 visits).

Burden of Health Concerns After Birth

In the *Listening to Mothers II* survey, we provided mothers with a list of 11 items and asked if these were a new problem in the first two months after birth, and, if so, whether they were a major or minor problem and whether they were still a problem at the time of the survey. In the postpartum survey, we asked the same questions about 15 additional items and also asked whether mothers were still experiencing problems that they had identified in the *Listening to Mothers II* survey. Five of the twenty-six items were cited by at least one-half of the mothers as problems in the first two months after birth: physical exhaustion (62%), sleep loss (61%), sore nipples/breast tenderness (59%), feeling stressed (58%), and weight control (50%). Among those women who had experienced a cesarean section, 79% reported pain at the incision site, 61% reported itching at the site of the incision, and 57% reported numbness at incision site in the first two months after birth.

After at least six months, two in five mothers (43%) indicated they were still feeling stressed or had problems with weight control (40%), followed by continuing problems with sleep loss (34%), lack of sexual desire (26%) and backache (24%). Among those mothers who

had a cesarean, 31% reported continuing numbness 21% reported continued itchiness, and 18% reported continued pain at the incision site after at least six months.

Postpartum Health and Caring for Baby

Mothers were asked to rate if physical or emotional problems interfered with their ability to take care of their baby in the first two months after birth, and 33% reported their postpartum physical health interfered at least “some” with their ability to care for their baby, while 30% reported that their postpartum emotional health interfered at least “some.” Mothers who experienced a cesarean were far more likely than mothers with vaginal births (55% to 27%) to report that physical problems interfered with their baby care.

Weight Change

We learned in the *Listening to Mothers II* survey that mothers had gained on average 30 pounds during their pregnancy and averaged losing 22 pounds at the time of that survey. We again asked about their weight in the follow-up survey, and on average mothers had gained 2 pounds between the first and second surveys. The result is a net weight gain of 10 pounds from their pre-pregnancy weight.

Current Mental Health Status

We asked mothers about their emotional state in the two weeks prior to the postpartum survey, and about one in three mothers reported “feeling down, depressed or hopeless” (36%) or having “little interest or pleasure in doing things” (34%) for at least several days in the past two weeks. In each case, 6% reported being bothered by these feelings nearly every day.

Traumatic Birth

We asked mothers to respond to a series of questions that form the Post-Traumatic Stress Disorder (PTSD) Symptom Scale (PSS), with a focus on the impact of childbirth experiences. A PSS score of at least 12 suggests the respondent is suffering from some PTSD symptoms. Overall, 18% of mothers scored 12 or higher on the scale, and 9% screened as meeting all criteria for post-traumatic stress disorder. Black non-Hispanic mothers (26%) were more likely to report scores 12 or higher compared to white non-Hispanic (17%) or Hispanic (14%) mothers.

Consulting a Professional About Emotional or Mental Well-being

We asked mothers in the postpartum survey if at any time since birth they had consulted a mental health or health care professional about their emotional or mental well-being, and 18% reported they had. Mothers who had reported depressive symptoms, concerns about their emotional state or symptoms of birth trauma were more likely to have reported a consultation. Mothers reporting symptoms of birth trauma (42%) were much more likely than those who did not (13%) to report a consultation.

Child Well-Being

Overall Rating of Child's Health

We asked mothers to rate their child's health, and they were generally very positive, with 78% rating their child's health excellent, 19% good and 3% fair.

Child Health Care Providers

Mothers most often named pediatricians (75%) as their child's primary care provider. Family doctors (21%), nurse-practitioners (2%) and physician assistants (2%) accounted for the remainder. Use of a family physician was greatest among mothers who had relied on a family physician for their prenatal care (79%).

Child's Health Care Provider Behavior

Mothers described the behavior of their child's health care provider on four aspects of family-centered care, and rated providers positively, with the highest rating for taking time to understand the specific needs of their child (55% "always"; 2% "never") and lowest for taking time to find out how they are feeling as a parent (37% "always"; 13% "never"). These findings did not vary by whether or not the provider was a pediatrician or a family doctor.

Sources of Parenting Information

Mothers identified multiple sources of information on parenting. First-time mothers ranked their child's health care provider highest (31% ranked first; 16% second) followed by their own or their partner's parents (25% first; 23% second) and the Internet (11% first; 11% second). Experienced mothers most often relied on their own prior experience (50% ranked first; 14% second), followed by child's health care provider (17% ranked first; 19% second), parents (9% first; 19% second) and the Internet (7% first; 7% second).

Breastfeeding Duration

Almost one in five mothers (18%) reported they were still feeding their baby some breast milk at the time they completed the postpartum follow-up survey, with 24% of mothers with babies 7 to 12 months old still giving their babies at least some breast milk compared to 11% among those mothers with babies 13 to 18 months old.

Reasons for Not Establishing Breastfeeding

We asked the 10% of mothers who intended to but did not breastfeed at all the reasons they didn't, and "formula more convenient" was the most common response (42%), followed by "too hard to get breastfeeding going" (38%) and "baby had difficulty nursing" (37%), "I had to take medicine and didn't want my baby to get it" (24%), "I changed my mind" (18%), "I tried breastfeeding and didn't like it" (14%), and "I didn't get enough support to get breastfeeding going" (13%).

Satisfaction with Duration of Breastfeeding

We asked all mothers who did breastfeed, but were not currently doing so if they had breastfed as long as they wanted. Less than half (46%) stated that they did. Black non-Hispanic mothers (33%), mothers reporting a family income of less than \$35,000 (32%) and unmarried mothers with no partner (27%) were most likely to report they were unable to breastfeed as long as they'd like.

Pacifier Use

Slightly less than one-half of mothers (48%) reported that their baby had used a pacifier on a regular basis, and among mothers whose baby was at least a year old, the average amount of time the baby used the pacifier was 11.2 months.

Circumcision

Almost eight in ten mothers who gave birth to a son reported that he had been circum-

cised, with use varying widely by race/ethnicity. First-time Hispanic mothers were far less likely (34%) than white (88%) or black non-Hispanic (89%) mothers to have their son circumcised.

Co-Sleeping

Almost one in five mothers (18%) reported that their baby always slept in the same bed with them in the first six months after birth, and an additional one-fourth stated the baby often (10%) or sometimes (16%) did. Co-sleeping was strongly related to race/ethnicity, with 50% of black non-Hispanic mothers reporting co-sleeping always or often compared to 36% of Hispanic mothers and 21% of white non-Hispanic mothers in the first six months after birth.

Family and Relationships

Pregnancies and Births Subsequent to 2005 Birth

Almost one in eight (12%) mothers in our postpartum survey had become pregnant again since giving birth in 2005, with 5% having again given birth and 7% pregnant when taking the postpartum survey.

Hoped for Number of Children

Mothers in our survey said they would like to have, on average, three children, with two (34%) and 3 (34%) the most common responses. We found that 85% of women with one child already at home wanted at least one more; of those with two children, 53% wanted at least one more; and among those who already had three or more children, 26% wanted at least one more child. In each case, the ideal most often mentioned was one more child than they currently had.

Marital Status

We asked mothers in the *Listening to Mothers II* survey if they were currently married, unmarried with a partner or unmarried with no partner. Most mothers (74%) reported being married and few (7%) were unmarried without a partner, while the remainder were unmarried with a partner (19%). White non-Hispanic mothers were most likely to be married (86%) followed by Hispanic (76%) and black non-Hispanic (64%) mothers.

Household Structure

Mothers in our survey reported an average of two children under 18 living in their home.

Sharing Child Care with Husband or Partner

Mothers who reported having a husband or partner generally reported (73%) that they themselves provided more of the child care, with 25% stating it was equally shared and only 2% stating their husband or partner provided more. This was most strongly related to the mother's current work setting, with slightly less than half (48%) of mothers who worked full time outside the home saying child care was equally shared.

Employment, Maternity Leave and Child Care

Current Employment Status

Almost three in ten (29%) of the mothers in our postpartum survey who were not currently pregnant or hadn't given birth again since the *Listening to Mothers II* survey indicated they

were currently employed on a full-time basis. Another 14% were employed on a part-time basis, a small portion were full-time students or on leave (5%), but the majority (52%) were neither employed nor on leave.

Stayed Home as Long as Wanted To

More than one-half (52%) of mothers who had returned to work stated they had stayed home as long as they wanted to. Among those mothers who were not able to stay home as long as they'd wanted, the most common reasons were that they could not afford more time off (81%) and maternity leave had come to an end (45%), with smaller proportions indicating fear of losing their job (8%) or jeopardizing career advancement (7%).

How Long Should Maternity Leave Be?

Mothers who were employed or on maternity leave were asked what would be the ideal amount of time off with their baby in a system with good maternity leave benefits. The most common answer (28% of mothers) was six months and the second most common answer (22%) was twelve months. The overall average was seven months, with 60% of mothers preferring a fully paid leave of six months or more. Only 1% of mothers reported having had a paid leave of more than four months.

Child Care Arrangements

Mothers described a variety of arrangements for child care when we asked those working outside the home who cared for their baby. For mothers working full-time, there was a heavy reliance on family, either their husband or partner (30%) or another family member (35%). Mothers also relied on family day care providers (30%) and child care centers (23%). Those mothers working part-time relied predominantly on family – either partners (51%) or other family members (43%). Twenty-six percent cited more than one caregiver.

Students

About one in ten mothers listed themselves as either full- (4%) or part-time (6%) students. For mothers who were students, child care was primarily provided by family members, either their husband/partner (50%) or another family member (45%), followed by friends (15%).

Time in Child Care

The majority of mothers reported being home with their children, but for those who reported being in school or employed, almost half (44%) of these mothers reported their child was in day care at least 33 hours a week. For mothers working full time outside the home, that figure rises to 58%.

Working for Employer while on Maternity Leave

The overwhelming majority (75%) of mothers did not do any work for their employer while on maternity leave, and among those who did, most reported only doing a little (13%) or some (11%) work for their employer while on leave.

Sick Time for Child Care

Three-fourths of mothers with access to sick leave (78%) reported they could use it to care for a sick child, and only 10% stated they could not (12% were unsure).

Introduction

Who was Included in Our Sample, and How We Reached Them

Data Analysis and Reporting

Reading the Text, Tables and Figures

Selection of Quotations from Survey Participants

Project Responsibility

This report continues an ongoing initiative of Childbirth Connection (formerly Maternity Center Association) to focus the discussion of maternity care in the United States on the people who care about it the most: mothers themselves. *Listening to Mothers I (LTM I, 2002)* and *Listening to Mothers II (LTM II, 2006)* surveys were the first systematic national studies of U.S. mothers' perceptions of their childbearing experiences. *New Mothers Speak Out* is a national study focusing on women's postpartum experiences. It presents the findings from a follow up to *LTM II* in which mothers were re-interviewed six months after the initial survey to further explore their postpartum experiences (*LTM II/PP*), in combination with relevant findings from *LTM II*. The three surveys have documented for the first time at the national level the frequency of many practices and experiences from before pregnancy through the postpartum period that have been recorded only at the clinical, community or state level, if at all, in the past. Results of the surveys thus offer the opportunity for an unprecedented level of understanding about many dimensions of the experience of childbearing in the United States.

The work reported here was developed through the collaborative efforts of a core team from Childbirth Connection, Boston University School of Public Health and Harris Interactive, with the support of the *Listening to Mothers II* National Advisory Council (see Acknowledgments for a list of Council members) and in partnership with Lamaze International. Harris Interactive administered the surveys.

Who was Included in Our Sample, and How We Reached Them

***Listening to Mothers II* Core Survey**

From January 20 through February 21, 2006, 200 mothers were interviewed by telephone, and 1,373 completed an online version of the survey. Members of the Harris Interactive national online panel were screened for possible eligibility, and eligible women were invited to respond to a survey described as follows: "This survey, about women's experiences with pregnancy and childbirth, is a follow-up to a similar national study of mothers conducted in 2002. The purpose of the study is to help us gain a better understanding of this critical time in a woman's life through the voices of women themselves."

We took special efforts to ensure a representative national sample through over sampling of mothers who were ethnic minorities in the telephone portion of the survey and weighting of data using established survey research methods. All 1,573 survey participants were 18 to 45 years of age, had given birth to a single, still living baby in a hospital in 2005, and could respond to a survey that was in English. We excluded mothers with multiple births and with out-of-hospital births as their experiences are quite different from other mothers, and the numbers that would have been included in the sample would have been too small to analyze. Mothers whose babies had died were excluded to avoid causing them added grief. If a contacted mother had lost a child, she was offered contact information for several national organizations that provide support to bereaved parents. Apart from questions about reproductive history, the survey focused on the births that had taken place in 2005. The survey took place early in 2006 to maximize maternal recall. Looking at the results by time elapsed since giving birth (0 to 12 months) allows us to cross-sectionally analyze the postpartum experiences of mothers at different periods since the birth. On average, the survey took approximately 30 minutes to complete.

Online Subsample

Because surveys administered online take less time than those administered over the phone, we had the opportunity to ask additional questions of the online sample, and we took advantage of that. However, this required decisions about which questions to ask of all participants and which to ask of just online participants. In many instances, we asked a question of only the 1,373 online respondents when repeating a topic from the 2002 survey and/or following up on a question asked of all mothers. When a finding refers to a question asked only of those participating through the World Wide Web, it is noted by the inclusion of the symbol "(w)" in the sentence discussing the finding and in any tables or figures based on this sample.

Listening to Mothers II Postpartum Survey

Childbirth Connection also sponsored the *Listening to Mothers II Postpartum* survey (*LTM II/PP*) among *Listening to Mothers II* participants six months after (from July 20 to August 23, 2006) administering *Listening to Mothers II*. The mothers who participated in *LTM II* were recontacted and of the original 1,573 (200 telephone and 1,373 online), 903 (57%) completed the postpartum survey. As with *LTM II*, all 903 survey participants were 18 to 45 years of age, had given birth to a single, still living baby in a hospital in 2005, and could respond to a survey that was in English. The online survey took approximately 20 minutes to complete, and the same questions in telephone format took approximately 30 minutes to complete. Unlike the *Listening to Mothers II* survey, which had some additional questions for the larger group of online participants, this shorter survey asked online and telephone participants the same questions. Here we report results from these 44 telephone and 859 online respondents who had given birth in 2005, in combination with postpartum data collected through the prior *LTM II* survey. Unless otherwise noted, the results reported are from the *Listening to Mothers II* postpartum survey. Combining the results from *LTM II* and *LTM II/PP* surveys provided us with the opportunity to analyze some key topics (e.g., infant feeding and employment) over a longer time period (0 to 18 months).

Survey Name	Dates Administered	Survey Abbreviation	Sample Size	
			Online	Telephone
<i>Listening to Mothers II</i>	January 20 to February 21, 2006	<i>LTM II</i> (all respondents)	1,373	200
		<i>LTM II</i> (w) (online respondents)		
<i>Listening to Mothers II Postpartum</i>	July 20 to August 23, 2006	<i>LTM II/PP</i>	859	44

Survey Questionnaires

The complete *Listening to Mothers II* survey questionnaire and *Listening to Mothers II Postpartum* survey questionnaire are available on Childbirth Connection's website at: www.childbirthconnection.org/listeningtomothers/ Apart from questions about reproductive history, the surveys focused on childbearing and postpartum experiences related to the births that had taken place in 2005. While the *LTM II/PP* survey primarily focused on the mothers' life experiences since giving birth, we did include several additional questions related to their pregnancy and birth experiences which, because they related to birth experiences, have already been reported in the *LTM II* report (2006), which is available at the web address above. Individuals citing results from *New Mothers Speak Out* and the related survey reports are encouraged to consult the questionnaires to understand the specific questions posed, choices offered and groups of women ("base") who responded to the questions, whether all mothers or specific subgroups.

Mothers' Survey Participation Experience

There were many indications that *Listening to Mothers II* and *Listening to Mothers II Postpartum* participants were exceptionally engaged in the survey and interested in having their voices heard, including their willingness in both the online and telephone components of the survey to take more time answering questions than typical survey respondents. Moreover, a substantial majority in both surveys responded to open-ended questions.

Data Analysis and Reporting

Data Weighting

To develop a national profile of childbearing women aged 18 through 45 and giving birth to single babies in hospitals, the data were adjusted with demographic and propensity score weightings using methodology developed and validated by Harris Interactive. The propensity score, a measure of the propensity to be online, adjusts for the qualities of the online participants to result in a weighted sample that is more representative of mothers 18 through 45 as a whole. Because of the slightly different demographic makeup of *LTM II* and *LTM II/PP* survey participants, separate weighting systems were developed for results of the two surveys.

Demographic Profile of Respondents

Appendix B presents a summary of the representativeness of the surveys in comparison to a national population of mothers. The combination of the targeted telephone sampling of mothers of color and the careful weighting of data resulted in a population of respondents that closely mirrors the target population — mothers 18 through 45 who gave birth to a single infant in a hospital birth in 2005. The profile of our respondents generally parallels a comparable national birthing population in such key areas as race/ethnicity, age, birth attendant, method of birth and number of times the mother had given birth.

Supplementary Material in Appendices

Appendix A provides a detailed methodology of the survey, including discussion of the relationship between the phone and online samples and of processes for weighting the results. Appendix B compares *Listening to Mothers II* and *Listening to Mothers II* postpartum results to a comparable series of the most recent available figures in the federal vital and health statistics system and shows the samples to be demographically and experientially representative of the U.S. birthing population.

Looking at the results by time elapsed since giving birth (up to 18 months for *LTM II/PP* questions) allows us to cross-sectionally analyze the postpartum experiences of mothers at different periods since the birth. In the *Listening to Mothers II* postpartum survey, we also asked mothers if they had given birth since taking the initial survey or were pregnant again, and a small proportion had. For questions where this seemed likely to impact the results (e.g., weight gain and loss; physical health) those mothers were excluded from the analysis, and we have noted this in the report.

***Listening to Mothers II* Survey Results in *New Mothers Speak Out* Report**

We note whenever relevant results from the *Listening to Mothers II* survey are included in this report. That survey especially contributed information about the mothers' reproductive

history, demographic characteristics and early postpartum experiences, which are all relevant to the present report.

Reading the Text, Tables and Figures

In the tables, a dash (-) means that none of the mothers chose that response. Percentages may not always add up to 100% because of rounding, the acceptance of multiple answers from respondents, or exclusion of rarely chosen response categories from a table.

The term “base” is used to identify the total number of respondents answering that question. Since many questions are only asked of a subgroup of the sample (e.g., only women who reported working outside the home were asked about child care while at work), some results are based on small sample sizes. Caution should be used in drawing conclusions from results based on smaller samples.

Readers should also be alert to exactly which population is being referred to in the tables and text since in some cases we probe the data through several layers. We try to make clear throughout exactly who is being referred to. Although this can lead to some inelegant, if accurate phrasing (e.g. “among mothers who were employed full-time during pregnancy, received maternity benefits and returned to work...”), our primary goal was clarity. As noted above, the text and figures/tables use (w) to indicate when a finding is based only on Internet respondents from *Listening to Mothers II*.

When subgroup comparisons are presented in tables, an asterisk indicates comparisons where the differences are statistically significant at the $p < .01$ level based on a chi-square test. When occasional comparisons noted in the text are not described in an accompanying table and are significant at the $p < .01$ level, this is noted in the text.

Selection of Quotations from Survey Participants

Women who participated in the *Listening to Mothers II Postpartum* survey were offered three opportunities to provide fully open-ended comments in different sections of the survey. We asked them what gave them a special sense of pride and accomplishment in the baby’s first six months, what was the most challenging aspect of life during the first six months, and their biggest overall concern as a parent. We also collected some comments about postpartum experiences in an open-ended question from the *Listening to Mothers II* survey that invited the mothers to share anything else about any aspect of their childbearing experiences. A remarkable number of mothers took the time to respond to one or more of these invitations. We received many vivid and moving stories, observations, and opinions that bring the women’s experiences to life. Faced with the challenge of selecting comments for this report from among this large and important set of remarks, we gave priority to either contrasts that suggest the range of women’s experiences or those that illustrate notable survey results. Some quotes illustrate a situation of concern for a relatively small proportion that nonetheless impacts many mothers or babies. Since over 4.3 million women give birth annually in the United States, each percentage point represents over 40,000 mothers and babies per year. The quotations in this report reproduce the women’s exact words, though we have in some cases standardized spelling and punctuation. Additional quotations from survey participants are available at www.childbirthconnection.org/listeningtomothers/

Project Responsibility

The survey questionnaires were developed collaboratively by the core team from Childbirth Connection, Boston University School of Public Health and Harris Interactive and the *Listening to Mothers II* National Advisory Council. The National Advisory Council met once as a group to plan and develop the questionnaires and continued to communicate by email as the surveys were refined, carried out and reported. The Harris team responsible for management of the project and initial analysis of results was led by Sandra Applebaum, Research Manager, and Jennifer Colamonico, Research Manager. The data presented in this report were reviewed and in many instances further analyzed by the core team of Eugene Declercq, Boston University School of Public Health, Chair, *Listening to Mothers II* National Advisory Council; Carol Sakala and Maureen Corry of Childbirth Connection; and Sandra Applebaum of Harris Interactive. Harris Interactive has reviewed the entire report and finds it to be a fair and accurate depiction of the survey results. Robin Young of the Boston University School of Public Health did statistical data analytic runs for the project and Rennie Elliot assisted with background research and the organization of the open-ended comments.

As with all Harris Interactive surveys, the *Listening to Mothers II* and *Listening to Mothers II Postpartum* surveys comply with the code and standards of the Council of American Survey Research Organizations and the code of the National Council of Public Polls. Dr. Declercq's involvement was reviewed by the Institutional Review Board at the Boston University School of Medicine, and he was granted exempt status since the data were collected and housed securely by Harris Interactive and he and the other non-Harris authors had access to only a de-identified file provided by Harris Interactive.

Part 1

Maternal Well-Being

Postpartum Office Visits

Regular Medical Provider

Burden of Health Concerns After Birth

Rehospitalization

Pain Interfering with Routine Activities

Postpartum Health and Caring for Baby

Feelings after Birth

Maintaining Wellness

Mothers' Postpartum Weight Loss

Postpartum Depression

Follow-Up Mental Health Status

Traumatic Birth

Consulting a Professional about Emotional or Mental Well-Being

In the period from conception through pregnancy, childbirth, and the days, weeks and months after birth, women experience extraordinary physiologic changes, emotional challenges and social transitions. In addition, as the *Listening to Mothers II* report detailed, childbirth in U.S. hospitals involves high rates of surgery, medications, and other interventions, with potential for adverse effects. After sustained attention from pregnancy and through childbirth, the health system gives relatively little attention to the well-being of women in the postpartum period, and maternity care ends about six weeks after birth. In the *Listening to Mothers II* and *Listening to Mothers II Postpartum* surveys, we wanted to better understand women's use of health services after birth, the degree to which they experienced a broad range of possible health problems and the persistence of those that were experienced. Mothers also had an opportunity to describe how health problems impacted their daily life, their pattern of weight gain and loss, and aspects of their emotional welfare — including experience with symptoms of depression and trauma. Combined survey results enabled us to describe women's postpartum experiences for up to 18 months after their 2005 births in the context of their demographic characteristics, childbirth experiences, and preferences and decision making.

Postpartum Office Visits

Almost all (94%) women had at least one office visit with their maternity caregiver between 3 and 8 weeks after the birth of their child. Almost half (48%) had one office visit, approximately one out of three (30%) had two visits, and one out of six (16%) had three or more visits (*LTM II*). One in sixteen mothers (6%) reported not having a visit, and we asked those mothers the reason for not having a visit. The largest proportion of those mothers (35%) responded that "I felt fine & didn't need to go," followed by "too hard to get to office" (14%) and "didn't have insurance" (10%), with the remainder citing "other." The mothers reported traveling an average of 10 miles each way for their regular medical visits. This compares to an average of 12 miles for maternity care office visits and 14 miles to the place they gave birth. There was some regional variation with mothers from the South traveling the farthest for maternity care office visits on average (12.7 miles) while those in Western states reported the least average distance (6.8 miles).

Regular Medical Provider

Most mothers relied on an obstetrician for their prenatal care (79%) and as their birth attendant (79%) (*LTM II*). We asked mothers who was their medical provider after they completed maternity care, and 47% indicated it was their family doctor, 21% continued to rely on an obstetrician/gynecologist, 11% reported using an internal medicine doctor, and 11% stated they had no regular medical provider. The remaining responses were divided among midwives, clinics, nurse practitioners and physician assistants.

We also asked mothers how many visits they had with their regular provider since they had given birth, and the overall mean was 3.3 visits. The mean understandably varied widely by time since birth, with those who had given birth less than 1 year earlier having on average 2.7 visits and those who had given birth more than 1 year earlier having an average of 3.7 visits.

Burden of Health Concerns After Birth

The *Listening to Mothers II* survey asked women about specific aspects of their health following the birth of their child. They were asked whether they had experienced any of a list of 11 postpartum health concerns as new problems (as opposed to continuing chronic difficulties) within the first two months after birth. Mothers who did experience the condition as a problem were asked whether they were still experiencing the problem at the time of the survey. In *LTM II/PP*, we expanded the list to include an additional 15 items that were not initially included due to space limitations, and we asked whether any of the 26 conditions that were troubling in the first two months after birth continued to be a problem at the time of that survey (Table 1).

Problems in First Two Months after Birth Specific to Vaginal Births

Almost half (48% overall; 15% major) of mothers with a vaginal birth cited a painful perineum as a problem in the first two months after birth. Perineal pain as a major problem was strongly related to whether a mother experienced an episiotomy (27%) or did not (11%) ($p < .01$). About 1 in 20 (5%) cited a problem with perineal infection, with only 1% saying it was a major problem.

Problems in First Two Months after Birth Specific to Cesarean Section Births

The problem cited by the greatest proportion of women was among those women who had experienced a cesarean section: eight out of ten women with cesareans (79%) considered pain at the site of the incision to have been a problem in the first two months after birth, with one-third (33%) citing it as a major problem. One in five (19%) reported an infection associated with her cesarean. More than one-half of the mothers with a cesarean reported a problem with itching (61% overall; 24% major) or numbness (57% overall; 16% major) at the site of the cesarean incision in the first two months.

General Problems in First Two Months after Birth

Problems that might affect mothers regardless of method of birth and cited by at least one-half of the respondents were physical exhaustion (62% overall; 24% major), sleep loss (61%; 29% major), sore nipples/breast tenderness (59%; 19% major), feeling stressed (58%; 23% major), and weight control (50%; 23% major). More than two in five mothers cited lack of sexual desire (43%), and one in three cited as problems feelings of depression (37%), backache (36%), painful intercourse (32% overall; 30% without episiotomy and 44% with episiotomy, $p < .01$), and breastfeeding problems other than tenderness or infection (30%). About one in four women identified bowel problems (29% overall; 28% in vaginal and 31% in cesarean births), heavy bleeding (28% overall; 31% cesarean and 28% vaginal), frequent headaches (26% overall; 24% vaginal and 29% cesarean), and hemorrhoids (26% overall; 29% vaginal and 21% cesarean). In the cases of bowel problems, bleeding, headaches and hemorrhoids, the differences by method of delivery were not statistically significant. There were statistically significant differences in reported urinary problems in the first two months (24% overall; 29% in vaginal and 17% in cesarean births, $p < .01$).

Persistence of Problems

Many initial health problems abate in the weeks and months after birth. To understand the extent to which these concerns continued to be problems for the mothers over a longer period, we asked if a problem cited as a difficulty in the first two months, “was still a problem now?” at the time of both the *Listening to Mothers II* and *Listening to Mothers II*

“Having the episiotomy (was the worst thing about my birth experience). It really made healing a lot more difficult.”

“The most challenging thing was remembering to let myself recover from the c-section. I kept wanting to jump right back in and do everything I did before, but if I did that, I would be in agony. It was hard to stay resting when I had children that needed me.”

“For two months our baby had colic and would wake up from what seemed like internal disturbances. It would take 45 minutes to get her to sleep and then she would wake up after 15 minutes. It was hard on our other 2 kids or, at least, I felt like I was ignoring them.”

“I was too tired to maintain my relationship with my partner. I was also too tired to clean or do any sort of housework. I felt very lonely and isolated.”

Table 1. Health problems in first two months and at six or more months after birth

Data item	In first two months			Problem persisted to at least 6 months*
	Major new problem	Minor new problem	Major or minor new problem*	
Cesarean only LTM II n=496				
Cesarean incision site pain	33%	45%	79%	18%
Cesarean incision site infection	8%	11%	19%	1%
Cesarean only LTM II/PP n=274				
Itching at cesarean incision site	24%	37%	61%	27%
Numbness at cesarean incision site	16%	41%	57%	31%
Vaginal only LTM II n=1077				
Painful perineum	15%	33%	48%	2%
Infection from cut/torn perineum	1%	4%	5%	1%
All LTM II n=1573				
Physical exhaustion	24%	38%	62%	25%
Sore nipples/breast tenderness	19%	39%	59%	4%
Painful intercourse	12%	20%	32%	10%
Other breastfeeding problems	14%	15%	30%	
Bowel problems	9%	20%	29%	6%
Urinary problems	7%	17%	24%	11%
Breast infection	3%	5%	9%	-
All LTM II/PP n=903				
Sleep loss	29%	32%	61%	34%
Feeling stressed	23%	35%	58%	43%
Weight control	23%	27%	50%	40%
Lack of sexual desire	19%	24%	43%	26%
Feelings of depression	13%	24%	37%	17%
Backache	11%	25%	36%	24%
Heavy bleeding	9%	19%	28%	5%
Frequent headaches	8%	18%	26%	19%
Hemorrhoids	4%	22%	26%	9%
High blood pressure	4%	5%	9%	5%
Blood clots	2%	6%	8%	1%
Gall bladder problems	3%	2%	5%	2%
Kidney problems	1%	2%	3%	2%

*Asked only of mothers who reported initial problem. Percent is based on entire population of mothers (e.g., 18% of all mothers who had a cesarean reported experiencing pain for at least 6 months)

Sources: LTM II and LTM II/PP

Postpartum surveys. All postpartum survey respondents had given birth at least six months earlier, which was not the case for LTM II since LTM II included any mother who gave birth in 2005 in the sample drawn in January-February 2006. To make the results comparable to responses from LTM II, the results presented involve responses from mothers reflecting the period from six to twelve months after birth. The proportion of women who reported that specific problems persisted to six months or longer appears in the final column of Table 1.

“He was gaining lots of weight very fast, and since I was not healed completely it was hard to carry him and not feel pain in my back and my c-section area.”

“I felt sick all the time, I was exhausted, I NEVER got enough sleep.”

“Something that I’m still dealing with now is the lack of sleep. I go to sleep tired, I wake up tired. There is no real rest in between. People say to rest when the baby rests, but that’s the time you’re catching up to what you need to do. The lack of sleep has left me feeling frustrated at times and doubting if I should have another child. I don’t know if I can go through this again. Being pregnant was beautiful and it was a great experience but having to start all over again is something I’m not ready for in the near future.”

At six or more months after birth, about two in five mothers (43%) indicated they were still feeling stressed or had problems with weight control (40%) followed by continuing problems with sleep loss (34%), lack of sexual desire (26%) and backache (24%). Among those mothers who had a cesarean, 29% reported continuing numbness, and 21% cited continued itchiness at the incision site. Whereas 18% of mothers who had a cesarean reported pain at the site of the incision at six months or beyond, only 2% of women with a vaginal birth reported continued problems with perineal pain.

Rehospitalization

We asked mothers if, since the birth, they had for any reason returned to the hospital at least overnight, and 7% replied that they had. We asked the reason for their return, and the most common response was gall bladder problems or gall bladder removal, with 41% of those mothers who were rehospitalized (3% of entire sample) indicating that was the reason for the hospital stay. The remaining responses were scattered among a wide range of categories led by fever or infection (8% of those hospitalized) and vaginal bleeding (2%). Rehospitalization rates did not vary by method of delivery.

Pain Interfering with Routine Activities

We asked mothers (*LTM II*) about the degree to which pain interfered with their everyday activities in the first two months after birth, with five response choices ranging from “not at all” to “extremely.” The results are presented in Table 2. Seven in ten (70%) mothers said that pain did interfere at least “a little bit” in their routine activities in the first two months, with 14% indicating that pain interfered either “quite a bit” (10%) or “extremely” (4%). These findings varied widely depending on type of birth, with 22% of mothers with a cesarean describing at least quite a bit of interference with routine activities compared to 10% of mothers with a vaginal birth ($p < .01$). Experienced mothers who had a vaginal birth with an episiotomy were also much more likely to report pain interfered with their routine activities (15%) compared to those who did not have an episiotomy (6%) ($p < .01$).

Table 2. Impact of pain on routine activities in first two months after birth, by method of birth

In the first two months after birth, how much did pain interfere with your routine activities?			
	Vaginal <i>n</i> =1076	Cesarean* <i>n</i> =496	All <i>n</i> =1573
Extremely	3%	6%	4%
Quite a bit	8%	16%	10%
Moderately	17%	22%	19%
A little bit	38%	36%	37%
Not at all	34%	20%	30%

* $p < .01$ for difference between mothers by method of birth

Source: *LTM II*

Postpartum Health and Caring for Baby

Mothers were asked to rate if physical or emotional problems interfered with their ability to take care of their baby in the first two months after giving birth, with five responses ranging from “not at all” to “some,” “a fair amount,” “quite a bit,” and “a great deal.” About one-third of mothers reported that during the first two months their postpartum physical health (33%) or emotional health (30%) interfered at least “some” with their ability to care for their

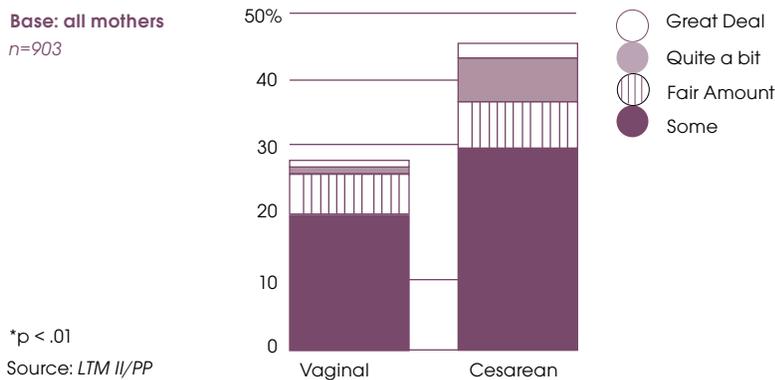
“A week after my baby was born, I had to go back into the hospital for 5 days due to heart failure. It was very difficult for me to have to spend this much time away from my new baby. After I got out of the hospital, it took a couple more months before I felt that my health was better. By that time I had to go back to work.”

“Due to the fact that I had a cesarean section, I had a lot more physical recovery than I had planned on. I was unable to lift things (only my baby), which even made breastfeeding hard. I had to rely on other family members for help as well to cook and clean for me. I was under a lot of pain from the surgery and even had an infection in my incision site which brought me back to the ER for an antibiotic drip I.V. I also suffered from depression due to the change in hormones, which was also a challenge for me to overcome on top of all of the physical problems I was having.”

“I am not with the baby's father and lots of stress became a problem with that and he is definitely a handful.”

baby, with 44% of all mothers reporting physical and/or emotional impairment. Only 10% in each case reported these problems interfered at least a “fair amount.” The responses on physical health did vary widely by method of birth, with mothers who experienced a cesarean far more likely (45% to 27%) to report physical problems interfered with their baby care ($p < .01$) (Figure 1). The responses on emotional well-being varied by marital status, with 14% of mothers unmarried with no partner reporting emotional problems interfered “quite a bit” or “a great deal” compared to 5% among mothers who were unmarried with a partner and 2% for married mothers ($p < .01$).

Figure 1. Interference of mother’s physical health with ability to care for baby in first two months after birth, by method of birth*



Feelings after Birth

Mothers were asked whether particular words accurately described their feelings in the first two months after birth, and the results are presented in Table 3. The most uniform responses were related to fatigue, with 93% of mothers describing themselves as “tired” and only 10% “rested.” Other feelings described by at least half of the mothers were “supported” (76%) “messy” (60%) and “confident” (54%). About two in five mothers reported feeling “unsure” (45%) or “isolated” (39%).

Table 3. Mothers’ feelings in the first two months after birth

Thinking back to the first two months after you gave birth, did you feel...?

	First-time Mothers n=352	Experienced Mothers n=551	All Mothers n=903
Tired	95%	91%	93%
Supported	77%	75%	76%
Messy	64%	58%	60%
Confident*	40%	62%	54%
Unsure*	68%	31%	45%
Isolated	43%	37%	39%
Organized	19%	23%	21%
Rested	7%	12%	10%

*p < .01 for difference between first-time and experienced mothers

Source: LTM II/PP

Of interest are some variations in these responses. While first-time and experienced mothers did not vary in their reports on six of the items, they did differ substantially on two. While not feeling very different about such matters as being “organized,” “messy,” “iso-

“I had a 4th degree tear, which means that my perineum tore all the way through to my anus. It was extremely painful even with the pain medication given to me during the birth, and I had to take a lot of pain medication pills at home for a long time afterwards. It was so painful that I am seriously considering adopting a second child instead of giving birth.”

“My baby was very big at birth, 9lbs 9 oz, so I feel like I can accomplish anything after pushing her out.”

“It was overwhelming. I really didn’t know what I was signing up for! Many of the things on this list I experienced intensely the first few months after she was born, but they are going away now. I felt out of control of my body during childbirth and during breastfeeding.”

“(My biggest concern was) SLEEP!! Getting enough quality sleep with all of the other household chores. Took the baby’s nap time to do other things. Felt very unorganized and discombobulated.”

lated,” or “tired,” experienced mothers were much more likely to report feeling “confident” (62% to 40%) ($p < .01$) and less likely to feel “unsure” (31% to 68%) ($p < .01$). Some differences that were not statistically different were also of interest – mothers who were unmarried without a partner were not much less likely to report feeling “supported” (67%) than those unmarried mothers with a partner (74%) or married (76%) ($p = .123$). Also, these reports of feelings generally did not vary by method of birth.

Maintaining Wellness

In *LTM II/PP*, we asked mothers to rate how they were doing in the two weeks prior to the survey on several basic health promotion behaviors, and the results are presented in Table 4. Mothers reported the greatest concern with getting enough exercise, with 49% thinking they were doing “not at all well” and only 16% rating themselves as doing “very well” or “extremely well.” Mothers rated themselves most positively in terms of managing stress, with 25% doing at least very well. Eating a healthy diet and getting enough sleep were rated in between the others, with about half of the mothers rating themselves as doing at least fairly well. Most of these dimensions were strongly related to mothers’ self-report of both their physical and emotional health. They were also related to mothers’ reports of their emotional health in *LTM II*.

Table 4. Maintaining wellness

Thinking about the past two weeks, how well do you think you are doing with each of the following?

Base: all mothers <i>n</i> =903	Not at all well	Somewhat well	Fairly well	Very well	Extremely well
Getting enough exercise	49%	20%	16%	12%	4%
Getting enough sleep	22%	31%	29%	14%	5%
Eating a healthy diet	23%	27%	29%	16%	5%
Managing stress	14%	27%	34%	17%	8%

Source: *LTM II/PP*

Mothers’ Postpartum Weight Loss

We asked mothers to report their weight at three different time periods in *LTM II*: at the time they became pregnant, at the time of birth, and at the time of the survey. Six months later, in *LTM II/PP*, we again asked about their current weight. Combining the two surveys, we can chart the process of average postpartum weight loss for as long as 18 months (mothers who reported they had become pregnant again were excluded). The results are presented in Figure 2, starting with mothers’ reports of gaining, on average, almost 30 pounds during their pregnancy.

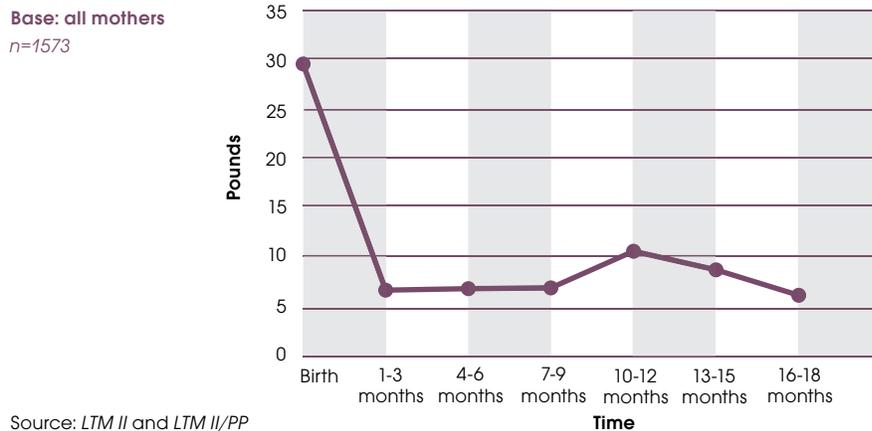
In the first three months after birth, mothers reported losing an average of twenty-four pounds for an overall net weight gain since the time of conception of six pounds. From that point on, mothers’ average reported weight varied somewhat but within a range of a net weight gain of between six and ten pounds.

“The eerie silence and disorientation that occurred after my son’s birth – my memory of it is fuzzy, and may be inaccurate, but the strong drugs made the experience very unpleasant.”

“The most difficult was balancing my physical life with my emotional rollercoaster. Too many ups and downs kept me from keeping control in a specific area of my life, diet and exercise. I managed to make bottles, dinner, take the kids out, entertain them. I also had time to feed them properly. I didn’t have time to workout for myself... I satisfied every craving with a attitude that I deserve to eat so I will. I am still struggling with that attitude.”

“I was always tired and felt like I would never have enough down time. I was constantly criticizing myself for my stretch marks and weight gain.”

Figure 2. Average maternal weight gain since conception, at birth through 18 months postpartum



Postpartum Depression

We asked mothers who participated in the *Listening to Mothers II* survey to answer the seven-question short version of the Postpartum Depression Screening Scale (PDSS) (for details, see Appendix A. Methodology). The questions asked mothers about their feelings during the two weeks prior to the survey, and it is important to note that respondents in *LTM II* had given birth anywhere from a few weeks to 12 months earlier. In clinical settings, the seven-question instrument is used as an initial screening tool, and mothers who score 14 or higher are then encouraged to complete the more comprehensive 35-question version of PDSS. This cut-off point is intended to be inclusive of minor and major depressive symptoms.

Almost two out of three (63%) mothers scored 14 or above on the PDSS short version, indicating that this considerable proportion was likely to be suffering some degree of depressive symptoms in the two weeks before the survey. This varied very slightly by time since birth with mothers who had given birth zero to three months or four to six months both scoring 14 or higher 67% of the time, a figure that drops to 62% for seven to nine months postpartum and 59% for ten to twelve months postpartum.

The PDSS short version includes questions about each of seven dimensions that have been found to be concerns in women experiencing depression after childbirth (Table 5). Experiences of shifting emotions and sleep disturbance (even when baby was sleeping) were most common. Quite a few mothers also reported anxiety about their baby, loss of a sense of self, and/or mental confusion or guilt. A smaller (5%) but very troubling proportion of the mothers reported having suicidal thoughts in the two-week period prior to taking the survey.

Women ... should be made aware of what emotions will come upon you after you deliver, and that it's something a lot of women go through.... Nobody told me about this with my first child until after the fact. I think we really need to touch base with all ... mummies to see how they are feeling mentally. Mothering is an overwhelming job, especially if you're in it alone (or if your husband works all day and you are on your own).

I had severe postpartum depression. My husband was working a lot and was not around to help out. Since I have other children, as soon as I walked in the door my life started back up. I had to clean, cook, take care of kids, do laundry and do appointments, get kids ready for school and try and recover. It was really hard and I think it contributed to the depression.

Table 5. Mothers' experience of dimensions of depression in two weeks before survey*

Base: all mothers <i>n</i> =1573	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Had shifting emotions	26%	15%	10%	27%	21%
Experienced sleep disturbance	32%	19%	6%	25%	17%
Felt anxious about baby	29%	23%	15%	21%	11%
Experienced loss of sense of self	40%	21%	11%	16%	11%
Had mental confusion	43%	19%	12%	17%	9%
Felt guilty about mothering behavior	44%	24%	11%	12%	8%
Had suicidal thoughts	78%	11%	5%	3%	2%

*Results of short version of Postpartum Depression Screening Scale (PDSS), which was licensed and used in survey; contact Western Psychological Services for exact language of this proprietary screening tool
Source: *LTM II*

Follow-Up Mental Health Status

We used two items from the Patient Health Questionnaire 9 to ask mothers about their emotional state in the two weeks prior to the *LTM II/PP* survey (Table 6) (for details, see Appendix A. Methodology). About one in three mothers reported experiencing a problem for at least several days in the past two weeks in terms of “feeling down, depressed or hopeless” (36%) or having “little interest or pleasure in doing things” (34%). In each case, 6% reported being bothered by these feelings nearly every day. This finding was strongly related to the other mental health measures. For example, 21% of mothers who scored in the higher range on the Postpartum Depression Scoring System (PDSS) six months earlier reporting they felt “down or depressed” in the current survey, while only 5% who scored in the lower range in the earlier survey reported this problem in the follow-up survey ($p < .01$). Mothers' responses were also related to some demographic factors, with mothers with three or more children, those who were unemployed and those on Medicaid in the groups most likely to report problems. Reports of these problems were unrelated to race/ethnicity.

Table 6. Mothers' reports of recent symptoms indicative of depression

During the past two weeks, how often have you been bothered by the following?

Base: all mothers <i>n</i> =903	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things	66%	20%	8%	6%
Feeling down, depressed or hopeless	64%	22%	9%	6%

Source: *LTM II/PP*

Traumatic Birth

To obtain the first national estimate of post-traumatic stress symptoms and disorder following childbirth, we asked mothers to respond to a series of questions that form the Post-Traumatic Stress Disorder Symptom Scale (PSS). PSS is a scale containing 17 items that assess the presence and severity of PTSD symptoms with relation to birth or other potential traumatic experiences (for details, see Appendix A. Methodology). Mothers were asked whether they experienced the symptoms “not at all” (0), “a little bit” (1), “somewhat” (2), or “very much” (3) in the past month with reference to their childbirth experience. The total severity score is the sum of the individual scores on the 17 symptoms. In all, 18% of the mothers appeared to be experiencing some PTSD symptoms, and 9% of the mothers

“Right on the dot at six o'clock at night I'd get depressed. And just a feeling of foreboding. It was awful. I'm a glass half full kind of girl ... to feel that despair was just yucky.”

“NOTHING (gives me a special sense of pride), I AM RIGHT NOW IN AN EMOTIONAL SLUMP.”

“I was forced against my will to stay in the hospital for 11 days, and I was forced against my will to have a c-section. No one listened to me and did everything the opposite of what I asked and wouldn't allow me to feed my child. The epidural they gave me didn't even kick in. They wouldn't let me have the curtain down. I was harassed and assaulted while in the hospital by hospital staff.”

appeared to meet all formal criteria for Post-Traumatic Stress Disorder.

A PSS score of at least 12 suggests the respondent is suffering from some PTSD symptoms. Overall, 18% of mothers scored 12 or higher on the scale. Black non-Hispanic mothers (26%) were more likely to report scores 12 or higher compared to white non-Hispanic (17%) or Hispanic (14%) mothers ($p < .01$). Mothers with higher levels of education, higher incomes, and with private insurance were less likely to report scores of 12 and above ($p < .01$). Mothers with an unplanned pregnancy (23%) were much more likely to report scores of 12 and higher than those with a planned pregnancy (14%) ($p < .01$). PTSD scores of 12 or more were not associated with maternal age, marital status, number of children, method of birth, or premature childbirth.

This PSS tool can be used to screen for individuals who meet all formal criteria for post-traumatic stress disorder, which include dimensions of reexperience, avoidance and arousal. Overall, 9% of *LTMII/PP* participants screened positive for meeting all criteria for PTSD. In clinical settings, such women would be referred to qualified professionals to determine whether PTSD is an accurate diagnosis. Women who had reported notable symptoms of depression six months earlier were much more likely to appear to meet all criteria for PTSD (13%, scoring 14 or higher on the PDSS depression screening tool) than women who did not previously report notable symptoms of depression (3%) ($p < .01$). There were also differences by age, with 16% of mothers younger than 25 screening positive for PTSD, as opposed to 3% of women 35 and older ($p < .01$), and by primary source of payment for maternity care, with 15% of Medicaid beneficiaries screening positive for PTSD, as opposed to 5% of those with private insurance.

Consulting a Professional about Emotional or Mental Well-Being

In the *Listening to Mothers II Postpartum* survey, we asked mothers if they had consulted a health care or mental health professional at any time since birth about their emotional or mental well-being, and 18% reported they had. Interestingly, mothers' responses were not strongly related to the amount of time since they gave birth, with at least 16% of mothers reporting such consultation regardless of time elapsed since giving birth.

The likelihood that a mother had discussed this topic with a professional was strongly related to the variety of mental health measures that were used in the surveys. For example, mothers who scored 14 or more on the PDSS depression tool were much more likely (26%) than those who did not (8%) to have had a consultation ($p < .01$). Also, 33% of the mothers who reported emotional problems interfering with their ability to care for their baby indicated they had a consultation compared to 12% who did not ($p < .01$). Mothers who scored 12 or higher on the PSS tool, indicating notable symptoms of post-traumatic stress, were far more likely to report a consult (42%) than those who did not (13%) ($p < .01$). However, there were no differences in consultation between mothers who did and did not appear to meet all criteria for a diagnosis of post-traumatic stress disorder. White non-Hispanic mothers (22%) were much more likely than black non-Hispanic (14%) or Hispanic mothers (7%) ($p < .01$) to report consulting a professional about their emotional or mental well-being. Of note, most women who showed signs of experiencing mental health challenges in the postpartum period had not consulted a professional about mental health challenges, including about three in four with notable symptoms of depression, about three in five with notable symptoms of post-traumatic stress, and about two in three who reported that emotional problems had interfered with their ability to care for their baby.

I was given an episiotomy after I told them I didn't want one. Then the doctor pulled on the umbilical cord til it broke from the placenta, and then there was fear of me bleeding to death. I asked the doctor to let the placenta deliver at its own time, but she was in a hurry, so she wanted it out as soon as the baby was delivered. I feel that everything we had talked about before the labor didn't matter. She did what was best for her, not me.

Being strapped down for the cesarean procedure ... is a horrible feeling that left me feeling vulnerable and totally helpless.

I was pretty depressed after I had the baby. I never had images in my head of hurting her, but I had very graphic images of hurting myself. I finally talked to my doctor and was put on medication. It has helped a lot.

Part 2

Child Well-Being

Overall Rating of Child's Health

Child Hospitalization

Visits to the Child's Health Care Provider

Child's Health Care Provider

Family-Centered Behavior of Child's Health Care Provider

Sources of Parenting Information

Intention and Initiation of Breastfeeding

Exclusive Breastfeeding Duration

Patterns of Feeding From 7 through 18 Months Postpartum

Reasons for Not Establishing Breastfeeding

Reasons for Discontinuing Breastfeeding

Satisfaction with Duration of Breastfeeding

Pacifier Use

Circumcision

Co-Sleeping

Experiences in the prenatal period, around the time of birth and in the initial weeks and months of a baby's life establish a foundation for lifelong health and well-being. Combined results from the *Listening to Mothers II* and *Listening to Mothers II Postpartum* surveys enabled us to describe many dimensions of early life experiences of babies born in U.S. hospitals in 2005 for up to 18 months after birth. This section describes the babies' experience with use of health services, their mothers' assessment of the babies' health status and of experiences with child health services, the mothers' use of the Internet and other sources for information about parenting and child care, the babies' feeding experiences, pacifier use and co-sleeping patterns in the context of demographic characteristics. Due to broad international consensus about the importance of exclusive breastfeeding during the first six months of life and continued breastfeeding to at least the first birthday, we were especially interested in breastfeeding patterns, including the experiences of women who planned at the end of pregnancy to exclusively breastfeed and their ability to establish exclusive breastfeeding, duration of breastfeeding, and women's views about breastfeeding experiences.

Overall Rating of Child's Health

We asked mothers in the *Listening to Mothers II* survey to rate their child's current health. The mothers were generally very positive, with 97% saying their child's health was excellent (75%) or good (22%). Six months later they were still extraordinarily positive when responding to the *Listening to Mothers II Postpartum* survey, with 78% rating their child's health excellent, 19% good and 3% fair. The current rating varied somewhat by race/ethnicity with black non-Hispanic mothers less likely to rate their child's health as excellent (67%) compared to white non-Hispanic (78%) or Hispanic (86%) mothers ($p < .01$).

"I was glad she was healthy. She was doing exceptionally well according to her doctor."

Child Hospitalization

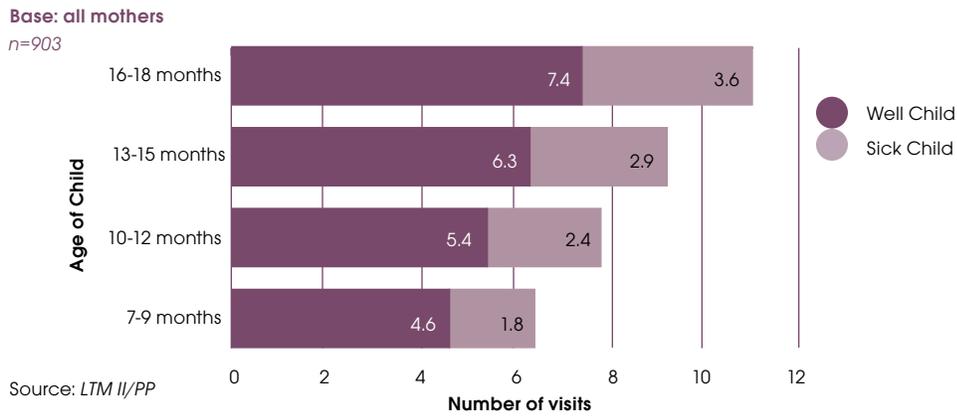
A total of 7% of mothers reported that their child had to return to the hospital for at least an overnight stay. This figure varied little by background characteristics (e.g., race/ethnicity) but did vary by health measures such as rating of the child's health (14% hospitalization rate for infants with health rated "fair" or "poor," compared to 7% or those rated excellent ($p < .01$)) and number of sick-child visits (9.5 sick-child visits for those with a hospitalization; 3.1 visits for those without one ($p < .01$)). The reasons given by mothers for infant hospitalizations varied widely, with no single answer cited by at least one-third of mothers. Breathing problems, fever or infections, digestive problems and jaundice were most often cited.

"The hardest part was that he was sick and we could not figure out what was wrong. So we had to take him to a lot of specialists until they discovered the problem. During this time he would often cry 18 or so hours a day. This was very emotional and hard on the whole family."

Visits to the Child's Health Care Provider

Mothers reported making about six well-child and three sick-child visits on average (Figure 3). This figure was obviously strongly related to the time since birth, with mothers who had given birth 7 to 12 months earlier averaging 7.9 total visits and those giving birth 13 to 18 months earlier averaging 10.7 total visits. There were some differences among subgroups, notably that among mothers who had older (more than 12 months) children, black non-Hispanic mothers reported more sick-child visits (5.3) than white (3.4) or Hispanic (3.2) mothers. Not surprisingly, the number of sick-child visits was strongly related to mothers' ratings of their children's health, with those rating their child's health excellent reporting an average of 2.4 visits compared to 9.2 sick child visits in those cases where mothers reported "fair" child health.

Figure 3. Number of well-child and sick-child visits, by age of child



Child's Health Care Provider

Just as obstetricians were the predominant providers of maternal health services, pediatricians were most often (75%) named by mothers as their child's primary care provider. Family doctors (21%), nurse-practitioners (2%) and physician assistants (2%) accounted for the remainder. Reliance on a pediatrician varied somewhat, being more likely among black non-Hispanic mothers (85%) compared to white non-Hispanic (73%) or Hispanic (75%) ($p < .01$) mothers, and more likely among mothers whose birth was paid for by a private insurer (80%) compared to those on Medicaid (66%) ($p < .01$). Use of a family physician was greatest among mothers who had relied on a family physician for their prenatal care (79%).

Family-Centered Behavior of Child's Health Care Provider

We asked mothers to describe the behavior of their child's health care provider during office visits relating to four aspects of family-centered care (Table 7) (for details about the source of these questions, see Appendix A. Methodology). Most mothers described providers positively, with their highest rating on the willingness of their provider to take time to understand the specific needs of their child (2% "never"; 55% "always") and lowest on providers taking time to find out how they are feeling as a parent (13% "never"; 37% "always"). These findings did not vary by whether the provider was a pediatrician or a

“Her well visits were great and always made me feel great!”

Table 7. Family-centered behavior of child's health care provider

During office visits with your child's health care provider(s), how often does the provider ...?

Base: all mothers

n=903

	Never	Only on first visit	Sometimes	Usually	Always
Take time to understand the specific needs of your child	2%	2%	14%	27%	55%
Respect that you are the expert on your child	6%	2%	14%	34%	44%
Take time to understand you and your family and how you prefer to raise your child	13%	3%	18%	27%	40%
Take time to find out how you are feeling as a parent	13%	7%	19%	25%	37%

Source: LTM II/PP

family doctor.

Sources of Parenting Information

We asked mothers about their sources of information on parenting, and we found distinct differences between first-time and experienced mothers (Table 8). Mothers who had given birth before relied primarily on their own experience (50% ranked first; 14% second) followed by their child’s health care provider (17% ranked first; 19% second) their own parents or their partner’s parents (9% first; 19% second), the Internet (7% first; 7% second), and their own education/experience from a related field (6% first; 4% second). First-time mothers drew on a wider array of sources, though in the same general order, led by their health care providers (31% ranked first; 16% second), followed by their parents or their partner’s parents (25% first; 23% second), the Internet (11% first; 11% second), their own education/experience in a related field (12% first; 5% second), and books (7% first; 9% second).

“I read a lot of information on child development and talk to a lot of other moms on their experiences and thoughts/beliefs so that I can make informed decisions.”

“The health care provider, magazines and internet information helped me a lot!”

Table 8. Information sources about children and parenting

What are your most important and second most important sources for information about children and parenting?

Base: all mothers n=903	First-time mothers n=352		Experienced mothers n=551	
	Rank 1	Rank 2	Rank 1	Rank 2
My own experiences with my other child(ren)	n.a.	n.a.	50%	14%
My child’s health care provider	31%	16%	17%	19%
My parents or my partner’s parents	25%	23%	9%	19%
My own education/experience in a related field	12%	5%	6%	4%
Internet	11%	11%	7%	7%
Books	7%	9%	1%	7%
Friends	4%	9%	1%	9%
Parenting magazines	4%	7%	4%	8%
Child care providers	2%	3%	2%	1%
Nurses who give advice by telephone	1%	-	-	4%
Other relatives	1%	5%	1%	5%
Other mass media (TV, radio, newspapers, etc.)	1%	2%	1%	-
Parenting class	1%	2%	-	1%

“My biggest concern is that I am doing the appropriate activities to help my son learn and grow at an appropriate pace.”

Source: LTM II/PP

Mothers reported spending an average of about 6 hours in the past month on the Internet looking for information on parenting. These figures were slightly higher for first-time mothers (6.6 hours) compared to experienced mothers (5.0 hours). Those first-time mothers who rated the Internet as their first or second ranked source of information reported spending an average of 12.8 hours in the past month online for information or help on parenting compared to 8.6 hours for experienced mothers who ranked the Internet as their first or second source.

“I refused pacifiers for my baby, but every time they brought her in she had one in the bassinet. I reminded the nurses a few times, but gave up.... I also refused formula, but they insisted that because she was large, nearly 10 pounds, that it was necessary even though I was exclusively breastfeeding.... I felt undermined in my decision to breastfeed from the start.”

Intention and Initiation of Breastfeeding

As women neared the end of their pregnancies, three out of five (61%) hoped to breastfeed exclusively, while one out of five (19%) planned to use a combination of breastfeeding and formula, and an equal proportion (20%) planned to use formula only (LTM II). A week after giving birth, 51% of all mothers were breastfeeding exclusively, 21% combined breastmilk and formula, and 27% fed their babies formula alone.

Most women (63%), regardless of whether they intended to breastfeed or not, reported that the hospital staff, on the whole, encouraged breastfeeding, but a third (34%) perceived that the staff expressed no preference for either breastfeeding or formula feeding, and a tiny proportion (3%) reported that the staff encouraged formula feeding. Of those mothers who intended to exclusively breastfeed, fully 66% were given free formula samples or offers, 44% of their babies were given pacifiers by staff and more than a third (38%) were given formula or water to supplement their breast milk during the hospital stay.

There were some notable differences by mode of birth in mothers' intention to exclusively breastfeed as they came to the end of their pregnancies and in their fulfillment of this intention one week after the birth (Table 9). Women who gave birth vaginally experienced a drop-off of 7% between their intention to exclusively breastfeed (63%) and their fulfillment of this intention a week after birth (56%). In comparison, women with a primary, or initial, cesarean section experienced a much larger drop-off of 23% between their intention to exclusively breastfeed (65%) and fulfillment of this intention (42%) ($p < .01$). Women with repeat cesareans were less likely to intend to exclusively breastfeed (52%) than women with vaginal births (63%) or with primary cesareans (65%) ($p < .01$). Mothers with vaginal births were much more likely to be exclusively breastfeeding a week after the birth (56%) than both women with a primary cesarean (42%) and women with a repeat cesarean (45%) ($p < .01$).

Table 9. Intention to exclusively breastfeed and fulfillment of that intention, by mode of birth

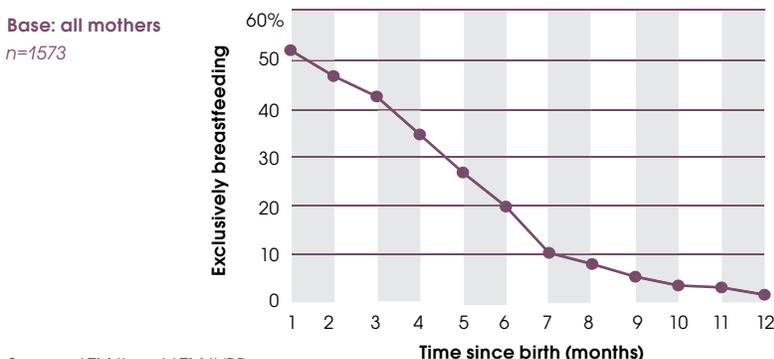
Base: all mothers <i>n</i> =1573	Intended to exclusively breastfeed	Exclusively breastfed one week after birth
Vaginal birth	63%	56%
Primary cesarean section	65%	42%
Repeat cesarean section	52%	45%

Source: LTM II

Exclusive Breastfeeding Duration

Figure 4 combines data from LTM II and LTM II/PP to present the pattern of duration of exclusive breastfeeding over a twelve-month period with rates ranging from more than 50% in the first month to 43% at the end of three months, 20% at six months, 6% at nine months and only 2% at one year. These figures were obtained by combining data from two questions: mothers who were still exclusively breastfeeding for a given period were added to those who were no longer exclusively breastfeeding, but reported having done so for at least that period of time.

Figure 4. Rate of exclusive breastfeeding from birth through 12 months



I was asked by one of the nursery nurses to give my daughter formula instead of breastfeeding her. I told her that it was my choice to breastfeed and that I was doing what was best for my child. She then became really pushy saying that I wasn't going to be allowed to leave the hospital with my daughter if she didn't pick up some weight before I was discharged. I could understand her being pushy if the baby wasn't latching on or I was having problems, but I didn't have either... After that incident I didn't trust her with my baby, so each time my daughter left the room to be weighed I made sure that my husband went along as well.

Due to surgery, we had to use bottles and formula.

Patterns of Feeding from 7 through 18 Months Postpartum

Table 10 presents a different breakdown, looking at mothers by three-month periods, and illustrates the changing pattern of infant and toddler feeding across the postpartum period. Almost one in five mothers (19%) reported they were still feeding their baby some breast milk at the time they completed the survey (Table 10). This was related to the time since they gave birth, with 26% of mothers with babies 7 to 12 months old still giving their babies at least some breast milk compared to 11% of mothers with babies 13 to 18 months old. Formula use was more common at 7 to 9 months and had a more pronounced drop-off, with only 10% of mothers with babies at least a year old still using formula compared to 71% among those with 7 to 12 month olds. Most all the mothers in the survey (98%) reported giving their babies at least some baby food or table food after 6 months. The likelihood of a mother still providing her baby with some breast milk for at least one year was largely unrelated to demographic characteristics with one exception. Hispanic mothers were more likely to report continuing at least some breastfeeding after one year (24%) compared to black non-Hispanic (15%) or white non-Hispanic (7%) mothers ($p < .01$).

Table 10. Feeding patterns from 7 through 18 months postpartum

Are you currently feeding your child who was born in 2005 any...?

	7-9 months n=150	10-12 months n=259	13-15 months n=282	16-18 months n=210	Total n=901
Breast milk	33%	22%	11%	10%	18%
Formula	72%	70%	12%	8%	38%
Table food	97%	100%	97%	97%	98%

Source: LTM II/PP

Reasons for Not Establishing Breastfeeding

We asked mothers in LTM II if they intended to breastfeed as they approached the end of their pregnancy and if they were doing so a week after giving birth. About 1 mother in 10 (10%) reported that at one week she had not fulfilled her intention to breastfeed exclusively or in combination with formula feeding. In LTM II/PP, we asked those specific mothers their reasons for not breastfeeding. Mothers could check more than one answer and many did, with "formula more convenient" being most commonly cited (42%), followed closely by "too hard to get breastfeeding going" (38%) and "baby had difficulty nursing" (37%). Other commonly cited answers included, "I had to take medicine and didn't want my baby to get it" (24%), "I changed my mind" (18%), "I tried breastfeeding and didn't like it" (14%), "I didn't get enough support to get breastfeeding going" (13%), and "It was too hard with my own health challenges" (13%). Notably, no mother indicated she didn't fulfill her intention to breastfeed either exclusively or in combination with formula feeding because she was discouraged to do so by hospital staff, family or friends, though a handful (3%) indicated their partner's discouragement was a factor. Since we are only dealing with the relatively small subset of mothers who had not fulfilled their intention to breastfeed a week after the birth ($n=92$ in the postpartum survey), analysis of these results by subgroups was not feasible.

(I was especially proud about) breastfeeding for the first time. I did it from birth until 13 months. I didn't breastfeed with my first child. I didn't think I could do it. I did with my second and I stuck to it!

I know breastfeeding is the best type of milk for my baby and I didn't think I would be able to do it but I went above and beyond the expected time frame I had set for myself and as a result, I have a very healthy baby.

While at work, I must pump in a janitor closet. When I brought this up before I returned to work, the HR representative did not see this as a problem. I believe companies should provide clean, comfortable places for women who choose to breastfeed.

Reasons for Discontinuing Breastfeeding

We asked a similar question of mothers who were breastfeeding, either exclusively or in combination with formula feeding at one week but were no longer doing so at the time of *LTM II/PP*. The answers were distributed more widely, led by “fed my baby breast milk as long as I intended to” (26%), “formula more convenient” (25%), “trouble getting started” (24%), “baby stopped nursing – baby’s decision” (19%), and “went back to job/school” (15%).

“Going back to work full time was the most challenging. I didn’t like putting her in the care of strangers. I didn’t like that I wasn’t able to nurse her. My milk production went way down, and I had to stop breastfeeding before I was ready.”

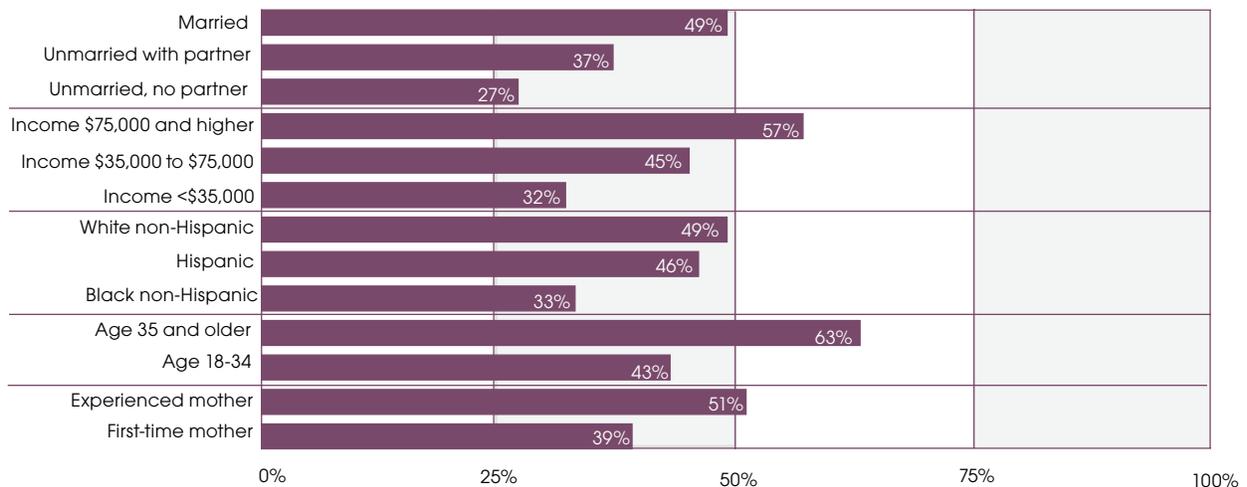
Satisfaction with Duration of Breastfeeding

We asked all mothers who reported breastfeeding at one week, but were not currently breastfeeding at the time they participated in the *Listening to Mothers II Postpartum* survey (n=491) if they had breastfed as long as they wanted. Less than half (46%) stated that they had. The likelihood that a mother breastfed as long as she wanted was strongly related to her background, as indicated in Figure 5, with wealthier, older, and married mothers more likely to report they were satisfied (p < .01). Black non-Hispanic mothers (33%), mothers reporting a family income of less than \$35,000 (32%) and unmarried mothers with no partner (27%) were most likely to report they were unable to breastfeed as long as they would have liked (p < .01).

“(It was a special accomplishment that we) were were successful in our breastfeeding experience together and that I was successfully able to pump milk while I was at work to make sure he had enough at day care each day without having to supplement with formula.”

Figure 5. Proportion of mothers reporting they breastfed as long as they wanted

Base: breastfed at one week and was not breastfeeding at time of *LTM II/PP* survey
n=491



Source: *LTM II/PP*

Pacifier Use

Slightly less than half of mothers (48%) reported that their baby had used a pacifier on a regular basis. Among these mothers, the average amount of time the baby used the pacifier was 11.2 months for babies 13 or more months old. Almost three out of four (72%) of these mothers reported their babies were still using the pacifier at the time of the *Listening to Mothers II Postpartum* survey. Among these babies at least 13 months old and

still using a pacifier, the average duration of useage was 13.6 months.

Circumcision

Almost eight in ten mothers who gave birth to a son reported that he had been circumcised. The use of circumcision varied widely by race/ethnicity, with first-time Hispanic mothers far less likely (34%) than white (88%) or black (89%) non-Hispanic first-time mothers to have their son circumcised ($p < .01$). The same rates held for experienced white and black mothers, but 63% of Hispanic mothers with at least one other child had their sons circumcised ($p < .01$).

Co-Sleeping

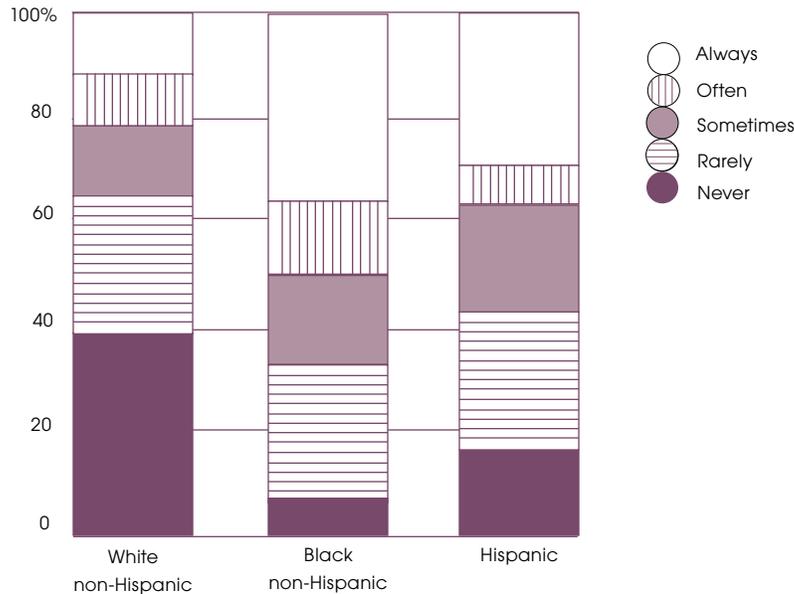
Almost one in five mothers (18%) reported that their baby always slept in the same bed with them in the first six months after birth, and an additional one-fourth stated the baby often (10%) or sometimes (16%) did. This was related to the number of children a mother reported, with those having three or more children more likely to have a baby in their bed often or always (38%) compared to 24% for mothers with one or two children ($p < .01$). It was also strongly related to race/ethnicity (Figure 6), with black non-Hispanic mothers reporting co-sleeping often or always 50% of the time (36% always) compared to 36% for Hispanic mothers (30% always) and 21% for white non-Hispanic mothers (12% always) ($p < .01$).

Figure 6. Co-sleeping in first six months after birth, by race and ethnicity*

In the first six months, how often did your baby sleep in the same bed with you or anyone else?

Base: all mothers

n=903



* $p < .01$ for differences by race/ethnicity

Source: LTM II/PP

Part 3

Family and Relationships

Pregnancies and Births Subsequent to 2005 Birth

Hoped for Number of Children

Pregnancy Intention

Marital Status

Household Structure

Sharing Child Care with Husband or Partner

Types of Support from Husband or Partner

Types of Support from Others

Women and families with babies face unique challenges and responsibilities, and our combined *Listening to Mothers II* and *Listening to Mothers II Postpartum* surveys help us to better understand their circumstances in the United States. Nearly all other western industrial nations do a better job of providing various supports to new mothers and families, and we were eager to learn about the mothers' access to support from their husbands or partners and from others, as well as the relative involvement of the mothers and their husbands/partners in care of the babies who were born in 2005. This section also describes the mothers' experience with pregnancy subsequent to their births in 2005 and the extent to which the pregnancies were intended, the women's current and desired family size and current household composition, and changes in their marital or partner status in the interval between the two surveys. Part Four further contributes to understanding of circumstances of women and families in the postpartum period by reporting patterns and experiences of employment and use of child care services at this time.

Pregnancies and Births Subsequent to 2005 Birth

Almost one in eight (12%) mothers in our postpartum survey had become pregnant again since giving birth in 2005, with 5% of all mothers having given birth again and 7% pregnant while taking the postpartum survey. The likelihood of being pregnant or giving birth again since the initial survey was generally not strongly related to demographic characteristics of mothers with the exception of number of children in the household; those mothers with only one child (16%) or with 3 or more children (14%) at home were more likely than those with two children at home (7%) to have experienced another pregnancy since the initial survey ($p < .01$).

Hoped for Number of Children

Mothers in our survey said they would like to have, on average, three children with two (34%) and three (34%) the most common responses. Only 6% wanted a single child, while 17% indicated a desire for four, and 9% preferred five or more. These numbers may be higher than general fertility surveys since the mothers in our survey already have at least one child. When we stratified their answers by how many children they now had at home, we found that 85% of women with one child already at home wanted at least one more; of those with two children, 53% wanted at least one more; and among those who already had three or more children, 26% wanted at least one more child. In each case, the ideal most often mentioned was one more child than they currently had.

Pregnancy Intention

We asked mothers in *LTM II* if they had intended to get pregnant with the 2005 birth, and found 42% had experienced an unplanned pregnancy (34% wanted to become pregnant later; 8% never wanted to be pregnant). We asked the subset of mothers who had experienced another pregnancy if that pregnancy was planned, and 62% indicated the subsequent pregnancy was unplanned (55% wanted to become pregnant later; 7% never wanted to be pregnant again). Small numbers ($n=67$) limit subgroup analysis, but notably one-half (50%) of the mothers who reported having a more recent unplanned pregnancy had reported in the initial survey that the birth in 2005 was unplanned.

“My 2005 baby was to be our last. However, we found out when the baby was 4 months, I was pregnant again. It was unplanned and put a lot of strain on my marriage. My 2006 baby has since been born, so I am still recovering from that birth.”

Marital Status

We asked mothers if they were currently married, unmarried with a partner, or unmarried with no partner and, as in *LTM II*, most mothers (74%) reported being married and few (7%) were without a partner, while the remainder were unmarried with a partner (19%). There were some interesting differences when we compared mothers' earlier responses to this question to their response six months later. Virtually all mothers (99%) who reported being married in the initial survey were still married. Among mothers who had reported being unmarried with a partner, 21% were now married, and 9% reported not having a partner. Among those mothers reporting being unmarried with no partner in *LTM II*, one (3%) was now married and 19% had a partner.

The differences in marital status we found by race/ethnicity in *LTM II* were repeated in *LTM II/PP*, with white non-Hispanic mothers most likely to be married (86%) followed by Hispanic (76%) and black non-Hispanic (64%) mothers ($p < .01$). Black non-Hispanic mothers were more likely to be unmarried without a partner (12%) than either of the other groups (4% each) ($p < .01$).

Household Structure

Mothers in our survey reported an average of two children under 18 living in their household, a figure that varied somewhat by demographic characteristics in expected directions – mothers with more children at home were older, less educated and had a lower income. There was little overall variation across race/ethnicity groups (black non-Hispanic 2.2; white non-Hispanic 2.1; Hispanic 2.0).

Sharing Child Care with Husband or Partner

We asked mothers who reported having a husband or partner how they shared daily care for the child born in 2005. Overall, mothers reported they provided more of the child care (73%), with 25% reporting that care was shared equally and 2% reporting that their husband or partner provided more care. As Figure 7 illustrates, this was most strongly related to the mother's current employment situation, with almost one-half (48%) of mothers who worked full-time outside the home saying child care was equally shared while 14% of those at home with the children stated care was equally shared ($p < .01$). There was an interesting relationship with age, as mothers who were 35 or older were less likely to report care was equally shared (15%), but also slightly more likely to report (4%) their husband/partners provided more of the care ($p < .01$). Of equal interest are the factors that were unrelated to patterns of child care: race/ethnicity, number of children under 18 in the home, and income.

I think the greatest challenge was the change in my relationship with my fiancé. Although we never talked about it, we both realized that I had diverted nearly all of the attention from him to the baby, and I think that we both felt bad about it. It was also difficult to adjust to the lack of alone time that we had together and the new responsibilities that needed to be fit into our seemingly already busy lives.

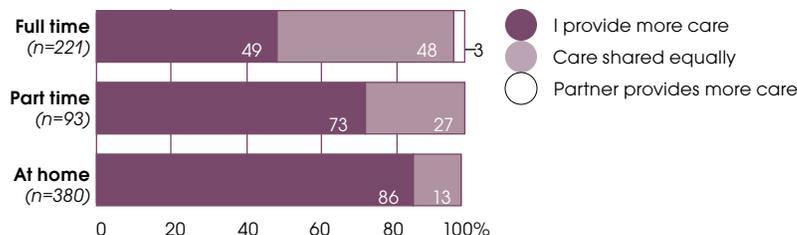
I feel like I am doing this by myself and not getting help from my partner.

I was also proud of how my husband and I shared duties and relied on each other in the first few weeks after our baby's birth. We took turns sleeping and doing household chores as well as taking care of our baby.

Figure 7. Responsibility for child care, by employment status

Do you and your husband or partner share the daily care for you child who was born in 2005 equally or does one of you provide more of your child's daily care?

Base: Has husband or partner



Source: *LTM II/PP*

Types of Support from Husband or Partner

We described four types of support (emotional, practical, affectionate and enjoyment) that mothers might receive from their husbands/partners and asked how often mothers with a husband or partner received such support (Table 11) (for details about the background to these questions, see Appendix A. Methodology). Mothers' responses were generally consistent across all the dimensions. They were most likely to cite affectionate (36% "all the time") followed by emotional (29% "all"), practical (26%), and enjoyment (25%) support. For each type of support, in about 20% of the cases mothers indicated they received support "none" or "a little" of the time.

Mothers who were married generally cited higher levels of support than those unmarried with a partner (these questions were not asked of unmarried women with no partner). In the case of emotional support, 65% of married mothers stated they received such support most or all the time compared to 46% of unmarried women with a partner ($p < .01$). Likewise, 17% of unmarried women with a partner said they received emotional support "none of the time" compared to 4% of married women ($p < .01$). A total of 54% of married mothers indicated they received "practical" support most or all the time compared to 39% for unmarried mothers with partners ($p < .01$).

Table 11. Types and level of support from husband or partner

Since the birth of your baby in 2005, how often are the following types of support available from your husband or partner?					
Base: all LTM II/PP mothers <i>n</i> =827	None of the time	Little of the time	Some of the time	Most of the time	All of the time
Affectionate, such as showing me affection and helping me feel wanted	4%	12%	18%	30%	36%
Emotional, such as listening to my concerns and giving good advice	5%	14%	19%	32%	29%
Practical, such as helping me get things done or get needed information	4%	17%	27%	26%	26%
Enjoyment, such as having fun or relaxing together	3%	17%	27%	28%	25%

Source: LTM II and LTM II/PP

Types of Support from Others

We asked mothers to rate the support they received along the same four dimensions from those other than their husband or partner or, in the case of single mothers, from anyone (Table 12) (for details about the background to these questions, see Appendix A. Methodology). While the overall ratings were generally lower, mothers did appear to draw significant levels of support from those around them. Mothers were most likely to cite emotional support from others (55% "all" or "most of the time") and least likely to cite enjoyment (37% "all" or "most of the time") ($p < .01$).

Not surprisingly, mothers who indicated they were unmarried with no partner were more likely to cite support from others than were mothers who were married or unmarried with a

Adjusting to the fact that I had to rely financially and emotionally on someone else was difficult. My husband couldn't understand why taking someone out of the working world and having them stay home with no money or independence is a trying adjustment.

Besides meeting our newest member of our family the best thing about my child's birth was the closeness that it brought my and my husband's marriage. This was to be our last child and now our family is complete. We have four children. It was sad in a way knowing that this would be the last time I experienced the miracle that is pregnancy and having a newborn but it also made it very special because I tried to enjoy and remember every moment.

I just felt like nobody really understood me and what I was going through.

partner. For example, 39% of unmarried mothers with no partner reported they received practical support from others “all the time,” while 11% of married mothers and 17% of unmarried mothers with partners cited such a level of support ($p < .01$).

Table 12. Types and level of support from others

Since the birth of your baby in 2005, how often are the following types of support available from others (if had husband or partner) or from anyone (if did not have husband or partner)?

Base: all mothers <i>n</i> =903	None of the time	Little of the time	Some of the time	Most of the time	All of the time
Emotional, such as listening to my concerns and giving good advice	7%	10%	28%	32%	23%
Affectionate, such as showing me affection and helping me feel wanted	12%	17%	29%	28%	14%
Practical, such as helping me get things done or get needed information	11%	19%	29%	27%	13%
Enjoyment, such as having fun or relaxing together	8%	19%	36%	26%	11%

Source: LTM II and LTM II/PP

Part 4

Employment, Maternity Leave and Child Care

Working to the Due Date

Paid Maternity Leave Benefits

Working for Employer While on Maternity Leave

Current Employment Status

Patterns of Employment

Stayed Home as Long as Wanted To

How Long Maternity Leave Should Be

Challenges in the Transition to Employment

Child Care Arrangements

Students

Time in Daycare

Vacation and Leave Time

Sick Time for Child Care

Mothers Who were Not Employed During Pregnancy or at Time of Survey

Our combined *Listening to Mothers II* and *Listening to Mothers II Postpartum* surveys provide new and up-to-date information about women's experiences with employment before and after birth, maternity leave and child care in the United States. Nearly all other western industrial nations do a better job of making paid extended leave and other supports available to new mothers and families. We were eager to understand patterns of employment before survey participants gave birth in 2005, the extent of their access to paid leave benefits, their postpartum employment patterns, the extent of their access to paid sick days to care for sick children, and their child care arrangements and extent of use of child care. We also explored with mothers who were employed at the time of the survey challenges in making the transition to employment, whether they had been able to stay home as long as they liked, and their ideal duration of paid maternity leave. Survey results also shed light on mothers who were students and who were not employed when they participated.

Working to the Due Date

More than half (58%) of mothers indicated they were employed during their pregnancy, primarily as full-time (40%) or part-time (14%) employees for someone else. A small proportion (4%) of mothers were self-employed. About two in five mothers (41%) were not employed during their pregnancy, though that varied widely, with only 27% of first-time mothers but 49% of experienced mothers ($p < .01$) at home during their pregnancy. Of those mothers who were employed, most worked almost to their due date, stopping on average about 10 days before their due date, with 39% working until there was less than a week before their due date.

Paid Maternity Leave Benefits

Of those mothers who had been employed by someone else during pregnancy, 40% indicated that their employer provided paid maternity leave benefits, with 50% of those working full-time and 14% of those working part-time having access to these benefits (*LTM II*). We asked mothers how long they had to be working for their employer to be eligible for such benefits, and a third were not sure. Among those who were aware and who had access to paid maternity leave benefits, the median number of weeks of employment required to qualify for this benefit was 12. Among mothers who received paid maternity benefits (Table 13), one-half indicated they received 100% of pay, and four out of five received at least half their regular salary. The time period for which mothers received pay varied widely with three key periods dominant: six weeks (27% of mothers receiving paid leave); eight weeks (24%) and twelve weeks (16%). Looking at the subset of mothers who received 100% of their pay in maternity benefits, the average length of time of coverage was eight weeks, with almost nine out of ten (89%) of those mothers getting at least six weeks of coverage.

Putting this in the context of the entire sample, we can say that of those women employed full-time outside of their home while pregnant, 23% received at least six weeks of their full pay as a maternity benefit and 38% received at least six weeks of half-pay or more as a maternity benefit.

“I don't think society and the medical field are in sync with one another. Our country does not provide enough money or time off for working parents to care for their babies once they are born, and we are not given enough time in the hospital.... I do not think we are given enough time to heal emotionally and physically after birth.”

“My biggest challenge was) returning right back to work, not having any maternity leave. My milk supply drying up and the disappointment of no longer being able to nurse.”

Table 13. Mothers' experience with paid maternity leave benefits

Base: mothers who were employed full time during pregnancy

Number of weeks received paid maternity leave		Percent of regular salary received during maternity leave	
n=622		n=622	
None	50%	None	50%
1-4	6%	1-25%	3%
5-8	28%	26-50%	6%
9-12	13%	51-75%	12%
13-16	2%	76-99%	2%
17+	1%	100%	26%

Note: 40% of survey participants indicated they had been employed full time during pregnancy
Source: LTM II and LTM II/PP

Working for Employer While on Maternity Leave

The overwhelming majority (75%) of mothers who had been employed during pregnancy did not do any work for their employer while on maternity leave, and among those who did, most reported only doing a little (13%). About one in nine mothers reported working for their employer some (8%) or all (3%) of the time while on maternity leave. One-third (33%) of mothers reporting an income of greater than \$75,000 reported doing at least a little work while on maternity leave.

Current Employment Status

Almost three in ten (29%) of the mothers in the LTM II/PP survey who were not currently pregnant or hadn't given birth again since the initial survey indicated at the time of the survey that they were currently employed on a full-time basis. Another 14% of this group was employed part-time, a small portion were full-time students or on leave (5%), and the majority (52%) were neither employed nor on leave. Those mothers currently employed full-time were more likely to have one child rather than two or more and be unmarried with a partner as compared to married mothers ($p < .01$). Those mothers who were employed generally worked at their employer's workplace (75%). More than half of black non-Hispanic mothers (53%) reported working full time outside the home, a rate almost double that for white (27%) or Hispanic (29%) mothers ($p < .01$).

Patterns of Employment

We asked mothers in LTM II about their employment patterns after they had their baby. Among those mothers who had returned to paid work, more than a third had returned by 6 weeks, and most (84%) were back to work by 12 weeks (Figure 8). This represented 57% of all formerly employed mothers. They typically returned to the same work setting (full-time, part-time or self-employed) that they had been in during pregnancy. Overall, 36% of mothers had paid work responsibilities by 12 weeks after the birth.

When mothers did return to paid work, in eight out of ten (80%) of the cases it was to the same situation they had been previously employed in (e.g., full-time for the same outside employer). Smaller proportions came back to their former full-time employer now in a part-time role (10%), switched employers (13%) or became self-employed (2%).

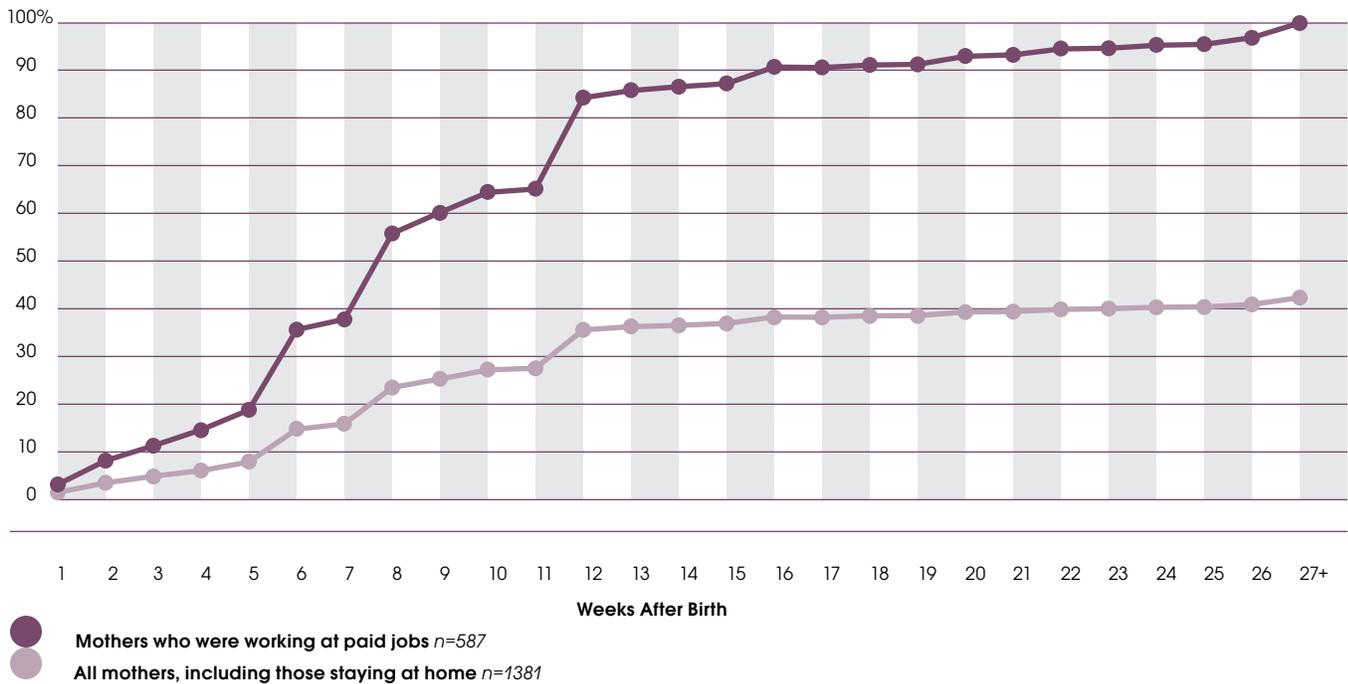
The biggest concern since I gave birth is how VERY far behind the U.S. is with providing paid maternity leave, and the length of maternity leave compared to its counterparts (i.e., Europe, Canada, etc.).

The most challenging part was me getting back to work with the hassle of my employer wanting me in sooner without the ability to breastfeed and bond with my baby as I should. Everyone sees a family together like, "Oh, they look happy, I want that." But the world is anti-family. Nothing revolves around family.

Figure 8. When mothers started employment after birth

Base: Mothers who had given birth at least 3 months earlier

n=1381



Source: LTM II and LTM II/PP

Stayed Home as Long as Wanted To

Mothers who had transitioned to paid work were asked in LTM II if they had stayed home as long as they wanted to, but many were still at home with their babies. In the postpartum survey, we asked those additional mothers who had returned to work the same question and overall about half the mothers (52%) had stayed home as long as they wanted. We asked those mothers who had stated they were not able to stay home as long as they'd wanted the reasons why they went back to work. By far the most common response was that they could not afford more time off (81%), followed by a related answer – their maternity leave had come to an end (45%). Smaller proportions of mothers indicated fear of losing their job (8%) or missing opportunities for career advancement (7%).

How Long Maternity Leave Should Be

We described the situation in most other industrialized countries with universal paid maternity leave, continuing health insurance and job protection guarantees. We then asked mothers who were employed or on maternity leave what would be the ideal amount of time off with their baby. The most common answer (28% of mothers) was six months, and the second most common answer (22%) was twelve months. The overall average was seven months, with 60% of mothers indicating the ideal of a fully paid leave of six months or more. By contrast, only 1% of mothers in our survey who had been employed outside the home during pregnancy reported having a fully paid leave of four months or more.

“I felt lousy for a long time and it was very depressing. After 2 months, I needed to go back to work for financial reasons ... even though I wasn't physically ready. Staying home watching a new baby and a 23-month-old was extremely difficult given my poor health at the time.”

“I had to return to work a week after my child was born because ... my husband was unemployed.”

“Children are our future, and mothers have to go back to work because they can't afford not to most of the time.... I think the government should give us an option to be paid 80% of our pre-baby salary to stay home with our kids for at least a year.”

Challenges in the Transition to Employment

In *LTM II (w)*, we asked those mothers who were currently employed, regardless of prior employment, about some commonly cited challenges for mothers in transitioning to paid work (Table 14). Easily the biggest dilemma for mothers was being apart from their baby, which was cited by 79% of respondents, with 49% rating it a major challenge. One-half (51%) of the mothers also cited difficulties in making child care arrangements, while more than a third (36%) identified breastfeeding issues in returning to work, (with 58% of those who were exclusively breastfeeding at one week citing breastfeeding challenges) and amount of support from their partner/spouse (36%). A smaller proportion cited lack of workplace support for a new mother (29%), though that figure was higher (36%) among mothers working full-time.

Table 14. Challenges in mothers' transition to employment (w)

In returning to work, how challenging were the following issues?

Base: mothers who were employed at time of survey

(w) n=704

	Not a challenge	A minor challenge	A major challenge
Being apart from my baby	14%	30%	49%
Child care arrangements	42%	30%	20%
Breastfeeding issues	42%	21%	16%
Amount of support from my partner/spouse	59%	22%	14%
Lack of support in the workplace for me as new mother	62%	16%	13%

Source: *LTM II (w)*

Child Care Arrangements

In *LTM II/PP*, we asked mothers who were employed outside the home about child care arrangements for their baby born in 2005, and they described a variety of arrangements (Table 15). We asked mothers to list all sources of child care. On average, mothers listed 1.2 sources, with one-fourth (26%) of mothers listing more than one source other than themselves. One in twenty mothers (5%) who worked full or part-time stated they were responsible for child care while at work (7% among part-time and 4% among full-time workers), with one-half of these mothers also noting at least one other source of care. Mothers who used either a child care center or family day care generally relied predominantly on that source; those using family or friends relied on multiple sources.

Table 15. Child care arrangements, by employment status

While you are at work who watches the child born in 2005? (Check all that apply)

Base: mothers working outside the home and not currently pregnant or who have had another child

n=323

	Full time n=240	Part time n=83	All n=323
Family member other than husband or partner	35%	43%	37%
Husband or partner	30%	51%	34%
Family day care provider	30%	8%	23%
Staff at a child care center	23%	13%	18%
Friend or neighbor	8%	10%	9%
Me	4%	7%	13%
Nanny	2%	-	2%

Source: *LTM II/PP*

“Returning to work was a major adjustment... Just getting out the door was a chore! I feel that I didn't do my best job teaching my students for the remainder of the school year... I was stressed from lack of sleep and all the responsibilities of home and work.”

“(My biggest challenge was) going back to work, and not actually spending enough time with my child. And I wanted to be in his life as much as possible, and I wasn't able to.”

“(My biggest challenge was) having to pump breastmilk while working in home care. I actually had to pump in my car with my pump plugged into the cigarette lighter. I would hide in the corner of big mall parking lots and hope no one parked next to me.”

“The most challenging was returning to work. I had a great deal of separation anxiety.”

“Going back to work (was my biggest challenge). I hated leaving him and I was not getting enough sleep. Plus I was trying to breastfeed and pumping at work was really hard.”

For mothers working full-time, there was a heavy reliance on family, either their husband or partner (30%) or another family member (35%). Mothers also relied on family day care providers (30%) and child care centers (23%). Those mothers working part-time relied predominantly on family – either partners (51%) or other family (41%). Almost one-fourth (23%) reported that staff at a child care center took care of their child born in 2005.

Students

About one in ten mothers listed themselves as either full- (4%) or part-time (6%) students. There was some minor overlap as a small portion of those mothers who listed themselves as full-time employees were apparently referring to their status as full-time students. Mothers who were full- or part-time students tended to be younger, black non-Hispanic and unmarried with a partner. For mothers who were students, child care was primarily provided by family members, either their husband/partner (50%) or another family member (45%), followed by friends (15%), day care staff (9%) and family day care (8%).

The most challenging thing was returning to work and to nursing school. All at the same time I was once again a full-time student, full-time employee in addition to my full-time motherly duties. It was a struggle at first to adapt to all of this.

Time in Day Care

At the time of the *LTM II/PP* survey, 52% of mothers reported being home with their children. We asked mothers who were in school or employed at that time to provide an average number of hours their children were with a child care provider other than themselves or their husband/partner (Table 16). More than two in five (44%) of these mothers reported their child was in day care at least 33 hours a week. For mothers working full time outside the home, that figure rises to 58%.

Table 16. Hours per week child in day care, by employment status

Base: mothers employed outside the home or students with child born in 2005 in day care

	Employed outside home		Student full or part time
	Full time <i>n</i> =166	Part time <i>n</i> =42	<i>n</i> =101
Less than 8 hours	9%	17%	18%
8 up to 17 hours	17%	24%	17%
17 up to 33 hours	16%	31%	22%
33 up to 40 hours	28%	29%	31%
40 hours or more	30%	-	13%

Source: *LTM II/PP*

Vacation and Leave Time

We asked mothers who were employed at the time of *LTM II/PP* about the availability of other forms of paid leave. Mothers who were working full time outside the home (*n*=251) reported an average of 11 sick days, 12 vacation and personal days and 8 holidays for a total of 31 days per year. Mothers with a pre-tax household income greater than \$75,000 (about one-third of the participants) reported an average of 39 total days of paid time off

available, compared to 21 days for mothers with an income less than \$35,000 (33% of the participants) ($p < .01$).

Sick Time for Child Care

Among those mothers who had access to sick leave, three-fourths (78%) reported they could use their sick leave to care for a sick child, and only 10% stated they could not (12% were unsure), figures that did not vary significantly by income. Eighty-four percent of mothers with a pre-tax household income greater than \$75,000 reported that they had access to sick leave to care for a sick child, and 86% of mothers with an income less than \$35,000 had sick leave days that could be used to care for a sick child.

Mothers Who were Not Employed During Pregnancy or at Time of Survey

We found in *LTM II* that a total of 41% of mothers responding to the survey were not employed during their pregnancy. As noted earlier, this was strongly related to whether they had given birth before, with those mothers who had given birth in the past much more likely to not be employed ($p < .01$). It was also related to age, with those mothers 24 or younger (52%) and those over 40 (48%) most likely to not be employed ($p < .01$). The combination of age and women's status as a new or experienced mother was very powerful: 87% of first-time mothers between 25 and 39 were employed during their pregnancy. We asked those mothers who had not been employed during pregnancy if they had been employed since giving birth, and 17% of mothers who had not been employed during pregnancy were now employed, either in a part-time (10%) or full-time (7%) capacity.

“I decided to be a stay-at-home mom so I could really enjoy taking care of her and her older siblings.”

“I would rather sacrifice having a little extra money and raise my child.”

“I found it challenging to make a budget because I am now a stay at home mom of 2 small children. Money has been very tight and this has caused a lot of stress on me and my husband.”

Conclusion

Maternal Well-Being

Child Well-Being

Family and Relationships

Employment, Maternity Leave and Child Care

Building on our landmark *Listening to Mothers: The First National U.S. Survey of Women's Childbearing Experiences* (2002), we carried out in early 2006 the national *Listening to Mothers II (LTM II)* survey of women's experiences from before conception through the early postpartum months. Most *LTM II* participants again participated in the *Listening to Mothers II Postpartum (LTM II/PP)* follow-up survey six months later. Combined results from the in-depth *LTM II* and *LTM II/PP* surveys provide an unprecedented opportunity to understand the postpartum experiences of women and families in the United States.

In interpreting results, it is important to recognize that with over 4.3 million births annually in the United States, each percentage point in a figure describing all surveyed mothers represents over 40,000 mother-infants pairs per year.

Maternal Well-Being

Following sustained attention during pregnancy and around the time of birth, and high rates of surgery and other procedures, medications and tests during childbirth in U.S. hospitals, the United States health care system gives relatively little attention to women after birth. As reported above, the *LTM II* survey found that 6% of mothers had no postpartum visit and that most mothers with postpartum care had a single visit.

Nonetheless, large proportions of women reported experiencing numerous new-onset health problems at this time. Several conditions were identified as new problems by most mothers in the first two months postpartum, and many other difficulties were experienced by smaller but concerning proportions. Stress, weight control, sleep loss, lack of sexual desire and physical exhaustion were each reported as a continuing problem by least one-quarter of the mothers six months or more after birth. Several other conditions were identified as problems in the first two months by most mothers with cesareans, and over one-quarter continued to experience itching and numbness while more than one in six had continuing pain at the incision site six months or more after birth. By the time they participated in *LTM II/PP*, 7% of all respondents had been rehospitalized for a variety of conditions since giving birth.

Many mothers, and especially those with cesareans, reported that pain interfered with their routine activities and that physical problems interfered with their ability to care for their babies. A substantial proportion of mothers, and especially those who were unmarried and had no partner, reported that emotional problems interfered with their ability to care for their babies.

Large proportions indicated that they were not doing well in several basic areas of health promotion, with poorest ratings given to getting enough exercise, middle ratings to getting enough sleep and eating a healthy diet, and best ratings to managing stress. Overall, postpartum weight loss ended in the first three months after birth; thereafter, women had an average net weight gain since conception of six to ten pounds through 18 months postpartum.

Validated depression screening tools in both surveys clarified that a large proportion were experiencing depressive symptoms in the two weeks before taking the surveys. Average scores declined over the first year postpartum, but nonetheless remained high at the end of the year. Among seven domains of postpartum depression that were measured, 5%

of all *LTM II* participants indicated having had suicidal thoughts in the two weeks before participating in the survey.

A validated post-traumatic stress disorder (PTSD) screening tool applied to the childbirth experience clarified that over one in six *LTM II/PP* participants experienced some PTSD symptoms and 9% screened as meeting all formal criteria for PTSD. The majority of mothers who showed depressive or PTSD symptoms or who indicated that their emotional well-being had interfered with their ability to care for their baby had not consulted a professional about their mental health since giving birth.

We conclude that the relatively young, healthy and economically secure population of childbearing women in the United States experiences a large, troubling burden of physical and emotional challenges in the postpartum period. Often, these interfere with baby care and routine activities. Although the prevalence of these problems generally lessens over time, many women were experiencing undesirable conditions at the time of our follow-up survey 6 to 18 months after they gave birth. It is an urgent priority to better understand the reason for these challenges, their implications for women and families, ways to prevent distress and morbidity, and ways to help women with these experiences.

Child Well-Being

Overall, babies born in 2005 appeared to be faring well. Mothers rated 97% as having excellent (75%) or good (22%) health. Mothers reported using many sources of information about children and parenting, though we could not assess the quality of the information. We asked about choices parents had made in several areas, and found that the great majority of families with sons had had their sons circumcised, about one-half of the babies had used pacifiers on a regular basis, and that almost one in five reported that their babies had always slept with them in the first six months after birth.

LTM II/PP mothers reported that their babies had an average of five well-child visits during the first nine months, which nearly matches the six well-child office visits that the American Academy of Pediatrics recommends in this period. The mothers and babies had similar levels for two other measures of health care use: sick-child visits or mothers' visits to their regular medical provider (three on average in both cases) and rehospitalization (7% in both cases). Mothers' ratings of the quality of their experience of office visits with their child's health care provider were generally quite positive.

Breastfeeding is an area where there are large opportunities for improvement. At the end of pregnancy, just 61% of mothers aimed for the international standard of exclusive breastfeeding. As we discussed in the *LTM II* report, large proportions of those mothers experienced hospital practices that have been found to undermine breastfeeding, such as formula or water supplements and formula samples or offers. A week after the birth, just 51% of the mothers were exclusively breastfeeding. Mothers with an initial or "primary" cesarean or with a repeat cesarean were less likely than those with vaginal births to be exclusively breastfeeding a week after the birth. Overall, just one mother in five met the international standard of exclusively breastfeeding to at least six months and one in four were breastfeeding at seven to twelve months of age despite broad consensus that babies should receive breast milk through at least the first birthday with very limited exception. Fewer than one-half of mothers who had breastfed but were not currently doing so at

“The safety of my child (is my greatest concern) because there are so many things happening in the world right now. From political turmoil to climate changes, I wonder how the future will be for my child.”

“My biggest concern is that these children reach adulthood with the tools they need to reach as much of their potential as I (and their father) can possibly help them develop. That they feel loved and are best taught how to be part of society while being the best people, and happiest, they can be.”

the time of *LTM II/PP* reported that they had breastfed as long as they wanted.

Family and Relationships

At the time of participating in *LTM II/PP*, about three in four mothers were married as they had been six months earlier. Among those who had been unmarried with a partner, about one in five had gotten married and one in ten were without a partner. A small portion of women who had been unmarried with no partner were now married and about one in five now had a partner.

We were interested in women's ratings of the quality of support they received from their husbands or partners (if any) and from others due both to the importance of family and other interpersonal relationships and the extreme lack of established social supports in the United States relative to other high-income nations. About one in five women with a husband or partner reported that person provided emotional, affectionate, practical and enjoyment support none or a little of the time. The mothers reported a similar level of no or little emotional support from others and higher levels of no or little affectionate, practical and enjoyment support from others. Overall, about three in four mothers reported that they provided most of the child care for babies born in 2005, and just 2% of husband or partners provided most of the care. Almost one-half of mothers who were employed full time reported that they provided most of the child care, and in that situation as well a very small proportion of husbands or partners provided most care.

Nearly one mother in eight had become pregnant since giving birth in 2005. Notably, over three in five of those pregnancies were unplanned (wanted to become pregnant later or never). One-half of the mothers with a new unplanned pregnancy had also indicated that their birth in 2005 was the result of an unplanned pregnancy.

Women's desired family size is an important consideration due to the steadily increasing cesarean section rate, consistent research showing that a cesarean increases likelihood of harm in future pregnancies, strong evidence that risks increase as the number of previous cesareans increases and widespread lack of access to vaginal birth after cesarean. Among mothers with one child, 85% wanted at least another. Over one-quarter of the survey participants wanted four or more children. Our *LTM II* report found that over nine in ten women with a previous cesarean had repeat cesareans, and that many women who would have liked the option of vaginal birth after cesarean were unable to find a willing caregiver or hospital.

In sum, a considerable proportion of women reported having limited or no support from husband or partners or from others in the period from six to eighteen months postpartum. Women with husbands or partners had disproportionate responsibility for the care of the children born in 2005, even when employed full time. A notable minority had again become pregnant, and most of those pregnancies were unplanned. The great majority of mothers with cesareans may be expected to face accumulating risks of the surgery in future pregnancies. Together with results reported in the section on Maternal Well-Being, these findings suggest that mothers with young children face a broad range of social, emotional and physical challenges, in many cases with little or no support from others.

Employment, Maternity Leave and Child Care

The provisions of the Family and Medical Leave Act pale in comparison with benefits in nearly all other higher-income industrialized nations. These provisions offer essential protections but virtually no paid leave benefits to women who were employed during pregnancy. Our surveys documented that fewer than one in four mothers who were employed full time during pregnancy received at least six weeks of their full pay as a maternity benefit. Fewer than two in five mothers who were employed full time during pregnancy received at least six weeks of half pay or more. When asked about optimal maternity leave provisions with full pay, health benefits and the right to return to a previous position in the paid workforce, mothers identified on average seven months as the ideal. By contrast, just 1% of mothers who had been employed outside the home during pregnancy had fully paid leave of four or more months.

When they participated in *LTM II/PP*, most mothers were neither employed nor on leave, although there was considerable variation across different demographic groups. Among those who had returned to employment, more than four out of five were in the paid workforce by twelve weeks after giving birth. About one-half of the mothers who had returned to paid jobs reported that they had been able to stay home with their babies as long as they wanted to. Overwhelmingly, those who had not been able to stay with their babies as long as they liked reported that they could not afford to do so. In the transition to employment, being away from their babies was a challenge for four out of five of the mothers, with many also identifying child care arrangements, breastfeeding issues, support from spouse/partner and workplace support for new mothers as challenges. About three in four mothers who were employed and had paid sick day benefits reported that they could use these to care for a sick child.

Employed mothers with full-time commitments relied especially on the following sources of day care: friends and family members, spouse or partner, family day care provider and child care center. Part-time employees relied especially on the first two sources.

In sum, the two in five mothers who were not employed during their pregnancies were not eligible for maternity leave benefits, and the benefits received by those who were employed paled by comparison with standards in most other industrialized nations and with the benefits desired by the mothers themselves. Due to economic pressure, many women were not able to stay with their babies as long as they liked after giving birth. The great majority of mothers who were employed at the time of *LTM II/PP* had paid work commitments within three months of giving birth. About one-half of all mothers, however, were home with their babies and not in the paid workforce.

The *Listening to Mothers II* and *Listening to Mothers II/Postpartum* surveys provide a new level of understanding of many dimensions of the postpartum experience of women in the United States. The overall picture is of recent mothers carrying many responsibilities, with notable levels of social, physical and emotional challenges and concerns about whether large segments of this population have access to adequate health and social services and social support. These survey results can help inform policies, programs, clinical services, the education of both professionals and the general public, and research

to better understand and improve the experiences of women and new families at this crucial time.

Appendix A

Methodology

This report presents results relating to women's postpartum experiences from two national surveys carried out by Childbirth Connection. These surveys continued the pioneering work of Childbirth Connection's first national *Listening to Mothers* survey, which was conducted and reported in 2002. Harris Interactive® conducted the *Listening to Mothers II (LTM II)* survey from January 20 to February 21, 2006, among 1,573 respondents. Results of that survey are based on 1,373 self-completed online questionnaires and 200 telephone interviews. Harris Interactive contacted the same women to participate in a follow-up survey, *Listening to Mothers II Postpartum (LTM II/PP)*, six months later, from July 20 to August 23, 2006. Of the original respondents, a total of 903 (57%) completed the postpartum survey (859 online and 44 by telephone). Data from both surveys were weighted to reflect the target population of women who gave birth in U.S. hospitals in 2005 to a single baby, with the baby still living at the time of the survey, and who could respond to the survey in English (see "Data Weighting").

The Survey Questionnaires

The questionnaires were developed collaboratively by a core team from Childbirth Connection, the Boston University School of Public Health and Harris Interactive, with guidance from the multi-disciplinary *Listening to Mothers II* National Advisory Council. The questionnaires retained some items from the first *Listening to Mothers* survey, pursued some of the original topics in greater depth, and added new topics.

Due to response fatigue, Harris Interactive recommends an upper limit of 30 minutes for survey participation. The online *LTM II* questionnaire took full advantage of the half-hour time limit. As more time is required to cover the same content by telephone than online, we were unable to ask some of the online questions in the 200 *LTM II* telephone interviews, which were also limited to about one-half hour. In deciding which questions to eliminate from the telephone portion, we favored topics that were repeated from the 2002 survey and/or topics that followed up on a question asked of all mothers. The survey report identifies results obtained just from women participating via the World Wide Web with: (w).

The shorter *LTM II/PP* questionnaire took about 20 minutes to complete online and 30 minutes to complete by phone, and all participants responded to all items in that questionnaire. The questionnaires used for the online and telephone interviews differed slightly in wording to reflect the specific requirements of these two different modes of participation.

The full survey questionnaires for *LTM I*, *LTM II* and *LTM II/PP* are available at:
www.childbirthconnection.org/listeningtomothers/

Eligibility Requirements

All respondents were asked a series of preliminary questions to determine their eligibility for the survey. To be eligible, respondents had to be 18 through 45 years of age, to have given birth in 2005 in a hospital to a single baby (multiple births were excluded), to have

that child still living at the time the survey was conducted and to be able to respond to a survey in English. We decided to examine only singleton births because the relatively small proportion of multiple births in the U.S. is distinct from all births (for example, 68% of babies born in multiple births were delivered by cesarean in 2003), and would yield too few participants for us to examine separately. Likewise we focused on hospital births because there are so few home (0.6%) or freestanding birth center births (0.2%) that we would not have sufficiently large subgroups to analyze these. Moreover, question wording was considerably simplified for respondents by referring to the hospital experience and birth of a single child. We eliminated births to mothers whose babies were not living at the time of the survey for several reasons. From an ethical perspective, we felt that survey participation could be distressing to this group of mothers, from the perspective of data analysis they are another distinctive and small group, and questionnaire wording would have been complicated. To minimize bias, the screening questions were designed so that the eligibility criteria were not readily apparent. We limited respondents to mothers 18 or older.

The Online Sample

Potential respondents for the online portion of the survey were drawn from the multi-million member Harris Poll Online (HPOL) panel of U.S. adults. Respondents in this panel have been recruited from a variety of sources, including: co-registration offers on partner websites, targeted emails sent by online partners to their audience, graphical and text banner placements on partner websites, refer-a-friend program, client supplied sample opt-ins, trade show presentations, targeted postal mail invitations, TV advertisements, and telephone recruitment of targeted populations.

Online Interviewing

For the original *LTM II* survey, an email was sent to a sample of women age 18-45 drawn from the HPOL panel inviting them to participate in the survey. Embedded in the invitation was a direct link to the survey website enabling recipients to proceed to the survey immediately or at a later time more convenient to them. The survey was hosted on a Harris server and used advanced web-assisted interviewing technology. After proceeding to the survey website, respondents were screened to determine their eligibility. Respondents satisfying the eligibility requirements were able to proceed into the actual survey. Once in the survey, respondents could complete the entire questionnaire in one session, or could choose to complete it in multiple sessions, an important consideration for mothers with young children participating in relatively long surveys.

A number of steps were taken to maintain the integrity of the online sample and to maximize response to the survey. Among these measures was the use of password protection, whereby each email invitation contained a password that was uniquely assigned to the email address to which it was sent. Respondents were required to enter this password to gain access into the survey, ensuring that only one survey could be completed for each email invitation sent. Steps taken to maximize response included offering respondents a brief summary of survey results, and sending "reminder" invitations to respondents who did not respond to the initial invitation within four days of receiving it.

For *LTM II/PP*, all online *Listening to Mothers II* participants who had not unsubscribed from the Harris Poll Online (HPOL) panel (that is, 1,347 of 1,373 mothers from the earlier survey) were invited to take the postpartum survey. A reminder email was sent to non-responders after six days, and another was sent to non-responders after four more days. Potential

respondents were asked a few preliminary questions to determine whether they were the same person who took the *Listening to Mothers II* survey.

Telephone Sample

A telephone-based approach helps reduce biases associated with Internet-only data collection and provided an outlet for participation to Hispanic and black non-Hispanic women who may not have access to the Internet. Two hundred Hispanic and black non-Hispanic women were recruited to *LTM II* from a list of households with a baby provided by Survey Sampling International from records including an estimated 85% of all U.S. births. Calls were made to zip codes with large minority populations, respondents to the telephone survey were screened for race/ethnicity, and only underrepresented minorities were included in the phone subsample. Telephone interviewing was conducted from Harris Interactive's telephone center in Orem, Utah. Interviewing staff was monitored on an ongoing basis to maintain interviewing quality. Due to the sensitive nature of many of the questions, all interviewing was conducted by female interviewers.

Attempts were made to contact all of the Hispanic and black non-Hispanic participants from the *Listening to Mothers II* telephone sample who said they would be willing to participate in follow-up research when completing the earlier survey (that is, to reach and include 181 of 200 mothers from the earlier telephone group). Original telephone participants who were interested in further participation and provided email addresses were sent an email message inviting them to participate. Those who did not respond to the email within five days were contacted by a telephone interviewer to invite them to take the survey. Up to six attempts were made over a five-week period to complete a postpartum interview with each respondent from the original survey. The leading barriers to inclusion of the 181 initial women who indicated a willingness to participate in follow-up research were that the initial phone number was no longer in service (39 women), the woman was no longer interested in participating (21 women) and none of six calls was answered (18 women). Of the 200 telephone participants in *LTM II*, 44 again participated in the postpartum follow-up survey.

Data Processing

All data were tabulated, checked for internal consistency and processed by computer. A series of computer-generated tables was then produced showing the results of each survey question, both by the total number of respondents and by key subgroups.

Data Weighting

To more accurately reflect the target population, the data were weighted by key demographic variables, as well as by a composite variable known as a propensity score, intended to reflect a respondent's propensity to be online. Demographic variables used for weighting included educational attainment, age, race/ethnicity, geographic region, household income, and time elapsed since last giving birth, using data from the March 2005 Supplement of the U.S. Census Bureau's Current Population Survey and national natality data. The propensity score took into account selection biases that occur when conducting research using an online panel, and included measures of demographic, attitudinal, and behavioral factors that are components of the selection bias. A series of articles describe this methodology and report experiences with validating applications of the methodology.¹

Because of the slightly different compositions of the *LTM II* and *LTM II/PP* samples, a second weight was developed for the *LTM II/PP* survey to better ensure the representativeness of the results presented here. As a consequence of the methodology described, both surveys were designed to be representative of the national population of women giving birth in 2005, with the following exclusions: teens younger than 18 and new mothers older than 45, mothers who had given birth outside of a hospital, women with multiple births and with babies who had died, and women who could not communicate in English as a primary or secondary language.

Note about Established Tools Used in the Listening to Mothers II Surveys

Postpartum Depression Screening Scale (PDSS)

The Listening to Mothers II survey included the 7-question Postpartum Depression Screening Scale (PDSS) Short Form through a licensing arrangement with Western Psychological Services.² According to developers' recommendation, we used the score cut-point of 13/14 as indicating that a woman was experiencing notable symptoms of depression in the two weeks before taking the survey. In clinical settings using this screening tool, it is recommended that women scoring 14 or higher be administered the longer 35-item version. If the longer version identifies notable depressive symptoms, caregivers are urged to refer a mother for professional evaluation and a possible diagnosis of depression.

The PDSS manual describes work establishing the reliability, internal consistency and validity of the PDSS Short Form, as well as its strong correlation with the full PDSS and the basis for the recommended cut point. Our national results (means score 16.5) are quite consistent with reported means for development (16.6) and diagnostic samples (14.3) within the range of possible scores (7-35).² We tested our survey results for internal consistency among the 7 items and obtained a favorable Cronbach's alpha of 0.84.

LTM II was the first survey that used PDSS to screen a national sample for postpartum depression. *LTM I* used the Edinburgh Postnatal Depression Scale (EPDS), and was to our knowledge the first national survey to use a depression screening tool in postpartum women.

Patient Health Questionnaire-2 (PHQ-2)

As participants in *LTM II/PP* had given birth from six to eighteen months earlier, we sought a short well-performing generic self-administered depression screening tool (not developed specifically for use after childbirth) for inclusion in that survey questionnaire. We used the Patient Health Questionnaire-2 (PHQ-2), a short version of the 9-item depression module of the Patient Health Questionnaire-9, due to its excellent construct and criterion validity in both primary care and obstetrics-gynecology populations and sensitivity to change.³

Post-Traumatic Stress Disorder Symptom Scale (PSS)

In 1995, the American Psychiatric Association revised criteria for post-traumatic stress disorder (PTSD) in the fourth edition of its Diagnostic Statistical Manual (DSM-IV) to recognize the fact that usual events in human experience could in some circumstances lead to PTSD. Since that time, many researchers have explored the contribution of childbirth to post-traumatic stress symptoms and to the full PTSD diagnosis. We reviewed the various tools that have been used to measure traumatic stress symptoms and disorder following childbirth, consulted with researchers and decided to use the self-report version of the

Post-Traumatic Stress Disorder Symptom Scale (PSS) screening tool in *LTM II/PP*. We chose PSS because it includes elements for all DSM-IV PTSD diagnostic criteria, had been widely used in many contexts, had been adapted and validated in connection with childbirth where it performed as a conservative measure with a specificity of 1, and could be completed in a relatively short period.⁴ We tested our survey results for internal consistency and obtained a favorable Cronbach's alpha of 0.90.

Although PTSD after childbirth has been measured in the United States in local settings and in various settings in other countries, *LTM II/PP* was the first national U.S. survey to use a PTSD screening tool with reference to childbirth.

Promoting Healthy Development Survey Questions

To understand the degree to which mothers experienced visits with their child's health care providers as family-centered, we included four of eight items relating to family-centered from the Promoting Healthy Development Survey. This validated and reliable questionnaire is based on national recommendations for child health supervision.⁵

Adaptation of Medical Outcomes Study (MOS) Social Support Survey

We sought a means of assessing the level of social support that postpartum women received from husbands or partners (if in these relationships) and from others in their social networks. To do this, we developed a short version of the Medical Outcomes Study (MOS) Social Support Survey. The Medical Outcomes Study was a major research project carried out by the RAND Corporation. Following extensive background research, development and testing, RAND researchers developed a high-performing tool with scales to measure four dimensions of social support: emotional/intellectual, tangible, affectionate, and positive social interaction.⁶ To benefit from this work and conserve time in *LTM II/PP* for many other topics, we adapted this 19-item tool to a 4-item tool with a single question intended to capture core concepts of each of the four dimensions.

Comparing Subgroups

When testing for differences between subgroups, it is common to accept a $p < .05$ level of chance of error. To be even more confident in interpreting our results, when comparisons are made, we used $p < .01$ as the cutoff for identifying differences in the groups being compared. This reduces the possibility that the differences cited are based on random variation.

Non-Sampling Error

Sampling error is only one type of error encountered in survey research. Survey research is also susceptible to other types of error, such as data handling error and interviewer recording error. The procedures followed by Harris Interactive, however, are designed to keep errors of these kinds to a minimum.

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Appendix B

Comparing *Listening to Mothers II* Results, *Listening to Mothers II Postpartum* Results and Federal Vital Statistics

The *Listening to Mothers II* (*LTM II*) and *Listening to Mothers II Postpartum* (*LTM II/PP*) surveys collected data on many of the experiences of mothers that have not been examined nationally within the U.S. vital and health statistics system. They also include considerable demographic data on the mothers who responded that can be compared to items that have been included in data collected under the National Certificate of a Live Birth. Table 17 compares many of these data items from the two surveys and from a comparable national population using birth certificate data from 2005, as *LTM II* and *LTM II/PP* respondents described events that primarily occurred in 2005. For context, the weighted results based on both surveys are presented. To better assess comparability, we present national natality data for mothers 18 to 45 years of age with singleton births in a hospital to mirror the *Listening to Mothers II* survey population.

As shown in Table 17, *Listening to Mothers II* and *Listening to Mothers II Postpartum* survey respondents are largely representative of the national population of mothers with singleton hospital births in terms of birth attendant, mother's age and education (with slightly more older, better educated mothers in the sample), race/ethnicity (white non-Hispanic mothers were slightly overrepresented), parity and method of birth.

A series of validation studies have examined the accuracy of women's recall and reporting about pregnancy, childbirth and postpartum. Overall, they provide support for the validity of data from mothers themselves. The studies found that it is appropriate to assume that mothers are reliable sources for many data items, that maternal reporting can provide more complete information than medical records in some cases, that sensitive topics may be more accurately reported with data collection that is not face to face, and that the accuracy of maternal recall can persist over many years.¹ The longest period of recall potentially required for data reported here was 18 months for those mothers who had given birth early in 2005 and participated in *LTM II/PP* in mid-2006. The majority of data items involved recall of a year or less. We avoided using technical medical language to ask about diagnoses and complications, which we assumed would be challenging for many women to answer, due not to problems with recall but to limited understanding and access to information about those matters in the first place. The literature cited under Note 1 supports this decision.

It is also important to keep in mind limitations of other data sources used to examine maternity experiences in the United States. Numerous validation studies have examined the accuracy of birth certificate data when compared to medical records, hospital discharge records, and maternal reporting and have concluded that many items are underreported in federal sources, with some substantially underreported.² These studies identify considerable variation in accuracy of reporting across hospitals and other units, and in some instances clarify that procedures for compiling the data differ in ways that could influence the accuracy and completeness of reporting.³ Although results of these studies cannot be

used to specify the magnitude of underreporting nationally, they nonetheless identify a number of data items for which a considerable proportion of actual occurrences of procedures do not appear to be identified (low “sensitivity”) in the federal reporting system, including ultrasound, labor augmentation, labor induction, electronic fetal monitoring and episiotomy. When considering the magnitude of underreporting in the federal reporting system identified across validation studies, we conclude that figures for such natality items derived from women who participated in *Listening to Mothers* surveys are likely to be more accurate estimates of women’s actual experiences than the official federal rates.

Table 17. Comparing *Listening to Mothers II* and *Listening to Mothers II Postpartum* Results to U.S. National Birth Records

Data item	<i>Listening to Mothers II</i> (2005) n=1,573	<i>Listening to Mothers II</i> <i>Postpartum</i> (2005) n=903	Singleton hospital births to women 18-45 (2005) n=3,821,309
Birth attendant			
Doctor	92%	92%	92%
Midwife	8%	8%	8%
Mother's race/ethnicity			
White non-Hispanic	63%	66%	55%
Black non-Hispanic	12%	11%	14%
Hispanic	21%	18%	24%
Asian and other	4%	4%	7%
Mother's age			
18-24	28%	25%	34%
25-29	27%	28%	28%
30-34	25%	27%	24%
35-39	14%	15%	12%
40+	6%	6%	3%
Number of times has given birth			
1	33%	39%	39%
2	38%	35%	33%
3+	29%	26%	28%
Mother's education			
High school or less	44%	41%	49%*
Some college	28%	30%	24%*
College and post-graduate	28%	29%	27%*
Method of birth			
Vaginal	68%	69%	71%
Vaginal, vacuum extraction or forceps	6%	7%	7%
Vaginal birth after cesarean	2%	2%	1%*
Cesarean	32%	31%	29%
Primary cesarean	16%	17%	18%*
Repeat cesarean	16%	14%	12%*

*Official national estimate not available. Education and method of birth were measured differently in states that revised their birth certificate (1,141,738 singleton, hospital births to 18 to 45 year olds) compared to states that had not revised their birth certificates (2,640,319 singleton, hospital births to 18 to 45 year olds). Above figures with asterisks represent estimated rates combining revised and unrevised states for education, VBAC, primary and repeat cesareans weighted by population in states with and without revised birth certificates.

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About Childbirth Connection

Childbirth Connection is a national not-for-profit organization that was founded in 1918 as Maternity Center Association. Childbirth Connection has grown from a small group of influential community leaders who were successful in reducing maternal and infant deaths in New York City, to a nationally recognized organization that promotes high-quality maternity care. Childbirth Connection is a voice for the needs and interests of child-bearing families. Our mission is to improve the quality of maternity care through research, education, advocacy and policy. More information about Childbirth Connection may be obtained at www.childbirthconnection.org



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Since its founding in 1960, Lamaze International has worked to promote, support and protect normal birth through education and advocacy through the dedicated efforts of professional childbirth educators, providers and parents. An international organization with regional, state and area affiliates, its members and volunteer leaders include childbirth educators, nurses, midwives, physicians, students and consumers. More information about Lamaze International may be obtained at www.lamaze.org

