Listening to Mothers[SM] III
New Mothers Speak Out

Report of National Surveys of Women's Childbearing Experiences Conducted October – December 2012 and January – April 2013

Eugene R. Declercq
Carol Sakala
Maureen P. Corry
Sandra Applebaum
Ariel Herrlich

June 2013

Recommended citation:
Declercq ER, Sakala C, Corry MP, Applebaum S, Herrlich A.
Listening to Mothers℠ III: New Mothers Speak Out.
New York: Childbirth Connection, June 2013.

To obtain a file of this report and related resources, visit
transform.childbirthconnection.org/reports/listeningtomothers/.
For help representing or interpreting survey results or other survey-related matters,
please contact info@childbirthconnection.org.

The authors and issuing organization declare that they have no proprietary, financial, professional, or other interest that could be construed as influencing the content of this report.

Childbirth Connection
260 Madison Avenue, 8th Floor
New York, NY 10016
P 212.777.5000
F 212.777.9320
info@childbirthconnection.org
www.childbirthconnection.org
transform.childbirthconnection.org

Contents

List of Tables & Figures III

Preface V

Major Survey Findings IX

- Maternal Well-Being ... IX
- Child Well-Being ... XI
- Family and Relationships ... XII
- Employment, Maternity Leave, Child Care, and Health Insurance ... XIII
- Views of Maternity Care Quality and Engaging in Maternity Care ... XIV
- Looking at Some Important Variations in Experience ... XV
- Trends: Comparing Results Across *Listening to Mothers*SM Surveys ... XVI
- Additional Results Describing Pregnancy and Birth Experiences ... XVII

Introduction 1

- Who was Included in Our Sample, and How We Reached Them ... 1
- Data Analysis and Reporting ... 2
- Reading the Text, Tables, and Figures ... 3
- Selection of Quotations from Survey Participants ... 4
- Project Responsibility ... 4

1. Maternal Well-Being 5

- Postpartum Care ... 5
- Medical Care ... 7
- Burden of New Maternal Health Concerns After Birth ... 8
- Postpartum Well-Being and Daily Activities ... 11
- Maintaining Wellness ... 13
- Mothers' Postpartum Weight Loss ... 14
- Feelings After Birth ... 15
- Postpartum Mental Health ... 16

2. Child Well-Being 18

- Rating of Child's Health ... 18
- Health Care ... 18
- Breastfeeding ... 21
- Selected Practices: Circumcision, Pacifier Use, Co-Sleeping ... 27

3. Family and Relationships 29

- Mothers with a Spouse, a Partner, or Neither ... 29
- Sharing Child Care with a Spouse or Partner ... 30
- Types of Support Available from a Spouse or Partner and from Others ... 31
- Attachment to the New Baby ... 33
- Hoped for Number of Children ... 34
- Assistance from WIC ... 34

4. Employment, Maternity Leave, Child Care, and Health Insurance 35
Employment During Pregnancy ... 35
Maternity Leave ... 36
Employment After Birth ... 38
Mothers Who Were Not Employed During Pregnancy ... 43
Students ... 43
Child-Care Arrangements ... 44
Health Insurance ... 45

5. Views of Maternity Care Quality and Engaging in Maternity Care 47
Opinions About Proper Use of Maternity Care Interventions ... 47
General Perspectives on Maternity and Health Care Quality ... 49
Perspectives on the Quality of Maternity Care that Mothers had Recently Received ... 51
Interest In and Views About the Right to Make Birth Choices ... 52
Engagement, Information, and Decision Making in Maternity Care ... 55

6. Looking at Some Important Variations in Experience 57
Comparing Childbearing Experiences by Race and Ethnicity ... 58
Comparing Childbearing Experiences by Primary Payer of Maternity Care ... 62

7. Trends: Comparing Results Across *Listening to Mothers*[SM] Surveys 66

Conclusion 69

Appendix A Methodology 73

Appendix B Demographic Overview of Survey Participants and Comparison with Federal Birth Certificate Data 76

Appendix C Sources for New *Listening to Mothers*[SM] Survey Items 78

Appendix D Additional Results for Pregnancy and Birth Experiences 81
Learning About Pregnancy ... 81
Prenatal Care and Planning for Birth ... 81
Sources of Information About Pregnancy and Birth During Pregnancy ... 82
Giving Birth ... 85

About Childbirth Connection, Harris Interactive, and the W.K. Kellogg Foundation 88

List of Tables & Figures

Tables

1 Provision of information on key topics, by type of birth attendant 6
2 Provider advice on limiting total number of cesareans, by type of birth attendant 7
3 Rehospitalization of mothers and babies, by race/ethnicity 8
4 Mothers' experience of selected new-onset health problems in first two months and at six months or more after birth 9
5 Extent to which pain interfered with mothers' routine activities at two time periods, by mode of birth 12
6 Maintaining wellness 13
7 Mothers' feelings in the first two months after birth 15
8 Persistence of symptoms of depression from initial to follow-up surveys .. 16
9 Use of mental health services, by depression screening scores in initial and follow-up surveys 17
10 Baby feeding patterns from 7 to 21 months postpartum 22
11 Mothers' leading reasons for not establishing and for discontinuing breastfeeding 23
12 Whether mothers breastfed as long as they liked, by insurance and support services 24
13 Mothers' awareness of breastfeeding recommendations from the American Academy of Pediatrics 26
14 Mothers' breastfeeding intent and practice, with up to five previous births 27
15 Types and level of support from spouse or partner 31
16 Types and level of support from others 32
17 Feelings indicating mothers' attachment to their babies 33
18 Employer support during pregnancy 36
19 Mothers' experience with paid maternity leave benefits 37
20 Mothers' time away from paid work, by poverty status 40
21 Reasons mothers could not stay home as long as wanted 40
22 Challenges in mothers' return to paid job 41
23 Challenges in mothers' transition to paid job 42
24 Child-care arrangements, by employment status 44
25 Hours per week baby in child care, by employment status 45
26 Out-of-pocket payments, by primary insurance source 46
27 Attitudes toward maternity-related tests and treatments 48

Tables *cont'd*

28 Mothers' ratings of the quality of maternity care and health care in the United States 49
29 Rating factors that determine the quality of hospital maternity care 50
30 Rating the quality of phases of care 51
31 Concern about errors in the course of maternity and pediatric care 52
32 Mothers' openness to birth center and home births for any future pregnancies 53
33 Mothers' views about women's right to choose a home birth 53
34 Mothers' views about women's right to choose a mode of birth 54
35 Attitudes toward future cesareans 54
36 Maternity care practices: information and choice 55
37 Attitudes indicating activation relative to maternity care 56
38 Variation in mothers' experiences, by race/ethnicity 59
39 Variation in mothers' experiences, by primary payer of maternity care 63
40 Trends Across *Listening to Mothers*SM surveys 67
41 Unweighted and weighted demographic profile of survey participants and comparison with federal birth certificate data 76
42 Prenatal providers' recommended weight gain, by Body Mass Index (BMI) just before pregnancy 82
43 Value of selected online resources as sources of information about pregnancy and birth 83
44 Impact of searching online for health information during pregnancy 84
45 Rates of intervention that mothers experienced around the time of birth 86

Figures

1 Extent to which mothers' physical health interfered with ability to care for baby in first two months after birth, by mode of birth 11
2 Net maternal weight gain since conception, from birth through time of follow-up survey 14
3 Number of well-child and sick-child visits, by age of child 19
4 Rate of exclusive breastfeeding from birth through 12 months 21
5 Proportion of mothers who breastfed as long as they had wanted 25
6 Frequency of baby co-sleeping in first six months after birth, by race/ethnicity 28
7 Responsibility for baby care, by employment status 30
8 Weeks after birth when mothers began paid work, through the first year 38
9 When mothers returned to a paid job after birth 39

Preface

Childbirth Connection's ongoing *Listening to Mothers*℠ Initiative is devoted to understanding experiences and perspectives of childbearing women, newborns, and families 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' values and 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 four 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 polled 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, presented in a survey report and focused articles, 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 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 about their postpartum experiences. Results from these surveys were presented in a report based on the initial survey, a follow-up report combining findings from both surveys, and focused articles, and have again been well-received and widely used in diverse contexts.

Listening to Mothers℠ *III* (2012), a national survey of women who gave birth in U.S. hospitals in 2011-12, again included both continuing items and new topics of special relevance to the rapidly evolving health and maternity care environments. We recently issued a report with initial results from that survey, focusing especially on pregnancy and birth. We were grateful to again be able to invite initial survey participants to complete a follow-up survey in the early months of 2013. This report presents results of the follow-up survey, drawing on initial survey results as needed. It includes an in-depth national look at women's experiences in the months after giving birth from the perspective of maternal well-being, baby well-being, family and relationships, and employment and child care. Further, we examined many aspects of women's views about the quality of maternity care and engaging in their care, and devote a chapter to these subjects. This report also looks at subgroup differences based on the three largest race/ethnicity groupings (white non-Hispanic, black non-Hispanic, and Hispanic

women) and beneficiaries of the two largest maternity care payer groups (women covered by private insurance and Medicaid or CHIP, the Child Health Insurance Program), trends across multiple surveys, and (in the final appendix) some additional items describing pregnancy and birth experiences.

All five of the Childbirth Connection surveys noted above were planned and carried out by the same core investigator team and conducted by Harris Interactive®. Each benefited from a multi-disciplinary, multi-stakeholder National Advisory Council that provided guidance on survey development, implementation, and reporting. The survey reports and related documents, including questionnaires and a list of all publications to date, are available at www.childbirthconnection.org/listeningtomothers/. Childbirth Connection's website focusing on maternity care quality improvement features both *Listening to Mothers*℠ *III* reports and a wealth of related resources, at transform.childbirthconnection.org/listeningtomothers/. We strongly encourage readers of this report to consult as well the companion report, *Listening to Mothers*℠ *III: Pregnancy and Birth* (2013).

The datasets from the first three surveys are deposited in the Odum Institute Data Archive at the University of North Carolina (www.odum.unc.edu/odum/) and are publicly available for use by researchers and students. In the future, the new datasets will also be available in that archive.

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 and improve conditions for mothers, babies and families.

The survey results reported here clarify that there are many opportunities to improve the outcomes and experiences of childbearing women and their families in the postpartum period. They also point to opportunities to help women better understand and navigate their maternity care. We hope that those involved with childbearing families 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 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 in all 50 states who freely shared their maternity experiences with us at a time when they faced considerable responsibilities and challenges.

We are extremely grateful to the W.K. Kellogg Foundation for generous support of both the initial and follow-up *Listening to Mothers*℠ *III* surveys. Thanks especially to our Project Officer, Diana N. Derige, and to the Foundation's Communications team.

We thank everyone on the larger team that contributed to our survey and report. Roz Pierson, PhD, and our co-author Sandra Applebaum, MS, led the project team at Harris Interactive. Jessica Turon provided background research that contributed to our questionnaire development. Ellen Papciak-Rose designed this report. Amy Romano developed data briefs. Kat Song provided communications and media support.

We are grateful to members of the *Listening to Mothers*℠ *III* National Advisory Council, who provided guidance on the development, dissemination, and application of the new surveys. Their rich and varied perspectives have strengthened these projects in many ways. They are:

Listening to Mothers℠ *III* National Advisory Council

Rachel Abramson, RN, MS, IBCLC
HealthConnect One

Jill Arnold
Consumer Representative

Shaudi Bazzaz, MPP, MPH
Catalyst for Payment Reform

Leah Binder, MA, MGA
Leapfrog Group

Debra Bingham, DrPH, RN
Association of Women's Health, Obstetric and Neonatal Nurses

Kate Chenok, MBA
Pacific Business Group on Health

Maureen P. Corry, MPH
Childbirth Connection

Katherine Criswell, RN, MSN
Providence Health & Services

Eugene R. Declercq, PhD, MBA
Boston University School of Public Health

Deborah Dee, PhD, MPH
Centers for Disease Control and Prevention

Diana Derige
W.K. Kellogg Foundation

R. Louise Floyd, DSN, RN
Centers for Disease Control and Prevention

Jack Fowler, PhD
Informed Medical Decisions Foundation

Andrea Friedman, JD
National Partnership for Women & Families

Reem M. Ghandour, DrPH, MPA
Health Resources and Services Administration

Jane Hooker, RN, MN, CPHQ
National Association of Public Hospitals and Health Systems

Paul Jarris, MD
Association of State and Territorial Health Officials

Lorrie Kline Kaplan, CAE
American College of Nurse-Midwives

Leah Kaufman, MD
American College of Obstetricians and Gynecologists

Mary Lawlor, CPM
National Association of Certified Professional Midwives

Christine H. Morton, PhD
California Maternal Quality Care Collaborative

Brian J. Osberg, MPH
National Governors Association

Carol Sakala, PhD, MSPH
Childbirth Connection

Mark P. Sloan, MD
The Permanente Medical Group

Stephanie Teleki, PhD
California HealthCare Foundation

Sarah Thomas, MS
National Committee for Quality Assurance

Additional Participant

Stephen Cha, MD
Center for Medicaid and CHIP Services

The authors and issuing organization bear full responsibility for the content of this report, which does not necessarily reflect the views of other individuals and groups named above.

Major Survey Findings

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*SM survey, which was conducted and reported in 2002 and the *Listening to Mothers*SM *II* pregnancy and childbirth and postpartum follow-up surveys in 2006. For *Listening to Mothers*SM *III*, 2400 mothers completed the survey online. All survey participants were 18 through 45 years, could participate in English, and had given birth to single babies in a U.S. hospital from July 1, 2011 through June 30, 2012. Participants completed the initial online survey, averaging about 30 minutes in length, from October through December 2012. Mothers who completed the initial survey were recontacted and invited to complete a follow-up survey between January 29 and April 15, 2013. A total of 1072 mothers, or 45% of the initial participants, were reached and completed the survey.

To develop a national profile of childbearing women, the new datasets were adjusted with demographic and propensity score weightings using methodology developed and validated by Harris Interactive. Consequently, the results are generally representative of U.S. mothers 18 through 45 who gave birth to single babies in a hospital in 2011-12. The respondents are generally comparable to published national data for U.S. birthing mothers on critical factors such as age, race/ethnicity, parity, birth attendant, and mode of birth. A recent report, *Listening to Mothers*SM *III: Pregnancy and Birth*, presents key results from the initial survey, and the present report focuses on the women's postpartum experiences and their values, preferences, and beliefs about maternity care and childbearing, with an appendix presenting selected additional pregnancy and childbirth results.

Maternal Well-Being

Postpartum Office Visits

Among the 10% 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," (42%), followed by "I felt that I had already completed all of my maternity care" (18%), "too hard to get to office" (12%), and "didn't have insurance (7%).

Access to Postpartum Care

Three-fourths (76%) of mothers stated that in the two months after their baby's birth, they had a telephone number of a nurse, doctor, midwife, or health visitor to contact with any concerns about themselves or their babies.

Postpartum Information

Mothers were most likely to say they were "definitely" given enough information from their providers about birth control methods (57%) and least likely to have been

informed about changes in sexual response and feelings (30%). Women whose birth attendant had been a midwife were more likely to have adequate information about birth control methods while those who had had a family doctor birth attendant were most likely to have enough information about postpartum depression, healthy eating, exercise, and changes in sexual response.

Limiting Total Number of Cesareans

A little more than one fourth (28%) of mothers who had had one or more cesareans said they were told by their provider to limit the lifetime total number of cesareans they received, and the average maximum number of cesareans recommended was 3.2.

Regular Medical Provider

Most mothers relied on a family doctor (42%) as their medical provider after they completed maternity care, with 22% relying on an obstetrician/gynecologist, 9% on an internal medicine doctor, and 15% stating that they had no regular medical provider. The lack of a regular medical provider was significantly higher among mothers whose birth had been paid for by Medicaid or CHIP (17%) than those with private insurance (10%).

Burden of Health Concerns After Birth

In the *Listening to Mothers*℠ *III* follow-up survey, we provided mothers with a list of 16 conditions and asked if these had been 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. Problems that were cited by at least two in five mothers included sleep loss (58% overall, 21% major), feeling stressed (54%, 17% major), physical exhaustion (51%, 16% major), sore nipples/breast tenderness (48%, 12% major), backache (46%, 12% major), weight control (45%, 16% major), and lack of sexual desire (43%, 13% major). Mothers who had experienced a cesarean reported a problem with itching (51%, 13% major) and with numbness (48%, 12% major) at the scar.

At six or more months after birth, about one in three mothers (34%) indicated they were still feeling stressed, had problems with sleep loss (30%) or weight control (29%). Among those mothers who had had a cesarean, 20% reported continuing numbness, and 20% cited continued itchiness at the incision site.

Postpartum Health and Caring for Baby

Mothers were asked to rate if physical or emotional problems had interfered with their ability to care for their baby in the first two months after birth, and 37% reported their postpartum physical health interfered at least "some" with their ability to care for their baby, while 29% reported that their postpartum emotional health interfered at least "some." More than half (56%) of mothers said that pain did interfere at least "a little bit" in their routine activities in the first two months, with 7% indicating that pain interfered either "quite a bit" (5%) or "extremely" (2%).

Weight Change

We learned in the initial *Listening to Mothers*℠ *III* survey that mothers had gained on average 24 pounds during their pregnancy and averaged losing 20 pounds at the time of that survey. We again asked about their weight at the time of the follow-up survey and, on average, mothers' weight had not changed between the first and second surveys. The result is a net weight gain of 4 pounds from their weight just before becoming pregnant.

Current Mental Health Status

We asked mothers about their emotional state in the two weeks prior to the follow-up survey, and about one in three mothers reported "feeling down, depressed or hopeless" (35%) or having "little interest or pleasure in doing things" (36%) for at least several days in the past two weeks. A total of 6% reported "feeling down" and 7% felt "little interest" nearly every day. Applying an algorithm used with these questions to screen for depression resulted in 17% of mothers meeting criteria for likely depression.

Consulting a Professional About Emotional or Mental Well-being

We asked mothers in the follow-up 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 met the screening criteria for depression were much more likely to have sought help (37%) than those who did not (14%), though this means 63% of mothers with indicators of depression had not consulted a professional for help.

Child Well-Being

Overall Rating of Child's Health

We asked mothers to rate their child's current health. The mothers were generally very positive, with 98% saying their child's health was excellent (78%) or good (20%).

Child Health Care Providers

Pediatricians were most often (79%) named by mothers as their child's primary care provider. Family doctors (17%), nurse-practitioners (2%), and physician assistants (1%) 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%).

Breastfeeding Duration

Mothers described the pattern of duration of exclusive breastfeeding over a twelve-month period, with rates ranging from 50% in the first month to 37% at the end of three months, 17% at six months, 9% at nine months, and 2% at one year.

Reasons for Not Establishing or Continuing Breastfeeding

We asked the mothers who intended to breastfeed but were not doing so a week after the birth the reasons they didn't, and "baby had difficulty nursing" (31%) was most commonly cited, followed by "too hard to get breastfeeding going" (23%), "formula more convenient" (23%), and "I didn't get enough support to get breastfeeding going" (17%). 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 the follow-up survey, and the leading answers were "trouble getting breastfeeding going well" (39%), "fed my baby breast milk as long as I intended to" (22%), "formula or solid food more convenient" (22%), and "baby stopped nursing – baby's decision" (18%).

Immunization Preferences

We asked mothers about their approach to immunizations relative to the recommended schedule of immunizations, and 83% of mothers indicated they preferred

to get all immunizations according to guidelines, while 12% preferred to make modifications (for example, in the schedule or dose), and 3% preferred not to have their children immunized. We explored differences by region, and mothers living in the Western part of the United States (7%) were more likely to prefer to avoid immunization compared with mothers from the Northeast (0%).

Satisfaction with Duration of Breastfeeding

We asked all mothers who did breastfeed and were not currently doing so if they had breastfed as long as they wanted. Half (49%) stated that they had.

Circumcision

Almost eight in ten mothers (79%) who gave birth to a son reported that he had been circumcised, with use varying widely by race/ethnicity. First-time Hispanic mothers were far less likely (54%) than first-time white (87%) or black (88%) non-Hispanic mothers to have their son circumcised.

Pacifier Use

More than half of mothers (58%) reported that their baby had used a pacifier on a regular basis. Among mothers whose baby was at least a year old, the average amount of time the baby used a pacifier was 9.5 months.

Co-Sleeping

One in eight mothers (12%) reported that their baby always slept in the same bed with them in the first six months after birth, and an additional 29% stated the baby often (12%) or sometimes (17%) did.

Family and Relationships

Sharing Child Care with Spouse or Partner

We asked mothers who reported having a spouse or partner how they shared daily care for their baby. Overall, mothers reported they provided more of the child care (61%), with 35% reporting that care was shared equally, and 3% reporting that their spouse or partner provided more care. This was most strongly related to the mother's current employment status, with slightly less than half (49%) of mothers who worked full time outside the home saying child care was equally shared.

Attachment To New Baby

We asked mothers a series of questions concerning their feelings about their new baby. Not surprisingly mothers felt very positively toward their new baby, with 95% saying they enjoy interacting with their baby most or all the time, and similar indications of attachment expressed concerning how cute they found their baby, whether they spoke to the baby regularly, and their desire to hold the baby.

Hoped for Number of Children

Mothers in our survey said they would like to have, on average, three children, with three (31%) and two (25%) the most common responses. Only 8% wanted a single child, while 19% indicated a desire for four, 9% preferred five, and 9% wanted more than five. The ideal most often mentioned was one more child than they currently had.

Employment, Maternity Leave, Child Care, and Health Insurance

Employment During Pregnancy and Working to the Due Date

More than half (61%) of mothers indicated they were employed during their pregnancy, primarily as full-time (33%) or part-time (23%) employees for someone else. A small proportion (6%) of mothers were self-employed, and two in five mothers (39%) were not employed during their pregnancy. Of those mothers who were employed, most worked almost to their due date, stopping on average about 3 weeks before their due date, with 34% working until there was less than a week before their due date.

Pregnancy Related Challenges to Employment

Mothers who were employed outside the home were asked if, during their pregnancy, they had needed accommodations such as a need for more breaks, a change in some duties, or a change in schedule. Most mothers both needed and asked for some accommodations, and their employers generally attempted to address the concerns they raised.

Paid Maternity Leave Benefits

Of those mothers who had been employed by someone else during pregnancy, 63% indicated that their employer provided paid maternity leave benefits. Among these mothers, one-third (34%) indicated they received 100% of pay, and three out of four (76%) received at least half their regular salary. Among the subset of mothers who received 100% of their pay in maternity benefits, the average length of time of paid leave was eight weeks.

Working for Employer while on Maternity Leave

Almost half (46%) of mothers who had been employed during pregnancy did work for their employer while on maternity leave. A total of 23% reported working a little of the time, 16% some of the time, and the remainder most (5%) or all (2%) of the time.

Current Employment Status

About three in ten (31%) of the mothers in the follow-up survey indicated they were currently employed on a full-time basis. Another 22% were employed on a part-time basis, and a small portion were full-time students (3%) or still on paid leave (3%), while the remainder (41%) were neither employed, nor students, nor on leave.

Stayed Home as Long as Wanted To

Mothers who had transitioned to paid work were asked if they had stayed home as long as they wanted, and nearly three-quarters (72%) had stayed home as long as they wanted. The primary reasons why they went back to work were that that they could not afford more time off (72%), followed by related answers – their maternity leave had come to an end (43%) or they were worried about consequences at work, such as lower pay, worse assignments, or fewer opportunities for promotion (22%).

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 (20% of mothers) was six months, and the second most common answer (17%) was twelve months. The overall average was seven months.

Child Care Arrangements

Mothers described a variety of arrangements for child care when we asked those employed outside the home who cared for their baby. On average, they cited more than one source of help. For mothers employed full time, there was a heavy reliance on family, either their spouse or partner (34%) or another family member (43%). Mothers also relied on child care centers (26%) and family day care providers (18%). Those mothers employed part time relied predominantly on family – either partners (51%) or other family members (44%).

Time in Child Care

Almost half (47%) of mothers reported being home with their children, but for those who reported being in school or employed, one-fourth (26%) reported their child was in day care at least 33 hours a week. For mothers employed full time outside the home, that figure rose to 55%.

Sick Time for Child Care

Most mothers with access to sick leave (82%) reported they could use it to care for a sick child. Only 11% stated they could not, and 8% were unsure.

Health Insurance

The pattern of insurance coverage that mothers established during pregnancy did not necessarily continue in the postpartum period, with 28% of mothers reporting their insurance status changed between the two surveys. At the time of the follow-up survey, 18% had no health insurance. Among mothers whose primary payer for maternity care had been private insurance, 10% were uninsured at follow-up, versus 26% of mothers whose primary payer for maternity care services had been Medicaid or CHIP.

Views of Maternity Care Quality and Engaging in Maternity Care

Maternity Care Tests and Treatments

We asked mothers whether they agreed or disagreed with a series of statements concerning maternity care tests and treatments. They expressed considerable confidence that newer tests marked an improvement in care (74% agree), that their provider's recommendations reflect best current research (82% agree), that more tests meant better quality care (63% agree), and that more expensive tests and treatments were better (52% agree).

Rating the Quality of the U.S. Maternity and Health Care Systems

Nineteen percent of mothers rated the U.S. health care system as "excellent," 43% as good, and 38% as "fair" or "poor." Thirty-five percent rated the U.S. maternity care system as "excellent," 49% as "good," and 16% as "fair" or "poor."

Identifying Factors that Determine Hospital Maternity Care Quality

Mothers assessed whether eight different factors were indications of the quality of maternity care at a specific hospital. In six of the cases, a majority of mothers rated the item as "very important," including "protects mothers and newborns from getting infections in the hospital" (80%), "has attentive, caring maternity nurses" (77%),

and “has a low rate of medical mistakes” (76%). The two lowest-rated factors were “being a teaching hospital” (33% “very important”) and “has been highly rated by a website or magazine” (28% “very important”).

Rating the Quality of Different Phases of Maternal and Newborn Care
Mothers rated the quality of care at five stages of maternal care and their baby’s office visits in the first two months after birth. The ratings were generally very positive, with no stage of care being rated as “poor” by more than 3%, and 86% or more giving each stage a rating of “good ” or better.

Concerns About Errors in the Course of Maternity and Pediatric Care
Mothers were asked about their levels of concern with serious medical errors at four different stages of their care – prenatal visits, birth in the hospital, their own postpartum visits, and their baby’s office visits. While a majority were “not at all” to “not too” concerned in every case, they most commonly cited concern about their time in the hospital, with 24% “somewhat” and 19% “very” concerned.

Interest In and Views About the Right to Make Birth Choices
Mothers were asked about settings where they might be interested in giving birth in the future and, among those planning more children, two-thirds would consider a birthing center that is separate from a hospital, with one-fourth definitely wanting that option. A little more than one-fourth would consider a home birth. Two thirds (64%) thought a woman should have a right to a home birth if she chooses. Mothers also strongly supported the right of a mother to choose a vaginal birth after cesarean (VBAC) (69%). Their support was more mixed for the right to choose an elective cesarean, with 40% stating a mother should have a choice and 38% disagreeing.

Activation Relative to Maternity Care
We adapted to maternity care relevant items from the Patient Activation Measure. Mothers expressed confidence in their ability to maintain control over their involvement with maternity care, with, for example, 89% agreeing with the statement, “I was confident I could tell my maternity care provider concerns I had even when he or she did not ask.”

Looking at Some Important Variations in Experience

Variations by Race/Ethnicity
We stratified our results by the three race/ethnicity groupings with large enough samples for measuring possible differences: Hispanic, black non-Hispanic, and white non-Hispanic mothers. Non-Hispanic black mothers were *most likely* among the three groups to state that they had definitely received enough information on healthy eating, birth control, and postpartum depression in postpartum visits; have babies who had been rehospitalized and had themselves been rehospitalized since birth; report co-sleeping with the baby; report they were doing extremely well getting enough sleep and managing stress; and report they were getting support from a spouse or partner. They were *least likely* to learn they were pregnant from a home pregnancy test and report their desire to be home with the baby was the reason they were not currently employed.

Hispanic mothers were *most likely* to lack health insurance or be on Medicaid at the time of the follow-up survey, to say that emotional support and practical support were available "a little" or "none of the time" from someone who was not a spouse/partner, and report being worried about the baby when not with him/her. Hispanic mothers were *least likely* to have a Body Mass Index in the normal range postpartum, say they were doing extremely well getting exercise postpartum, be employed full time during pregnancy, rate prenatal visits and baby care visits as "very good," and report feeling confident they could tell their maternity care provider about concerns.

Non-Hispanic white mothers were *most likely* to have private insurance at the time of the follow-up survey, have taken their baby for a well-child visit, and report their desire to be home with the baby was the reason they were not currently employed. White non-Hispanic mothers were *least likely* to consider online access to health records as "very important," say that taking care of their baby is "always fun," report daily care for the baby was equally divided with their spouse/partner, rate the overall quality of health care in the United States as "excellent" or "good," and be concerned about a serious medical error in a hospital.

Comparing Childbearing Experiences by Primary Payer of Maternity Care

We also compared experiences of beneficiaries of the two largest maternity care payer categories: private insurance and Medicaid or CHIP (the Child Health Insurance Program). There was a greater likelihood for mothers who had had Medicaid insurance for their maternity care to lose their health insurance postpartum, use WIC services, report they were not doing well with eating a healthy diet postpartum, and consider a high rating by a web page or magazine an important measure of hospital quality. Mothers with private insurance for their pregnancy and their baby's birth were more likely to say pain had not interfered with routine activities in the two weeks prior to the survey, report a Body Mass Index in the normal range, report feeling supported in the months after birth, and report that their baby had had no sick-child visits.

Trends: Comparing Results Across *Listening to Mothers*℠ Surveys

We examined trends across some items that were available in multiple *Listening to Mothers*℠ surveys. Notable differences over time included a growing proportion of mothers indicating paid maternity leave was available from their employer and receiving spousal/partner support in many areas. There were notable declines in the proportion of mothers getting more than 90% of their salary during paid maternity leave, in the proportion of mothers reporting their babies were in day care for 33 or more hours a week, and in mothers reporting difficulties with child care and breastfeeding in the transition to paid work. There was also a general decline in mothers' support for a woman's right to choose for herself whether to have a vaginal or cesarean birth.

Additional Results Describing Pregnancy and Birth Experiences

Due to space limitations in the initial survey, we included a small number of additional questions on these topics in the follow-up survey, and Appendix D reports the results.

Learning About Pregnancy
Whereas 76% of mothers indicated they learned about their pregnancy through a home pregnancy test (on average after 5.3 weeks), 24% used a health professional (6.9 weeks).

Switching Maternity Care Providers and Hospitals
We asked mothers whether they had switched either providers or their hospital during their pregnancy. A total of 22% of mothers indicated they had switched in each case, with "to increase the chance of having the care and choices that I wanted," being the leading reason in each instance.

Use and Value of Online Resources for Pregnancy and Birth Information
Pregnancy and childbirth related blogs were most highly valued among a series of online resources, with 78% of mothers using these as sources of pregnancy and birth information and two-thirds (68%) of those mothers citing them as somewhat or very valuable. A majority (53%) of mothers who used online forums, chatrooms, and group discussions for this purpose found them at least somewhat valuable, and smaller proportions who used Facebook and online videos as such information sources cited them as at least somewhat valuable (43% and 41%, respectively). These results were, not surprisingly, strongly related to age, with mothers less than 30 significantly more likely to use and find valuable each of these resources.

Spontaneous Onset of Labor
We attempted to identify the proportion of mothers who experienced "spontaneous onset of labor" – labor starting on its own. At most, 54% had labors that started on their own, and this is likely to be an overestimate.

Primary Maternity Care Attendant
Mothers who had given birth before were asked if the person who attended the birth of their most recent baby had attended a previous birth, and that was the case for 44% of experienced mothers, with another quarter (25%) indicating it was a different provider from the same group. One-third (34%) of the experienced mothers had a different provider who was not from the same group.

Summary of Interventions Experienced Around the Time of Birth
Combining results from both the initial and follow-up surveys yields a summary of the numerous interventions that the mothers experienced around the time of birth. For example, 53% experienced attempted labor induction, and 30% had a medically induced labor. Eighty-nine percent (of women who labored) experienced electronic fetal monitoring, 83% used pain medications, 50% experienced synthetic oxytocin, and 36% had artificially ruptured membranes. Eleven percent had assisted vaginal delivery with vacuum extraction or forceps, and 31% had a cesarean section.

Introduction

This report continues Childbirth Connection's ongoing *Listening to Mothers*℠ Initiative to focus the discussion of maternity care in the United States on the people who care about it the most: mothers themselves. To date, Childbirth Connection has carried out three periodic national *Listening to Mothers*℠ (*LTM*) surveys: *LTM I* (2002), *LTM II* (2006), and *LTM III* (2012). Following the second and third surveys, we had the opportunity to invite participants to complete a follow-up survey. This report presents results from the *LTM III* follow-up survey, in combination with relevant findings from the initial *LTM III* survey. The five *LTM* surveys are the first systematic national studies of U.S. women's perceptions of their childbearing experiences. They 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 otherwise recorded only at the clinical, community or state level, if at all. They offer an unprecedented level of understanding about many aspects of the experience of childbearing in the United States.

The work reported here was developed through 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*℠ *III* National Advisory Council (see Preface for a list of Council members). Harris Interactive administered the surveys.

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

***Listening to Mothers*℠ *III* Initial Survey**

From October 11 through December 26, 2012, 2400 women completed the initial survey online. Members of the Harris Interactive national online panel and of other national survey panels were screened for possible eligibility, and eligible women were invited to respond to a survey about women's childbearing experiences.

All survey participants were 18 to 45 years of age, had given birth to a single, still-living baby in a hospital from July 2011 through June 2012, 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 pre-pregnancy through postpartum experiences relating to births that had taken place in 2011-12. Looking at the results by time elapsed since giving birth allows us to cross-sectionally analyze the postpartum

experiences of mothers at different periods since the birth. On average, the survey took about 30 minutes to complete. An appendix in the initial survey report, *Listening to Mothers℠ III: Pregnancy and Birth*, describes the methodology in detail.

Listening to Mothers℠ III Follow-Up Survey

Childbirth Connection also sponsored a follow-up survey directed to *LTM III* participants. From January 29 through April 15, 2013, 1072 of the original 2400 respondents (45%) completed the postpartum survey. Due to the *LTM III* eligibility requirements, all 1072 follow-up survey participants were 18 to 45 years of age, had given birth to a single, still-living baby in a U.S. hospital from mid-2011 to mid-2012, and could respond to a survey that was in English. The follow-up online survey also took approximately 30 minutes to complete. Here we report results from the follow-up survey, along with relevant data collected in the initial survey. Combining results from both surveys allows us to analyze some key topics (e.g., infant feeding and patterns of weight gain and loss) up to 21 months postpartum. Unless otherwise noted, reported results are from the follow-up survey.

Survey Questionnaires

The full initial and follow-up survey questionnaires are available at transform.childbirthconnection.org/reports/listeningtomothers/. The initial survey primarily focused on experiences from before pregnancy through the early postpartum period. The follow-up survey primarily focused on the mothers' and families' experiences since the birth and on attitudes, beliefs, and preferences relating to maternity care quality and childbearing. However, the follow-up survey did include several additional questions related to pregnancy and birth experiences, and results of those additional items are presented in the final appendix to this report.

We encourage individuals citing results from the *Listening to Mothers℠* surveys 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 the survey participants were exceptionally engaged in the survey and interested in having their voices heard, including their willingness 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 methods 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 the target population as a whole. Because of the slightly different demographic makeup of initial and follow-up 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 with a national population of mothers. The careful weighting of data resulted in a population of respondents that closely mirrors the target population – identified as mothers 18 through 45 who gave birth to a single infant in a hospital in 2010 (the most recent year for which a birth certificate file was available to describe this national population). The profile of our respondents generally parallels a comparable national birthing population in such key areas as race/ethnicity, age, birth attendant, mode of birth, and number of times the mother had given birth.

Supplementary Material in Appendices

Appendix A provides a more detailed discussion of the survey methodology, including processes for recruiting eligible women, facilitating and monitoring their completion of the survey, and weighting of the results. Appendix B is described above. Appendix C identifies items in the follow-up survey that are new to *Listening to Mothers*[SM] surveys, and the source of these items. Appendix D presents results of the additional items relating to pregnancy and birth included in the follow-up survey. This Appendix should be considered an essential supplement to the report of the initial survey, *Listening to Mothers*[SM] *III: Pregnancy and Birth.*

Reading the Text, Tables, and Figures

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 doing paid work outside the home were asked about child care while doing such 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, figures, and text since in many 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, our primary goal was clarity.

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 comparisons discussed in the text are significant at the $p < .01$ level, this is noted in the text.

Selection of Quotations from Survey Participants

Women who participated in the initial and follow-up surveys had multiple opportunities to provide fully open-ended comments. 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 and the numbers 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 about four million women give birth annually in the United States, each percentage point represents nearly 40,000 mothers and babies each year. The quotations reproduce the women's exact words, though we have in some cases standardized spelling and punctuation. Qualitative researchers are separately analyzing and reporting on open-ended questions directed to all survey participants.

Project Responsibility

The team from Childbirth Connection, Boston University School of Public Health, and Harris Interactive collaboratively developed the survey questionnaires, with support from the *Listening to Mothers*℠ *III* National Advisory Council. The National Advisory Council communicated by email as the surveys were refined, carried out, and reported. Roz Pierson, Senior Vice President, and Sandra Applebaum, Senior Research Manager, led the Harris team responsible for management of the project and initial analysis of results. The data presented in this report were reviewed and in many instances further analyzed by Eugene Declercq, Boston University School of Public Health; Carol Sakala, Maureen Corry, and Ariel Herrlich 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.

As with all Harris Interactive surveys, the initial and follow-up *LTM III* 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. The non-Harris authors had access to only deidentified files provided by Harris interactive, similar to the versions that will later be archived at the Odum Institute (www.odum.unc.edu/odum/).

1. Maternal Well-Being

Women experience extraordinary physiologic changes, emotional challenges, and social transitions in the period from conception through the weeks and months after birth. In addition, as our initial *Listening to Mothers*SM *III* report detailed, childbirth in U.S. hospitals involves high rates of surgery, medications, and other interventions (see Table 45), with potential for unintended consequences. After sustained attention from pregnancy 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. We wanted to better understand women's use of health services after birth, the degree to which they experienced a broad range of possible new health problems, and the persistence of such problems. 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. Combined survey results enabled us to describe their postpartum experiences for up to 21 months after their 2011-12 births in the context of their demographic characteristics, childbirth experiences, family composition, and insurance status.

"Your body does not stay the same. Your time is cut in more than half. Things become more complicated."

"After giving birth I did not receive as much attention from my health care providers as during the pregnancy."

Postpartum Care

Office Visits and Access to Care

Almost all (90%) women had at least one office visit with their maternity care provider between the time they left the hospital and eight weeks after the birth of their child. One-third (34%) had one office visit, about one out of four (28%) had two visits, and three in ten (29%) had three or more visits (results from initial *LTM III* survey). One in ten mothers (10%) reported not having a visit, and we asked those mothers the reason for not having a visit. The largest proportion of those mothers (42%) responded that "I felt fine and didn't need to go," followed by "I felt that I had already completed all of my maternity care" (18%), "too hard to get to office" (12%), "didn't have insurance" (7%), and "I had given birth before and did not need help" (4%), with the remainder citing "other."

"It took me … 3 months in all for recovery. My midwives were there for me via phone or in person the entire time."

Telephone and Home Visit Guidance

We asked mothers if, in the two months after their baby's birth, they had had the telephone number of a nurse, doctor, midwife, or health visitor to contact with any concerns about themselves or their babies, and 76% indicated that they did have such a contact. We also asked if they had received a home visit from a health professional in the first two months, and about 13% indicated they had from their maternity care team, 9% from the baby's team, and 8% from a home visiting program. Since some mothers received visits from more than one of these sources, after eliminating overlap, about 18% of mothers reported at least one home visit.

"I received a visit at home from a nurse to see how I was doing. She … checked my incision, checked my baby over, and gave me and baby some free gifts. She set us up with a visiting teacher that helps with learning growth of my baby along with info on local baby groups… It was a well needed visit. She gave me tips on how to do things until I was healed."

Guidance About Common Concerns

We also asked mothers about the provision of information from their provider on issues of importance to postpartum mothers, and Table 1 presents the results. Overall, mothers were most likely to say they were "definitely" given enough information about birth control methods (57%) and least likely to have been informed about changes in sexual response and feelings (30%). We divided those responses by the type of birth attendant they had had (obstetrician, family doctor, or midwife) and found a different distribution of responses. Mothers with midwives were substantially more likely to have received enough information about birth control methods while those with family doctors were most likely to have received enough information about postpartum depression, healthy eating, exercise and changes in sexual response. With the exception of birth control, mothers with obstetricians as their birth attendant were least likely to state they were definitely given enough information in their postpartum visits on these issues.

"The "baby blues" hit hard for about four weeks following my daughter's birth.... My childbirth ... instructor ... never explained how awful it can be. My maternity care providers never addressed it before I gave birth.... This ... should be given more attention in maternity and postpartum care."

Table 1. Provision of information on key topics, by type of birth attendant

During visits with your maternity care provider after the birth, were you given enough information about...?

Base: had one or more postpartum visits among follow-up *LTM III* mothers *n=950*	% definitely yes			
	All *n=950*	**Obstetrician** *n=676*	**Family doctor** *n=66*	**Midwife** *n=99*
Birth control methods that you can use after giving birth*	**57%**	**56%**	**52%**	**77%**
Postpartum depression*	**44%**	**43%**	**56%**	**46%**
How long to wait before getting pregnant again	**41%**	**40%**	**48%**	**46%**
Healthy eating*	**39%**	**37%**	**60%**	**44%**
The importance of exercise*	**36%**	**34%**	**50%**	**43%**
Changes in your sexual response and feelings*	**30%**	**28%**	**53%**	**34%**

$p < .01$ for differences by type of provider

Follow-up in Women with Diabetes or Gestational Diabetes

More than half (56%) of the mothers who reported in our first survey that they had been told they had preexisting or gestational diabetes reported receiving a postpartum test for diabetes or high blood sugar. Likelihood of a postpartum test varied somewhat by Body Mass Index, either just before becoming pregnant or at the time of birth, with postpartum diabetes testing most likely for mothers at either the obese or underweight ends of the spectrum, and least likely for mothers in the normal range.

Limiting Total Number of Cesareans

A little more than one-fourth (28%) of mothers who had one or more cesareans said they were told by their provider to limit their lifetime total number of cesareans (Table 2), and the average number of cesareans recommended as a maximum was 3.2. Once again, we stratified that result by provider and found substantial differences, with family doctors (72%) and midwives (58%) much more likely to recommend a limit. On average, family doctors recommended the lowest amount (2.7), and midwives cited the highest (4.0). Notably, almost 9 in 10 mothers with prior cesareans had an obstetrician as their birth attendant, likely reflecting the strong likelihood of repeat cesareans.

"I was very worried about how my body would handle having four c-sections."

Table 2. Provider advice on limiting total number of cesareans, by type of birth attendant

Base: had one or more cesareans among follow-up *LTM III* mothers *n=375*	**All** *n=375*	**Obstetrician** *n=305*	**Family doctor** *n=18*	**Midwife** *n=24*
Was told by provider to limit total number of cesareans to a specific number	**28%**	**25%**	**72%**	**58%**
Recommended maximum number of cesareans	**3.2**	**3.1**	**2.7**	**4.0**

$p < .01$ for difference in recommendations by provider
Note: few respondents had family doctor and midwife birth attendants

Medical Care

Regular Medical Provider

We asked mothers who their medical provider was after they completed maternity care, and 42% indicated it was their family doctor, 22% relied on an obstetrician/gynecologist, 9% reported using an internal medicine doctor, and 15% stated they had no regular medical provider. The remaining responses were divided among midwives, clinics, nurse practitioners, and physician assistants. The lack of a regular medical provider was almost twice as likely among mothers whose birth had been paid for by Medicaid (17%) as among those with private insurance (10%) ($p < .01$).

Rehospitalization

We asked mothers if, since the birth, they had for any reason returned to the hospital at least overnight. For overall comparison purposes, we limited this to mothers who had given birth at least nine months earlier (since mothers with a more recent birth would have had less opportunity to have been hospitalized), and 13% replied that they had returned to the hospital (Table 3). The likelihood of rehospitalization varied by mothers' race/ethnicity, with non-Hispanic black mothers almost twice as likely as other groups to be rehospitalized ($p < .01$).

Table 3. Rehospitalization of mothers and babies, by race/ethnicity

Base: nine or more months elapsed since birth among follow-up *LTM III* mothers *n=1006*	Mother	Baby
All	**13%**	**9%**
Non-Hispanic black	**21%**	**17%**
Non-Hispanic white	**12%**	**7%**
Hispanic	**11%**	**8%**

p < .01 for differences by race/ethnicity for mothers and babies

We asked mothers when they returned to the hospital. About one-fourth (28%) reported being rehospitalized within the first two months after birth, and 42% within the first six months after birth. Overall, mothers with a vaginal birth (15%) were more likely to report returning to the hospital than those with a cesarean (8%) (p < .01), though slightly more than half (49%) of rehospitalized mothers with a cesarean were rehospitalized in the first 6 months after birth compared with mothers with a vaginal birth (34%).

"Heavy bleeding … was not taken as seriously by my nurse as I thought it should be…. I ended up having to be hospitalized for postpartum hemorrhage and had to have a blood transfusion at about 8 weeks postpartum. I wish that the nurse had taken my concerns about the bleeding a little more seriously earlier on."

We asked the reason for their return to the hospital, and the most common response was pain related to the birth, with 25% 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 (18% of those hospitalized), complications of surgery (8%), and vaginal bleeding (8%).

Burden of New Maternal Health Concerns After Birth

The initial 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 six postpartum health concerns as new "major" or "minor" problems (not as 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 the follow-up survey, we expanded the list to include an additional 16 items that were not initially included due to space limitations, and we asked whether any of the 16 conditions that were troubling in the first two months after birth continued to be a problem at the time of that survey (Table 4).

"I was quite surprised about the physical pain I was in after delivery."

Table 4. Mothers' experience of selected new-onset health problems in first two months and at six months or more after birth

Base: all mothers eligible for question (see notes)	**In first two months**			**Problem persisted to six months or more**
	Major new problem	**Minor new problem**	**Major/minor new problem**	
Vaginal only*				
Painful perineum *n=1656*	**11%**	**30%**	**41%**	**7%**
Infection from cut or torn perineum *n=1656*	**5%**	**13%**	**18%**	**4%**
Cesarean only (base varies)				
Pain at site of cesarean incision *n=744**	**19%**	**39%**	**58%**	**16%**
Itching at cesarean incision *n=351***	**13%**	**38%**	**51%**	**20%**
Numbness at cesarean incision site *n=351***	**12%**	**36%**	**48%**	**20%**
Infection at site of cesarean incision *n=744**	**8%**	**16%**	**24%**	**5%**
All mothers *n=2400**				
Urinary problems	**9%**	**22%**	**31%**	**11%**
Bowel problems	**9%**	**21%**	**30%**	**9%**
All mothers *n=1072***				
Sleep loss	**21%**	**38%**	**58%**	**30%**
Feeling stressed	**17%**	**37%**	**54%**	**34%**
Physical exhaustion	**16%**	**35%**	**51%**	**27%**
Weight control	**16%**	**28%**	**45%**	**29%**
Other breastfeeding problems	**16%**	**17%**	**33%**	**5%**
Lack of sexual desire	**13%**	**30%**	**43%**	**24%**
Sore nipples/breast tenderness	**12%**	**35%**	**48%**	**9%**
Backache	**12%**	**34%**	**46%**	**26%**
Feelings of depression	**10%**	**21%**	**31%**	**15%**
Heavy bleeding	**9%**	**18%**	**27%**	**8%**
Frequent headaches	**8%**	**21%**	**29%**	**19%**
Painful intercourse	**7%**	**20%**	**27%**	**10%**
Hemorrhoids	**6%**	**17%**	**23%**	**9%**
Breast infection	**6%**	**9%**	**15%**	**3%**

*Base: initial *LTM III* mothers with a vaginal birth (*n=1656*), a cesarean birth (*n=744*), or either (*n=2400*).
**Base: follow-up *LTM III* mothers with a cesarean birth (*n=351*) or with either a vaginal or cesarean birth (*n=1072*)

New-Onset Problems in First Two Months After Vaginal Birth
Two out of five (41% overall; 11% major) mothers with a vaginal birth cited a painful perineum as a problem in the first two months after birth in the initial survey. Perineal pain as a major problem was strongly related to whether a mother experienced an episiotomy (18%) or did not (9%) ($p < .01$). Almost one out of five (18%) cited a problem with perineal infection, with 5% saying it had been a major problem (Table 4).

"I had extreme pain that was not relieved at all by baths or pain medicine, and when I called my OB-GYN office they dismissed my concerns."

New-Onset Problems in First Two Months After Cesarean Birth
The problem cited by the greatest proportion of women was among those women who had experienced a cesarean section: nearly six out of ten women with cesareans (58%) considered pain at the site of the incision to have been a problem in the first two months after birth, with 19% citing it as a major problem in the initial survey. One in four (24%) reported an infection associated with her cesarean. In the follow-up survey, half the mothers with a cesarean reported a problem with itching (51% overall; 13% major) or numbness (48% overall; 12% major) at the site of the cesarean incision in the first two months (Table 4).

New-Onset Problems in First Two Months After All Births
Problems that might affect mothers regardless of mode of birth and cited by at least half the respondents in the follow-up survey were sleep loss (58% overall, 21% major), feeling stressed (54%, 17% major), and physical exhaustion (51%, 16% major). More than two in five mothers cited sore nipples/breast tenderness (48%, 12% major), backache (46%, 12% major), weight control (45%, 16% major), and lack of sexual desire (43%, 13% major). Mothers also frequently mentioned breastfeeding problems other than tenderness or infection (33%), feelings of depression (31%), frequent headaches (29%), painful intercourse (27%), or heavy bleeding (27%). One-quarter experienced hemorrhoids (23%), and 15% had a problem with breast infections (Table 4).

"The postpartum "baby blues" and extended discomfort with sex after pregnancy surprised me."

"I had a horribly scary experience with postpartum bleeding. It was not easing up, and I was still experiencing heavy bleeding at six weeks."

Persistence of New-Onset Problems to Six Months or More
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 initial and follow-up surveys. Table 4 presents the results.

"The negatives include vaginal soreness, still, after 5 months (the doctor had to re-do my stitches)."

At six or more months after birth, about one in three mothers (34%) indicated they were still feeling stressed or had problems with sleep loss (30%), followed by continuing problems with weight control (29%), physical exhaustion (27%), backache (26%), and lack of sexual desire (24%). Among those mothers who had a cesarean, 20% reported continuing numbness, and 20% cited continued itchiness at the incision site. Whereas 16% of mothers who had a cesarean reported pain at the site of the incision at six months or beyond, only 7% of women with a vaginal birth reported continued problems with perineal pain.

"I am also still experiencing urinary issues, and I wish they would have offered more advice on the subject."

Space limitations did not allow us to ask whether the women had sought professional help for the various problems that we documented. We refer readers to the first *Listening to Mothers*[SM] survey report, which covered this topic.

"No one told me before birth that the c-section area would always be kind of numb and kind of painful if pressure was put on it."

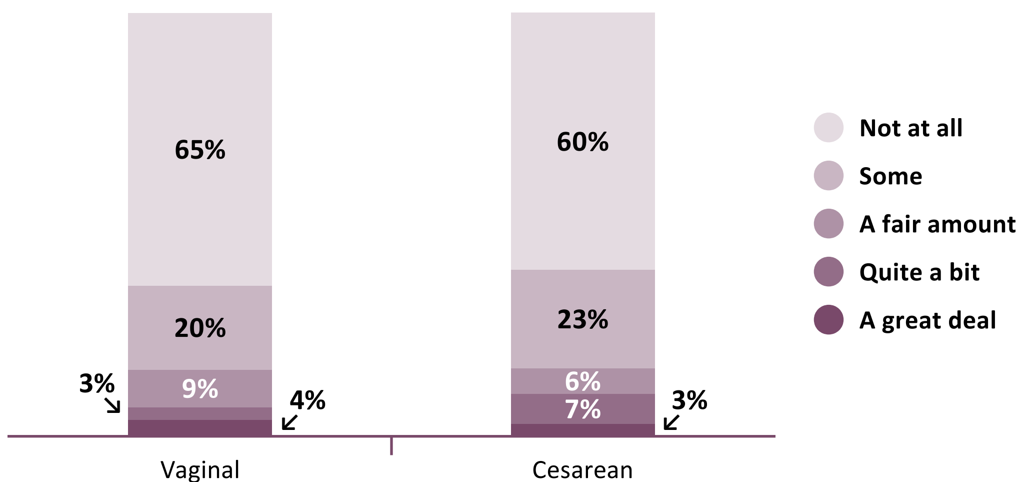
Postpartum Well-Being and Daily Activities

Mothers were asked to state the extent to which physical or emotional problems had 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 (37%) or emotional health (29%) interfered at least “some” with their ability to care for their baby, with 42% of all mothers reporting physical and/or emotional impairment. Only 16% in each case reported these problems interfered at least a “fair amount” (Figure 1).

“The cesarean recovery was far more difficult than I was prepared for. It was weeks before I felt like my normal self again. In a previous pregnancy, a nurse giving labor classes had said that a cesarean was ‘a breeze’.”

Figure 1. Extent to which mothers’ physical health interfered with ability to care for baby in first two months after birth, by mode of birth

Base: all follow-up *LTM III* mothers *n=1072*



p < .01 for differences, by mode of birth

“I had now experienced both a vaginal birth and a c-section and I knew that it was much easier to recover after a natural birth.”

We asked mothers about the degree to which pain interfered with their everyday activities in the first two months after birth (initial survey) and in the two weeks prior to the survey (follow-up survey), with five response choices ranging from "not at all" to "extremely." Table 5 presents the results. About three in four said that pain did interfere at least "a little bit" in their routine activities in the first two months, with 7% saying "quite a bit" and 4% "extremely."

In the two weeks preceding the follow-up survey, more than half (56%) of mothers said that pain did interfere at least "a little bit", with 7% indicating that pain interfered either "quite a bit" (5%) or "extremely" (2%). At both time periods, there were significant differences by mode of birth ($p < .01$). In the initial survey, there was a clear tendency for greater reported problems with pain among mothers with a cesarean, while in the follow up survey the distinctions were not as pronounced and not all in the same direction.

"I was in so much pain, I would set tasks and concentrate on completing individual tasks. It is the only way I survived."

Table 5. Extent to which pain interfered with mothers' routine activities at two time periods, by mode of birth

How much did pain interfere with your routine activities?

	In two months after birth Base: all initial *LTM III* mothers			In two weeks prior to follow-up survey Base: all follow-up *LTM III* mothers		
	Vaginal *n=1656*	**Cesarean** *n=744*	**All** *n=2400*	**Vaginal** *n=721*	**Cesarean** *n=351*	**All** *n=1072*
Extremely	**3%**	**10%**	**4%**	**1%**	**2%**	**2%**
Quite a bit	**6%**	**16%**	**7%**	**6%**	**3%**	**5%**
Moderately	**21%**	**25%**	**22%**	**14%**	**19%**	**16%**
A little bit	**43%**	**36%**	**42%**	**37%**	**27%**	**33%**
Not at all	**27%**	**14%**	**24%**	**42%**	**49%**	**45%**

$p < .01$ for differences in both time periods, by mode of birth

"The pain after birth was more than I expected. I did not tear or have anything wrong, but it took me 2 weeks to be able to walk the same, and 3 months in all for recovery."

Maintaining Wellness

We asked mothers who completed the follow-up survey 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 6. Mothers reported the greatest concern with getting enough exercise, with 26% thinking they were doing "not at all well" and only 33% rating themselves as doing "very well" or "extremely well." Mothers rated themselves most positively in terms of managing stress, with 37% doing at least very well. Eating a healthy diet and getting enough sleep were rated in between the others, with about three-fifths of the mothers rating themselves as doing at least fairly well in those areas. All of these dimensions were strongly related to mothers' self-report of both their physical and emotional health. For example, 39% of mothers who reported their physical health had interfered with caring for their baby a great deal reported not eating well compared with only 13% of those who had said physical health had not been a problem indicating they were not eating well ($p < .01$).

"After giving birth, I felt that anything I could do in the gym wouldn't compare to what I did in the delivery room!"

"There are days when it's hard for me just to get a shower, or eat a decent meal, because many times when I go to do these things, she will start crying, so I have to take care of her."

Table 6. Maintaining wellness

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

Base: all follow-up *LTM III* mothers *n=1072*	**Not at all well**	**Somewhat well**	**Fairly well**	**Very well**	**Extremely well**
Getting enough exercise	**26%**	**17%**	**25%**	**20%**	**13%**
Getting enough sleep	**17%**	**22%**	**32%**	**17%**	**12%**
Eating a healthy diet	**14%**	**20%**	**34%**	**18%**	**15%**
Managing stress	**9%**	**22%**	**31%**	**24%**	**13%**

Breastfeeding, an important preventive practice with long-term implications for women's health, is primarily covered in the following chapter.

Mothers' Postpartum Weight Loss

In the initial survey, we asked mothers to report their weight at three different time periods: at the time they became pregnant, at the time of birth, and at the time of the survey. In the follow-up survey, we again asked about their weight. Combining the two surveys, we can chart the process of average postpartum weight loss for up to 21 months postpartum. Figure 2 presents the results, starting with mothers' reports of gaining, on average, almost 24 pounds during their pregnancy, and losing 20 pounds at the time of the first survey. When asked about their current weight in the follow-up survey, on average, it was no different than the weight reported several months earlier in the initial survey. The result is that between the beginning of pregnancy and the time when they completed the follow-up survey mothers reported gaining about four pounds.

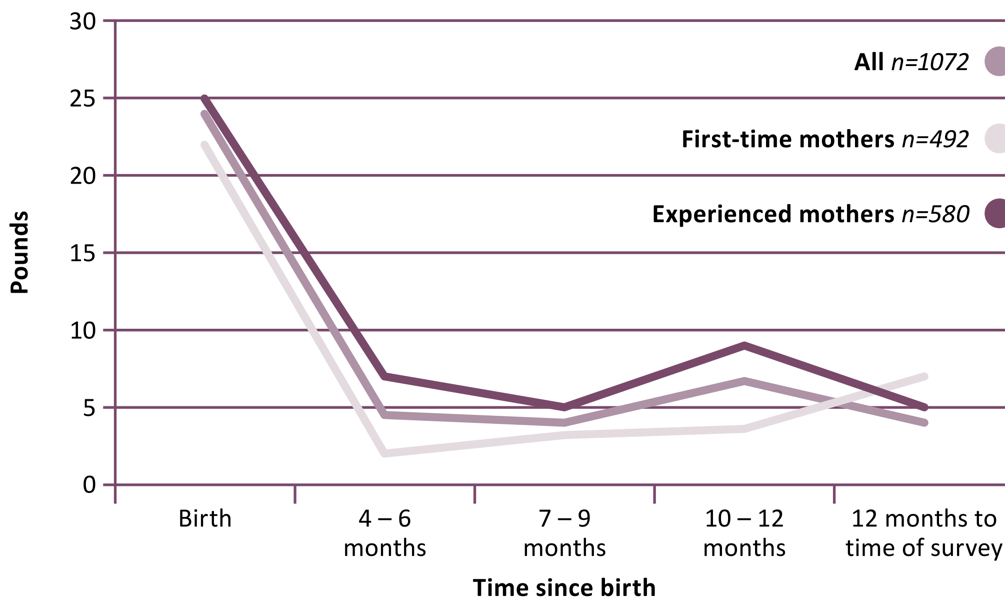
"I gained a lot of weight with him and haven't been able to loose it very easily."

"I envy those who manage to return to their prepregnancy weight. It is not easy for many. Having a difficult time losing pregnancy weight after each birth makes me self-conscious."

"I did not feel like myself again for about a year after because I had such a hard time losing all the weight."

Figure 2. Net maternal weight gain since conception, from birth through time of follow-up survey

Base: all follow-up *LTM III* mothers *n=1072*



Feelings after Birth

We asked mothers whether particular words accurately described their feelings in the first two months after birth. Table 7 presents the results. The most uniform responses were related to fatigue, with 85% of mothers describing themselves as "tired" and 24% "rested." Other feelings described by at least half of the mothers were "supported" (79%), "confident" (72%) and "messy" (61%). About one in three mothers reported feeling "unsure" (36%), "organized" (36%), or "isolated" (32%).

Of interest are some variations in these responses. First-time and experienced mothers differed substantially on two of the eight items (Table 7). While not feeling very different about such matters as being "organized," "messy," "isolated," or "tired," first-time mothers were more likely to report feeling "supported" (86% to 75%) ($p < .01$) and more likely to report feeling "unsure" (43% to 31%) ($p < .01$). Not shown in the table, mothers who did not have a spouse or partner were less likely to report feeling "supported" and more likely to feel "isolated" than those with a spouse or partner. Mothers without a spouse or a partner were also more likely to feel "organized" and less likely to report being "tired" ($p < .01$). Mothers' reports of feelings generally did not vary by mode of birth.

"With this, my third birth, I finally had the drug-free natural birth I always wanted. I also had an easier recovery. This left me feeling more confident as a woman and mother, and I will be more confident in approaching any future births."

"The worst thing was basically being abandoned and forgotten by all my friends after I had my baby. Feeling isolated and having little support aside from my husband."

"Emotionally, I am a lot stronger of a person. It amazes me how quick I can make a decision regarding parenting. I am learning not to make a big deal of small things – choose my battles. Physically, I am exhausted all the time."

Table 7. Mothers' feelings in the first two months after birth

Some women use the following words to describe their feelings in the weeks and months after birth. Thinking back to the first two months after you gave birth, did you feel...?

Base: follow-up *LTM III* mothers (see note)	**First-time mothers**	**Experienced mothers**	**All mothers**
Tired	**81%**	**88%**	**85%**
Supported*	**86%**	**75%**	**79%**
Confident	**73%**	**72%**	**72%**
Messy	**60%**	**62%**	**61%**
Organized	**40%**	**33%**	**36%**
Unsure*	**43%**	**31%**	**36%**
Isolated	**29%**	**34%**	**32%**
Rested	**23%**	**25%**	**24%**

*$p < .01$ for differences between first-time and experienced mothers
Note: participants were randomly asked to respond to either (above, in order) response choices 2, 3, 6, and 7 (*n=522*, with *210* first-time and *312* experienced mothers) or response choices 1, 4, 5, and 8 (*n=550*, with *225* first-time and *325* experienced mothers)

"Before I had a child I never understood what it was like to be truly tired... but now I do."

Postpartum Mental Health

We used the Patient Health Questionnaire-2 (PHQ-2) to ask mothers about possible depressive symptoms in the two weeks prior to both the initial and follow-up surveys (Table 8). About one in three mothers reported "feeling down, depressed or hopeless" (35%) or having "little interest or pleasure in doing things" (36%) for at least several days in the two weeks before completing the follow-up survey. Also, 6% reported "feeling down" and 7% felt "little interest" nearly every day. Using the developers' recommended scoring and cut point, we used both questions to identify those mothers who screened as likely to be depressed. In clinical settings, such women would be referred for evaluation. Overall, 17% of mothers screened as likely to be depressed in the postpartum survey compared with 14% in the original survey. Table 8 compares results in the two surveys. Notably, a large majority of mothers (76%) did not reach the screening standard for depression in either survey, while 7% met the standard in both. One in ten (10%) who did not reach the threshold for depression in the first survey did so in the postpartum and 7% reached the threshold in the first survey, but not the follow-up.

While 17% of all mothers in the follow-up survey met the screening criteria for depression, responses varied by demographic factors, with mothers who paid for the birth out-of-pocket (38%), with five or more children (36%), who had neither a spouse nor a partner (33%), who had had an unplanned pregnancy (29%), and were uninsured (25%) all reporting rates significantly higher than average (p < .01).

"Being a working mother is definitely a challenge. Especially after my first child, I experienced a ton of guilt. There is immense pressure in today's society to do it all, and to do it well, and to be happy doing it. I don't think I realized at the time that I was 'depressed'. After my second child, I decided to be more proactive. I am taking a low dose anti-depressant and 'trying' not to feel guilty about taking some time to myself on some of my days off, instead of spending every possible moment with my kids."

Table 8. Persistence of symptoms of depression from initial to follow-up surveys

Base: all follow-up *LTM III* mothers *n=1072*

Follow-up Survey	Initial Survey: Screened as **not likely** to be depressed	Initial Survey: Screened as **likely** to be depressed	Total
Screened as **not likely** to be depressed	**76%**	**7%**	**83%**
Screened as **likely** to be depressed	**10%**	**7%**	**17%**
Total	**86%**	**14%**	**100%**

Note: All initial and follow-up *LTM III* survey participants responded to the Patient Health Questionnaire-2 (PHQ-2) two-question depression screener. Above figures are based on the recommended cut point indicating likely depression.

"I had had three prior children before so I knew what to expect but would have never thought that post-partum depression would happen to me."

"I wish there would be a better way to mentally prepare yourself for the massive life change that happens. It was very overwhelming for the first month and I was worried I had depression but it was just a very big adaptation that I had to go through."

In the follow-up 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 22% of mothers who had given birth from 10 to 12 months earlier and 22% who gave birth from 19 to 21 months earlier reporting they had had such a consultation.

Table 9 examines whether or not mothers consulted a provider concerning their mental or emotional health, stratified by their PHQ-2 scores for both surveys. While 18% of all mothers reported seeking help, that figure varied widely based on whether they screened as likely to be depressed. Mothers who met the standard for likely depression in both surveys were almost four times as likely to have sought help (45% to 12%) than those who did not meet the standard in either survey, while one-third (33%) of mothers who met the standard in one or the other survey sought help. Of great concern, more than half the mothers (55%) who met screening criteria for depression in both the initial and follow-up surveys failed to report getting any help.

"I suffered, and am still suffering, from PPD. My child will be 6 months old tomorrow, and I actually went to the Dr. today to try something else to help. I have been on about 5 different anti-depressants.... I am just now starting to get a little better. I never thought about PPD being a problem until it hit me like a ton of bricks 2 days after I came home from the hospital."

"My OB was helpful knowing that I am prone to PPD, but unfortunately, there are very few mental health resources for women, even when they know they are depressed and need help. It's almost impossible to get an appointment with a psychologist or psychiatrist, even if you can manage to find one that's on your insurance plan. I really needed help but I could barely get a therapist to return my calls (literally – I called and left messages and they wouldn't call me back)."

"I like that they are addressing PPD as an ACTUAL illness."

Table 9. Use of mental health services, by depression screening scores in initial and follow-up surveys

Since giving birth, have you consulted a health care or mental health professional (for example, either your maternity or primary caregivers, a social worker, psychologist, or psychiatrist) with concerns about your emotional or mental well-being?

Base: all follow-up *LTM III* mothers *n=1072*

	Initial survey % "yes" consulted		
Follow-up survey % "yes" consulted	Screened as **not likely** to be depressed	Screened as **likely** to be depressed	**Total**
Screened as **not likely** to be depressed	**12%**	**33%**	**14%**
Screened as **likely** to be depressed	**33%**	**45%**	**37%**
Total	**14%**	**39%**	**18%**

2. Child Well-Being

Experiences from the prenatal period through the initial weeks and months of a baby's life establish a foundation for lifelong health and well-being. Combined results from the initial and follow-up *Listening to Mothers*[SM] *III* surveys enabled us to describe many dimensions of early life experiences of babies born in U.S. hospitals in 2011-12 for up to 21 months after birth. This chapter describes mothers' assessment of the babies' health status, the babies' experience with use of child health services, the babies' feeding and especially breastfeeding experiences, and use of selected practices – circumcision, pacifiers, and co-sleeping.

Rating of Child's Health

We asked mothers to rate their child's current health. Mothers were generally very positive, with 98% saying their child's health was excellent (78%) or good (20%). This finding is consistent across a wide array of factors, including race/ethnicity, income, age, intendedness of pregnancy, and source of payment for maternity care. These ratings did vary when comparing babies that were rehospitalized (7% of mothers rated those babies' health fair; 0% poor) with babies that were not (2% fair/poor). However, even among babies that had subsequent hospital stays, almost half the mothers (48%) rated their baby's current health as excellent.

"He was a healthy baby in every way. He hadn't gotten sick once. He was happy, and interactive."

"With my son, he had some birth defects that he was born with that required more attention and more in-depth care."

Health Care

Length of Time Child Stayed in Hospital After Birth

A majority of mothers (65%) reported that their baby came home within 2 days after being born, with only 6% staying six or more days. The length of stay varied widely by mode of birth, with 59% of babies born by cesarean staying three or more days compared with 22% of babies born vaginally. Not surprisingly, babies born by cesarean who spent time in a neonatal intensive care unit (NICU) were much more likely to stay six or more days (33%) than those born by cesarean who were not in a NICU (1%) ($p < .01$).

"My child had to spend two days in the NICU.... I knew it was the best place for my baby, but I was angry about the separation and angry at the NICU nurses for not listening to my wishes and trying to feed the baby apart from me."

Child's Health Care Provider

Just as obstetricians were the predominant providers of maternal health services, mothers most often named pediatricians (79%) as their child's primary care provider. Family doctors (17%), nurse-practitioners (2%), and physician assistants (1%) 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%).

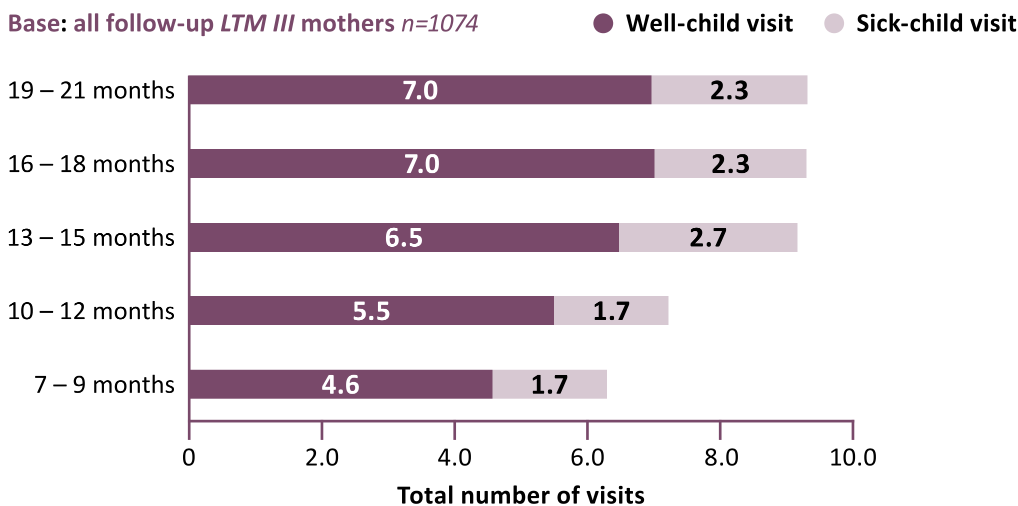
Well- and Sick-Child Visits

Mothers reported making about six well-child and two sick-child visits on average (Figure 3). This figure was obviously strongly related to the time elapsed since birth, with mothers who had given birth 7 to 12 months earlier averaging 6.8 total visits and those giving birth 13 to 21 months earlier averaging 9.3 total visits. There were some interesting lack of differences among subgroups and for consistency we limited the comparison to mothers who had given birth within a year of the survey. There were no notable differences by race/ethnicity or between first-time and experienced mothers, nor were there differences by how mothers rated their child's health.

"I feel a sense of pride when his well-child checks go well."

"Being at her doctor's appointments and knowing that she is gaining weight and growing makes me feel proud! I had a part in that, with breastfeeding her."

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



Immunization Preferences

We asked mothers about their approach to immunizations relative to the recommended schedule of immunizations. More than four in five (83%) mothers indicated they preferred to get all immunizations according to guidelines, while 12% preferred to make modifications, such as adjustments to timing or dosage, and 3% preferred not to have their children immunized.

We also asked mothers to self-describe their political ideology and they did as either liberal (27%), moderate (45%), or conservative (28%). The likelihood of a mother not wanting to have her child immunized was strongly related to self-perceived political ideology, with mothers who self-described themselves as conservative (7%) more likely than self-described liberals (1%) ($p < .01$) to not want immunizations. We also explored differences by region, and mothers living in the Western part of the United States (7%) were more likely to prefer to avoid immunization compared with mothers from the Northeast (0%) ($p < .01$). Combining these two factors, 17% of mothers who were self-described conservatives and from the Western region preferred not to have their child immunized compared with 0% for self-described liberals from the Northeast.

"We refused to have the Hep B vaccine given to our daughter in the hospital. We decided ahead of time to wait until her 2 month check up. We refused because she was not at risk for Hep B. Her pediatrician accepted this refusal with no disagreement. We met with him weeks before giving birth and he told us this was common and acceptable for babies who are not at risk. He followed up with us about this decision at her 2 month check up, at which time she received the vaccine."

Rehospitalization
A total of 9% of mothers reported that their child had to return to the hospital for at least an overnight stay (Table 3, in previous chapter). To make the rehospitalization figures more comparable, we limited the cases to babies who had been born at least nine months earlier. These results varied by race/ethnicity, with babies born to non-Hispanic black mothers more than twice as likely to be hospitalized (17%) as babies born to non-Hispanic white mothers (7%) ($p < .01$). It also varied by health measures such as rating of the child's health (29% hospitalization rate for infants with health rated "fair" or "poor," compared with 6% for those rated as "excellent," $p < .01$) and number of sick-child visits (3.2 sick-child visits for those with a hospitalization compared with 2.0 such visits for those without one ($p < .01$).

Of those babies hospitalized after birth, almost one-fourth (22%) returned to the hospital within one month and more than one-third (38%) within 3 months. Overall, 3% of all mothers in the survey reported that their babies had been rehospitalized within 3 months of birth. The reasons given by mothers for infant hospitalizations varied widely, with no single response selected by at least one-third of mothers. Breathing problems, fever or infections, digestive problems, and jaundice were most often cited.

Breastfeeding

Our recent report of results of the initial *Listening to Mothers*℠ *III* survey presents findings about mothers' newborn feeding intention as they came to the end of their pregnancy, their experience in the hospital with "Baby-Friendly" hospital practices that are supportive of breastfeeding and that they would be able to describe (e.g., we excluded whether hospitals had a breastfeeding policy), how they were feeding their baby a week after the birth, and initial feeding patterns in the postpartum period by three-month increments from birth. We further explored many feeding topics in the follow-up survey.

"The thing that gave me the most pride in the first six months was being able to successfully breastfeed."

Duration of Exclusive Breastfeeding

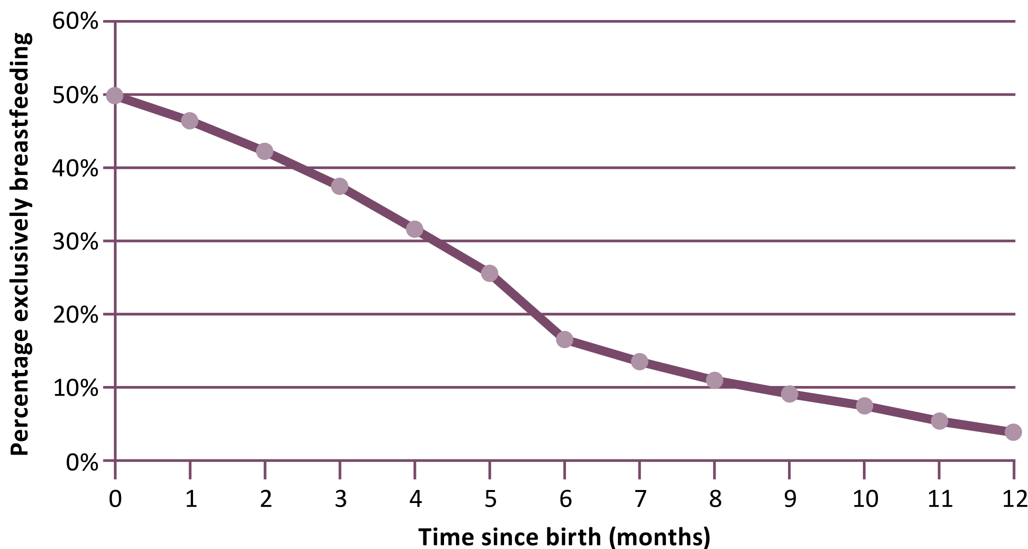
Figure 4 combines data from the initial and follow-up surveys to present the pattern of duration of exclusive breastfeeding over a twelve-month period, with rates ranging from more than 50% in the first month to 37% at the end of three months, 17% at six months, 9% at nine months and only 2% at one year. 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.

"I had a great deal of pride and accomplishment when I made it to another month exclusively breastfeeding."

"I am breastfeeding exclusively and being confident and comfortable doing so, while ignoring feeding advice from others."

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

Base: all follow-up *LTM III* mothers *n=1072*



"This baby has never had formula or even a bottle. He nursed exclusively for the first 6 months, a feat I didn't accomplish with my daughter."

"I was proud to be able to breastfeed my baby exclusively for 3 months, and at least some for 7-8. Some would not consider that to be an accomplishment, but I was happy to be able to have that experience with my baby."

Baby Feeding Patterns

Table 10 presents a different breakdown, looking at mothers by three-month periods, and illustrates the changing pattern of infant and toddler feeding from seven through twenty-one months postpartum. One in three mothers (34%) reported they were still feeding their baby at least some breast milk at the time they completed the follow-up survey. This was related to the time since they had given birth, with 40% of mothers with babies 7 to 12 months old still giving their babies at least some breast milk compared with 27% of mothers with babies 13 to 18 months old. Formula use was more common at 7 to 12 months (69%) and had a pronounced drop-off, with 27% of mothers with babies at least a year old still using formula. Most all the mothers (93%) 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. Non-Hispanic black mothers (48%) were more likely to report continuing at least some breastfeeding after one year compared with Hispanic (28%) or white non-Hispanic mothers (27%) ($p < .01$). In all, 31% of mothers met the American Academy of Pediatrics recommendation for some breastfeeding continuing to 12 or more months.

"I am still giving my little one breast milk. I am proud that I have made it over 8 months now and am going to try and make it to a year."

"I am able to stay calm and committed to nursing my baby as long as possible, hopefully up to and possibly slightly past her first year of life. Getting a good start and staying positive with breastfeeding has helped tremendously."

Table 10. Baby feeding patterns from 7 to 21 months postpartum

Are you currently feeding your child any...?

Base: all follow-up *LTM III* mothers *n=1072*	Age of baby at time of follow-up survey					
	7-9 mos *n=149*	**10-12 mos** *n=241*	**13-15 mos** *n=198*	**16-18 mos** *n=270*	**19-21 mos** *n=215*	**All** *n=1072*
Breast milk	**41%**	**39%**	**18%**	**34%**	**40%**	**34%**
Formula	**76%**	**66%**	**21%**	**29%**	**33%**	**43%**
Solid food	**90%**	**92%**	**94%**	**92%**	**96%**	**93%**

Reasons for Not Establishing and for Discontinuing Breastfeeding

We asked mothers in the initial survey how they had intended to feed their newborn as they approached the end of their pregnancy and how they were actually feeding their newborn a week after giving birth. About one mother in twenty (5%) reported that at one week she had not fulfilled her intention to breastfeed exclusively or in combination with formula feeding. In the follow-up survey, we asked those specific mothers their reasons for not breastfeeding, and Table 11 reports the reasons cited by 8% or more of this group. Mothers could check more than one answer and many did, with "baby had difficulty nursing" (31%) being most commonly cited, followed by "too hard to get breastfeeding going" (23%) and "formula more convenient" (23%). Other commonly cited answers included, "I didn't get enough support to get breastfeeding going" (17%), "I didn't plan to breastfeed much anyway, as I planned to go back to my paying job soon" (13%), "I had to take medicine and didn't want my baby to get it" (12%), "I tried breastfeeding and didn't like it" (12%), and "It was too

"The worst thing was …. not being able to breastfeed my son as I had planned and feeling depressed and guilty about that."

hard with my own health challenges" (12%). Since this is a relatively small subset of mothers (n=58 in the postpartum survey), analysis of these results by subgroups was not feasible.

Table 11. Mothers' leading reasons for not establishing and for discontinuing breastfeeding

(choose all that apply)

Base: intended to breastfeed at end of pregnancy among follow-up *LTM III* mothers *n=614*		**Base: breastfeeding at one week among follow-up *LTM III* mothers** *n=551*	
Reasons cited by 8% or more mothers for not breastfeeding at one week		**Reasons cited by 8% or more mothers for not breastfeeding at time of survey**	
My baby had difficulty nursing	**31%**	I had trouble getting breastfeeding going well	**39%**
It was too hard to get breastfeeding going	**23%**	Formula or solid food was more convenient	**22%**
Formula was more convenient	**23%**	I fed my baby breast milk as long as I had planned	**22%**
I didn't get enough support to get breastfeeding going	**17%**	My baby stopped nursing; it was the baby's decision	**18%**
I didn't plan to breastfeed much anyway, as I planned to go back to my paying job soon	**13%**	I was working at a paying job or school, and other people were feeding the baby	**9%**
I had to take medicine and didn't want my baby to get it through breast milk	**12%**	I did not have enough help to work through the challenges	**8%**
I tried breastfeeding and didn't like it	**12%**	I had to take medicine and didn't want my baby to get it through breast milk	**8%**
It was too hard with my own health challenges	**12%**		
After the birth, I changed my mind about wanting to breastfeed	**9%**		

Note: numerous other reasons were cited by fewer than 8% of respondents

We asked a similar question of mothers who were breastfeeding at one week, either exclusively or in combination with formula feeding, and were no longer doing so at the time of the follow-up survey. The answers were distributed more widely (Table 11), led by "had trouble getting breastfeeding going well" (39%), "fed my baby breast milk as long as I intended to" (22%), "formula or solid food more convenient" (22%), "baby stopped nursing – baby's decision" (18%), and "went back to job/school"(10%).

"I could tell from his cry and round-the-clock nursing that he wasn't getting enough from me. I definitely wanted to breastfeed my babies exclusively, but my body just didn't produce enough milk."

Satisfaction with Duration of Breastfeeding

We asked all mothers who reported any breastfeeding at one week, and were not currently breastfeeding at the time they participated in the follow-up survey (n=530) if they had breastfed as long as they wanted. Table 12 presents the results. Half (49%) stated that they had.

Table 12. Whether mothers breastfed as long as they liked, by insurance and support services

Base: breastfeeding at one week and not currently breastfeeding among follow-up *LTM III* mothers *n=530*	% breastfed as long as liked
All	**49%**
Primary insurer during pregnancy	
Private insurance	**52%**
Medicaid or CHIP	**50%**
WIC during pregnancy	
Yes	**53%**
No	**45%**
WIC postpartum (for mother, baby, or both)	
Yes	**49%**
No	**48%**
Had home visit from a health professional	
Yes	**50%**
No	**49%**
Had a telephone number to call for postpartum advice	
Yes	**51%**
No	**40%**

"Breastfeeding has been the biggest accomplishment for my daughter and me. Breastfeeding is much more difficult than most make it out to be. It took a long time for both of us to get the hang of it and I battled low supply at the beginning. Once nursing became routine, then I battled sore nipples, blisters on the nipples, and an infection, which made it hard to keep pushing through, but we are still nursing at 10 months and are hoping to make it to 12."

"I was proud that I could breastfeed my baby since I tried for three weeks with my first child and was unsuccessful."

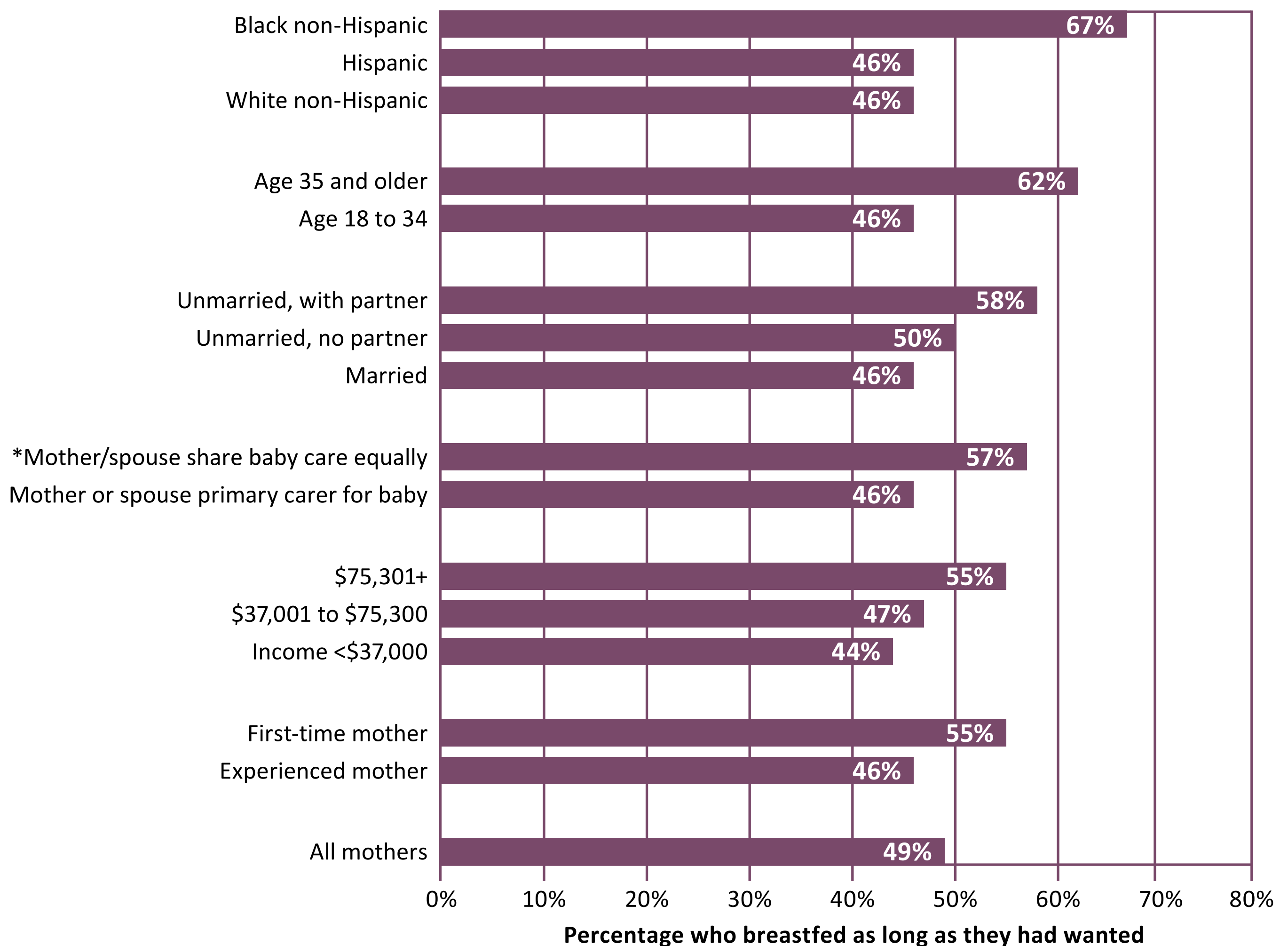
"I was very proud that I was able to breastfeed my daughter for as long as I did."

The likelihood that a mother breastfed as long as she wanted was strongly related to her reported income, with mothers reporting an income of more than $98,000 more likely (62%) to report they had breastfed as long as they wanted to compared with mothers with an income less than $37,000 (44%) (p < .01). Mothers who reported that they and their spouse shared parenting equally (57%) were more likely to feel they had breastfed as long as they wanted compared with mothers who reported either they or their spouse were the primary carer for their child (46%) (p < .01). Various other, often important characteristics – including age, race/ethnicity, poverty status, and marital status – were not significantly related to mothers' stating that they had breastfed as long as they wanted (Figure 5).

"I was proud to have given birth and to have breast fed as much as I was able to. Breast feeding was not easy and my milk supply was low. I think many people would have given up, but I did not for quite awhile."

Figure 5. Proportion of mothers who breastfed as long as they had wanted

Base: breastfeeding at one week and not currently breastfeeding among follow-up *LTM III* mothers *n=530*



*p < .01 for differences, by apportionment of baby care

Knowledge of American Academy of Pediatrics Breastfeeding Recommendations

Mothers were asked if they knew the recommendations for duration of breastfeeding from the American Academy of Pediatrics (AAP), and Table 13 summarizes their responses. The official guidelines state, "The AAP recommends exclusive breastfeeding for about 6 months, with continuation of breastfeeding for 1 year or longer as mutually desired by mother and infant," a recommendation also supported by the World Health Organization and the Institute of Medicine. Mothers' responses suggested awareness of the recommendations, with 43% of the mothers stating 6 months for exclusive breastfeeding and 60% citing 12 months for any breastfeeding. The mean responses for exclusive breastfeeding were 7 months and for any breastfeeding 11 months. Responses did not vary significantly by whether or not the mother had been exclusively breastfeeding or exclusively formula feeding at one week.

"I had such a difficult time breastfeeding…. Day in and day out of pumping every 2-4 hours really took a toll on me. I thought about giving up so many times but I ... knew it was the best thing for my son. I made it to 6 months and … I was so proud of sticking to it. My son has never been sick."

Table 13. Mothers' awareness of breastfeeding recommendations from the American Academy of Pediatrics

To the best of your understanding, what are the breastfeeding recommendations of the American Academy of Pediatrics?

Base: all follow-up *LTM III* mothers *n=1072*	**All mothers** *n=1072*	**Exclusive breastfeeding at one week** *n=551*	**Exclusive formula feeding at one week** *n=220*
Feed breast milk as the only food until your baby is at least |__| months old	**7.0**	**7.0**	**6.6**
Along with solid food, continue to breastfeed until your baby is at least |__| months old	**11.3**	**11.8**	**9.6**

Note: American Academy of Pediatrics recommends exclusive breastfeeding for about the first six months of life, followed by breastfeeding in combination with complementary foods until at least 12 months of age, and continued breastfeeding as long as mutually desired by mother and baby.

Breastfeeding History

We asked the mothers how many babies they had birthed and, for each, how they had intended to feed the baby and how they were actually feeding a week after the birth. Table 14 presents results for the optimal situation of exclusive breastfeeding, ranging from those who had one prior birth to five prior births. The results, which may have been impacted by challenges with recall, strikingly suggest that the likelihood of intending to exclusively breastfeed and of doing so a week after birth are powerfully and inversely related to the number of births.

"I wish I would have been more patient with breastfeeding, I did not have as easy a time as I did with my other children. Now that I look back, I feel like I 'gave up' too early, and it makes me sad."

Table 14. Mothers' breastfeeding intent and practice, with up to five previous births

Base: had given birth one or more times prior to current birth among follow-up *LTM III* mothers *n=637*

Previous births	Intended to exclusively breastfeed as came to the end of that pregnancy	Was exclusively breastfeeding one week after that birth
First *n=637*	**47%**	**42%**
Second *n=292*	**37%**	**34%**
Third *n=115*	**21%**	**27%**
Fourth *n=66*	**9%**	**13%**
Fifth *n=24*	**7%**	**7%**

"Women should be told that exclusively pumping breastmilk is a viable option. I did it with all three of my children for a year each."

Selected Practices: Circumcision, Pacifier Use, Co-Sleeping

Circumcision

Eight in ten mothers (79%) who gave birth to a son reported that he had been circumcised. The practice of circumcision varied widely by race/ethnicity, with first-time Hispanic mothers far less likely (54%) than white (87%) or black (88%) non-Hispanic first-time mothers to have their son circumcised ($p < .01$). Similar differences occurred for experienced mothers, with 47% of Hispanic mothers with at least one other child reporting they had their sons circumcised ($p < .01$).

"I did not have my son circumcised. They double-checked that I really didn't want it done and then they respected my wishes not to do so."

Pacifier Use

Our first *Listening to Mothers*℠ *III* report describes the extent to which hospital staff provided newborns with pacifiers in the context of "Baby-Friendly" hospital practices. The follow-up survey asked mothers about ongoing pacifier use. Slightly more than half of mothers (58%) reported that their baby had ever used a pacifier on a regular basis. Among mothers with babies 13 or more months old, the average amount of time the baby had used the pacifier was 9.5 months. We also asked if the baby was still using a pacifier at the time of the follow-up survey, and in those cases the average length of use was 12 months.

"I do not feel a pacifier is a way to calm my baby."

"I am especially proud of not using a pacifier."

Co-Sleeping

One in ten mothers (12%) reported that her baby always slept in the same bed with her in the first six months after birth, and an additional three in ten stated the baby often (12%) or sometimes (17%) did. This was strongly related to race/ethnicity (Figure 6), with black non-Hispanic mothers reporting co-sleeping often or always 29% of the time (13% always) compared with 25% for Hispanic mothers (16% always) and 22% for white non-Hispanic mothers (10% always) ($p < .01$).

"He was able to sleep in his crib by 2 months. I didn't have to co-sleep with him like I did with my first child."

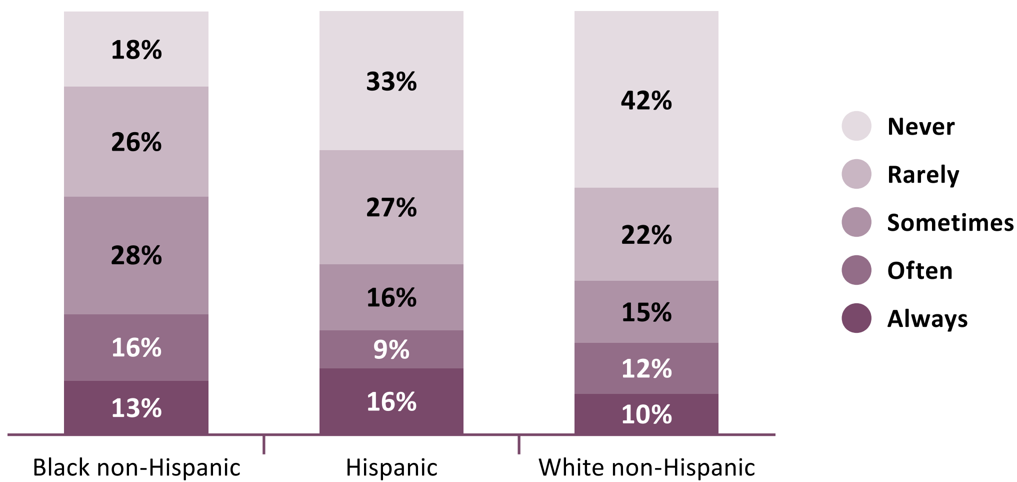
"She sleeps by herself. I don't need to carry her or put a pacifier, and I try to do a good job."

"I liked the times when he was content in my arms or sleeping by me."

"When I got my baby to sleep in her crib, for the first time I felt like I was doing something right."

Figure 6. Frequency of baby co-sleeping in first six months after birth, by race/ethnicity

Base: all follow-up *LTM III* mothers *n=1072*



p < .01 for differences by race/ethnicity

3. Family and Relationships

Women and families with babies face unique challenges and responsibilities, and our initial and follow-up surveys help us better understand their circumstances in the United States. Nearly all other western industrial nations have established a more comprehensive system of supports for new mothers and families. We were eager to learn whether the mothers had a spouse or partner and, if so, the relative involvement of the mothers and their spouses/partners in care of the babies who were born in 2011-2012, as well as the mothers' access to support from the their spouse or partner and from others. This chapter also describes the mothers' attachment to their new babies, the total number of children they hope to have, and use of WIC services in the postpartum period. The following chapter further helps understand the 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.

"I feel needed as a person now. But I also feel like I am not me anymore, just mommy, a cook, a chauffeur and bill payer. Sometimes I am resentful of the lack of help."

Mothers with a Spouse, a Partner, or Neither

We asked mothers if they were currently married, unmarried with a partner, or unmarried with no partner and, as they had reported in the initial survey, most (66%) reported being married, a few (11%) were without a partner, and the remainder were unmarried with a partner (23%).

There were some interesting differences when we compared mothers' responses to a question about their marital status at the time of the birth (in the initial survey) to their response to a similar question at the time of the follow-up survey from six to twenty-one months later. Most mothers (94%) who reported being married at the time of the birth were still married at the time of the follow-up survey. Among mothers who had reported being unmarried with a partner at the time of birth, 20% were now married, and 17% reported not having a partner. Among mothers who reported being unmarried with no partner at the time of the birth, 15% were now married, and 28% had a partner.

Differences in marital status by race/ethnicity at the time of birth were repeated at the time of the follow-up survey, with white non-Hispanic mothers most likely to be married (76%), followed by Hispanic (57%) and black non-Hispanic (44%) mothers ($p < .01$). Black non-Hispanic and Hispanic mothers both reported a rate of 13% for having neither a spouse nor a partner, and 9% of white non-Hispanic mothers had neither.

"Wait to have children until you're married and have the support."

"I had been going through this process without the father but with support from my family."

"My husband and I are separated and have been since my son was 3 months."

"I wish I had more time to myself and more alone time with my husband."

Sharing Child Care with a Spouse or Partner

We asked mothers who reported having a spouse or partner how they apportioned daily care for the child born in 2011-12. Overall, mothers reported that they provided more of the child care (61%), with 35% reporting that care was shared equally and 3% reporting that their spouse or partner provided more care. As Figure 7 illustrates, this was strongly related to the mother's current employment situation, with almost half (49%) of mothers who worked full time outside the home saying child care was equally shared while 24% of those staying at home indicated care was equally shared ($p < .01$). There was an interesting relationship with age, as mothers who were 30-39 were most likely to say they provided most of the care (71%), a much higher rate than mothers under 30 (54%) ($p < .01$). Shared care was more commonly reported by Hispanic (47%) and non-Hispanic black (46%) mothers than non-Hispanic white (29%) mothers ($p < .01$).

"I'm happy to keep my job and family balanced. The baby is so much work. My husband has been very supportive. We're raising the baby as a team and this has strengthened our marriage."

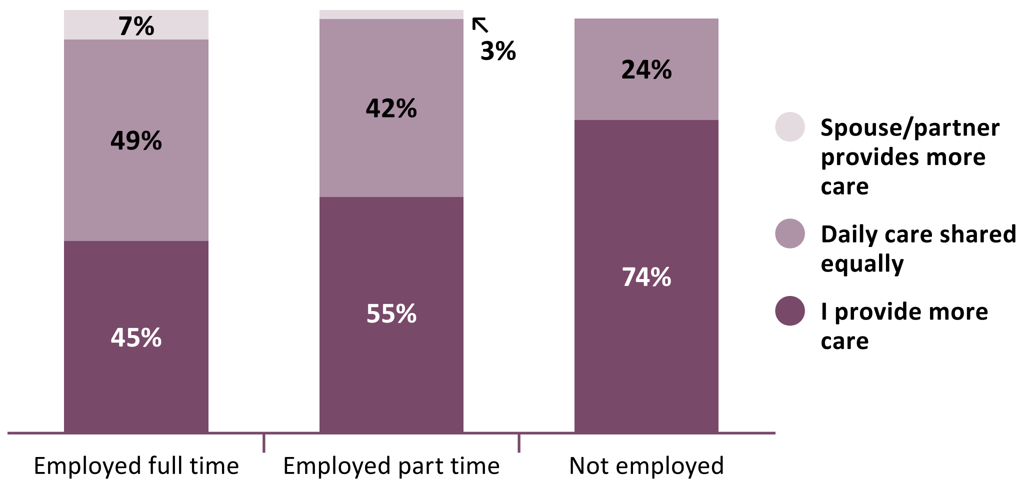
"My first few weeks after giving birth were hard for me because I felt exhausted and that I had no help from my partner."

"I thought I was overwhelmed prior to the baby but I feel it is tenfold now because my spouse works so much and I don't get enough help."

"I'm more tired and have a hard time getting everything done. Then when I do I don't have any time to myself. I'm always doing things for the kids and when they go to sleep my husband wants me to show him attention."

Figure 7. Responsibility for baby care, by employment status

Base: has a spouse or partner among follow-up *LTM III* mothers *n=954*
Note: "Not sure" responses are not shown



$p < .01$ for differences, by employment status

Types of Support Available From a Spouse or Partner and From Others

We described four types of support (emotional, practical, affectionate, and enjoyment) that mothers might receive from their spouses/partners and asked how often mothers with a spouse or partner received such support (Table 15). Mothers' responses were generally consistent across all the dimensions. They were most likely to cite affectionate support as being available (45% "all the time"), followed by emotional (41% "all"), enjoyment (40%), and practical (39%) support. For each type of support, from 15% to 18% of mothers indicated that they received such support "none" or "a little" of the time. Both married mothers and those unmarried with partners generally cited similar levels of support.

"I felt like super mom for being able to handle it all mostly by myself while my husband was at work."

"If both partners do not prepare to be a big support system for each other, it can be very disappointing for the couple."

Table 15. Types and level of support from spouse or partner

Since the birth of your baby, how often are the following types of support available from your (spouse/partner)?

Base: has spouse or partner among follow-up *LTM III* mothers *n=954*	None of the time	A 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%	11%	14%	26%	45%
Emotional, such as listening to my concerns and giving good advice	4%	12%	18%	24%	41%
Enjoyment, such as having fun or relaxing together	6%	12%	18%	23%	40%
Practical, such as helping me get things done or get needed information	5%	10%	20%	26%	39%

"Family members, friends, and people in general should be more sensitive to the needs of second or third time mothers because there were many times I felt dismissed by others when verbalizing my thoughts, feelings, and concerns by statements like, 'Well, you are a pro at this' or 'This is your third time around, you have nothing to worry about'."

We asked mothers to rate the support they received along the same four dimensions from those other than their spouse or partner or, in the case of single mothers, from anyone (Table 16). While the overall ratings were generally lower, mothers did appear to have access to significant levels of support from those around them. They were most likely to cite emotional support from others (52% "all" or "most of the time") and least likely to cite practical support or enjoyment (44% "all" or "most of the time").

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 partner. For example, 33% of women with neither a spouse nor partner reported they received practical support from others "all the time," while 20% of married mothers and 17% of unmarried mothers with partners cited such a level of support ($p < .01$).

"My marriage is stronger but my other friendships/relationships are very different now because all of my focus is on the baby."

Table 16. Types and level of support from others

Since the birth of your baby, how often are the following types of support available from other people you know?*

Base: all follow-up *LTM III* mothers *n=1072*	None of the time	A 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	9%	16%	27%	27%	20%
Emotional, such as listening to my concerns and giving good advice	8%	14%	25%	28%	24%
Enjoyment, such as having fun or relaxing together	9%	18%	28%	23%	21%
Practical, such as helping me get things done or get needed information	11%	18%	27%	24%	20%

*Mothers without a spouse or partner were asked: "... how often are the following types of support available from people you know?"

"I could have benefitted from some help because I think I had a touch of the baby blues and was overwhelmed because I had two other young children at home and breastfeeding wasn't going well. I didn't want to bother anyone with my feelings.... I know I wanted people to think I could do it all and not look down on me as a mother if I couldn't."

Attachment To the New Baby

We asked mothers a series of questions comprising a postpartum attachment scale concerning their feelings about their new baby. Table 17 summarizes the responses. Not surprisingly, mothers felt very positively toward their new baby, with 95% saying they enjoyed interacting with their baby most or all the time, and similarly favorable responses about how cute they find their baby, whether they speak to the baby regularly, and desire to hold their baby. The only dimensions with slightly more varied responses concerned whether or not the mother worried about her child when they were apart (40% all the time); whether or not she missed touching her baby when they were apart (64% all the time); and a statement "Taking care of my baby is fun," which 57% of mothers indicated was true all the time. These responses did vary significantly based on whether or not the mother screened as likely to be depressed, with such mothers less positive. Notably, even in cases where mothers were likely to be depressed, 79% or more expressed positive feelings toward their baby most or all the time.

"I don't think about myself as much as I used to ... I think about my baby, all the time."

"She's perfect to me. I could go on and on about her wonderful ways."

"I love that she is such a happy baby. I also love seeing her doing cute little things, like saying hi to people she sees."

Table 17. Feelings indicating mothers' attachment to their babies

How well do the following statements describe your feelings about your baby?

Base: follow-up *LTM III* mothers (see note)	**Always**	**Most of the time**	**Not really**	**Not at all**
I speak to my baby when caring for him/her	**84%**	**12%**	**2%**	**2%**
I am willing to do anything for my child	**81%**	**12%**	**3%**	**4%**
I enjoy interacting with my child	**80%**	**15%**	**3%**	**3%**
I feel my child is terribly precious	**79%**	**13%**	**4%**	**4%**
I feel at peace when my child is close by	**77%**	**16%**	**3%**	**4%**
I want to touch or hold my baby when I see him/her	**73%**	**20%**	**3%**	**4%**
I miss touching or holding my baby when he/she is not with me	**64%**	**24%**	**10%**	**3%**
Taking care of my baby is fun	**57%**	**36%**	**5%**	**2%**
I worry about my child in many ways when my child is not with me	**40%**	**28%**	**23%**	**9%**
I am not that interested in my child	**6%**	**3%**	**4%**	**88%**
I don't find my baby cute	**6%**	**3%**	**4%**	**88%**

Note: participants were randomly asked to respond to either (above, in order) response choices 1-3, 5, 7, and 11 (*n=522*) or response choices 4, 6, and 8-10 (*n=550*)

Hoped for Number of Children

Mothers in our survey said they would like to have, in all and on average, three children, with three (31%) and two (25%) the most common responses. Only 8% wanted a single child (i.e., mothers with one who said they did not want any more), while 19% indicated a desire for four, 9% preferred five, and 9% wanted more than five. These numbers are higher than general fertility surveys since the mothers in our survey already have at least one child, and 60% had two or more. When we stratified their answers by how many children they now had at home, we found that 81% of women with one child already at home wanted at least one more. Of those with two children, 68% wanted at least one more; and among those who already had three or more children, 48% wanted at least one more child. In each case, the ideal most often mentioned was one more child than they currently had.

"I am so glad to be a mother and have a husband that is there for me. We look forward in the future for more joy and babies."

"I am pretty much done having babies."

Assistance from WIC

Our recent report of the initial *Listening to Mothers*℠ *III* survey describes women's use of WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children) services during pregnancy. In the follow-up survey, we asked about use of WIC services after the birth. Those services reached nearly half (49%) of families, with 31% of mothers reporting that both they and their babies had participated in WIC, 16% reporting that the babies alone participated, and 2% reporting that the mothers alone participated. Among families with WIC services going to both mothers and babies, participation was more likely if Medicaid or CHIP rather than private insurance had been the primary payer of maternity services, if the mother was employed part rather than full time, if she was unmarried with a partner or unmarried without a partner rather than being married, if she was black non-Hispanic or Hispanic rather than white non-Hispanic, and if she had high school or less or some college education rather than being a college graduate or having a higher level of education ($p < .01$ for all).

4. Employment, Maternity Leave, Child Care, and Health Insurance

Unlike the United States, nearly all other western industrial nations have policies in place providing for paid extended leave and other supports available to new mothers and families. We used our follow-up survey to obtain new and updated information about women's experiences with employment during pregnancy and after birth, and with maternity leave and child care. This chapter also presents results relating to new mothers who were students, those who were not employed during pregnancy and/or by the time of the follow-up survey, and current health insurance as well as out-of-pocket costs for maternity care.

Employment During Pregnancy

Employment Status During Pregnancy and Working Up to the Due Date
More than half (61%) of mothers indicated they were employed during their pregnancy, primarily as full-time (33%) or part-time (23%) employees for someone else. A small proportion (6%) of mothers were self-employed. About two in five mothers (39%) were not employed during their pregnancy, though that varied widely, with only 31% of first-time mothers but 44% 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 three weeks before their due date, with 34% working until less than a week before their due date.

"Now, I would have advised myself ... to work less leading up to the birth, and obtain more rest."

"I could have taken off from work just a week or a few days before delivery instead of the 2 weeks leave I took before the birth."

Pregnancy-Related Challenges to Employment
Table 18 presents responses to a sequence of questions concerning employer support for mothers during pregnancy. First, we asked mothers who were not self-employed if, during their pregnancy, they needed the accommodations listed in the table. Substantial proportions of mothers did need each of these accommodations, most notably more breaks or a change in schedule. We then queried mothers on whether or not they had asked for such accommodations, and in most cases they had. Most all mothers reported that their employer attempted to address their concerns if they asked, which should encourage more pregnant mothers to seek accommodations. However, the circumstances of those mothers who needed accommodation and did not ask – including whether they understood their request would not be addressed or that permission was not required – cannot be determined from the responses.

"At my job, they did not care about the baby's health, and had no consideration for pregnancy at all."

Most of the very small number of mothers who had a concern, raised it with their employer, and had the employer turn it down, thought their employers had honored similar workplace requests from other workers with a physical limitation (69%). In those cases where a request was refused, mothers reported the primary reason was, in the case of a change in duties, that the employer had a policy of refusing all such requests or that it was seen as unreasonable or too difficult to satisfy. However, these involved less than 1% of mothers employed during pregnancy.

Table 18. Employer support during pregnancy

During that pregnancy, did you face any of the following pregnancy-related situations with your paid job? Did you need...?

Base: employed by someone else during pregnancy among follow-up *LTM III* mothers	**% faced pregnancy-related situation with paid job** *n=598*	**Of those who faced situation, % asked employer to address need** *n varies*	**Of those who asked employer to address need, % whose employer attempted to address concern** *n varies*
To take more frequent breaks, such as extra bathroom breaks	**71%**	**58%**	**95%**
A change in your schedule or more time off, for example, to see your prenatal care providers	**61%**	**74%**	**91%**
A change in duties, such as less lifting or more sitting	**53%**	**63%**	**91%**
Some other type of workplace adjustment due to a pregnancy-related condition	**40%**	**62%**	**87%**

Maternity Leave

Paid Maternity Leave

Of those mothers who had been employed by someone else during pregnancy, 63% indicated that their employer provided a paid maternity leave benefit, with 64% of those working full time and 61% of those working part time having access to these benefits. We asked mothers how long they had to be working for their employer to be eligible for such benefits, and more than one-third (39%) were not sure. Among those who were aware and who had access to paid maternity leave benefits, the median number of months of employment required to qualify for this benefit was six. Among mothers who worked full time for someone else during pregnancy and received paid maternity benefits (Table 19), one-third (34%) indicated they received 100% of pay, and three out of four (76%) received at least half their regular salary. The time period for which mothers received pay varied widely, with three key periods dominant: four weeks or less (24% of mothers receiving paid leave); five to eight weeks (43%), and nine to twelve weeks (27%). Looking at the subset of mothers who

"Sleep more while you are on maternity leave."

had worked full time during pregnancy and who received 100% of their pay in maternity benefits, the average length of time of coverage was eight weeks, with 43% receiving benefits for 6 weeks or less and 12% for 12 weeks or more.

Table 19. Mothers' experience with paid maternity leave benefits

Base: mothers who were employed full time during pregnancy and employer had paid leave and mother took leave among follow-up *LTM III* mothers *n=193*

Number of weeks received paid maternity leave		Percentage of regular salary received during paid maternity leave	
None	**0%**	None	**0%**
1 – 4	**24%**	1 – 25%	**6%**
5 – 8	**43%**	26 – 50%	**18%**
9 – 12	**27%**	51 – 75%	**27%**
13 – 16	**4%**	76 – 99%	**15%**
17+	**3%**	100%	**34%**

Unpaid Maternity Leave

We also asked mothers about unpaid leave, which is a right guaranteed to pregnant women who work for a company with 50 or more employees under the 1993 Family and Medical Leave Act. A total of 69% of mothers stated their employer had a policy on unpaid leave, 21% indicated there was no such policy, and another 10% were not sure. Of those mothers with access to unpaid leave, 44% chose to use it and 42% did not. Of those mothers who worked for someone else during their pregnancy and knew their employer's leave policies, a majority (55%) reported that their employer had policies for *both* paid and unpaid leave. Of those mothers indicating they had not taken unpaid leave, a majority (57%) indicated they were taking paid leave. Likewise, among those mothers saying they took unpaid leave, half (50%) stated they had taken paid leave as well.

"During the first six months, I was proud to be spending every single moment with the baby, since I had taken unpaid leave. I really didn't mind that, as it was very important to bond with the baby. I could have used more of that."

For those mothers whose employer had a policy allowing unpaid leave, mothers who knew how long it took to quality for such leave reported that on average it took 8 weeks of employment to qualify for such leave. Notably, more than half of the mothers (52%) could not report how long it would take to qualify for unpaid leave. Of those mothers who did use unpaid leave, the median number of weeks they took was 6 weeks with 93% taking 12 weeks or less. We also asked mothers how long they could take unpaid leave and have their job protected, and again, a substantial proportion (41%) could not respond. Of those who did, the median response was 12 weeks, with answers ranging up to one year, though 86% of mothers indicated 12 weeks or less.

"I had to use my vacation time because I did not qualify for maternity leave pay."

Working for Employer While on Maternity Leave

Just over half (54%) of mothers who had been employed during pregnancy did not do any work for their employer while on maternity leave. A total of 23% reported working a little of the time, 16% some of the time, and the remainder most (5%) or all (2%) of the time. This distribution did not vary significantly by family income.

"I was able to work from home (part time) to extend my maternity leave while caring for my son. It was awesome!"

Employment After Birth

Current Employment and Student Status
More than three in ten (31%) mothers who participated in the follow-up survey indicated that they were employed on a full-time basis at that time. Another 22% were employed part time, a small portion were students and not employed (3%) or still on paid leave (3%), while the remainder (41%) were neither employed, nor students, nor on leave. Mothers currently employed full time were more likely to be married, above the poverty level, and white non-Hispanic (all p < .01). Mothers who were employed generally worked at least some of the time at their employer's workplace (89%).

Patterns of Employment
We asked mothers in the follow-up survey about their employment patterns after they had their baby. Among those mothers who had returned to paid work, 28% had returned by six weeks, and half (49%) were back to work by twelve weeks (Figure 8). They typically (86%) continued in the same arrangement (full time, part time, or self-employed) that they had been in during pregnancy. Overall, 23% of all mothers, whether they had been employed during pregnancy or not, had paid work responsibilities by 12 weeks after the birth.

"I feel that my performance as a mother outweighs that of my professional life or other roles that I fulfill. Since becoming a mother, maintaining my identity outside of motherhood has been crucial to my mental health and being able to deal with the stresses of taking care of a child full time."

"The biggest change for me personally was switching from having a career to being a stay at home mom.... You are left with wondering who you still are some days.... My husband always reminds me I have the most important job in the world, and I know that as it was my decision to be home, but still – I don't earn any money now and that is hard on me mentally and our household."

"Being a stay-at-home mom has been a harder adjustment for me than being a working mom was."

Figure 8. Weeks after birth when mothers began paid work, through the first year

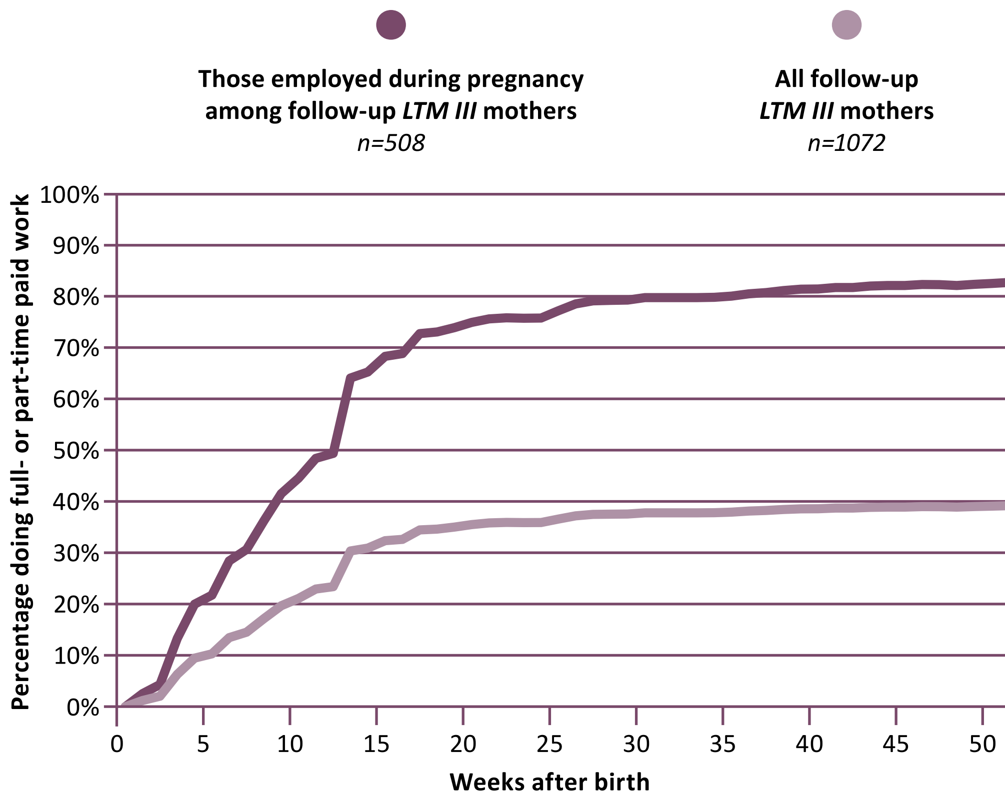
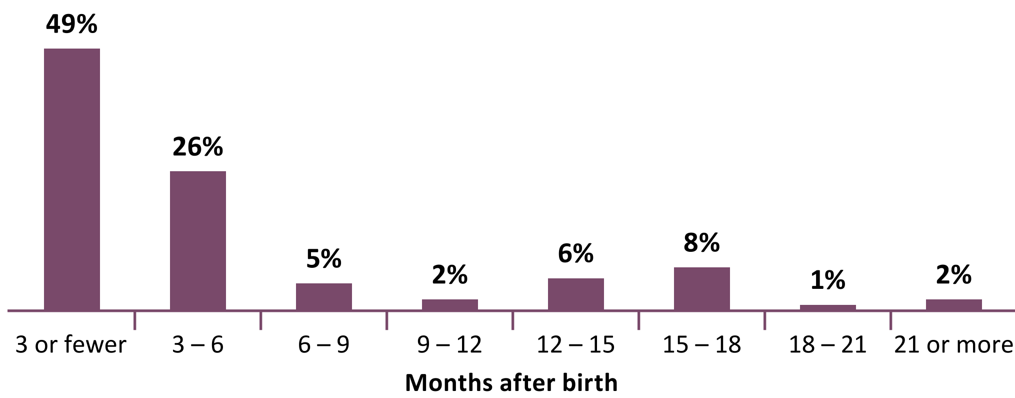


Figure 9 presents another view of patterns of returning to employment, in three-month increments from birth to 21 or more months. Among women who were employed during pregnancy and had resumed paid work by the time of the follow-up survey, the largest group by far (49%) resumed paid work in the first three months after birth, followed by 26% from three to six months postpartum. Much smaller proportions, from 1% to 8%, resumed employment in the six increments depicted after six months.

Figure 9. When mothers returned to a paid job after birth

Base: employed during pregnancy and resumed paid job after birth among follow-up *LTM III* mothers *n=508*



"After having my second child, I am tired. I long for personal time and time with my husband. I feel the sacrifices I have made are for the good of my children. I struggle to keep my family, work and personal life balanced… I have a different focus in my life, my children."

We asked mothers if, in their return to paid work, they worked a number of hours that was comparable to what they had done during pregnancy. While 59% stated they did, 21% were working more and 20% were working fewer hours. In most cases (63%), the change in hours was the mother's choice, and in an additional 17% of cases, mothers reported was a mutual decision by themselves and their employer. In 21% of the cases, mothers indicated it was their employer's decision.

Mothers who were employed during pregnancy were asked about the amount of time they took off from work both before giving birth and after. The results are presented in Table 20 and are stratified by whether or not mothers' family income was above or below 200% of the U.S. poverty level. On average, mothers worked until three weeks before their due date and returned to work twenty-one weeks after. While there was little difference by poverty status in how close to their due date they continued with paid work, mothers whose family income was above 200% of the poverty level tended to return to work three weeks sooner (18.3 weeks) than mothers in the lower income category (21.5 weeks) ($p < .01$).

"This last birth has made me a better mother. I have gone from working a FT very good paying job to having a low paying PT job. I have gotten a lot done around the house but it never seems like enough and I am much lonelier than I was in the past. We never go out since we can't afford to and it's been very trying. I feel like it's all my fault."

Table 20. Mothers' time away from paid work, by poverty status

Base: women who were employed during pregnancy among follow-up *LTM III* mothers *n=630*	200% of poverty level or below *n=197*	Above 200% of poverty level *n=433*	All *n=630*
Number of weeks stopped paid job before due date	**2.9**	**3.2**	**3.0**
Number of weeks before returning to paid job after birth	**22.4**	**18.3**	**20.8**
Total time away	**25.3**	**21.5**	**23.8**

$p < .01$ for total time away, by poverty status

Stayed Home as Long as Wanted to

Mothers who had transitioned to paid work were asked if they had stayed home as long as they wanted to, and nearly three-quarters (72%) felt they had stayed home as long as they wanted. We asked those mothers who stated they were not able to stay home as long as they'd wanted the reasons why they were employed (Table 21). By far the most common response was that they could not afford more time off (72%), followed by a related answer – their maternity leave had come to an end (43%). Smaller proportions of mothers indicated they were worried about consequences at work, such as lower pay, worse assignments, or fewer opportunities for promotion (22%), or that they had too much work to do (14%).

"I was getting a lot of pressure from my boss to come back. I know 8 weeks is standard, but I wasn't mentally ready."

Table 21. Reasons mothers could not stay home as long as wanted

(choose all that apply)

Base: not able to stay home as long as would have liked before returning to paid job with same pre-birth employer among follow-up *LTM III* mothers *n=159*

Main reason	%
Could not afford a longer leave	**72%**
Leave benefits ran out	**43%**
Worried about consequences at work, such as lower pay, worse assignments, or fewer opportunities for promotion	**22%**
Had too much work to do	**14%**
Worried what coworkers would think	**4%**
Other	**8%**

"Be relaxed and prepare for the financial strains that are to come soon. Try your best to not go into debt. Save your money while you are on leave or try to do something on the side to make money."

Optimal Duration of Maternity Leave

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 (20% of mothers) was six months, and the second most common answer (17%) was three months. The overall average was seven months, with nearly half (47%) of mothers indicating the ideal of a fully paid leave of six months or more. More than half (54%) of survey participants who had been employed outside the home during pregnancy reported that they felt six months or more of fully paid leave was ideal.

Challenges in Returning to a Paid Job and in Transitioning to Employment

We asked mothers about their experience with several possible challenges in returning to a paid job, and Table 22 presents the results. The most commonly cited of the challenges listed was "Inaccurate assumptions about your desire, ability, or commitment to do your job," which was cited by just over one-fourth (27%) of the mothers, with three others – lost opportunities for pay increases or promotions, unwanted reduction in hours, and unwanted reduction in responsibility – clustering from 16% to 19%. When asked if they thought the problem was due to her pregnancy, her leave, or her status as a mother, from two-thirds to three-fourths of mothers agreed. When we examined these results by income categories, we typically found mothers most likely to cite these challenges were in the lowest or the highest income categories.

"I feel like as a mom there are always things to make you feel badly about your choices. I feel guilty for working a full-time job but then I feel guilty about not being able to provide things like vacations and toys."

Table 22. Challenges in mothers' return to paid job

Since returning to your paid job, have you experienced any of the following challenges?

Base: returned to paid job with same pre-birth employer *n=406*	**% experienced challenge**	**Of those experiencing challenge, % who believed it was due to pregnancy, leave, or status as a mother** *n varies*
Inaccurate assumptions about your desire, ability, or commitment to do your job	**27%**	**77%**
Lost opportunities for pay increases or promotions	**19%**	**69%**
Reduction in hours that you did not want	**17%**	**69%**
Reduction in responsibility that you did not want	**16%**	**68%**

"Giving birth changed my priorities at work in that I put in my time during the work day and always leave on time to spend time with my baby and husband. If I didn't finish my work, I will take it home with me and work on it after we put the baby to sleep and have eaten dinner. I used to stay at work late to get everything done. I am unwilling to do that now."

We asked mothers who were currently employed, regardless of whether they had been employed in pregnancy, about some commonly cited challenges for mothers in transitioning to paid work (Table 23). Easily the greatest dilemma for mothers was being apart from their baby, which was cited by 87% of respondents, with 57% rating it a major challenge. Seven out of ten (71%) also cited difficulties in making ends meet, and six out of ten (63%) cited child-care arrangements. More than half (58%) identified breastfeeding issues in returning to work, with 66% of those who were exclusively breastfeeding at one week citing breastfeeding challenges. Half cited a rigid or unpredictable work schedule (52%) or having their employer agree to the number of hours they wanted to work (46%). Smaller proportions cited amount of support from their partner/spouse (40%) or lack of workplace support for a new mother (38%).

"It's difficult being a first time mom with an infant to take care while working an eight-hour shift at the same time. I'm still learning how to balance my schedule. I get more frustrated when I don't get enough sleep or realize that I hardly have time for myself."

Table 23. Challenges in mothers' transition to paid job

In working at a paid job since your baby's birth, how challenging were the following issues?

Base: respondents currently employed by someone else full time or part time among follow-up *LTM III* mothers (see note)	**Major challenge**	**Minor challenge**	**Not a challenge**	**Not applicable**
Being apart from my baby	**57%**	**30%**	**9%**	**4%**
Making ends meet	**34%**	**37%**	**29%**	**1%**
Child care arrangements	**28%**	**36%**	**34%**	**3%**
Breastfeeding	**28%**	**30%**	**29%**	**13%**
Rigid or unpredictable work schedule	**28%**	**24%**	**44%**	**4%**
Having my employer agree to the number of hours that I wanted to work	**21%**	**25%**	**48%**	**6%**
Amount of support from my partner/spouse	**20%**	**20%**	**55%**	**5%**
Lack of support in the workplace for me as new mother	**15%**	**23%**	**58%**	**5%**

Note: participants were randomly asked to respond to either (above, in order) response choices 1, 2, 5, and 7 (*n=237*) or response choices 3, 4, 6, and 8 (*n=285*)

Breastfeeding and Employment

We asked those mothers who were employed and working at their employer's workplace about workplace accommodations for breastfeeding mothers. Most (61%) stated that their employer offered reasonable breaks to allow nursing mothers to express milk, and half (50%) said that a private place that was not a bathroom was available for nursing mothers to express milk. These provisions of the 2010 Patient Protection and Affordable Care Act apply to all workplaces with 50 or more employees and those with fewer than 50 employees when compliance would not significantly impact the business.

"My job was very hostile about my situation. When I requested a place to pump milk, they just told me to use the restroom. I was very uncomfortable in the restroom so I had to do it in my car and it was very hard to do it in the parking lot of the busy mall."

We asked women who were employed either full or part time when they completed the follow-up survey whether their plans for employment after giving birth affected the decisions they made about how to feed their baby – for example, whether or when to breastfeed, use formula, or pump. Just about half (49%) said that plans for employment had impacted their baby feeding decisions. We asked the mothers who responded affirmatively how their plans for infant feeding had been impacted. Most of their open-ended responses described ways that employment had impinged on breastfeeding, implying that the volume and/or duration of breastfeeding would otherwise have been greater.

"It is driving me crazy all this 'Breastfeeding Only, Formula is Evil' fervor. Not that I disagree that breast-feeding is better, but I had to go to formula because I have to WORK because this country has no paid maternity leave! If they really want to get women breastfeeding, address this problem."

Mothers Who Were Not Employed During Pregnancy

In all, 39% of mothers responding to the follow-up survey were not employed during their pregnancy. This was strongly related to whether they had given birth before, with those mothers for whom this was their first birth far less likely to not have been employed during pregnancy (31%) compared with mothers with two (42%) or three or more (56%) children at home ($p < .01$). The combination of age and women's status as a new or experienced mother was very powerful: 86% of first-time mothers 30 or older 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 16% of mothers who had not been employed during pregnancy were now employed, either in a part-time (10%) or full-time (6%) capacity.

Students

About one in ten mothers identified themselves as either full- (7%) or part-time (12%) students. There was some minor overlap as a small portion (8%) of those mothers who listed themselves as full-time employees also listed themselves as being full-time students. Mothers who were full- or part-time students were more likely to be younger, non-Hispanic black, and unmarried with a partner than those who were not students.

"When I was going to school, I was proud that I could handle taking care of my baby and learning, but I had to quit because of a lack of child care. I stopped feeling proud of myself and I have yet to feel accomplished."

Child-Care Arrangements

Use of Different Types of Child Care

In the follow-up survey, we asked mothers who were employed outside the home about child-care arrangements for their baby born in 2011-12, and they described a variety of arrangements (Table 24). We asked mothers to list all sources of child care. On average, mothers listed 1.4 sources of child care. One in eight mothers (13%) who worked full or part time stated they were responsible for child care while at work (16% among part-time, and 11% among full-time workers), with 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 a spouse/partner, other family member, or friends relied on multiple sources.

Mothers who were employed full time relied heavily on family, either their spouse or partner (34%) or another family member (43%). Mothers also relied on family day care providers (18%) and child care centers (26%). Mothers who were employed part-time relied predominantly on family – either spouse or partners (51%) or others (44%). One-fifth (20%) reported that a family day care provider took care of their child.

Table 24. Child-care arrangements, by employment status

While you are working for pay, who watches the child who was born on [baby's birth date]? (choose all that apply)

Base: currently employed full or part time among follow-up *LTM III* mothers	Part time *n=239*	Full time *n=334*	All *n=573*
A family member (not spouse/partner)	**44%**	**43%**	**44%**
Spouse/partner*	**51%**	**34%**	**41%**
Staff at a child care center*	**14%**	**26%**	**21%**
A family day care provider working in her or his home	**20%**	**18%**	**19%**
Me	**16%**	**11%**	**13%**
Friend or neighbor	**13%**	**10%**	**11%**
Nanny	**5%**	**7%**	**7%**

*p < .01 for difference between full and part time

"I work at the day care center my daughter goes to."

"He's a very well round-ed baby and loves day care, which has made him into a very social and secure explorer."

Time with Child-Care Providers Other Than Self or Spouse/Partner

At the time of the follow-up survey, 47% 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 child was with a child-care provider other than themselves or their spouse/partner (Table 25). More than one-quarter (26%) 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 45%.

Table 25. Hours per week baby in child care, by employment status

Base: has child-care provider other than self or spouse/partner among follow-up *LTM III* mothers	Employed outside home*		Student full or part time
	Full time *n=241*	Part time *n=116*	*n=64*
Fewer than 8 hours	**15%**	**37%**	**69%**
8 to up to 17 hours	**20%**	**31%**	**22%**
17 to up to 33 hours	**20%**	**23%**	**3%**
33 to up to 40 hours	**23%**	**6%**	**6%**
40 hours or more	**22%**	**3%**	**0%**

*p < .01 for differences by employment and student status

Sick Leave Availability for Child Care

We asked mothers who were employed at the time of the follow-up survey about the availability of paid sick days. Mothers who were employed full time outside the home reported having an average of eight paid sick days annually.

Among those mothers who had access to sick leave, four out of five (82%) reported they could use their paid sick leave to care for a sick child, and only 11% stated they could not (8% were unsure), figures that varied significantly by income. Eighty-nine percent of mothers with a pre-tax household income greater than $75,000 reported that they had access to paid sick leave to care for a sick child, compared to 61% of mothers with an income less than $37,000 (p < .01).

Health Insurance

The pattern of insurance coverage for mothers established during their pregnancy did not necessarily continue after they had their baby. More than one-fourth of mothers (28%) saw their insurance status change between the period of their maternity care and the time of our follow-up survey. Whereas 5% of mothers had reported that they were the primary payers for their maternity services, 18% reported not having health insurance at the time of the follow-up survey. The loss of insurance coverage after giving birth varied strongly by type of prior insurance and region. Among mothers who identified private insurance as the primary payer of their maternity services, 10% reported not having insurance at the time of the follow-up survey compared with 26% of mothers formerly covered by Medicaid and CHIP, the Child Health Insurance Program (p < .01). Regionally, we found 5% of mothers in the Northeast reporting they didn't currently have insurance compared with 16% in both the West and Midwest, and 25% in the South. A majority (54%) of mothers who had some type of insurance coverage during pregnancy but did not have it now were mothers formerly with Medicaid or CHIP coverage, with the highest rates among mothers living in the South and West.

"A major coding mix up between the provider and my insurance company caused over 9 months of insurance trouble and work for myself as I purchase my own insurance."

Out-of-Pocket Payments

We asked mothers about their out-of-pocket expenses for pregnancy and childbirth care, including care providers and hospital bills for themselves and their baby. Table 26 presents the results, broken down by type of insurance. We present two findings, the proportion of mothers who reported they did not pay any out-of-pocket expenses and what the average reported total out-of-pocket costs were. Only 7% of mothers whose primary payer was private insurance reported no out-of-pocket expenses, and the average out-of-pocket costs for women with private insurance were about $3,400. A much larger proportion of mothers on Medicaid (41%) or with another government program as the primary payer (53%) reported making no out-of-pocket payments, and mothers with those primary payers made much lower average payments. Mothers who had earlier reported that they paid for their maternity services themselves reported average total expenses of $2,686.

"I was hit by VERY high bills from the hospital, then from several other doctors from the hospital with separate bills that I didn't know would be charged to me."

Table 26. Out-of-pocket payments, by primary insurance source

Thinking back on your recent pregnancy and birth, as best as you can remember, what are the total costs you have been asked to pay yourself (including bills already paid and still owed) for any of your maternity care providers and hospital bills for you and your baby? Please do not include health insurance premiums. If you are not sure, your best estimate will do.

Base: all *LTM III/PP* mothers *n=1072*

Primary insurer for maternity care services	% with no out-of-pocket costs	Average out-of-pocket costs
All *n=1010*	**24%**	**$2,301**
Private insurance *n=509*	**7%**	**$3,402**
Paid for it ourselves *n=41*	**6%**	**$2,686**
Medicaid or CHIP *n=364*	**41%**	**$1,059**
Other government programs *n=96*	**53%**	**$448**

Note: to avoid skewing the means, 13 cases that reported expenses of greater than $50,000 are excluded; an additional 49 cases are missing due to non-response

"Check out your insurance carefully. We paid a ton of money when I should have switched plans during open enrollment."

"The hardest thing about it all, really, is paying off the medical bills, because my insurance did not cover everything of course."

5. Views of Maternity Care Quality and Engaging in Maternity Care

As with the broader United States health care system, many initiatives are under way to improve the quality of maternity care and foster women's engagement and active participation in their maternity care. In our follow-up survey, we gave priority to better understanding respondents' views about these matters, to be able to accelerate the pace of quality improvement and active engagement of childbearing women. This chapter covers an array of related issues: views about the proper use of maternity-related tests and treatments; general ratings of health care and maternity care quality and indications of maternity care quality; views about the quality of the maternity care that the women had themselves received; their interest in and views about the right to choose birth setting and mode of birth; and information, decision making, and activation. This chapter should be considered a companion to the chapter on "Choice, Control, Knowledge, and Decision Making" in our recent survey report, *Listening to Mothers*℠ *III: Pregnancy and Birth*.

Opinions about Proper Use of Maternity Care Interventions

As presented in our recent report, 59% of mothers who completed the initial *Listening to Mothers*℠ *III* survey agreed that "giving birth is a process that should not be interfered with unless medically necessary," 16% disagreed, and 26% neither agreed nor disagreed.

"Just relax and let nature take its course. Women have been having babies since the beginning of time and babies seem to know what they're doing when it comes to be being born."

The follow-up survey examined related topics. We asked mothers whether they agreed or disagreed with a series of statements concerning maternity care tests and their provider's reliance on them, and Table 27 presents the results. Mothers expressed considerable confidence that newer tests marked an improvement in care (74% agree to 10% disagree) and that their provider's recommendations reflect best current research (82% agree to 10% disagree). They agreed, though not as strongly, that more tests meant better quality care (63% agree to 22% disagree) and that more expensive tests were better (52% agree to 27% disagree). When asked if "Too many women do not get the maternity tests and treatments they need" about 3 times as many mothers agreed than disagreed (60% to 23%). Mothers were more evenly split over the issue of whether mothers get too many tests (43% agree to 40% disagree). There were some differences by age, with younger mothers more confident in and supportive of testing than older mothers.

Table 27. Attitudes toward maternity-related tests and treatments

How much do you agree or disagree with the following statements?

Base: all follow-up *LTM III* mothers *n=1072*	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
Newer maternity tests and treatments are generally improvements over older ones	**29%**	**45%**	**15%**	**9%**	**1%**
Women can be confident that care recommendations from maternity care providers are based on up-to-date medical evidence about what works best	**28%**	**54%**	**8%**	**8%**	**2%**
In general, getting more maternity tests and treatments is better quality care than getting fewer tests and treatments	**23%**	**40%**	**15%**	**18%**	**4%**
Maternity tests and treatments that work the best usually cost more than those that don't work as well	**22%**	**30%**	**22%**	**23%**	**4%**
Too many women do not get the maternity tests and treatments they need	**20%**	**40%**	**16%**	**18%**	**5%**
Too many women get maternity tests and treatments that they don't really need	**14%**	**29%**	**18%**	**29%**	**11%**

In a separate but related question, mothers generally agreed that "When a maternity care provider recommends a particular procedure, women should look for information on their own to be sure the procedure is really necessary," (65% agree to 8% disagree). The general agreement varied by some key variables, with mothers 35 years or older (78%) more likely to support the statement than mothers 18 to 24 years old (56%) ($p < .01$), and mothers reporting an income greater than $102,000 agreeing at higher levels (76%) than mothers making less than $29,400 (58%) ($p < .01$).

"I enjoyed being pregnant. I feel it is a natural thing our bodies are meant to do. I do not believe in a whole lot of medical intervention."

General Perspectives on Maternity and Health Care Quality

Rating the Quality of the U.S. Maternity and Health Care Systems
As we reported in our initial report, over one-third (36%) of mothers who completed the *Listening to Mothers*SM *III* survey rated the U.S. maternity care system as "excellent," and nearly half rated it as "good."

In the follow-up survey, we asked mothers to rate the quality of health care in the United States. A total of 19% of the mothers rated the U.S. health care system as "excellent," 43% rated it as "good," and 38% rated the overall system as "fair" or "poor". The ratings varied widely by race/ethnicity with non-Hispanic white mothers (13% excellent) less positive than Hispanic or non-Hispanic black (24% and 26% excellent respectively) mothers. Interestingly, mothers who reported they currently did not have insurance did not rate the system more poorly than those who did, nor did mothers responses vary by type of insurance they currently had. These ratings are also noticeably lower than mothers' ratings of maternity care in the United States, though the two ratings were strongly related, with mothers who rated the maternity care system fair or poor twice as likely to rate the system as a whole as poor (Table 28).

"My maternity experience, even though unplanned, was a good experience. Most of the people involved were knowledgable and helpful."

Table 28. Mothers' ratings of the quality of maternity care and health care in the United States

	Maternity care in the United States Base: all initial ***LTM III*** mothers *n=2400*	Health care in the United States Base: all follow-up ***LTM III*** mothers *n=1072*
Excellent	**36%**	**19%**
Good	**49%**	**43%**
Fair	**14%**	**33%**
Poor	**2%**	**5%**

$p < .01$ for differences between maternity care and health care generally

Identifying Factors that Determine Maternity Care Quality
Table 29 summarizes mothers' ratings of eight factors that contribute to assessments of quality of care. At least half the mothers rated six of the eight items as very important. The highest rated factor was "protects mothers and newborns from getting infections in the hospital," with 80% of mothers rating it as very important, followed by "has attentive, caring maternity nurses," (77%) and "has a low rate of medical mistakes" (76%). The two criteria that did not garner as much support in determining a mother's assessment of quality of care (though a majority in each case rated the item as at least "fairly important,") were being a teaching hospital (33% rated very important) and being highly rated by a rating website or magazine (28% very important).

"I think we should have less medical intervention unless medically necessary. My body did everything that it was supposed to do but it was not allowed to complete the process because of hospital rules and fear of lawsuits."

Table 29. Rating factors that determine the quality of hospital maternity care

How important are each of the following factors in determining the quality of maternity care at a particular hospital?

Base: follow-up *LTM III* mothers (see note)	**Very important**	**Fairly important**	**Not important at all or not too important**	**Not sure**
Protects mothers and newborns from getting infections in the hospital	**80%**	**11%**	**7%**	**3%**
Has attentive, caring maternity nurses	**77%**	**14%**	**7%**	**2%**
Has a low rate of medical mistakes in the care of mothers and babies	**76%**	**13%**	**9%**	**2%**
Offers the latest maternity care technology and equipment	**58%**	**25%**	**12%**	**4%**
Is highly rated on quality by women who have given birth there	**58%**	**23%**	**14%**	**5%**
Its maternity services are reasonably priced	**50%**	**27%**	**20%**	**5%**
Is a teaching hospital and trains doctors, nurses and other health professionals	**33%**	**25%**	**34%**	**9%**
Has been highly rated by a rating website or magazine	**28%**	**33%**	**30%**	**7%**

Note: participants were randomly asked to respond to either (above, in order) response choices 1, 2, 3, and 6 (*n=522*) or response choices 4, 5, 7, and 8 (*n=550*)

Quality Differences Among Local Maternity Care Providers

Mothers were asked to put the following question in the context of obstetricians, family doctors and midwives, respectively: “Based on what you’ve heard, read, or experienced yourself, do you think there are big, small, or no differences in the quality of maternity care provided by … in your area?” Overall, mothers felt there were bigger differences in the quality of maternity care among local obstetricians (33% saying there was a big difference) than among family doctors (26%) or midwives (20%). In the case of midwives, 38% of the mothers could not rate the differences, twice as many mothers as were unsure about rating obstetricians or family doctors (19% not sure in each case). Experienced mothers were no more likely to be able to rate any of these providers than first-time mothers.

“Gather more info on your doctor. If you are uncomfortable knowing they might not deliver your child, choose another one.”

Quality Differences of Maternity Care Among Local Hospitals

We also asked mothers if they thought there were big differences in the quality of maternity care at local hospitals, and one-third (35%) thought there were big differences, slightly more (37%) thought there were small differences, 15% felt there was no difference, and 13% were not sure. These findings did not vary by maternal age, or whether or not this was a first birth, but did vary slightly by race/ethnicity, with non-Hispanic white mothers less likely to be “not sure,” (10%) than Hispanic (18%) or non-Hispanic black (19%) mothers.

“I was very comfortable and confident about the care I would receive the day of delivery. The hospital was my top choice and my doctor’s group was the best in the region.”

Perspectives on the Quality of Maternity Care that Mothers Had Recently Received

Rating the Quality of Different Phases of Maternal and Newborn Care
Mothers rated the quality of their care at several key stages of the maternity and infant care process, and some results are summarized and broken down by providers in Table 30. Overall, the ratings were very positive with none of the stages of care being rated as poor by more than 3% of the mothers. At least 54% of mothers rated care at each stage as "very good" (the highest rating), with the minor exception of those mothers who had a home visit, 46% of whom rated care as very good. We did discover some differences when we broke down the results by the likely provider at that stage (Table 30). For example, in terms of prenatal care, mothers rated it highly overall (32% good; 57% very good), though those with family doctors were more likely to rate it poorly than those with midwives or obstetricians. Likewise, while maternity care in the hospital up through birth received high marks, those with family doctors or midwives gave more negative ratings than those with obstetricians. Those with pediatricians were about half as likely to give baby care visits negative ratings as those with family doctors.

"Knowing that my baby's pediatrician was highly rated, meaning that he was getting the quality care he needed, made me feel safe."

Table 30. Rating the quality of phases of care

Base: all follow-up *LTM III* mothers *n=1072*

	Prenatal provider*		
Prenatal visits *n=1072*	Obstetrician	Family doctor	Midwife
Rated quality of prenatal visits as "Fair" or "Poor"	**9%**	**29%**	**13%**
	Birth attendant*		
Care in hospital *n=1072*	Obstetrician	Family doctor	Midwife
Rated quality of care in hospital from admission through giving birth as "Fair" or "Poor"	**9%**	**20%**	**19%**
	Child's health care provider*		
Child's office visits *n=1044*	Pediatric provider	Family doctor	
Rated quality of office visits with baby's care provider(s) in the first two months after birth as "Fair" or "Poor"	**9%**	**21%**	–

*p < .01 for differences by provider
Note: few respondents had family doctor and midwife birth attendants

Concern About Errors in the Course of Maternity and Pediatric Care

Mothers were asked about their levels of concern with serious medical errors in different settings, and their responses are presented in Table 31. While they expressed general confidence in the system, there were variations in their responses. Mothers were most likely to identify concern about a serious error or mistake leading to injury or harm happening in the hospital during the birth or in the immediate postpartum period (43% at least somewhat concerned). They were less likely to be concerned about a baby care visit (35% at least somewhat concerned), a prenatal visit (30%), or a postpartum visit for their own care (30%). These opinions did vary by demographic characteristics, with non-Hispanic black and Hispanic mothers generally expressing more concern than non-Hispanic white mothers. For example, in terms of a baby care visit, 52% of Hispanic mothers were at least somewhat concerned about the possibility of a medical error compared with 33% of non-Hispanic black mothers and 28% of non-Hispanic white mothers ($p < .01$).

"I was released without a script for blood pressure medicine which I had been on for my entire week and a half in the hospital (pre-eclamptic). This caused my vision to be impaired and was a scare since I shouldn't have gone off those meds at all much less all at once. Doctor said it was an oversight that I didn't get the right prescription."

Table 31. Concern about errors in the course of maternity and pediatric care

How concerned are you, if at all, about a serious error or mistake leading to injury or harm happening when...?

Base: all follow-up *LTM III* mothers *n=1072*	Very concerned	Somewhat concerned	Not at all concerned or not too concerned	Not sure
You go to a maternity care provider's office or clinic for prenatal care	16%	14%	65%	5%
You are in a hospital for giving birth and the early period after birth	19%	24%	52%	6%
You go to a maternity care provider's office or clinic for postpartum care	14%	16%	64%	6%
Your baby goes to his/her care provider's office or clinic for care	19%	16%	59%	6%

Interest In and Views About the Right to Make Birth Choices

A growing interest in out-of-hospital births led us to ask mothers their opinions about some birth setting options, and Table 32 presents the results. We asked mothers who intended to have more children whether they would consider birth center or home birth settings for a future birth. Among mothers planning a future pregnancy, two-thirds would consider a birthing center and a little more than one-fourth would consider a home birth. One-fourth of mothers indicated they would "definitely" want the birth center option. It is important to note that births at home and at birth centers

"I would consider a freestanding birth center with more support/a different approach to breastfeeding and without the epidural option available. I didn't like getting interrupted for constant monitoring during the night at the hospital after I had given birth."

are more popular with experienced mothers. We also asked mothers about a woman's right to give birth at home, and they strongly affirmed that right, with 66% thinking mothers should be able to choose a home birth and 11% disagreeing (Table 33).

"I would definitely want to give birth with the same midwifery group.... They are trying to open the first official birth center in our area and I would ... prefer to deliver in a place like that instead."

"I would prefer a birthing center but there aren't any in my state so I'm using the same hospital."

"I am pregnant again! I didn't like being strapped down, forbidden to move around, and not given any food.... I decided ... that the next time ... I wanted to do it in the comfort of my own home with a midwife. I've already chosen one and couldn't be more excited about it!"

Table 32. Mothers' openness to birth center and home births for any future pregnancies

For any future births, how open would you be to giving birth...?

Base: would like more children among follow-up *LTM III* mothers *n=744*	In a birth center that is separate from a hospital	At home
Definitely would want this	**25%**	**11%**
Would consider this	**39%**	**18%**
Definitely would not want this	**27%**	**64%**
Not sure	**5%**	**5%**
I don't want to have any more biological children	**4%**	**3%**

Table 33. Mothers' views about women's right to choose a home birth

How much do you agree or disagree with the following statement?

Base: all follow-up *LTM III* mothers *n=1072*	Agree strongly	Agree somewhat	Neither agree or disagree	Disagree somewhat	Disagree strongly
If a woman wants to have her baby at home, she should be able to do so	**34%**	**32%**	**23%**	**5%**	**6%**

We gave mothers a series of three statements concerning choice in mode of birth and asked if they agreed or disagreed with them (Table 34). We asked if mothers should have the right to choose a cesarean birth, a vaginal birth, and a vaginal birth after cesarean (VBAC) if they wished, and there was generally strong support for mothers having control, most notably in the case of vaginal birth (76% agreed; 9% disagreed) and VBAC (69% agreed; 7% disagreed). In the case of a cesarean, the findings were more mixed, with 40% stating a mother should have a choice, 38% disagreeing, and 22% in the middle (see Table 34).

"There has been a lot of talk about c-sections being wrong, but I highly disagree with that. Even though I had a vaginal birth, every mother is entitled to have her baby the way she wants to, as long as her medical professionals agree."

Table 34. Mothers' views about women's right to choose a mode of birth

How much do you agree or disagree with the following statements? If a woman who...?

Base: all follow-up *LTM III* mothers *n=1072*	Agree strongly	Agree somewhat	Neither agree or disagree	Disagree somewhat	Disagree strongly
Has never had a cesarean wants to have a vaginal birth, she should have the opportunity to do so	**49%**	**27%**	**15%**	**5%**	**4%**
Had a previous cesarean wants to have a vaginal birth, she should have the opportunity to do so	**34%**	**35%**	**24%**	**3%**	**4%**
Has never had a cesarean wants to have a cesarean, she should be able to do so	**16%**	**24%**	**22%**	**14%**	**24%**

We asked mothers if in the future they were pregnant, had no medical reason for a cesarean, and could decide for themselves, how likely they would be to choose a cesarean (Table 35). One in six (15%) women said they would be very likely to choose elective cesarean birth if given the choice in the future, though, as might be expected, these figures are strongly related to recent birth experience. Fewer than one in twelve (8%) mothers who had not had a prior cesarean and recently experienced a vaginal birth responded that she might very likely choose what would be an elective primary cesarean in the future, while women who had experienced either a primary or repeat cesarean in their last birth were more evenly split (55% unlikely; 45% likely) in their preference for a repeat cesarean.

"The hospital I went to is not known for its great VBAC success rate. I am afraid I would end up with another c-section if I went back to that same hospital."

Table 35. Attitudes toward future cesareans

There has been some publicity lately about women having the right to choose a cesarean even if there is no medical reason for it. If you were pregnant in the future, had no medical reasons for a cesarean, and could decide for yourself, how likely would you be to want to have your next baby by cesarean section?

Base: all follow-up *LTM III* mothers *n=1072*	Not likely at all	Not very likely	Somewhat likely	Very likely
All mothers	**53%**	**18%**	**14%**	**15%**
Most recent mode of birth				
Vaginal (not VBAC)	**61%**	**19%**	**12%**	**8%**
Repeat cesarean	**42%**	**12%**	**15%**	**31%**
Primary cesarean	**37%**	**19%**	**24%**	**21%**
Vaginal birth after cesarean (VBAC)	**33%**	**36%**	**9%**	**21%**

Note: few respondents had vaginal birth after cesarean (VBAC)

Engagement, Information, and Decision Making in Maternity Care

Information and Maternity Care Decision Making

Mothers were given four statements about information they would like to see provided and their role in making decisions concerning maternity care (Table 36). On the whole, they would like to receive as much information as possible concerning risks associated with each birth option (91%) and would prefer their provider to discuss the option of not receiving a given test or treatment (88%). They also expressed interest in learning about the cost to themselves of each option (86%). About two-thirds, however, also said they preferred "… to rely on my maternity care provider to make the best decisions for me" (65%).

"My caregiver ultimately let me make all the decisions about my pregnancy care after explaining all of the choices in great detail. I was very pleased with my caregiver choice, and that is why I used her for all three pregnancies."

Table 36. Maternity care practices: information and choice

How much do you agree or disagree with each of the following statements about your options for maternity care tests treatments, or procedures?

Base: all follow-up *LTM III* mothers *n=1072*	Strongly agree	Agree	Disagree	Strongly disagree
I would like my maternity care provider to tell me about the risks associated with each option so I know how each could affect me	**36%**	**55%**	**7%**	**2%**
In deciding about care, I would like my maternity care provider to always discuss the option of choosing no test or treatment	**26%**	**62%**	**9%**	**2%**
I would like my maternity care provider to help me understand how much each option will cost me and my family	**25%**	**61%**	**9%**	**6%**
I prefer to rely on my maternity care provider to make the best decisions for me	**14%**	**51%**	**28%**	**7%**

"I think it is important to empower women by telling them everything and anything they may experience before, during, and after giving birth. I felt like a lot of what I was going through was never talked about."

Attitudes Suggestive of Activation Relative to Maternity Care

We adapted to maternity care relevant items from the Patient Activation Measure. Mothers expressed confidence in their ability to maintain control over their involvement with maternity care, with 89% agreeing with the statement, "I was confident I could tell my maternity care provider concerns I had even when he or she did not ask." As is clear in Table 37, large majorities also agreed with other statements concerning their involvement, including 89% agreeing that, "When all is said and done, I am the person who is in charge of my pregnancy," and 86% expressing confidence they could take an active role in their maternity care. These findings were consistent across various demographic groups, but did vary between first-time and experienced mothers, with the latter more confident in their ability to be involved in the process.

"Be more adamant about what you want.... You can tell the doctors 'no'."

"This was my first pregnancy and I was very uninformed about everything.... I wish I would have stayed healthier in my eating and exercising while pregnant."

Table 37. Attitudes indicating activation relative to maternity care

How much do you agree or disagree with each statement as it applies to you personally?

Base: all follow-up *LTM III* mothers *n=1072*	Strongly agree	Agree	Disagree	Strongly disagree	Not applicable
I was confident I could tell my maternity care provider concerns I had even when he or she did not ask	52%	37%	5%	3%	4%
When all is said and done, I am the person who is in charge of my pregnancy	49%	40%	5%	2%	4%
I was confident that I could take an active role in my own maternity care	44%	42%	5%	3%	7%
I was confident that I would know when I needed to check with my maternity care provider and when I could handle things myself	41%	46%	7%	2%	5%
I was able to stay with healthy lifestyle behaviors throughout pregnancy	38%	48%	8%	2%	4%

Importance of Having Access to Electronic Health Records

Mothers expressed considerable interest in having access to maternity and health records online, with 41% rating such access as very important and an additional 37% as somewhat important, while only 15% considered it not important.

6. Looking at Some Important Variations in Experience

Many of our overall results reveal important patterns when examined by key subgroups. In some cases, we made reference to such breakdowns in our earlier discussion of findings. We summarize in this section findings by two critical comparisons – differences, and similarities, by race/ethnicity and by primary source of payment for maternity care services. In examining the tables, readers should be aware that in some cases and as noted the analysis is of a subgroup of mothers (e.g., those with diabetes) resulting in smaller sample sizes and accounting for what seems like an unusual finding where an apparently large difference is not statistically significant.

"I think educating and empowering women is especially important. If it had not been for my relative privilege, my pregnancy and birth would have been totally different, and I think it is very sad and telling about our society that that is true."

Comparing Childbearing Experiences by Race and Ethnicity

Table 38 compares mothers' experiences and attitudes by the largest race/ethnicity groupings, which have sufficient data for comparisons, that is, data from non-Hispanic white ("white," below), non-Hispanic black ("black"), and Hispanic women. While some items are noteworthy for the lack of differences across the groups, we focus primarily here on items for which there are differences that have not been discussed earlier in the report. The comparisons include some pregnancy and birth topics, newly reported in Appendix D.

Black mothers were *most likely* among the three groups to regularly watch TV shows on pregnancy and childbirth; state that they had definitely received enough information on healthy eating, birth control, and postpartum depression from their postpartum provider; have babies who were rehospitalized since birth; have had no well-child visits for their baby; report co-sleeping with the baby; report they were doing extremely well getting enough sleep and managing stress and getting support from a spouse or partner; report being interested in a home birth in the future; feel that more maternity tests are better than fewer ones; and consider access to online records important. Black mothers were *least likely* to learn they were pregnant from a home pregnancy test and report they were still home with the baby by choice.

Hispanic mothers were *most likely* to lack health insurance or be on Medicaid at the time of the follow-up survey, report being worried about the baby when not with him/her, and report that pain interfered with routine activities postpartum. Hispanic mothers were *least likely* to have their baby son circumcised, have a Body Mass Index in the normal range postpartum, say they were doing extremely well getting exercise postpartum, be employed full time during pregnancy, rate prenatal visits and baby care visits as "very good," and report feeling confident they could tell their maternity care provider about concerns.

White mothers were *most likely* to have used a home pregnancy test, have had private insurance at the time of the follow-up survey, report a lack of sexual desire as a new problem after birth, report postpartum pain did not interfere with their routine activities, have taken their baby for a well-child visit and not be employed postpartum so she could stay home with the baby. White mothers were *least likely* to use WIC services or rely on Medicaid for insurance at the time of the follow-up survey, have regularly watched TV shows about pregnancy and childbirth, consider online access to health records as "very important," have felt she got enough information on healthy eating or postpartum depression during postpartum office visits, say that taking care of their baby is "always fun," report daily care for the baby was equally divided with their spouse/partner, be concerned about a serious medical error in a hospital, or rate the U.S. health care system as "excellent" or "good."

Table 38. Variation in mothers' experiences, by race/ethnicity

Base: all follow-up *LTM III* mothers selecting the respective identities (unless otherwise specified)	White non-Hispanic *n=593*	Black non-Hispanic *n=159*	Hispanic *n=245*
Pregnancy and birth**			
Confirmed pregnancy with home pregnancy test*	**84%**	**64%**	**69%**
Changed maternity care provider	**17%**	**31%**	**23%**
Changed provider to increase chance of getting desired care and choices (among those who changed maternity care provider)	**29%**	**63%**	**35%**
Baby was circumcised (among those who had a boy)*	**89%**	**88%**	**48%**
Watched TV shows about pregnancy and childbirth regularly*	**26%**	**44%**	**32%**
Postpartum care			
Definitely got enough information about healthy eating (among those with one or more postpartum office visits)*	**30%**	**56%**	**49%**
Definitely got enough information about postpartum depression (among those with one or more postpartum office visits)*	**39%**	**63%**	**42%**
Definitely got enough information about birth control methods (among those with one or more postpartum office visits)*	**54%**	**78%**	**53%**
Tested for diabetes or high blood sugar since giving birth (among those with chronic or gestational diabetes)	**65%**	**62%**	**34%**
Consulted professional with concerns about emotional or mental well-being since giving birth	**17%**	**20%**	**18%**
Caring for new baby			
Baby rehospitalized since birth* (among those born nine or more months earlier)	**7%**	**17%**	**8%**
Baby had had no well child visits when completed follow-up survey*	**1%**	**9%**	**4%**
In first six months, baby never or rarely slept in same bed with mother or anyone else*	**64%**	**43%**	**60%**
Always worries about child when separated*	**32%**	**40%**	**56%**
Taking care of baby is always fun*	**49%**	**70%**	**74%**
Maternal well-being			
Lack of sexual desire a major or minor new problem in first two months after birth*	**46%**	**27%**	**39%**
In first two months after giving birth, emotional well-being interfered with ability to care for baby a great deal/quite a bit*	**4%**	**13%**	**10%**
Pain did not interfere at all with routine activities in two weeks before completing follow-up survey*	**50%**	**40%**	**35%**
Mother rehospitalized since giving birth* (among those who gave birth nine or more months earlier)	**11%**	**21%**	**12%**

→

Table 38 *cont'd*. Variation in mothers' experiences, by race/ethnicity

Base: all follow-up *LTM III* mothers selecting the respective identities (unless otherwise specified)	**White non-Hispanic** *n=593*	**Black non-Hispanic** *n=159*	**Hispanic** *n=245*
Maternal well-being *cont'd*			
Body Mass Index in normal range when completed follow-up survey	**45%**	**44%**	**31%**
Doing extremely well getting enough exercise in two weeks before completing follow-up survey*	**12%**	**26%**	**5%**
Doing extremely well eating a healthy diet in two weeks before completing follow-up survey*	**11%**	**31%**	**9%**
Doing extremely well managing stress in two weeks before completing follow-up survey*	**10%**	**27%**	**13%**
Doing extremely well getting enough sleep in two weeks before completing follow-up survey*	**8%**	**22%**	**9%**
Relationships and sources of support			
Daily care for baby shared equally (among those with spouse or partner)*	**29%**	**46%**	**47%**
Practical support available from spouse/partner all the time (among those with spouse or partner)*	**36%**	**62%**	**35%**
Enjoyment available from spouse/partner all the time (among those with spouse or partner)*	**34%**	**61%**	**41%**
Emotional support available from someone who is not a spouse or partner a little or none of the time*	**19%**	**14%**	**34%**
Practical support available from someone who is not a spouse or partner a little or none of the time*	**29%**	**15%**	**38%**
Affection available from someone who is not a spouse or partner all or most of the time*	**43%**	**66%**	**44%**
Enjoyment available from someone who is not a spouse or partner all or most of the time	**40%**	**61%**	**43%**
Since birth of baby, both mother and baby used WIC services*	**19%**	**52%**	**45%**
Employment and education			
Employed full time during pregnancy*	**39%**	**37%**	**28%**
Employer offered paid maternity leave (among those who were employed by someone else during pregnancy)*	**59%**	**70%**	**64%**
Not employed when completed follow-up survey, as wanted to be home full time with baby (among those not employed)*	**74%**	**47%**	**65%**
Health insurance			
Lacked health insurance when completed follow-up survey*	**14%**	**16%**	**32%**
Had private health insurance when completed follow-up survey (among those who had insurance)*	**76%**	**69%**	**50%**
Had Medicaid or CHIP health insurance when completed follow-up survey (among those who had insurance)*	**14%**	**21%**	**36%**

→

Table 38 *cont'd.* Variation in mothers' experiences, by race/ethnicity

Base: all follow-up *LTM III* mothers selecting the respective identities (unless otherwise specified)	**White non-Hispanic** *n=593*	**Black non-Hispanic** *n=159*	**Hispanic** *n=245*
Attitudes			
Rated prenatal visits as "very good"*	**64%**	**60%**	**42%**
Rated office visits with baby's pediatric provider as "very good" (among those who had at least one pediatric visit)*	**60%**	**54%**	**43%**
Definitely would want to give birth at home in the future (among those who would like to have more children)*	**10%**	**26%**	**4%**
Definitely would not want to give birth at home in the future (among those who would like to have more children)*	**29%**	**27%**	**74%**
Is very concerned about a serious error or mistake happening in a hospital for giving birth or the early period after birth*	**13%**	**21%**	**28%**
Feels there are no differences in the quality of care among obstetricians in the area*	**23%**	**20%**	**10%**
Rates the overall quality of health care in the United States as "excellent" or "good"*	**53%**	**72%**	**72%**
Agrees strongly that getting more maternity tests and treatments is better quality care than getting fewer tests and treatments*	**18%**	**37%**	**22%**
Agrees strongly that was able to maintain healthy lifestyle behaviors throughout pregnancy*	**39%**	**54%**	**29%**
Agrees strongly that was confident she could tell maternity care provider about concerns when provider did not ask*	**56%**	**62%**	**36%**
Considers online access to health records to be "very important"*	**29%**	**59%**	**50%**

*p < .01 for differences among race/ethnicity groupings

**Most prenatal and labor and birth results were reported in *Listening to Mothers*[SM] *III: Pregnancy and Birth*. See Appendix D for additional items about those care phases collected in follow-up survey.

Bases differ from those provided when item is "(among [a named group])".

Comparing Childbearing Experiences by Primary Payer of Maternity Care

Table 39 compares experiences of beneficiaries of the two largest maternity care payer groups: private insurance and Medicaid or CHIP, the Child Health Insurance Program. As in the case of race/ethnicity, we highlight differences while understanding there are a number of notable areas where there are no differences between these two groups of beneficiaries, such as baby's type of provider and likelihood of baby's or mother's rehospitalization after birth. Not included in this table are mothers who reported that their primary source of payment for maternity services had been another government program (such as the Federal Employee Health Benefits Program or Veterans Health Administration, 9% of follow-up survey participants) or themselves (4% of follow-up survey participants). As discussed in Chapter 4, there were some shifts in insurance status between coverage of maternity services and insurance coverage at the time of the follow-up survey. Most notably, a considerable proportion of women who had been covered by Medicaid or CHIP was no longer eligible for that coverage and became uninsured. The comparisons include some pregnancy and birth topics, newly reported in Appendix D.

In addition to likelihood of being uninsured at the time of the follow-up survey, mothers who had had Medicaid coverage for maternity services were more likely to use WIC services, be a student, report they definitely got enough information on key topics during postpartum visits, report a problem with frequent headaches postpartum, report they were not doing well with eating a healthy diet postpartum, report that they had had an unwanted reduction in paid work hours postpartum, be very concerned about serious errors occurring at four stages of care, and consider a high rating by a web page or magazine an important measure of hospital quality. Mothers with private insurance for their pregnancy and their baby's birth were more likely to be married, correctly identify American Academy of Pediatrics recommendations on breastfeeding, say pain had not interfered with routine activities in the two weeks prior to the survey, have a Body Mass Index in the normal range, report feeling supported in the months after birth, report that their baby had had no sick-child visits, and be employed full time during pregnancy.

Table 39. Variation in mothers' experiences, by primary payer of maternity care

Base: all follow-up *LTM III* mothers with the respective primary insurance source (unless otherwise specified)	**Medicaid or CHIP** *n=370*	**Private insurance** *n=513*
Pregnancy and birth**		
Confirmed pregnancy with home pregnancy test*	**69%**	**83%**
Maternity care provider recommended certain amount of weight gain*	**49%**	**62%**
Watched TV shows about pregnancy and childbirth*	**72%**	**57%**
Induced own labor (among those who tried to self-induce)***	**65%**	**30%**
Baby was circumcised (among those who had a boy)*	**68%**	**85%**
Postpartum care		
Had no postpartum visits because "felt fine and didn't need to go" (among those with no postpartum visits)	**53%**	**25%**
Definitely got enough information about healthy eating (among those with one or more postpartum office visits)*	**50%**	**29%**
Definitely got enough information about importance of exercise (among those with one or more postpartum visits)*	**45%**	**28%**
Definitely got enough information about changes in sexual response/ feelings (among those with one or more postpartum visits)*	**41%**	**22%**
Told by maternity care provider to limit total lifetime number of cesareans (among those who had had one or more cesareans)	**31%**	**28%**
Total lifetime maximum number of cesareans recommended by provider (among those with cesareans who received recommendation)	**3.0**	**3.4**
Had telephone number of a care provider to contact about concerns in the first two months after birth	**77%**	**80%**
Health professional made a home visit in the first two months after birth	**28%**	**34%**
Consulted professional with concerns about emotional or mental well-being since giving birth	**20%**	**16%**
Tested for diabetes or high blood sugar since giving birth (among those with chronic or gestational diabetes)	**47%**	**57%**
Caring for new baby		
Baby rehospitalized since birth (among those born nine or more months earlier)	**9%**	**8%**
Baby had had no sick-child visits when completed follow-up survey*	**35%**	**22%**
Feeding child any breast milk at time of follow-up survey	**32%**	**33%**
Feeding child any formula at time of follow-up survey*	**55%**	**34%**
Breastfed as long as wanted to (among those breastfeeding at one week and not currently breastfeeding)	**50%**	**52%**
Correctly identified American Academy of Pediatrics breastfeeding duration recommendation as 12 months or more*	**33%**	**47%**

Table 39 *cont'd*. Variation in mothers' experiences, by primary payer of maternity care

Base: all follow-up *LTM III* mothers with the respective primary insurance source (unless otherwise specified)	**Medicaid or CHIP** *n=370*	**Private insurance** *n=513*
Caring for new baby *cont'd*		
"Always" wants to touch or hold baby when sees baby*	**89%**	**71%**
Taking care of baby is "always" fun*	**78%**	**50%**
Speaks to baby when caring for baby "always" or "most of the time"*	**92%**	**99%**
Does not worry at all when separated from child*	**15%**	**4%**
Maternal well-being		
Frequent headaches "major" or "minor" new problem in first two months after birth*	**38%**	**22%**
Lack of sexual desire "major" or "minor" new problem in first two months after birth*	**32%**	**52%**
Pain did not interfere at all with routine activities in two weeks before completing follow-up survey*	**36%**	**55%**
In first two months after birth, emotional well-being interfered with ability to care for baby "a great deal"*	**6%**	**1%**
Mother rehospitalized since giving birth (among those who gave birth nine or more months earlier)	**13%**	**10%**
Body Mass Index in normal range when completed follow-up survey*	**30%**	**49%**
Doing not at all well eating a healthy diet in two weeks before completing follow-up survey*	**20%**	**8%**
Doing somewhat or not at all well managing stress in two weeks before completing follow-up survey*	**41%**	**22%**
Relationships, sources of support, finances		
Felt "supported" in first two months after birth*	**73%**	**84%**
Daily care for baby shared equally (among those with spouse or partner)*	**42%**	**30%**
Total out-of-pocket payment for care provider and hospital maternal-newborn care was $0*	**40%**	**7%**
Since birth, both mother and baby used WIC services*	**55%**	**12%**
Married at time of follow-up survey*	**54***	**81%**
Did not have health insurance at time of follow-up survey*	**26%**	**10%**
Employment and education		
Employed full time during pregnancy for someone else*	**24%**	**48%**
Employer offered maternity leave (among those employed by someone else during pregnancy)	**62%**	**62%**
Took paid leave (among those employed by someone else during pregnancy and employer offered leave)	**70%**	**83%**

→

Table 39 ***cont'd*****.** Variation in mothers' experiences, by primary payer of maternity care

Base: all follow-up *LTM III* mothers with the respective primary insurance source (unless otherwise specified)	**Medicaid or CHIP** *n=370*	**Private insurance** *n=513*
Employment and education ***cont'd***		
Employer offered unpaid leave with job protection (among those employed by someone else during pregnancy)	**57%**	**75%**
Took unpaid leave with job protection (among those employed by someone else during pregnancy and employer offered unpaid leave)	**47%**	**62%**
Has returned to work for pay since birth (among those employed during pregnancy)	**77%**	**77%**
Has experienced unwanted reduction in hours (among those employed by someone else during pregnancy and had returned to same employer)*	**28%**	**8%**
Looks after baby while doing paid work (among those doing paid work)*	**20%**	**9%**
Workplace policy allows use of sick days to care for sick child (among those currently employed and with paid sick-day benefit)	**76%**	**84%**
Currently a student*	**28%**	**14%**
Attitudes		
Definitely would want to give birth at home in future pregnancy (among those who would like to have one or more additional child)*	**16%**	**7%**
Very concerned about a serious error or mistake leading to injury or harm happening at maternity care provider's office or clinic for prenatal care*	**23%**	**11%**
Very concerned about a serious error or mistake leading to injury or harm happening in a hospital for giving birth and the early period after birth*	**25%**	**13%**
Very or somewhat concerned about a serious error or mistake leading to injury or harm happening at maternity care provider's office or clinic for postpartum care*	**38%**	**22%**
Very or somewhat concerned about a serious error or mistake leading to injury or harm happening when baby goes to care provider's office or clinic for care*	**42%**	**28%**
Considers high rating by rating website or magazine to be very important in determining the quality of maternity care at a particular hospital*	**44%**	**21%**
Rates the overall quality of health care in the United States as "excellent" or "good"	**63%**	**58%**
Agrees that "Newer maternity care tests and treatments are generally improvements over older ones"	**75%**	**78%**
Agrees that "I prefer to rely on my maternity care provider to make the best decisions for me"*	**73%**	**60%**

*p < .01 for differences between payer groups

**Most prenatal and birth results were reported in *Listening to Mothers*[SM] *III: Pregnancy and Birth.* See trends tables in that recent report for many additional pregnancy and birth items. See Appendix D in this report for additional items about those care phases collected in follow-up survey.

***Most who reported that self-induction brought on labor also had medical induction.

Bases differ from those provided when item is "(among [a named group])".

7. Trends: Comparing Results Across *Listening to Mothers*℠ Surveys

The *Listening to Mothers*℠ surveys have documented women's childbearing experiences in the United States over about a decade. In making comparisons across the three surveys, it is important to understand the time frame for them. Participants in the first survey were responding about births that had taken place over a 24-month period from mid-2000 to mid-2002. *Listening to Mothers*℠ *II* participants had hospital births in 2005, and participants in the most recent survey had hospital births from mid-2011 through mid-2012. While *LTM II* and *LTM III* and their respective follow-up surveys have included timely new items, numerous continuing items have been included in two or all three surveys. This section looks across the three surveys to consider trends during what has been in many respects a time of flux for the U.S. maternity and health care systems. Table 40, inclusive of results from the follow-up *LTM III* survey, should be considered to be a companion to trend tables inclusive of results from the initial *LTM III* survey in our recent *Listening to Mothers*℠ *III: Pregnancy and Birth* report.

Table 40 presents trends across some items that were available in multiple *Listening to Mothers*℠ surveys. The comparisons include some pregnancy and birth topics, newly reported in Appendix D. While we primarily included in this table cases of differences over time, there was relative stability over time in mothers' rating of their baby's health, mothers' likelihood of working up to the due date, and the likelihood of mothers' consulting a health care or mental health professional for mental health support. Notable differences over time included a slight decline in the reliance on home pregnancy tests, a larger proportion of mothers indicating in the more recent survey that they had experienced an "urge to push," while at the same time an increase in mothers' reports of health professionals pressing on their belly to help push the baby out. There were notable declines in the proportion of mothers getting more than 90% of their salary during paid maternity leave, in the proportion of mothers reporting their babies were in day care for 33 or more hours a week, and in mothers' reporting that child care and breastfeeding had been challenging in the transition to paid work. There was also a general decline in mothers' support for a woman's right to choose for herself whether to have a vaginal or cesarean birth. There were also higher rates in the most recent survey of routine pacifier use, mothers' reporting pain interfering with caring for the baby, different forms of support by a spouse or partner, and the availability of paid maternity leave.

Table 40. Trends Across *Listening to Mothers*℠ surveys

	LTM I 2000-02	*LTM II* 2005	*LTM II* follow-up 2005	*LTM III* follow-up 2011-12
Pregnancy and birth*				
Learned about pregnancy from home pregnancy test	**n.a.**	**–**	**83%**	**76%**
Mother reported an “urge to push” the baby out (among vaginal births)	**n.a.**	**–**	**68%**	**83%**
Health professional pressed down on belly to help push the baby out (among vaginal births)	**n.a.**	**–**	**17%**	**25%**
Had the same provider/group as in prior birth (among experienced mothers)	**n.a.**	**–**	**56%**	**66%**
Had continuous electronic fetal monitoring (among those who experienced labor)	**66%**	**76%**	**–**	**60%**
Postpartum				
Mother did not have a postpartum visit with maternity care provider because of lack of insurance (among those with no postpartum visit)	**n.a.**	**–**	**10%**	**7%**
Baby’s health described as “excellent”/“very good”	**76%/20%**	**75%/22%**	**78%/19%**	**78%/20%**
Baby’s care provider was a pediatrician or family physician	**n.a.**	**–**	**75%/21%**	**79%/17%**
Baby exclusively breastfed at six months	**n.a.**	**–**	**20%**	**17%**
Mothers breastfed as long as wanted to	**n.a.**	**–**	**46%**	**49%**
Baby used a pacifier on daily basis	**n.a.**	**–**	**48%**	**58%**
Baby slept in bed with parents “always” in first six months	**n.a.**	**–**	**18%**	**12%**
Postpartum “major” new-onset problems				
Physical exhaustion	**24%**	**24%**	**–**	**16%**
Lack of sexual desire	**24%**	**–**	**19%**	**13%**
Weight control	**n.a.**	**–**	**23%**	**16%**
Itching at cesarean incision site (among those with cesarean)	**n.a.**	**–**	**24%**	**13%**
In first two months, physical health interfered with ability to care for baby “quite a bit” or “a great deal”	**n.a.**	**–**	**4%**	**8%**
Mother consulted a health care or mental health professional since giving birth	**19%**	**19%**	**18%**	**18%**

Table 40 *cont'd.* Trends Across *Listening to Mothers*℠ surveys

	LTM I 2000-02	*LTM II* 2005	*LTM II* follow-up 2005	*LTM III* follow-up 2011-12
Postpartum *cont'd*				
In 2 weeks prior to survey, mother doing "very well" or "extremely well" in getting exercise	**n.a.**	**–**	**16%**	**33%**
In 2 weeks prior to survey, mother doing "very well" or "extremely well" in eating a healthy diet	**n.a.**	**–**	**21%**	**33%**
Mothers and spouse/partner share daily care for baby equally	**n.a.**	**–**	**25%**	**35%**
Since birth, emotional support from spouse/partner available to mother "all the time" (among those with a spouse or partner)	**n.a.**	**–**	**30%**	**41%**
Employment				
Worked to within one week of due date (among those employed during pregnancy)	**n.a.**	**39%**	**34%**	**34%**
Employer had paid maternity leave (among those employed during pregnancy)	**n.a.**	**40%**	**–**	**63%**
Mothers received more than 90% of pay during maternity leave (among those employed during pregnancy, who had and took paid maternity leave)	**n.a.**	**50%**	**–**	**31%**
While at work child is in care of someone other than mother or spouse/partner for 33 or more hours (among those employed at time of survey)	**n.a.**	**–**	**46%**	**26%**
Major challenge in transition to work was child care arrangements (among those employed at time of survey)	**n.a.**	**–**	**20%**	**28%**
Major challenge in transition to work was breastfeeding (among those employed at time of survey)	**n.a.**	**–**	**16%**	**28%**
Attitudes				
Rate health care in United States as "excellent"/"good"	**n.a.**	**–**	**17%/53%**	**19%/43%**
Support for woman's right to choose a primary cesarean	**n.a.**	**46%**	**–**	**40%**
Support for woman's right to choose a vaginal birth after cesarean	**n.a.**	**85%**	**–**	**69%**
If given choice in future birth would "very likely" choose cesarean (among those with a vaginal birth)	**2%**	**13%**	**–**	**9%**

*Most prenatal and birth results were reported in *Listening to Mothers℠ III: Labor and Birth.* See trends tables in that recent report for many additional pregnancy and birth items. See Appendix D in this report for additional items about those care phases collected in follow-up survey, including those shown above.
n.a. indicates item was not available in a previous survey, at all, or through comparable data
– indicates that item was available from companion survey directed to same mothers (see adjacent column)

Conclusion

The combined initial and follow-up *Listening to Mothers*SM *III* (*LTM III*) surveys offer an unprecedented look at experiences of childbearing women and their youngest children in the United States. This report focuses on major topics of the follow-up survey: 1) experiences of women, babies, and families from birth until well into the second year (including physical and emotional health, breastfeeding experiences, family and other support, employment and maternity leave, child care, and health insurance); 2) the women's perspectives on many topics relating to maternity care quality and engaging in maternity care; and 3) a small number of additional items about pregnancy and birth not presented in our recent report on the initial survey, *Listening to Mothers*SM *III: Pregnancy and Birth*. This report also looks at important variations in women's experiences, by race/ethnicity and primary payer of maternity services, and trends across a decade of *Listening to Mothers*SM surveys. Results point to many opportunities to improve conditions for women, babies, and families, and we highlight key concerns and opportunities here. With nearly four million births annually, each percentage point represents about 40,000 mother-baby pairs and families every year.

Postpartum Experiences From Birth into the Second Year

How childbearing women, babies, and families fare during this crucial period matters deeply. Our survey results clarify that mothers of young children in the United States have diverse, demanding responsibilities; experience notable social, physical, and emotional challenges; and face inadequate policies, services, and support. Following sustained attention during pregnancy and around the time of birth – and high rates of procedures, tests, and medications at that time – the women receive relatively little systematic support in the months following birth.

Key concerns with the physical and emotional well-being of mothers who have recently given birth include:

- In the first two months after birth, mothers reported experiencing 22 different conditions as new problems – from various types of pain and infection to urinary and bowel problems, concern with weight control and lack of sexual desire, feelings of stress and depression, and sleep loss and exhaustion. From 6% to 21% considered each condition to be a "major" new problem, while from 15% to 58% considered each to be either a "major" or "minor" new problem.
- Six months or more after the birth, at least one mother in five experienced persisting backache, sleep loss, stress, physical exhaustion, lack of sexual desire, and – in those who had had a cesarean – itching and numbness at the incision site. Sixteen percent of women who had had a cesarean reported persisting pain and 5% persisting infection at the incision site.
- From 31% to 43% felt they were doing "not at all well" or "somewhat well" getting enough exercise and enough sleep, eating a healthy diet, and managing stress.
- Relative to their weight just before becoming pregnant, the mothers weighed on average four pounds more than they did before giving birth. →

- Using an established depression screening tool, 14% of the mothers screened as likely to be depressed in the two weeks prior to the initial survey and 17% just before the follow-up survey. Even among those who met the criteria at both points, a majority had not consulted a professional with concerns about their mental or emotional health by the time of the second survey.
- Thirteen percent of the mothers and nine percent of the babies had been re-hospitalized for at least one night, which was much more likely among black than white or Hispanic mothers and babies.

Despite the range and extent of early physical and emotional conditions, 10% of the mothers had no postpartum office visit, 34% had a single visit, and 28% had two visits.

Of women with a spouse or partner, 15% or more reported that the spouse or partner provided four different types of support "none of the time" or "a little of the time," and 22% or more reported that others provided those types of support "none of the time" or "a little of the time." Of women who were employed full time and had a spouse or partner, 45% reported providing most care for the baby versus 7% reporting that the spouse or partner provided most care, and 49% saying that it was shared equally.

On average, the women paid $2301 out of pocket for hospital and provider charges for their maternal and newborn care. Just 5% reported that they themselves were the primary payer for their maternity services; and their out-of-pocket costs averaged $2686. However, the much larger group of women who had had private insurance reported paying an average of $3402 out of pocket. At the time of the follow-up survey, 18% of the mothers did not have health insurance, including 10% of those whose maternity care had been covered by private insurance and 26% whose maternity care had been covered by Medicaid or CHIP, the Child Health Insurance Program.

Many survey participants and their babies did not get benefits of breastfeeding, at all or for the quantity and/or duration that professionals recommend.

- While mothers appeared to be aware of exclusive breastfeeding recommendations of the American Academy of Pediatrics, just 17% met the recommendation for exclusive breastfeeding to six months, and well below half met the recommendation to continue some breastfeeding to at least 12 months.
- Just 54% intended to exclusively breastfeed, 50% were doing so a week after the birth, and just 49% of those said they had breastfed as long as they liked. In addition to experiencing many hospital practices that are known to undermine breastfeeding (described in the first *LTM III* survey report), the women described difficulties getting breastfeeding going, inadequate support for breastfeeding, the convenience of formula and solid food, and the adverse impact of employment on planning and carrying out breastfeeding.
- Exclusive breastfeeding intent and practice appear to fall off steeply as women have more children.

In contrast to nearly all other high-income nations, women in the United States are not entitled to a fixed amount of paid maternity leave. Offering this is voluntary.

- Among women who had been employed by someone else during pregnancy, 63% had a paid leave benefit, and 76% of those received at least half of their salary. For those with paid leave, the average duration was eight weeks.
- About 23% of all mothers and 49% who had been employed during pregnancy were employed by 12 weeks postpartum. Most (72%) felt they had stayed home as long as they liked. Financial pressure was a key driver for those who would have liked to be home longer.
- On average, the mothers named seven months as the optimal length of fully paid leave.
- Most who transitioned to paid work identified such challenges as being apart from the baby, breastfeeding, and making ends meet; and a minority felt they experienced each of several types of workplace discrimination relating to their pregnancy, leave, or motherhood.

Views of Maternity Care Quality and Engaging in Maternity Care

Current health policies in the United States recognize the need to improve the quality and value of maternity care and health care overall, and to actively engage patients in their care. We took advantage of the *LTM III* surveys to better understand how child-bearing women view these and related matters. Our results can be used to improve women's understanding of maternity care and better engage them in this care.

A major survey finding is that many mothers had limited awareness of established quality of care concerns, contrary to views of national health and maternity care leaders and to national policy aims. Notably, this group had themselves experienced many troubling care practices that were not consistent with best evidence and troubling processes, such as pressure to have interventions and failure to provide balanced information (for a summary, see the Conclusion to our recent report of the initial *LTM III* survey).

- Mothers gave high ratings to health care in the United States and even higher ratings to maternity care in the United States (35% excellent; 49% good). Their rating of the various phases of their own care was uniformly high.
- Mothers understood that high-quality hospital maternity care protects women and babies from getting infections in hospitals, involves attentive and caring nurses, and receives favorable ratings by the women who receive care.
- Whereas problems with overuse, underuse, and unwarranted practice variation are well-established, mothers agreed that recommendations of maternity care providers reliably reflect current evidence about what works best (82% versus 10% disagree), that getting more rather than fewer maternity tests and treatments is generally better quality care (63% versus 22%), and that more effective tests and treatments generally cost more than those that don't work as well (52% versus 27%).
- Mothers understood that high-quality maternity care limits medical mistakes in their hospital care. While most were "not at all concerned" or "not too concerned" about a serious error leading to injury or harm in all phases of their care and in their baby's office visits, they expressed greatest concern about mistakes leading to harm while in the hospital for giving birth (19% "very concerned"; 24% "somewhat concerned").

→

- Mothers expressed confidence in their ability to be activated relative to maternity care, with 85% or more agreeing with specific items. Similarly, 85% or more agreed that they want to know the risks of each care option, about the option of choosing no test or treatment, and the cost to them of each option. Nonetheless, 65% agreed that they prefer to have their maternity care provider make the best decisions for them.

The style of care in birth centers and at home births has repeatedly been found to be more closely aligned than typical hospital care with needs of most women and newborns, who are healthy and benefit from support for their own capacities for optimal timing of labor, and for laboring, giving birth, breastfeeding, and attachment. The judicious use of technology in these settings avoids side effects and waste of unneeded interventions. An important survey result is openness of the respondents, who had all had hospital births, to giving birth in a birth center and at home. Among those who planned to give birth again, fully one-quarter would “definitely” want to give birth in a birth center that is separate from a hospital, and an additional 39% would consider it. And 11% who expect to give birth again would “definitely” want to give birth at home, while an additional 18% would consider a home birth.

Additional Pregnancy and Birth Results

Appendix D presents additional pregnancy and birth results that were not reported in our recent companion report. The new results continue to show the extent to which pregnant women consult and value various online sources for pregnancy and birth information, with relevant blogs and online discussion lists most used and valued for this purpose. For the most part, the women’s online searching experience for these topics was positive, with most expressing confidence and a minority responding with frustration, confusion, or fear.

With some additional results on labor and birth interventions collected in the follow-up survey, Appendix D includes a summary table (combining results from both *LTM III* surveys) showing the range and extent of use of interventions that women experience at this time to start labor, drive it along, monitor the baby, and accelerate the pushing phase, as well as the use of cesarean section, either without or following labor. We asked about tests, drugs, and procedures that the women might reasonably be able to report rather than about a full inventory of those they may have experienced. While selective, the items included here clarify that in U.S. hospitals an array of external procedures and drugs largely drives childbirth, beginning with determining its timing, rather than giving priority to the innate hormonally-driven physiologic capacities of women and their babies, which confer important benefits and limit adverse effects.

Appendix A
Methodology

This report presents results relating to women's postpartum experiences, along with attitudes, preferences, and beliefs relating to childbearing and maternity care quality from two national surveys carried out by Childbirth Connection. These surveys continue Childbirth Connection's pioneering work in carrying out the first national *Listening to Mothers*℠ survey, which was conducted in 2002, and the initial and follow-up *Listening to Mothers*℠ *II* surveys, conducted in 2006. Harris Interactive® conducted the *Listening to Mothers*℠ *III* (*LTM III*) survey from October 11 to December 26, 2012, among 2400 respondents. Harris Interactive contacted the same women to participate in the *LTM III* follow-up survey from January 29 to April 15, 2013. Of the original respondents, a total of 1072 (45%) completed the postpartum survey. Data from both surveys were weighted to reflect the target population of women 18 through 45 years who gave birth in U.S. hospitals in 2011 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

A core team from Childbirth Connection, the Boston University School of Public Health, and Harris Interactive collaboratively developed the questionnaires, with guidance from the multi-disciplinary *Listening to Mothers*℠ *III* National Advisory Council. The questionnaires retained some items from the previous *Listening to Mothers*℠ surveys, pursued some previous topics in greater depth, and added new topics (see Appendix C). The full survey questionnaires for all *LTM* surveys are available at: www.childbirthconnection.org/listeningtomothers/.

Sample Sources

Potential respondents to the initial survey were drawn from the Harris Poll Online (HPOL), Research Now/E-Rewards, GMI, and Offerwise Hispanic panels. To eliminate the potential for duplicate data for panelists who may be a member of multiple panels, Harris uses digital fingerprint technology. Any respondent identified as a duplicate by this technology is automatically deleted by programming logic. The duplicate technology provides each respondent with a fraud score ranging from 0 to 100. By default, any respondent with a score greater than 0 is excluded from the final data. In addition, Harris employs duplicate IP address checks. Duplicate IP addresses are verified by and cross-checked between panels. In addition to digital fingerprint technology and duplicate IP checks, Harris also verifies GEO IP Encoding. If a respondent's IP is not from the correct GEO IP location, then that respondent is prevented from entering the survey.

Eligibility Requirements

Potential respondents to the initial survey were asked a series of preliminary questions to determine their eligibility. Eligible women had to be 18 through 45 years of age, have given birth between July 1, 2011 and June 30, 2012 in a hospital to a single baby, have that child still living at the time the survey was conducted, and be able to respond to a survey in English. To minimize bias, the screening questions were designed so that the eligibility criteria were not readily apparent.

We decided to examine only singleton births because the relatively small proportion of multiple births in the U.S. is distinct from all births in many important ways, and would yield too few participants for us to examine separately. Likewise, we focused on hospital births because there are so few home (0.8% in 2010) or freestanding birth center (0.3%) births that we would not have had 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. Further, questionnaire wording would have been complicated. It would be valuable to carry out parallel surveys to better understand groups that have been excluded from the core *Listening to Mothers*[SM] surveys, including surveys in other languages.

Eligibility for the follow-up survey was limited to all participants in the initial *LTM III* survey.

Online Interviewing

For the initial *LTM III* survey, an email was sent to a sample of women age 18 through 45 drawn from the various panels 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 secure 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 of young children. Additional steps taken to maximize response included sending “reminder” invitations to respondents who did not respond to the initial invitation.

All *LTM III* participants were invited to take the follow-up survey. Several reminder emails were sent to non-responders during the field period. Potential respondents were asked a few preliminary questions to determine whether they were the same person who took the initial survey.

Data Processing

For both datasets, 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, and household income using data from the March 2011 Supplement of the U.S. Census Bureau's Current Population Survey; and mode of birth and number of times women have given birth, using data from the U.S. Centers for Disease Control and Prevention's 2010 reporting of birth certificate data. (The latter was the most recent available birth certificate file at the time of data weighting and analysis of both surveys.) 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. Several articles describe this methodology and report experiences with validating applications of the methodology.[1] Because of the slightly different demographic makeup of initial and follow-up survey participants, separate weighting systems were developed for results of the two surveys.

As a consequence of the methodology described, the *Listening to Mothers*℠ *III* survey was designed to be representative of the national population of women giving birth in 2011 and 2012, with the following exclusions: teens younger than 18 and 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 were unable to participate in English.

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 and interviewer recording error. The procedures followed by Harris Interactive are designed to keep errors of these kinds to a minimum.

Note

1. Smith R, Brown HH. Assessing the quality of data from online panels: Moving forward with confidence. Harris Interactive White Paper, n.d.; Terhanian G, Bremer J. Confronting the selection-bias and learning effects problems associated with Internet research. Harris Interactive White Paper, August 16, 2000; Terhanian G, Bremer J, Smith R, Thomas R. Correcting data from online surveys for the effects of nonrandom selection and nonrandom assignment. Harris Interactive White Paper, 2000; Taylor H, Bremer J, Overmeyer C, Siegel JW, Terhanian G. Touchdown! Online polling scores big in November 2000. *Public Perspective* 2001 March/April;12(2):38-39; Taylor H, Terhanian G. Heady days are here again. *Public Perspective* 1999 June/July;10(4):20-23. Additional information about Harris Interactive Method is available at: www.harrisinteractive.com.

Appendix B

Demographic Overview of Survey Participants and Comparison With Federal Birth Certificate Data

Table 41. Unweighted and weighted* demographic profile of survey participants and comparison with federal birth certificate data

	Base: all follow-up *LTM III* mothers *n=1072*			Singleton hospital births to mothers 18+**
	Unweighted number	Unweighted %	Weighted %	%
Age				
18 – 24	**199**	**19%**	**32%**	**32%**
25 – 29	**272**	**25%**	**28%**	**29%**
30 – 34	**352**	**33%**	**25%**	**25%**
35 – 39	**184**	**17%**	**12%**	**12%**
40 – 45	**65**	**6%**	**3%**	**3%**
Education				
High school or less	**156**	**15%**	**41%**	**45%**
Some college	**374**	**35%**	**29%**	**27%**
College graduate	**397**	**37%**	**21%**	**28%**
Post-graduate	**145**	**14%**	**9%**	
Income				
< $29,400	**152**	**14%**	**26%**	–
$29,401 – $37,000	**64**	**6%**	**6%**	–
$37,001 – $52,30	**167**	**16%**	**17%**	–
$52,301 – $75,300	**254**	**24%**	**20%**	–
$75,301 or more	**380**	**35%**	**26%**	–

Table 41 ***cont'd.*** Unweighted and weighted* demographic profile of survey participants and comparison with federal birth certificate data

	Base: all follow-up *LTM III* mothers *n=1072*			Singleton hospital births to mothers 18+** %
	Unweighted number	**Unweighted %**	**Weighted %**	
Race/Ethnicity				
White non-Hispanic	**710**	**66%**	**55%**	**54%**
Black non-Hispanic	**103**	**10%**	**15%**	**15%**
Hispanic	**186**	**17%**	**23%**	**24%**
Asian and other	**68**	**6%**	**6%**	**7%**
Maternal birth place				
United States	**992**	**93%**	**92%**	**76%**
Other country	**80**	**8%**	**8%**	**24%**
Number of times has given birth				
One	**492**	**46%**	**41%**	**39%**
Two	**366**	**34%**	**32%**	**32%**
Three or more	**214**	**20%**	**27%**	**29%**

*See Appendix A for a description of weighting procedure
**Figures from 2010 reporting of birth certificate data; at the time of publication, the most recent available national birth certificate file was of 2010 births

Appendix C

Sources for New *Listening to Mothers*℠ Survey Items

Many items from previous *Listening to Mothers*℠ surveys were retained in the *Listening to Mothers*℠ *III* surveys, and the new surveys also enabled us to explore new topics. In adding new items, we preferred to use or adapt previously validated items, as available and with permission, and we developed some new items as well. Use of items that have been or will be used with other populations enables comparison of results across groups. This appendix describes sources of items that were first used or adapted in a *Listening to Mothers*℠ survey with the most recent *LTM III* follow-up survey. The Methodology appendix to the *LTM II* follow-up survey report (*New Mothers Speak Out*) describes sources for items initially brought in to that survey, and an appendix to the initial *LTM III* survey report (*Listening to Mothers*℠ *III: Pregnancy and Birth*) describes sources for items initially brought in with that survey.

Maternal Well-Being

We developed new items to assess whether women had received home visits in the first two months, whether women with chronic or gestational diabetes had received related tests in the postpartum period, and whether care providers had recommended that women with one or more cesareans limit their lifetime total number of cesareans. We adapted established items about women's postpartum care experiences, as follows and with permission:

- Telephone access to a care provider in first two months for concerns about self or baby, adapted from Women's Experience of Maternity Care[1]
- Adequacy of guidance about key postpartum topics, adapted from The Canadian Maternity Experiences Survey[2]

Child Well-Being

We developed new items to gauge preferences relating to immunization of babies, to examine knowledge of American Academy of Pediatrics breastfeeding recommendations, and to begin to understand the breastfeeding history of women with one or more previous births.

Family and Relationships

We adapted established items, as follows and with permission:

- Political philosophy, adopted question series previously used by Harris Interactive[3]
- Feelings of attachment to newborn child, adopted from the Postpartum Maternal Attachment Scale, Core Maternal Attachment Subscale[4]
- Use of WIC (Women's Infant, and Children) Special Supplemental Nutrition Program services after birth, adapted from Pregnancy Risk Assessment Monitoring System (PRAMS)[5]

Employment, Maternity Leave, Child Care, and Health Insurance

We worked with colleagues at the National Partnership for Women and Families to develop new items relating to workplace accommodations to pregnancy, access to unpaid leave and job guarantee, postpartum changes in employment conditions/environment and possible association with maternity status, and workplace accommodations for breastfeeding women (provisions of Affordable Care Act). We developed a new item to examine health insurance coverage at the time of the survey. We also developed an item about the impact of impending employment plans on breastfeeding decisions.

Women's Views of Maternity Care Quality and Engaging in Their Care

We expanded the scope of questions about women's attitudes, beliefs, and preferences relating to maternity care and childbearing. We developed new items about women's ratings of the quality of different phases of maternity care and their support for an array of birth choices, for themselves and others. We also adapted numerous items about views of maternity care quality and safety, with permission as follows:

- Attitudes towards maternity care tests and treatments, adapted from The Public and the Health Care Delivery System[6]
- Level of concern regarding medical error through the spectrum of maternity care experiences, adapted from National survey on Americans as Health Care Consumers: An Update on the Role of Quality Information[7]
- Importance of factors in determining the quality of maternity care, adapted from Washington Residents' Perceptions of Hospitals[8]
- Perception of differences in the quality of care among local obstetricians and hospitals, adapted from 2008 Update on Consumers' Views of Patient Safety and Quality Information[9]
- Attitudes toward verifying information from maternity care provider about tests and treatments with third-party information sources, adapted from an online survey[10]
- Patient Activation Measure (PAM), relevant items adapted to circumstances of maternity care[11]
- Importance of having access to online maternity and health records, adapted from Public Views on U.S. Health System Reorganization: A Call for New Directions[12]

Supplementary Pregnancy and Birth Items (Appendix D)

We developed new items to understand whether care providers had recommended a specific pregnancy weight gain; whether women had changed maternity care providers and/or planned hospital for birth during pregnancy and, if so, why; the types of devices (operating systems) that women used to gain access to the Internet; and their cervical dilation at hospital admission. We adapted established items about additional pregnancy and birth items, as follows and with permission:

- Use of various online resources as sources of information about pregnancy and birth, adapted from How America Searches: Health and Wellness[13]
- Feelings while searching for online health information during pregnancy, adapted from the Pew Internet & American Life Project[14]

Notes

1. Care Quality Commission. Women's experience of maternity care, 2010. Available at: http://www.cqc.org.uk/public/reports-surveys-and-reviews/surveys/maternity-services-survey-2010.
2. Public Health Agency of Canada. The Canadian maternity experiences survey, 2006. Available at: www.phac-aspc.gc.ca/rhs-ssg/survey-eng.php.
3. Harris Interactive, provided by Sandra Applebaum.
4. Nagata M, Nagai Y, Sobajima H, Ando T, Nishide Y, Honjo S. Maternity blues and attachment to children in mothers of full-term normal infants. *Acta Psychiatr Scand* 2000 101(3):209-17; Nagata M, Nagai Y, Sobajima H, Ando T, Honjo S. Depression in the mother and maternal attachment – Results from a Follow-Up Study at 1 Year Postpartum. *Psychopathology* 2003 36(3):142-51; Nagata M, Nagai Y, Sobajima H, Ando T, Honjo S. Depression in the early postpartum period of attachment to children – in mothers of NICU infants. *Inf Child Dev* 2004 13(2):93-110.
5. Centers for Disease Control and Prevention. PRAMS questionnaires. Available at: www.cdc.gov/prams/Questionnaire.htm.
6. National Public Radio, Robert Wood Johnson Foundation, Harvard School of Public Health. The public and the health care delivery system, April 2009. Available at: http://www.kff.org/kaiserpolls/posr042209pkg.cfm.
7. Kaiser Family Foundation, Agency for Healthcare Research and Quality. National survey on Americans as health care consumers: An update on the role of quality information, December 2000. Available at: http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/kffupdate/kfftoplines00.pdf.
8. Washington State Hospital Association, Moore Information. Washington residents' perceptions of hospitals, 2005. PowerPoint Presentation, available at: http://www.wsha.org/files/64/PollShortMailedVersion-May2005.ppt.
9. Kaiser Family Foundation. 2008 Update on consumers' views of patient safety and quality information. Available at: http://www.kff.org/kaiserpolls/posr101508pkg.cfm.
10. National Business Group on Health. Employee healthcare decision making survey, 2007.
11. Hibbard JH, Mahoney ER, Stockard J, Tusler M. Development and testing of a short form of the Patient Activation Measure. *Health Serv Res* 2005 40(6 part 1):1918-30.
12. How SKH, Shih A, Lau J, Schoen C. Public views on U.S. health system organization: A call for new directions. The Commonwealth Fund, August 2008. Available at: http://www.commonwealthfund.org/Publications/Data-Briefs/2008/Aug/Public-Views-on-U-S--Health-System-Organization--A-Call-for-New-Directions.aspx.
13. Elkin, N. How America searches: Health and wellness. iCrossing: A Digital Marketing Company, August 2008. Available at: http://www.icrossing.com/sites/default/files/how-america-searches-health-and-wellness.pdf.
14. Fox S. Pew Internet & American Life Project. Pew Research Center. Online health search, 2006. Available at: http://www.pewinternet.org/Reports/2006/Online-Health-Search-2006.aspx.

Appendix D
Additional Results for Pregnancy and Birth Experiences

Our recently issued first *Listening to Mothers*[SM] *III* report presents extensive data on the respondents' pregnancy and birth experiences. We included a small number of additional questions on these topics in the follow-up survey, and results are reported here.

Learning About Pregnancy

We asked mothers in the postpartum survey how they learned they were pregnant and when they learned they were pregnant, and 76% indicated they learned about their pregnancy through a home pregnancy test (on average after 5.2 weeks), while 24% indicated it was a health professional who informed them (6.9 weeks) ($p < .01$ for difference in weeks when learned pregnant).

Prenatal Care and Planning for Birth

Provider Recommendations About Weight Gain

We asked mothers if their provider made a recommendation about weight gain, and overall 59% said they had been given a recommendation. Table 42 presents the recommendation stratified by pre-pregnancy Body Mass Index (BMI). The recommendations vary little by BMI, with mothers who were underweight being encouraged to gain on average 25 pounds, while obese mothers were told 22 pounds.

> *"I was told in the beginning of my pregnancy I was too thin and needed to put on weight…. I gained a lot of weight and towards the end they kept bringing it up as being 'concerned'. Mixed signals were being sent throughout."*

Table 42. Prenatal providers' recommended weight gain, by Body Mass Index (BMI) just before pregnancy

Base: all follow-up *LTM III* mothers *n=1072*	**Underweight BMI <18.5** *n=115*	**Normal BMI 18.5 – 24.9** *n=501*	**Overweight BMI 25.0 – 29.9** *n=243*	**Obese BMI 30+** *n=213*
Provider made a weight gain recommendation	**64%**	**63%**	**56%**	**50%**
Recommended weight gain (lbs) *n=450*	**25**	**25**	**23**	**22**
Midpoint of recommended range (lbs) *n=181*	**30**	**26**	**24**	**22**

Note: respondents whose providers made a weight gain recommendation were given the option of identifying a specific recommended weight gain or a recommended weight gain range

Prenatal Office Visits

The mothers reported traveling an average of 13 miles one way for their prenatal visits. This compares with an average of 14 miles to the place they gave birth. There was some regional variation, with mothers from the South traveling the farthest for prenatal visits on average (14 miles) while those in the Northeast reported the least average distance (10 miles).

Switching Maternity Care Providers and Hospitals

We asked mothers about whether they switched either providers or the hospital where they planned to give birth during their pregnancy. A total of 22% of mothers indicated they had switched in each case. Among those women who made a change, a slight majority (51%) switched both their provider and hospital, while 27% switched only their provider and 22% switched their hospital but not provider. In terms of the reasons for changing, mothers were given three choices and the leading reason they chose for switching providers was "to increase the chance of having the care and choices that I wanted" (38%), followed by a desire for a more convenient location (27%), and financial reasons (24%). In the case of changing hospitals the reasons were ranked in the same order but at different rates: "increase choice of care" (35%), location (33%), and finances (24%).

"Many women in our area travel up to 45 minutes to a metropolitan area to deliver their babies. We chose to remain in our small, rural hospital…. Our primary care physician is … an attending physician in that hospital…. We didn't want to travel."

"I started initially with a regular OB/GYN doctor but did not like how he was treating me so I switched to a midwife. When I moved to a different state I continued with midwife care but then had to switch to another doctor again at 39 weeks because of my complications."

Sources of Information About Pregnancy and Birth During Pregnancy

Note: the first and second *Listening to Mothers*℠ surveys and reports examined many sources of information about pregnancy, birth, and parenting that were not addressed in the most recent surveys. Please consult prior reports about friends, relatives, books, and other information sources.

"I switched to a doctor who was more willing to give me the care I wanted in a much friendlier and more supportive environment."

Use and Value of Online Resources for Pregnancy and Birth Information

We asked mothers in our initial *Listening to Mothers*[SM] *III* survey to assess the value to them of various online resources such as Facebook and Wikipedia. Table 43 presents the results. Pregnancy and childbirth related blogs were clearly the most frequently valued with 78% of mothers using this resource and 87% of those who used them as pregnancy and birth information sources citing them as somewhat or very valuable. Most (77%) who used online forums, chatrooms, and group discussions for this purpose found them at least somewhat valuable, followed by online video sites (69%), Facebook (67%), and others as shown in the table. These results were, not surprisingly, strongly related to age, with mothers less than 30 significantly more likely to use and find valuable every one of these sources ($p < .01$). For example, Facebook was used by 74% of mothers under 30 as a source of information on pregnancy and childbirth information compared with 60% of mothers over 30, with younger mothers more likely to cite it as a very valuable source than older mothers ($p < .01$). The differences were even more pronounced for online video sites, which were used by 72% of mothers under 30 compared with only 52% of mothers over 30, with younger mothers more likely to rate these sites as "very valuable" ($p < .01$).

"Doctors don't seem to give much info on what you're supposed to eat or not eat during pregnancy. Much of the info I had, I found on the Internet."

"I read many books on childbirth and ways to deal with the pain of childbirth without medication, and I feel like they were much more helpful than any websites or blogs."

Table 43. Value of selected online resources as sources of information about pregnancy and birth

Base: used Internet for pregnancy and birth information among initial *LTM III* women *n=2263*

	Base: used specific resources for information about pregnancy and childbirth *n varies*			
	Very valuable	**Somewhat valuable**	**Not valuable**	**Did not use for this purpose**
Pregnancy and childbirth-related blogs	**47%**	**40%**	**13%**	**22%**
Online forums, chat rooms, and group discussion lists (Yahoo! Groups, Google Groups, etc.)	**36%**	**41%**	**24%**	**31%**
Online video sites (YouTube, Vimeo, etc.)	**35%**	**34%**	**32%**	**39%**
Facebook	**31%**	**36%**	**33%**	**33%**
Other social media (Twitter, Google Plus, etc.)	**31%**	**28%**	**41%**	**45%**
Wikipedia	**30%**	**37%**	**33%**	**41%**
Social news sites (Digg, Reddit, del.icio.us, RSS, etc.)	**26%**	**27%**	**46%**	**48%**

Impact During Pregnancy of Online Information About Pregnancy and Birth

Overall, 97% of mothers reported using the Internet as a source of information on pregnancy and childbirth, a figure we presented in our initial report. We asked those mothers who had used the Internet about their experience, and Table 44 presents the results. Mothers reported generally positive experiences with their Internet searches for information on pregnancy and childbirth. Almost three fourths (72%)

"I would try to not overflow my brain with some false information given off the Internet."

said the Internet information they found usually or always made them feel reassured that they could make an appropriate decision, and 59% felt the information made them confident they could raise new questions with their provider. Fewer than one in five mothers felt the information usually or always made them feel frightened or confused, and they usually were not frustrated by difficulty in finding information. A slightly larger proportion of mothers (27%) always or usually felt overwhelmed by the amount of information they found online.

"Whatever information I needed I could research online or in a book and I felt prepared."

Table 44. Impact of searching online for health information during pregnancy

When searching online for health information during your pregnancy, how often did you feel...?

Base: used online sources among follow-up *LTM III* mothers (see note)	Always	Usually	Sometimes	Never
Reassured that you could make appropriate health care decisions	**34%**	**38%**	**21%**	**7%**
Confident to raise new questions or concerns about a health issue with your maternity care provider	**25%**	**34%**	**28%**	**13%**
Overwhelmed by the amount of information you found online	**11%**	**16%**	**42%**	**31%**
Frustrated by a lack of information or an inability to find what you were looking for online	**6%**	**7%**	**40%**	**48%**
Frightened by the serious or graphic nature of the information you found online	**5%**	**12%**	**39%**	**45%**
Confused by the information you found online	**3%**	**8%**	**51%**	**38%**

Note: participants were randomly asked to respond to either "overwhelmed," "frustrated," and "frightened" (*n=518*) or "reassured," "confident," and "confused" (*n=492*)

Experience Watching Television Programs Created to Show Women Giving Birth
A total of 65% of mothers in our survey indicated they had watched televisions programs created specifically to show a women's labor and birth experiences, with 32% of these mothers (21% of all mothers) indicating they watched these shows regularly. When we asked those mothers who watched regularly or sometimes what impact the shows had had on them as a pregnant woman, 56% indicated it made them feel excited about their upcoming birth, 50% said it helped them understand what it would be like to give birth, 39% said it helped clarify their preferences for birth, 35% said it helped them learn medical terms and technology, and 25% (30% of first-time mothers) said it caused them to worry about their upcoming birth. Viewing generally had a greater impact on first-time rather than experienced mothers. For example, 67% of first-time mothers said the shows helped them understand what it would be like to give birth, compared with 38% of experienced mothers ($p < .01$). Likewise, 50% of first-time mothers said the shows helped them clarify their preferences for their birth compared with 32% of experienced mothers ($p < .01$).

"I wasn't prepared for how tiring it was to push the baby out. TV makes it look easy, but I had to push for 90 minutes straight."

Spontaneous Onset of Labor
The benefits of labor that starts on its own are increasingly recognized. We calculated the percentage of survey participants who experienced what is known as "spontaneous onset of labor" by adding the proportions of vaginal births with neither self- nor medically-induced labor and of unplanned cesareans not preceded by labor induction. At most, 54% had labors that started on their own, a likely overestimate, as some were "not sure" whether labor induction had caused labor to begin and we could not identify mothers with medical induction that did not start labor *and* resulted in a cesarean.

Primary Maternity Care Attendant
Mothers who had given birth before were asked if the person who attended the birth of their most recent baby had attended a previous birth, and that was the case for 41% of our mothers, with another quarter of the mothers (25%) indicating it was a different provider from the same group. One-third (34%) of mothers had a different provider who was not from the same group.

Vaginal Exams: Cervical Dilation Just After Hospital Admission
The cervix of mothers, on average, was dilated three centimeters when they arrived at the hospital. This is generally considered to be "early" rather "active" labor.

Fetal Monitoring During Labor
For 89% of women who experienced labor, electronic fetal monitoring (EFM) was used to record the baby's heartbeat, either alone (66%) or in combination with a handheld device such as a "Doppler" or stethoscope (23%). Among women using EFM, 80% were monitored either continuously throughout labor (60%) or for most of the time during labor (20%). Smaller proportions were monitored intermittently (12%) or as a baseline measure (i.e., for only a short period of time just after hospital admission) (5%).

Pushing the Baby Out
We asked mothers if they experienced what has been termed an "urge to push," and among those with a vaginal birth, 31% said they had a mild urge and 52% stated they had a strong urge to push the baby out. This rate was powerfully related to experiencing an epidural, with 65% of those not having an epidural citing a strong urge to push compared with 43% of mothers with an epidural ($p < .01$). We also asked what determined when and how hard they pushed, and 30% pushed when a nurse or provider told them to, while 29% relied on their body's own sensations, and 39% indicated they used both. Additionally, mothers were asked if they experienced a health professional pressing down on their belly to help push the baby out ("fundal pressure"), and 25% stated they had experienced such pressure.

Summary of Interventions Experienced Around the Time to Birth
Combining results from the initial and follow-up surveys yields a summary of interventions that mothers experienced around the time of birth (Table 45). Overall, 53% experienced attempted labor induction, and 30% had a medically induced labor. Eighty-nine percent who experienced labor had electronic fetal monitoring, 83% of all mothers used pain medications, 50% experienced synthetic oxytocin, and 36% had artificially ruptured membranes. Eleven percent had assisted vaginal delivery with vacuum extraction or forceps, and 31% had a cesarean section. Rates of subcategories of these and of additional interventions among all mothers are also shown in Table 45.

"For my first pregnancy, I rarely saw my doctor and he literally arrived in time to 'catch' my baby as I delivered. This time around I used a different doctor who was much more involved in my pregnancy and it just seemed to make the whole experience much better."

"Having the same doctor for my past 2 pregnancies has been wonderful. He is always very attentive and makes me feel comfortable to talk to him about anything."

"The nurse …. was telling me to push extremely hard, which resulted in a major tear. I know that my body was doing the work already so I will not be pushing so hard the next time."

"The midwife wanted to rush the birth. I wanted to just listen to my body (I was having no complications), but she kept wanting to hurry my pushing."

Table 45. Rates of intervention that mothers experienced around the time of birth

Base: all initial *LTM III* mothers *n=2400* (unless otherwise specified)

Intervention	Rate among all mothers
Labor induction	
Attempted self-induction	**29%**
Self-induced labor*	**13%****
Attempted medical induction	**41%**
Medically induced labor	**30%**
Total attempted induction	**53%**
Synthetic oxytocin ("Pitocin")	
To induce labor	**26%**
To speed up established labor	**31%**
To induce and/or speed up labor	**50%**
Breaking of membranes	
To induce labor	**16%**
To speed up established labor	**20%**
To induce and/or speed up labor	**36%**
Electronic fetal monitoring (among mothers who experienced labor)	
Continuously or for most of labor*	**66%**
Intermittently or as a baseline measure*	**23%**
Any electronic fetal monitoring*	**89%**
Pain medications	
Epidural analgesia	**67%**
Narcotics	**16%**
General anesthesia	**7%**
Use of any pain medication	**83%**
Assisted vaginal birth	
Vacuum extraction	**7% (10%)*****
Forceps	**4% (6%)*****
Vacuum extraction or forceps	**11% (15%)*****

→

Table 45 *cont'd.* Rates of intervention that mothers experienced around the time of birth

Intervention	Rate among all mothers
Other pushing phase interventions	
Directed pushing*	**47% (71%)*****
External pressure on belly to move baby down*	**18% (28%)*****
Episiotomy	**12% (17%)*****
Back-lying position for pushing out baby	**47% (68%)*****
Cesarean section	
Initial ("primary")	**15%**
Repeat cesarean	**16%**
Initial and repeat cesarean	**31%**
Other interventions	
Intravenous drip	**62%**
One or more vaginal exams	**51%**
Bladder catheter	**47%**
Initial separation of baby for routine care	**26%**

*Base: all follow-up *LTM III* mothers *n=1072*
**Most who reported that self-induction brought on labor also had medical induction
***Figures in parentheses are rates among vaginal births

About Childbirth Connection, Harris Interactive, and the W.K. Kellogg Foundation

About Childbirth Connection

Childbirth Connection is a national not-for-profit organization that was founded in 1918 as Maternity Center Association. Its mission is to improve the quality and value of maternity care through consumer engagement and health system transformation. Childbirth Connection promotes safe, effective, and satisfying evidence-based maternity care and is a voice for the needs and interests of childbearing families.

Childbirth Connection's national U.S. *Listening to Mothers*℠ surveys collect, measure, and give voice to women's childbearing experiences. They are widely consulted sources for understanding women's pre-pregnancy, pregnancy, birth, and postpartum experiences and their knowledge, attitudes, and preferences about these matters. With the assistance of Harris Interactive, Childbirth Connection has carried out three *Listening to Mothers*℠ surveys over the past decade, along with follow-up surveys directed to participants of the second and third surveys. The survey reports, questionnaires, and related resources are available at: www.childbirthconnection.org/listeningtomothers/.

Through the *Transforming Maternity Care* Partnership, Childbirth Connection works with stakeholders from across the health care system to implement priority recommendations from the consensus, direction-setting *Blueprint for Action: Steps Toward a High-Quality, High-Value Maternity Care System*. The Blueprint; a companion report, *2020 Vision for a High-Quality, High-Value Maternity Care System*; and other resources for improvement and transformation are available at: transform.childbirthconnection.org.

About Harris Interactive

Harris Interactive is one of the largest market research and consulting firms in the world and the global leader in conducting online research. Harris is the first company to have successfully built and launched an online market research panel. Since its inception in 1997, Harris Interactive has hosted more than 95 million completed online interviews from Harris Poll Online℠ Panel respondents.

Harris Interactive offers solutions in the areas of market and customer insight, corporate brand and reputation strategy, as well as marketing, advertising, public relations, and communications research. Its expertise covers a wide range of industries including health care, technology, public affairs, energy, telecommunications, financial services, insurance, media, retail, restaurant, and consumer packaged goods.

Serving clients in more than 196 countries and territories through its North American and European offices, Harris specializes in delivering research solutions that help Harris and its clients stay ahead of what's next.

About the W.K. Kellogg Foundation

The W.K. Kellogg Foundation, founded in 1930 by breakfast cereal pioneer Will Keith Kellogg, is among the largest philanthropic foundations in the United States. Based in Battle Creek, Michigan, WKKF engages with communities in priority places across the country and internationally to create conditions that propel vulnerable children to realize their full potential in school, work, and life.