

**Assessment and Monitoring of
Breastfeeding-Related Maternity Care Practices in
Intrapartum Care Facilities in the United States and Territories**

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Request for Revision

Supporting Statement: Part A

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Assessment and Monitoring of Breastfeeding-Related Maternity Care Practices in Intrapartum Care Facilities in the United States and Territories

Introduction

In 2007, CDC submitted an ICR for *Assessment and Monitoring of Breastfeeding-Related Maternity Care Practices in Intrapartum Care Facilities in the United States and Territories* (OMB Control Number 0920-0743, expiration date 7/31/2009). The ICR requested administration of a baseline survey in 2007 and a follow-up survey in 2009. The survey instrument is called the Maternity Practices in Infant Care and Nutrition (“mPINC”) Survey.

At the time of initial OMB approval, CDC was approved to administer the 2007 survey and disseminate findings back to respondents. OMB requested that CDC submit a report to OMB prior to administration of the 2009 survey.

The requested report of 2007 findings is included as an Appendix to this ICR. The report provides a brief background about the survey, a summary of data and activities that resulted from the 2007 collection, examples of types of feedback CDC has received since fielding the survey and related reports, and the role of the 2007 survey in planning for the 2009 follow-up survey.

In this Revision ICR, CDC requests OMB approval to conduct the mPINC survey again in 2009, as described in the original assessment plan. The Revision incorporates a small expected increase in the number of respondents. The estimated burden per response has not changed. The Revision also proposes a one-time, secondary information collection to obtain feedback about the structure, format, utility, and focus of data reports that will be provided to respondents in order to optimize the ability of the reports to meet specific audience needs. A Change Request will be processed for OMB approval prior to conducting the proposed secondary information collection.

A. Justification

A.1. Circumstances Making the Collection of Information Necessary

The Nutrition Branch of the Division of Nutrition and Physical Activity of the Centers for Disease Control and Prevention (CDC) proposes to conduct a planned follow-up survey of practices at intrapartum care facilities related to breastfeeding. The initial survey was administered in 2007. It established a baseline measure of breastfeeding-related maternity care practices at intrapartum care facilities across the United States and Territories and the extent to which practices vary by state. The second survey is proposed for administration in 2009. It will examine changes in practices over time. Information from the surveys will help inform intrapartum care facilities, state public health departments, and CDC programs. The surveys were designed and are being implemented through a contract with Battelle Centers for Public Health Research and Evaluation.

There is substantial evidence on the social,¹ economic^{2,3} and health benefits of breastfeeding for both the mother^{4,5} and infant^{6,7} as well as for society in general.⁸ Yet breastfeeding initiation rates and duration in the United States did not achieve Healthy People 2010 objectives and significant disparities persist between African American and white women in breastfeeding rates.⁹ The Healthy People 2010 objectives are to increase the proportion of mothers who breastfeed in the

early postpartum period from 64% (1998 estimate) to 75%, the proportion who breastfeed their babies through 6 months of age from 29% to 50%, and to increase from 16% to 25% the proportion of mothers who breastfeed to 1 year of age. A goal for all three points in time is to decrease the wide disparities in breastfeeding initiation and duration between African American and white women. In addition to ethnic and racial disparities, there is evidence of significant variation in breastfeeding rates across states. For example, the lowest state breastfeeding initiation rate in 2005 was 50.2 percent in Mississippi and the highest was 90.3 percent in Utah.¹⁰

The maternity care experience exerts unique influence on both breastfeeding initiation and later infant feeding behavior. In the United States, nearly all infants are born in a hospital or free-standing birth center, and even though their stay is typically very short, events during this time have a lasting meaning. Correspondingly, the hospital stay is known to be a critical period for the establishment of breastfeeding.

Many of the experiences of mothers and newborns in the hospital and practices in place there affect how likely breastfeeding is to be established. In most cases, however, these experiences reflect routine practices at the facility level, and new mothers rarely request care different from that offered them by health professionals. Prenatal education on breastfeeding can affect a mother's decision to even consider it as a feeding option. Medications and procedures administered to the mother during labor affect the infant's behavior at the time of birth, which in turn affects the infant's ability to suckle in an organized and effective manner at the breast. Infants who are put to the breast within the first few hours after birth continue breastfeeding longer than those whose first breastfeeding is delayed. Mothers who room-in with their infants will have many more opportunities to practice breastfeeding because of the infant's proximity.

Breastfeeding is an extremely time-sensitive relationship. Experiences with breastfeeding in the first hours and days of life significantly influence an infant's later feeding. Because of its inextricable relationship with the birth experience, breastfeeding must be established during the maternity hospital stay, not postponed until the infant goes home.

Maternity care practices related to breastfeeding are changing across the United States. The rate of change in these practices has increased substantially in the past few years. From 2007 to 2008, the number of hospitals and birth centers in the United States that have been designated as part of the UNICEF/WHO Baby Friendly Hospital Initiative to promote maternity care practices that have been shown to increase breastfeeding initiation and continuation increased by 8%, representing the largest annual increase since its inception in the United States. A Cochrane review¹¹ found that institutional changes in maternity care practices effectively increased breastfeeding initiation and duration rates. Birth facilities that have achieved designation as part of the World Health Organization/UNICEF *Baby Friendly Hospital Initiative* (BFHI)¹² typically experience an increase in breastfeeding rates.¹³ In addition, DiGirolamo et al.¹⁴ found a relationship between the number of *Baby Friendly* steps (included in the *Ten Steps to Successful Breastfeeding* of BFHI) in place at a birth facility and a mother's breastfeeding success. The authors found that mothers experiencing none of the *Ten Steps to Successful Breastfeeding* required for BFHI designation during their stay were eight times as likely to stop breastfeeding before 6 weeks as those experiencing five steps.

Increasingly, the Joint Commission on Accreditation of Healthcare Organizations (Joint Commission) has been including lactation practices as part of its overall assessment of hospitals. In October 2008, the National Quality Forum endorsed a quality measure for breastfeeding at the

time of hospital discharge. Public reporting of exclusive breastfeeding rates at hospital discharge in California has led to improvements statewide. In addition, congressional interest in improving maternity care practices has been mounting. On May 18, 2005, United States Senator Tom Harkin introduced a bill (S.1074) to improve the health of Americans and reduce health care costs by reorienting the Nation's health care system toward prevention, wellness, and self care. Section 105 of the legislation includes establishing a 'Baby-Friendly Hospital Initiative' and a certification process for hospitals that promote maternity care practices conducive to breastfeeding initiation.

CDC thus requests OMB approval to conduct the planned follow-up survey in 2009 of Maternity Practices in Infant Nutrition and Care (mPINC). Authority for CDC to collect this data is granted by Section 301 of the Public Health Services Act (42 U.S.C. 241) (**Appendix A**).

A.2. Purpose and Use of Information Collection

CDC works in partnership with states to promote optimal maternal and infant health through increased breastfeeding initiation and continuation. Consistent with this mission, and with clear evidence that breastfeeding-related maternity care practices influence breastfeeding initiation and continuation, it is necessary to determine prevalence of practices and policies related to breastfeeding at intrapartum care facilities across the United States. This critical data can then be used to effectively inform state and national programs. A baseline survey was conducted in 2007 which established baseline measures of the extent to which intrapartum care facilities engage in specific practices related to successful breastfeeding promotion.

A report on results of the 2007 information collection is included in this Revision request as specified in OMB's original Terms of Clearance. **Appendix C (2007 mPINC Results Report)** consists of a summary report on the 2007 information collection and **Appendix C-1 (CDC MMWR)** contains a major scientific publication resulting from the information collection.

The objective of the proposed study is to conduct a follow-up mail survey in 2009 in all U.S. states and territories of all facilities that routinely provide maternity care services. The design of this study is a national census of facilities routinely providing maternity care based on careful review of advantages and limitations of various study designs as well as input from stakeholders and experts in evaluation of hospital maternity care practices. Three major issues necessitate a national census of facilities. They are:

- State health departments have voiced a strong desire to be able to conduct state and local level analyses to use these data to tailor public health breastfeeding interventions to their particular needs. A nationally representative sample of facilities would not allow for State-level analysis to address individual local research and policy needs. Wide variation in breastfeeding prevalence across the United States makes these needs particularly salient.
- This study includes the plan that individual facilities receive their own data back, benchmarked against other facilities. Data from other facilities will be unidentified and in aggregate form. This will enable individual facilities to take on their own issues internally. The practical utility of this option allows for rapid and localized assessment of issues that can be tackled. A sampling of facilities eliminates the possibility of this aspect of the study.

- The broad diversity between maternity care facilities in the United States makes it problematic to identify and recruit facilities that could legitimately be considered to be representative of other facilities.

The 2009 survey will examine changes in practices over time. Specifically, the goals of the study are to:

- Examine the variation in breastfeeding-related maternity care practices across and between 50 States and Territories and by other intrapartum care facility characteristics such as size and type of ownership;
- Examine changes between practices reported by facilities in 2007 and 2009, including trends in facilities that participated in both iterations of the survey and cross-sectional observations of change that includes facilities that participate in the survey for the first time in 2009.
- Describe the characteristics of those facilities that are implementing maternity care practices more and less conducive to promoting breastfeeding initiation and continuation;
- Provide feedback to CDC, State health departments, and intrapartum care facilities to inform programs and practices.

Without this research, the CDC and state public health departments have little information regarding the extent to which intrapartum care facilities are implementing specific breastfeeding-related maternity care practices.

As with the initial survey in 2007, a major goal of the follow-up survey in 2009 is to provide direct feedback to facilities and to be fully responsive to their needs for information and technical assistance. Following completion of the 2009 survey, CDC will again provide facilities with feedback and will expand on this feedback by reporting on progress on their quality improvement efforts since 2007. **Appendix C-2 (2007 mPINC Facility Benchmark Report)** is an example of the feedback provided to respondents; and **Appendix C-3 (CDC Web Resources)** includes a description of web-based resources available to respondents and the public.

Based on the 2007 reports, CDC will identify, document, and share information related to incremental changes in practices and care processes over time at the facility, state, and national levels. Data can also be used by researchers to better understand the relationships between intrapartum care facility characteristics, maternity-care practices, state level factors, and breastfeeding initiation and continuation rates.

A.3. Use of Information Technology and Burden Reduction

A computer assisted telephone interviewing (CATI) system will be used to screen facilities selected for possible inclusion in the study. The purpose of the telephone call is four-fold: (1) to verify that the facility provided maternity care in the previous calendar year, (2) to determine the most appropriate respondent at the facility, (3) to obtain further survey respondent contact information, and (4) to determine if the facility provides maternity care at other locations, and, if so, to obtain contact information for the other sites. Use of the CATI will reduce the burden to

the respondent since it normally reduces the amount of time necessary to complete a screening interview and captures the data more accurately.

Once the appropriate respondent has been identified, there will be two options for completing the survey. A web-based system has been developed to allow respondents the option of completing the survey electronically. Data will be downloaded electronically from the web-based system. For those respondents without the resources to fill out a web-based survey, a hard copy will be available. The pages of the hard-copy surveys will be separated and scanned for data entry. Both options are designed to minimize burden to the respondent and obtain data as efficiently as possible. Both methods allow establishment of an infrastructure for subsequent data collection waves.

A.4. Efforts to Identify Duplication and Use of Similar Information

Although a few small studies have been conducted in individual states,^{15,16,17} the CDC mPINC Survey is currently the only source of national information with data for the vast majority of facilities in each state to assess and monitor breastfeeding-related maternity care practices across the United States and territories. This type of information is not captured via birth certificate data, nor is it captured by the CDC Pregnancy Risk Assessment Monitoring System (PRAMS) or any other federal survey capturing hospital practices or women's experiences during the intrapartum period. To our knowledge, no other existing surveillance system captures facility practice information in maternity care settings.

In October, 2003, CDC convened an expert panel comprised of the researchers who conducted the previous, state-level studies as well as other researchers with specific experience in surveillance and monitoring of maternity care practices related to breastfeeding. The expert panel reviewed existing research and available data, identified current research, evaluation, and public health programmatic needs, various methodologies for a national assessment of breastfeeding-related maternity care practices at hospitals, and possible barriers to data collection. Attendees agreed that the monitoring system needs to be a recurring national census of facilities routinely providing maternity care.

In October, 2004, CDC convened another meeting of experts to discuss the draft survey instrument and implementation of the survey. As part of the discussion, experts again reviewed existing data sources and other studies that were underway and agreed both that no similar data collection system exists, and the need for such data is high.

Since beginning to plan and implement the 2007 survey, CDC has continued to communicate with external experts and sought to identify other data sources. Since fielding the 2007 survey, researchers have begun to identify CDC as their expected source for this kind of information.

A.5. Impact on Small Businesses or Other Small Entities

Since the study population will include all hospitals and free-standing childbearing centers in the United States and territories, it may include some small businesses. Extensive effort has been made to minimize the burden of the survey on small businesses. In designing the survey instrument, the number of questions has been held to the minimum necessary for addressing the objectives of the study. Skip patterns built into the survey will allow small hospitals and birthing

centers to answer only the sections that apply to their specific conditions, thereby reducing the burden on these small businesses. For example, questions on surgical births (Cesarean sections) and neonatal intensive care can be skipped by facilities that do not perform surgical births or provide neonatal intensive care. Many smaller facilities fall into this category, thus these facilities will have less response burden and fewer items to which they need respond.

The use of the CATI screening instrument and offering two options for completing the survey, a web-based option and a hard copy option, will also reduce the burden on participating small businesses. Small businesses such as free-standing childbearing centers represent approximately one half of one percent of the entire study population.

A.6. Consequences of Collecting the Information Less Frequently

An initial survey was administered in 2007. This was the first of an ongoing systematic data collection for the continued assessment of breastfeeding-related maternity care practices. We plan to administer a second round in 2009 to examine changes in practices over time.

Changes in maternity care practices related to breastfeeding occur relatively rapidly. In many cases these changes occur as a result of a single person's decision. While annual assessment of facilities is desirable, to lessen the burden on respondents, biannual assessment will be adequate to characterize the major issues of concern without losing point-in-time data. Assessment less than every 2 years will not be able to fully capture these changes as they occur, making analyses and public health program planning less accurate and effective. Documentation of these changes over time will allow for more careful program planning and more efficient use of hospital funds to improve maternity care practices.

The goal of this work is to not only to assess the feasibility of establishing CDC's national system for monitoring practices related to breastfeeding at intrapartum care facilities on a bi-annual basis, but to ensure the longevity of the system and provide meaningful results to CDC, intrapartum care facilities, and States. In the long term, development and implementation of a national surveillance system will help inform programs to achieve Healthy People 2010 objectives and reduce disparities in breastfeeding initiation and duration.

There are no legal obstacles to reduce the burden.

A.7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

This study complies fully with the guidelines of 5 CFR 1320.5. No exceptions to the guidelines are required.

A.8. Comments in Response to Federal Register Notice and Efforts to Consult Outside the Agency

- A. CDC published a notice soliciting public comment on the proposed information collection in the Federal Register on February 3, 2009 (Vol 74, No. 21, pp. 5936-7). A copy of the notice is attached (**Appendix B**).

CDC received 84 comments and recommendations to the 60 Day Federal Register

Notice, representing 51 different organizations and 33 individuals across the United States. **Appendix B-2** is a summary of the public comments and CDC's response. The volume of comments received in response to this Federal Register Notice is unprecedented and represents a vast breadth of viewpoints. Despite the wide range of perspectives, the consistent theme throughout the comments is an urgent recommendation that CDC repeat the mPINC survey.

Public comments expressed support for the proposed data collection, sought further information about the methodology, or provided suggestions as to how to expand or enhance the information collection. Comments addressed a wide range of aspects of the survey, including the act of completing the survey, the utility of receiving individualized results, the impact on hospital administrators and other stakeholders, and suggested additions or enhancements for future surveys. Organizations that commented included local hospitals and clinics, universities, manufacturers, and local, state, national, and international advocacy organizations, as well as state and local public health agencies. Individual commenters included physicians, midwives, nurses, dietitians, health educators, physical therapists, lactation consultants, epidemiologists, peer counselors, and mothers.

Each comment was logged, reviewed, and analyzed prior to receiving a response from CDC. The comment log also allowed for synthesis of the content and recommendations in each comment, identification of trends, similarities, and relevant commenter characteristics, and follow-up monitoring. Each commenter received an email response from CDC expressing gratitude for their input. In addition, CDC consulted subject matter experts for technical assistance in providing more specific follow-up when necessary.

CDC was truly inspired by the perceptive insight provided in comments from actual respondents to the 2007 mPINC survey, as well as the wide range of individuals whose lives and work are touched by CDC's administration, analysis, and dissemination of findings of the mPINC survey.

Several comments suggested CDC expand the mPINC survey. For example, multiple comments recommended CDC conduct a concurrent survey among mothers who are hospitalized for their infants' birth, and use those data to compare facility responses to the mPINC survey with mothers' reports. This is, in fact, an activity that CDC would be interested in pursuing, however, logistical, budgetary, and other resource barriers to conducting such a survey have so far been prohibitive. Another suggestion was to include more items about medically fragile infants being cared for in Neonatal Intensive Care Units (NICUs). In fact, early versions of the draft mPINC survey had several items on these issues. Unfortunately, pilot testing of the draft survey revealed that the volume of items necessary to adequately investigate NICU issues resulted in a survey that was too lengthy and burdensome for one respondent individual to complete in a reasonable amount of time. Suggestions related to methodology of the mPINC survey included making completion of the survey a mandatory activity on the part of facilities, which is not within CDC's scope and could lead to ethical concerns, and publicizing individual facility scores. Prior to fielding the 2007 mPINC survey, the mPINC survey team discussed this option at great length. After consultation with external experts and others in the field, the decision was made to refrain from

publicizing facility identities, in order to encourage honest and thorough participation in the mPINC survey.

- B. A panel of experts in evaluation of hospital maternity care practices in the United States met in Orlando, Florida, on October 30 and 31, 2003, to discuss the future of assessment and monitoring of maternity care practices related to breastfeeding. CDC convened the meeting specifically to identify current research, surveillance, and public health program needs, discuss various monitoring methodologies, identify barriers to data collection, and explore future possibilities for national assessment and monitoring. This was the first such meeting bringing together diverse experts from across the country to help shape a national system of monitoring breastfeeding-related maternity care. The outcome of this expert panel meeting was a strong recommendation on the part of meeting participants to establish an ongoing national census of maternity care practices related to breastfeeding among all facilities that routinely provide maternity care services. The final report of this meeting is attached (**Appendix D**).

A draft survey was developed based on the recommendations of the Expert Panel at the October 2003 meeting and survey instruments used in past studies, such as the FDA Infant Feeding Practices Study (IFPS), the Maternity Center Association Listening to Mothers Survey, and the Pregnancy Risk Assessment Monitoring System (PRAMS). The surveys used to collect state-level data in states such as California, Pennsylvania, Colorado, Oregon, New Jersey, and New York were also reviewed.

A follow-up meeting with experts was held in Boston, Massachusetts, on October 21, 2004, to discuss the draft survey instrument. Discussion included: (1) feedback on the survey plan; (2) general discussion of the draft survey instrument; (3) question by question observations on the draft survey instrument.

Persons consulted at the two expert panel meetings are listed in Table A.8.A:

Table A.8.A Non-CDC Experts Consulted

Date Consulted	Name, Title, Phone Number	Agency, Location, Email Address
2003	Elizabeth Adams, PhD Assistant Professor Food Science and Human Nutrition 970-491-6535	Colorado State University Fort Collins, CO lizadams@CAHS.Colostate.edu
2003	Mary Applegate, MD, MPH Medical Director 518-473-4439	Bureau of Women’s Health NY State Dept of Health Albany, NY msa04@health.state.ny.us
ongoing	Karin Cadwell, PhD Director (508) 888-8044	Healthy Children/Baby Friendly USA East Sandwich, MA karin@healthychildren.cc
ongoing	Andrea Crivelli-Kovach, PhD Director of Community Health 215-572-4014	Arcadia University Glenside, PA kovach@ARCADIA.EDU

Date Consulted	Name, Title, Phone Number	Agency, Location, Email Address
ongoing	Eugene Declercq, MBA, PhD Professor (617) 638-7795	Boston U. Sch of Public Health Boston, MA declercq@bu.edu
2003	Jennifer Dellaport, RD, MPH WIC Breastfeeding Promotion Coordinator 303-692-2462	Colorado Dept of Public Health & Environment Denver, CO
2003	Ann DiGirolamo, PhD, MPH Research Assistant Professor 404-727-9814 adigirol@sph.emory.edu	Rollins School of Public Health at Emory University Atlanta, GA Jennifer.Dellaport@state.co.us
2003	Anne Merewood, MA, IBCLC Director, Research Breastfeeding Center 617-414-6455	Boston Medical Center Boston, MA Anne.Merewood@bmc.org
2003	Barbara Philipp, MD Associate Professor of Pediatrics 617-414-4233	Boston Medical Center Boston, MA bobbi.philipp@bmc.org
ongoing	Ken Rosenberg, PhD PRAMS Project Director 503-731-4507	Oregon Department of Human Services Ken.D.Rosenberg@state.or.us
2003	Laurie Tiffin, MS, RD Chief-Breastfeeding Promotion Unit WIC Supplemental Nutrition Branch 916-928-8526	California Department of Health Services Sacramento, CA LTiffin@dhs.ca.gov
ongoing	Cindy Turner-Maffei, MA, IBCLC National Coordinator 508-888-8092	Baby-Friendly USA East Sandwich, MA cturner@babyfriendlyusa.org

A.9. Explanation of Any Payment or Gift to Respondents

No payment or gift will be made to the respondents.

A.10. Assurance of Confidentiality Provided to Respondents

The CDC Privacy Act Officer has reviewed this application and has determined that the Privacy Act is not applicable. Respondents are hospital and non-hospital facilities that provide maternity care services. Although one or more contact persons will be identified for each responding facility, the contact person will not provide any identifiable information about himself or herself. Based on their role, the contact person will provide information about the respondent facility's practices related to infant nutrition and breastfeeding education. The contact person's name and contact information will be destroyed after individualized facility reports have been generated and sent back to facilities with aggregate results reports.

This project is considered to be non-human subject research as it collects information about practices and policies in hospitals and birthing centers and does not collect data about

individuals.

A contractor, the Battelle Centers for Public Health Research and Evaluation, will be responsible for screening contacts with respondents and for collecting response data on behalf of CDC. Battelle personnel assigned to this project will be required to sign an agreement that data will be kept secure. Great care will be taken to treat the survey data in a secure manner.

The contractor will assign a unique study identifier code to each respondent facility. Although the survey packet containing the questionnaire will be addressed to the named contact person, the completed survey returned to the contractor, as well as the electronic data files containing the survey response data, will be identified only by the study identifier code and will not include names or direct identifiers. Data base files linking facility names with identification numbers will be kept separate from survey response data. Once the data collection has been completed, all names, addresses, and telephone numbers of contact persons will be destroyed, however, facility names will be kept in order to be able to create linkage with other studies and for further analysis by state health departments who may need to identify and target hospitals with particular practices. Facilities will be informed that data may be released for additional approved research purposes.

Respondents who choose to submit response data electronically will be given a password for access to the contractor's website. All data submitted to the contractor's web site will travel via secure data sockets and will be stored in a database behind the contractor's server firewall. Project files will be password protected and access will be limited to authorized project staff. Completed questionnaires submitted in hardcopy format will be stored in locked file cabinets.

No names, facility names, or personal identifying information will be used in any published reports of this study. CDC plans to present all survey reports and findings in aggregate so individual facility responses cannot be identified. Data will be treated in a secure manner, unless disclosure is otherwise required by law.

A.11. Justification for Sensitive Questions

Topics typically considered to be of a sensitive nature include personal sexual practices, alcohol or drug use, religious beliefs or affiliations, immigration status, and employment history. No questions regarding these topics or any other topic of a sensitive nature will be asked in this survey. We do not anticipate that the respondent facilities will consider any of the questions about facility practices to be sensitive, however, the data de-identification processes described above have been implemented as further safeguards to respondent privacy.

A.12. Estimates of Annualized Burden Hours and Costs

A.12.A. Estimate of Burden Hours

Potential respondents will be screened by telephone call. Using the most recent data from the American Hospital Association's (AHA) annual survey of hospitals, we estimate there will be a total of 4,089 respondents (3,897 hospitals and 192 birth centers) contacted for initial screening calls (see **Appendix G-1, Telephone Screening Interview for Hospitals**, and **Appendix G-2, Telephone Screening Interview for Birth Centers**). We plan to administer the screening

instrument to the director of maternity care at each facility, who will identify the person in their facility who can best complete the mPINC survey.

Based on our experience with the 2007 administration of the mPINC survey, we then estimate that approximately 20% of those screened will not be eligible to participate in the survey due to having not provided routine maternity care in the previous year. Approximately 3,281 eligible facilities will be invited to participate in the survey (3,143 hospitals and 138 birth centers). We estimate that 2,568 hospitals will complete the hospital version of the survey (see **Appendix H-1, 2009 mPINC Survey for Hospitals**), and 122 birth centers will complete the birth center version of the survey (see **Appendix H-2, 2009 mPINC Survey for Birth Centers**). The total burden estimate is 1,686 hours for both screening and survey completion.

Each facility that participated in the 2007 survey received an individualized mPINC Facility Benchmark Report (see **Appendix C-2** for an example). Data from the 2007 survey have also been aggregated at the state level for reporting to partner stakeholders in states such as state health departments and health professional and hospital associations. With expansion to include reporting on changes between the 2007 and 2009 surveys, similar results reporting is planned for the 2009 survey. In anticipation of the need to assist facilities and related partner stakeholders in interpreting and acting upon the findings and any observed changes between the two survey years, we plan to conduct a one-time, secondary data collection involving approximately 40 respondents. The purpose of this activity will be to obtain feedback about the structure, format, utility, and focus of results reports that will be provided to them in order to optimize the ability of the reports to meet specific audience needs. The estimated burden per response is 2 hours.

The adjusted total estimated burden to respondents is 1,766 hours, including screening (341 hours), survey completion (1,345 hours), and pre-testing of the 2009 mPINC results report (80 hours).

Table A.12.A. Estimated Annualized Burden Hours

Type of Respondent	Form Name	Number of Respondents	Number of Responses per Respondent	Average Burden per Response (in hours)	Total Burden (in hours)
Hospitals	Telephone Screening Interview for Hospitals	3,897	1	5/60	325
	2009 mPINC Survey for Hospitals	2,568	1	30/60	1,284
Birth Centers	Telephone Screening Interview for Birth Centers	192	1	5/60	16
	2009 mPINC Survey for Birth Centers	122	1	30/60	61
Recipients of Results	Results Report Pre-testing	40	1	2	80

Reports						
					Total	1,766

A.12.B. Estimated Annualized Cost to Respondents

The screening instrument and the survey will most likely be completed by Registered Nurses who will be answering the survey on behalf of their facility (hospital or birthing center). The hourly wage rate of \$31.55 is based on statistics from the U. S. Department of Labor, Bureau of Labor Statistics.¹⁸ The total estimated cost to respondents is \$55,718.

Table A.12.B. Estimated Annualized Cost to Respondents

Type of Respondents	Form Name	Number of Respondents	Number of Responses per Respondent	Average Hourly Wage	Total Burden (in hours)	Total Cost to Respondents
Hospitals	Telephone Screening Interview for Hospitals	3,897	1	\$31.55	325	\$10,254
	2009 mPINC Survey for Hospitals	2,568	1	\$31.55	1,284	\$40,510
Birth Centers	Telephone Screening Interview for Birth Centers	192	1	\$31.55	16	\$505
	2009 mPINC Survey for Birth Centers	122	1	\$31.55	61	\$1,925
Recipients of Results Reports	Results Report Pre-testing	40	1	\$31.55	80	\$2,524
					Total	\$55,718

A.13 Estimate of Other Total Annual Cost Burden to Respondents or Record Keepers

The data collection entails no additional costs to respondents or record keepers.

A.14 Annualized Cost to the Government

The 2009 survey and study will take approximately one year to complete (see Estimated Timeline – Table A.16.1). The estimated total cost to the government is \$258,876. The CDC costs are estimated as follows: Salary \$36,000; Fringe (25 %); Travel \$2000; Administration \$1,500. The estimated cost of the Battelle contract (CDC 200-2001-00121, Task Order # 0013) is \$219,376 which covers the cost of survey administration, distribution and collection, data entry, coding and cleaning and data analysis for the 2009 survey. Because we are seeking one year approval for this collection, the annualized cost to the government is therefore \$258,876.

Table A.14. Estimated Annualized Cost to the Government

Type of Cost	Annualized Amount
Contractual Costs	\$219,376
Salaries	\$36,000 (includes fringe)
Travel	\$2,000
General and Administrative	\$1,500
Annualized cost-Government	\$258,876

Note we are seeking one year approval for this project.

A.15 Explanation for Program Changes or Adjustments

This Revision request includes an increase in the number of anticipated respondents.

Facilities that will be invited to participate in the 2009 survey include facilities that: participated in 2007, were invited but did not participate in 2007, and have become eligible since 2007. This will allow CDC to effectively monitor current practices across the U.S. and to provide customized assessment reports to the broadest range of public health partners.

As with the initial survey in 2007, a major goal of the follow-up survey in 2009 is to provide direct feedback to facilities and to be fully responsive to their needs for information and technical assistance. Following completion of the 2009 survey, CDC will again provide facilities with feedback and will expand on this feedback by reporting on progress on their quality improvement efforts since 2007. Based on the 2007 reports, CDC will identify, document, and share information related to incremental changes in practices and care processes over time at the facility, state, and national levels.

A.16. Plans for Tabulation and Publication and Project Time Schedule

A.16.A. Project Time Schedule

Table A.16.A. Project Time Schedule

Activity	Schedule (months after OMB clearance)
Identify facilities to be surveyed	Month 1-2
Conduct screening telephone calls	Month 1-4
Conduct mail survey	Month 2-8
Data coding, entry, and cleaning	Month 2-9
Data analysis	Month 9-10
Final reports, manuscripts, benchmarking	Month 9-12

A.16.B. Publication Plan

As with the 2007 survey, upon completion of the data analysis, a separate technical report will be

prepared for each facility and each state. These technical reports will summarize the results of the data analysis. Each report will describe the objectives of the study, methods of survey administration (including the response rates to the survey), and analysis results. See **Appendix C-2** for an example facility benchmarking report based on the actual 2007 reports. The results of the study will also be disseminated to various stakeholders through the publication of manuscripts in peer-reviewed journals.

A.16.C. Analysis Plan

A.16.C.1. Calculation of Sampling Weights

Due to conducting a census of all facilities providing maternity care in all States and Territories, weighting of the survey data need only be performed to reduce bias due to patterns of non-response. If non-response is low, or non-differential, the analyses will be unweighted. The extremely high response rate to the 2007 survey makes weighting of 2009 data unlikely to be necessary.

To adjust for non-response we will use sample weighting class adjustments. The variables that are the best candidates for the formation of weighting classes are those variables that are: (1) available for respondents as well as non-respondents; (2) highly correlated with the survey variables; and (3) highly correlated with the likelihood of non-response. Variables available for the non-response analysis will be limited to geographic location, variables obtained through the screening telephone interview (e.g. number of satellite clinics), and variables available from the American Hospital Association's Annual Survey of Hospitals (e.g. ownership type, number of obstetric beds, births).

These weights will be applied to all analyses described below if necessary. By using weights to adjust for non-response we will obtain estimates that will be unbiased and generalizable to hospitals providing maternity care.

For most analyses, the unit of analysis will be the facilities. However, for some analyses, it will also be of interest to estimate the number of births in the country experiencing different feeding related practices. For these analyses, the tables will be weighted by the number of births in the facility in the previous year.

A.16.C.2. Data Analysis

The survey data will be analyzed using standard univariate and bivariate descriptive statistics (e.g. means, frequencies, crosstabs) and multivariate analyses. Trend analyses utilizing data from both the 2007 and the 2009 survey data will be completed as well. The following types of variables are examples of data that will be examined:

Hospital/birthing center practices: Practices include staff training regarding breastfeeding-related maternity care practices, prenatal classes that include breastfeeding instruction, routine newborn procedures, breastfeeding instruction and lactation support, infant supplementation and feeding schedules, rooming-in, and information provided at discharge.

Hospital/birthing center policy: These variables include whether the hospital has a written policy or policies that promotes and supports maternity care practices related to breastfeeding, content of the policy, and how staff are informed about the policy, staff training, and personnel.

Hospital/birthing center characteristics: These variables include total number of live births in the past year, total number of obstetric beds, staffing, number of deliveries by cesarean-section, teaching hospital, ownership, breastfeeding rates, geographic location of hospital including urban or rural and state.

Indicator variables will be constructed using multiple survey questions to reflect the extent to which hospitals and birthing centers have policies and practices associated with breastfeeding initiation and continuation. For each indicator variable, we will create a score from 0 to 100, with higher scores reflecting more consistent application or more positive policies and practices.

See **Appendix E** for the algorithm used for scoring the 2007 survey. Because this is a repeat of the 2007 survey, this is also the planned scoring algorithm for the 2009 survey.

A.16.D. Table Shells

Selected table shells are located in **Appendix F**.

Benchmarking analyses

For each indicator, reports will be generated to compare maternity care facilities by state and region.

Each facility participating in the study will receive an analysis of its own scores on these indicators compared to other facilities of a similar type. An example of such a report is shown in **Appendix A-2**.

Univariate analyses

Univariate distributions and summary statistics will be generated to describe hospital or birthing center characteristics across the U.S. This is an essential first step in describing the sample and generalizing the findings to the respondent universe.

Univariate analyses will be conducted on items in the remaining sections of the questionnaire and constructed indicator variables in order to describe hospital and birthing center maternity care practices and policies related to breastfeeding.

Bivariate analyses

Bivariate analyses will be conducted to: 1) obtain hospital or birthing center subgroup percentages or means on survey measures, 2) test for subgroup differences on those measures, and 3) test for associations between hospital or birthing center characteristics and practice and policy measures. In planning and conducting these analyses, hospital or birthing center (e.g. number of births, cesarean section rates) can be referred to as independent variables. Practice (e.g. 24-hour rooming-in, medical record documentation of intention to breastfeed), and policy (e.g. having a formal written policy or policies on breastfeeding) can be referred to as dependent variables.

Bivariate analyses will also be conducted to examine the variation in facility scores by facility characteristics such as having a level 3 neonatal intensive care unit, being a teaching facility, and geography (state and region). Facility scores are categorized based on pre-defined cut-offs as low, medium, or high overall and by maternity care dimension. Table Shells 1 and 6 present table shells as examples of bivariate analyses of facility scores. Table Shells 2-5 present table

shells as examples of bivariate analyses of the first dimension of maternity care—labor and delivery—presented in Table Shell 1. These tables will be repeated for all of the other dimensions of maternity care.

Trend analyses

Univariate and bivariate analyses will also be carried out after the second iteration of the survey to evaluate changes in hospital and birthing center practices over time. For hospitals that respond to the survey at both iterations, their report will include a comparison to scores given at the first iteration to show where there have been improvements. National reports will examine trends overall and broken down by facility type and location.

A.17. Reason(s) Display of OMB Expiration Date is Inappropriate

No exemption from display of expiration date is requested.

A.18. Exceptions to Certification for Paperwork Reduction Act Submissions

No exceptions to certification are sought.

List of Appendices

- Appendix A Authorizing Legislation
- Appendix B 60 Day Federal Register Notice
- Appendix B-2 Summary of Public Comments and CDC Response
- Appendix C 2007 mPINC Results Report
- Appendix C-1 CDC MMWR: Breastfeeding-related maternity practices at hospitals and birth centers—United States, 2007. June 13, 2008
- Appendix C-2 2007 mPINC Facility Benchmark Report
- Appendix C-3 CDC Web Resources at www.cdc.gov/mpinc
- Appendix D Expert Panel Meeting Final Report – October 2003
- Appendix E mPINC Survey Scoring Algorithm
- Appendix F Table Shells
- Appendix G-1 Telephone Screening Interview – Hospitals
- Appendix G-2 Telephone Screening Interview – Birth Centers
- Appendix H-1 2009 mPINC Survey for Hospitals
- Appendix H-2 2009 mPINC Survey for Birth Centers
- Appendix I Cover Letter
- Appendix J Thank You/Reminder Postcard
- Appendix K Non-Responders Follow-Up Letter

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