Information Collection Request

Request for Reinstatement with change

Monitoring Breastfeeding-Related Maternity Care-US Hospitals
OMB Control No. 0920-0743

Supporting Statement: Part B

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TABLE OF CONTENTS

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

B1. Respondent Universe and Sampling Methods

The planned methodology for the 2018 and 2020 national survey of Maternity Practices in Infant Nutrition and Care (mPINC) will closely match that of the previously administered mPINC surveys in 2007, 2009, 2011, 2013, and 2015.

Changes described in this Reinstatement with change include: 1) deployment of 2018 and 2020 Surveys; 2) data collection via web-survey only (no paper surveys); 3) surveying hospitals only (not birth centers); 4) requesting contact information for two individuals per facility (previously only one); 5) an updated American Hospital Association (AHA) database will be acquired to identify hospitals not currently on the list for recruitment in the 2018 survey. This process will not occur for the 2020 survey, but additional hospitals identified from the new database for 2018 will be included in the 2020 survey; 6) 2018 and 2020 survey content has been updated.

Hospitals will be identified using information from these sources: 1) the American Hospital Association (AHA) Annual Survey of Hospitals to identify hospitals that have registered obstetric beds or at least one birth; 2) hospitals that participated in previous mPINC survey cycles; 3) hospitals that were invited but did not participate in previous mPINC survey cycles; and 4) hospitals that may have become eligible since the most recent mPINC survey. A brief screening call to all hospitals with ≥1 registered maternity bed or at least one birth will assess eligibility for participation in the 2018 and 2020 survey cycles, identify additional locations, and identify the appropriate points of contact (contact persons) in each. This will allow CDC to effectively monitor current practices across the U.S. and Territories and to provide customized assessment reports (i.e., hospital-specific benchmark reports, state-specific reports) to the broadest range of public health partners.

Although a nationally representative sample was considered, CDC determined that sampling data would not allow CDC to be fully responsive to our partners' needs. A sample would not allow for state- and local-level analyses to address local programmatic and research needs, which were expressed as top priorities the expert panel convened to discuss issues surrounding the survey design (see **Attachment 4a,** Expert Meeting Report 2003).

A national census is the only design that will allow states to individually tailor their efforts to increase progress toward meeting their public health breastfeeding goals. The census design is especially important for small states and states with few hospitals.

The wide disparities in breastfeeding rates across U.S. states highlight the need for individual, state-level data to be available for local analyses. Further evidence on attitudes towards breastfeeding across the United States reveals significant geographic differences in barriers to breastfeeding [1], which are likely manifested in maternity care practices related to breastfeeding.

Furthermore, results from the previous cycles of the mPINC surveys support a census methodology (see **Attachment 3b**). An analysis of the 2007 mPINC data published in a CDC Morbidity and Mortality Weekly Report showed differences in facility practices by state and geographic region in maternity care practices and differences between types of hospitals. Mean total scores reflective of maternity care practices related to infant nutrition ranged from 48/100 in Arkansas to 81/100 in New Hampshire and Vermont. Data from mPINC 2007 and 2009 served as the basis for the August 2011 Vital Signs (**Attachment 3j**). This report examined the

proportion of hospitals implementing 10 practices that serve as the basis for the WHO/UNICEF Baby-Friendly Hospital Initiative, the Ten Steps to Successful Breastfeeding (Ten Steps). This report showed that only 3.5% of hospitals were fully implementing the Ten Steps. The report also described variations in practices implemented by region and by facility size.

Our calculation of 2,928 hospitals for the screening call is based on our experience with the 2015 mPINC survey. These hospitals will be contacted to complete part A of the telephone screener to determine eligibility. We then estimate that approximately 85.62% (2,507) of those screened will be found to be eligible and will complete the screening process (screener part B). We then anticipate that 85% (2,131) of the 2,507 that completed Part A will respond to the survey itself. Past surveys have observed 81-83% response rate, so this estimate errs on a higher response rate. Estimates described in Table B.1 are based on our experience with the 2015 mPINC survey.

To annualize these estimates, the number of hospitals that respond for one cycle were multiplied by the two cycles and divided by the three years of OMB coverage [e.g., (2,928 respondents for Part A * 2 cycles)/3 years of OMB coverage). The 2,928 responding to Part A was annualized to 1,952; the 2,507 responding to Part B was annualized to 1,672; and the 2,131 completing the survey was annualized to 1,421 (see **Attachment 6c**, mPINC Facility Survey). Annualized numbers were rounded up to the nearest whole number.

Table B.1. Estimated Annualized Respondents for 2018 and 2020 Data Collection Cycles, by Data Collection Instrument

Form Name	Number of Respondents in 2018	Number of Respondents in 2020	Total Number of Respondents	Annualized Number of Respondents
Screening Telephone Call Part A (partial)	2,928	2,928	5,856	1,952
Screening Telephone Call Part B (complete)	2,507	2,507	5,014	1,672
mPINC Facility Survey	2,131	2,131	4,262	1,421

To minimize possible bias from nonresponse and to maximize statistical power, the study aims to achieve a response rate of at least 75%. In surveying the universe of eligible facilities, the only source of sampling error is nonresponse. Therefore, our estimated standard error includes the following finite population correction factor:

Standard error=SQRT ((nonresponse rate)*(standard deviation)2/(no. of surveys in analysis))

Response rates in past cycles have been 82%, 82%, 83%, 83%, and 82% in 2007, 2009, 2011, 2013, and 2015, respectively.

B2. Procedures for the Collection of Information

This section describes information collection procedures and addresses data collection and quality control procedures.

For the 2018 and 2020 surveys, a computer assisted telephone interviewing (CATI) system will be used to screen hospitals selected for possible inclusion in the study. A screening telephone call (see **Attachment 5**, Screening Call Script) will be made to all hospitals identified through the sources described above (section B1). The purpose of the screening call is four-fold: (1) to verify that the hospital provided maternity care in the previous calendar year, (2) to determine the most appropriate contact person to whom the survey will be sent to for that hospital (along with a backup), (3) to obtain contact information about the contact persons identified, and (4) to determine if the hospital provides maternity care at other locations (satellites), and, if so, to obtain contact information for the other sites.

The only personal information that is requested or collected about the contact person as part of the mPINC survey is their name and contact information, for purposes of routing the survey to the hospital and delivering the benchmark report. This person's function and responsibility related to the mPINC survey is limited to receiving the weblink to the survey (either via e-mail or mail). This contact person is not required to be the person who completes and submits the on-line survey on behalf of the hospital. During the screening telephone call, e-mail addresses for the identified facility contact persons will be collected, if available. For those who provide an e-mail address, the web-based response option will be offered first to facilitate ease of electronic submission. Promotion of the web-based option in 2013 and 2015 resulted in 71.5% of hospitals submitting the survey electronically in 2015 which was a 15.5 percentage point increase in the survey web response compared to the 2011 mPINC survey (and a 47.5 percentage point increase compared to the 2007 survey). A survey administration protocol similar to the 2013 and 2015 mPINC surveys will be used for hospital contacts without an e-mail address provided. Survey administration steps include the following:

Table B.2. Survey Administration Steps

Administration step	E-mail address provided	No e-mail address provided	Attachment reference
Step 1 – Immediately following telephone screening	Send initial e-mail invitation to individual identified during screening call (contact person) that includes the e-mail invitation cover letter and a link for accessing the mPINC web survey.	Send survey packet via mail to contact person that includes cover letter on CDC letterhead providing the link to the web-based survey questionnaire with ID label.	Attachment 6a, 6b, and 6c
Step 2 – Reminder contact two weeks after initial contact	Send an e-mail reminder to each facility contact person encouraging survey completion that includes the e-mail reminder cover letter and a link for	Send a reminder letter via mail to each facility contact person encouraging survey completion that includes the e-mail reminder cover letter and a	Attachment 6d and 6e

	accessing the mPINC web survey.	link for accessing the mPINC web survey.	
Step 3 – Non-response contact three weeks after initial contact for those who have not completed the survey	Send a packet via express mail that includes a non-response cover letter and link for accessing the mPINC web survey.	Same as Step 3 for e-mail address provided	Attachment 6f
Step 4 – Follow-up telephone call four weeks after initial contact for those who have not completed the survey	Call the contact person to encourage him/her to complete the survey. Resend the e-mail invitation if requested.	Call the contact person to encourage him/her to complete the survey. Resend the survey packet via express mail if requested.	Attachment 6g

The e-mail and hardcopy cover letters will be on CDC letterhead (an electronic CDC header is used for e-mail messages) and emphasize the importance of the study. The e-mail and hardcopy cover letters will provide the name and toll-free telephone number of a staff member to call with questions about the study, and will also include the name and telephone number of a person to call with questions regarding Human Subjects protection. The letters will include the date and time that the survey will close.

Surveys will be sent continuously throughout the recruitment and data collection period. The contractor will track all returned surveys in the computer system upon receipt. As outlined in Table B.2, two weeks after the initial invitation, a reminder e-mail/letter will be sent to each hospital contact person to encourage survey completion. The e-mail/letter (see **Attachments 6d and 6e**, Reminder paper and Reminder e-mail) will include a toll-free number that can be called if the facility contact person(s) has any questions about completing the survey or needs to have another copy of the survey e-mailed. The Thank You/Reminder will note the date and time that the survey will close. Three weeks after sending the initial invitation, a packet via express mail will be sent to each hospital contact person at all non-respondent hospitals. The non-response mailing will include a different cover letter (see **Attachment 6f**), Non-Responder Follow-Up) emphasizing the importance of the study and a notice that this is the last chance to complete the mPINC survey. The letter will include the date and time that the survey will close. A follow-up phone call will be made to the contact person(s) at all non-respondent hospitals four weeks after the initial invitation (see **Attachment 6g**, Non-Responder Script). This call will serve as a final reminder to complete the survey, the date and time the survey will close, and provide an opportunity to answer any questions that may be delaying survey completion.

Quality control procedures will beginning with study initiation and continue through all phases of data collection and analysis. Steps will be taken to ensure that the data collected are of the highest quality possible. All project staff will be trained to understand the purpose, sponsorship, background, objectives, and importance of the project, as well as their specific role and activities on the study. In training project staff, we will emphasize the steps that will be taken to safeguard the privacy of the data that are collected. Hard copy completed survey questionnaires sent by mail to the Contractor will be returned to survey recipients accompanied by a letter (see **Attachment 6h**, Returned Surveys, paper), and, if an e-mail address was provided, the survey recipient will also receive an e-mail notification (see **Attachment 6i**, Returned Surveys, e-mail). All project files containing survey data will be transferred to CDC using secure file exchange or be password protected and access to the files at the contractor site will be limited to authorized project staff.

An information management system has been developed to monitor data collection activities. The database maintains all background data known about each facility. In addition, the database will contain the dates of screening and follow-up telephone calls, the dates that survey materials are e-mailed/mailed, and the dates that web survey is completed. Mailing labels and personalized letters will be generated from this system. Follow-up mailing dates will then be computed by the tracking system to ensure timely e-mailing/mailing of necessary and appropriate follow-up materials. The management information system will also be used to generate weekly reports summarizing the status of data collection activity through the data collection period.

An emphasis on quality will continue with the use of a web-based survey in order to provide faster survey response time and availability of data as well as high quality data since control checks are built in. The use of technology, including CATI and the Web-based survey, data quality will be maximized by minimizing errors related to manual data entry and incomplete and/or missing data. In addition, skip logic and range checks for data points will be programmed into the web-based survey to minimize incomplete and/or missing data and maximize data quality. These methods also allow us to establish an infrastructure for subsequent data collection cycles.

B3. Methods to Maximize Response Rates and Deal with Non response

Over the past 20 years, Battelle (the current contractor) has developed procedures that have been successfully used to achieve response rates of 70 to 83% to surveys of hospitals and other health care facilities. Multiple methods studies, reviews, and meta-analyses have been conducted to determine which factors lead to an increase in response rates in mail surveys. Preliminary notification, multiple follow-ups with hospitals, use of express mail, personalization techniques, sponsorship or endorsement, length of questionnaires, and individualized feedback to respondents, have shown positive effects on response rates [2].

Battelle discussed with CDC, participants in the 2003 Expert Panel, and facility respondents during pre-testing the content of the letter to accompany the survey packet, including sponsorship by CDC. The e-mail and hardcopy cover letters, which will stress the importance of the study, will be signed by the Chief of CDC's Nutrition Branch.

The survey invitation will be personally addressed to the contact person who was identified as being most knowledgeable about breastfeeding-related maternity care practices during the screening telephone call. Since the name and e-mail and/or physical address of the individual will be confirmed before the questionnaire is sent, we can send the questionnaires by e-mail or

mail directly to the contact person thereby assuring fast, accurate delivery. The contact person will be given the name and toll-free telephone number to call if they have questions regarding the study. A reminder e-mail or letter will be used to encourage non-respondent facilities to complete the survey as will a non-response survey mailing with a new cover letter, including link to web survey, and a final phone-call.

Response rates will be reported at each stage, i.e., the response rate from the initial mailing, the reminder, and non-response mailing. Once data collection has been completed, if needed, we will conduct non-response analysis to assess whether it is necessary to adjust for non-response by weighting the survey data.

The response rates for the previous five survey cycles were high, ranging from 82 to 83%. Data from the previous survey cycles were used to create personalized, facility-level reports for each responding facility that were confidential to their facility (see examples in **Attachments 3d**: 2007 Survey Benchmark Report, **3e:** 2009 Survey Benchmark Report, **3f:** 2011 Survey Benchmark Report, **3g:** 2013 Survey Benchmark Report, **and 3h:** 2015 Survey Benchmark Report), and customized state-level reports for key decision-makers (state health departments, state breastfeeding coalitions, and health professional and hospital administrator organizations, etc.). Personalized, facility-level reports provided a motivation for hospitals to take part in the previous mPINC surveys. We have received extensive positive feedback from hospitals and states about the usefulness of the reports and encouragement to repeat the survey to evaluate the effectiveness of actions at the hospital and state levels based on information obtained from the previous mPINC surveys.

B4. Tests of Procedures or Methods to be Undertaken

The CDC has multiple years of field experience successfully administering multiple cycles of the mPINC survey. The CDC has used lessons learned from previous cycles of the mPINC survey to inform decisions related to methods to be undertaken.

As in the previous survey cycles for the 2018 and 2020 survey administrations, CDC will continue to provide individualized mPINC Benchmark Reports to each participating hospital similar to previously issued reporting (as described above in Section B.3). The CDC will continue to report aggregate mPINC data at the state level and issue state-specific mPINC reports. These State mPINC reports provide summary information to a wide array of partners/stakeholders in each state, including state health department leadership, state breastfeeding coalitions, health professional and hospital associations.

Modifications were made to the content of the 2018 survey because of the changes in the last decade in maternity care practices (see **Attachment 6c**, mPINC Facility Survey). The domains to be included for the 2018 and 2020 surveys are 1) Labor and delivery care; 2) Feeding of breastfed infant; 3) Breastfeeding assistance; 4) Mother/infant contact; and, 5) Discharge care. Beginning in 2018, birth centers will not be included in the survey sample which will reduce the size of the sample, and future surveys will only accept web-based survey submissions which are more efficient.

Fewer than nine individuals were sent the 2018 survey to estimate burden, and, as a result, CDC has concluded that the changes to the 2018 survey will not result in change in the amount of time required to complete the survey (30 minutes). A separate pre-test of the 2018 survey is planned,

using the full programmed data collection system, in 2017. This pre-test will be conducted with fewer than nine individuals and will test the functionality of the system. No changes to the instrument will be made as a result of the pre-test.

Since the submission of this package, the functionality pre-test has been completed. Respondents found the survey easy to complete and that the definitions provided assisted with clarification. Recipients appreciated that the text boxes in the table of contents highlighted when they hovered their cursor over the section. The Contractor made adjustments to the system based on the following issues identified during the pretest:

- Some fields in the survey were not properly displaying on the screen for respondents,
- With the change since previous mPINC surveys to collection of contact information for two separate individuals, if the second contact is subsequently deemed "primary", the header in the system was not updating the phone number correctly,
- When the data collection staff reviewed the e-mail distribution portion of the data collection system, they determined that it included deactivated respondents. The developers updated the email distribution to only send to active respondents. This would only become relevant in the rare event that a contact refused to complete the survey and the telephone center staff were unable to identify another contact.

B5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

The survey instrument, data collection procedures, and statistical analysis plan were designed in collaboration with researchers at Battelle. Battelle will conduct data collections for the 2018 and 2020 mPINC surveys, in consultation with CDC.

Battelle personnel consulted on statistical aspects of the design and Battelle personnel who will collect data are:

Robyn D.F. Sagatov, PhD, MHS, RD, has overall technical and financial responsibility for the study at Battelle. Dr. Sagatov will direct the overall data collection and analysis effort. She will also be responsible for writing the project reports. Telephone: (410) 372-2719; electronic mail address sagatovr@battelle.org.

Stephanie Weber, Advanced Analytics and Health Research, Battelle, was consulted on the statistical aspects of the study design. Telephone: (614) 424-7544; electronic mail address WeberS@battelle.org

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CDC personnel involved in the design of the data collection and data analysis are:

Daurice Grossniklaus, PhD, MEd, RN Contracting Officer Technical Representative, Division of Nutrition, Physical Activity, and Obesity, CDC. Dr. Grossniklaus has overall responsibility for

overseeing the design, conduct, and analysis of the study. Dr. Grossniklaus will also approve and receive all contract deliverables. Telephone: (770) 488-5249; electronic mail address dtg3@cdc.gov.

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