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*CDC PRAMS Guidelines  
For  
Proposals To Conducting Multi-  
State Analyses*

*Revised 2/15/2010*

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## Overview of PRAMS

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The Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing, population-based surveillance system that collects information on maternal characteristics, behaviors, and experiences that occur several months prior to conception, during pregnancy, and immediately following delivery. PRAMS survey data supplement birth certificate information and provide participating project areas with information specific to their jurisdiction which can be used to plan and evaluate maternal and child health programs and make health policy decisions. As of January 2010, 39 vital records registry areas (37 states, New York City and the South Dakota Tribal project) participate in the project.

## Methods

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Each month, mothers who are state residents and have recently delivered a live-born infant during the preceding 2–4 months are randomly selected from a file of birth certificate records using stratified systematic sampling. Mothers who gave birth outside their state of residence and mothers who had a multiple birth greater than three gestations are excluded from the sampling frame. From 1992 through 1995, supplemental hospital-based sampling was conducted in four states. All states oversample mothers who are at increased risk for adverse pregnancy outcomes. Popular state stratification variables include infant birth weight, maternal race/ethnicity, and geographic location. For a detailed listing of the state data availability by year refer to the document titled, "Data availability by state and year" posted on the PRAMS Web site in the same section as these mini-proposal guidelines.

Sampled mothers are mailed a letter that introduces them to the project, followed by a self-administered 14 page standardized questionnaire several days later. The PRAMS questionnaire consists of about 56 core questions that are asked by all projects. In addition, each project inserts 10–30 questions they develop themselves or modules of questions developed by CDC standard questions. For a detailed description of core, standard, and state questionnaire topics, refer to the Topics Reference document located on the PRAMS Web site in the "Questionnaire" section or request a copy of this document from the research proposal coordinator. Depending upon the state, one to two additional questionnaire mailings are sent. All states conduct telephone interview follow-up for non-responding mothers. The PRAMS questionnaire has been translated into Spanish for states with sizable Spanish-speaking populations.

## Data Sets

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States collect and submit data to CDC from three different sources: the PRAMS questionnaire, the birth certificate, and survey operational data. The data are weighted annually for each state to adjust for nonresponsive, non-coverage, and sampling fractions. The annual weighted data sets contain data from all three sources. The questionnaire data contain mothers' responses to the questionnaire. The birth certificate data contain information on selected maternal characteristics (e.g. race, ethnicity, age) and pregnancy outcomes (e.g. birth weight, gestational age). The operations data are generated by the PRAMS operational software and are used primarily for operational evaluations and analyses of survey methods. In addition, a comment data set is maintained separately from the weighted project area data sets. The comment data set consists of mother's comments to the questions or their comments about answering questions related to their pregnancies (either directly written on a mailed questionnaire or

spoken during a telephone interview). Analysts use the comment file to re-code maternal responses or to obtain qualitative data from written or verbatim comments.

## Analysis software

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Due to the complex survey design used by PRAMS, CDC recommends that analysts use SUDAAN (Survey Data Analysis, Research Triangle Institute, NC) software or another software product that allows for complex sampling designs, to compute variance estimates and perform significance testing. Nevertheless, standard software products can be used to compute point estimates because analysis weights can be incorporated into statistical procedures. When conducting operational analyses that do not involve weighted data, standard statistical software packages can be used.

## Approval to analyze PRAMS data

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To facilitate the process of obtaining PRAMS data from multiple states, researchers may submit an application form and abstract to the CDC PRAMS team at [PRAMSProposals@cdc.gov](mailto:PRAMSProposals@cdc.gov). There should be one application for each proposed project. Details concerning content of the application and abstract are found on the mini-proposal application form. Requests to analyze individual state data should be directed to the respective state PRAMS Coordinator.

## Application process

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For each project, we request the following be submitted:

- 1. Application Form**
  - a. Includes author name, credentials, and contact information.
  - b. Specifies content of abstract/project summary.
  - c. Specifies years of data requested.
  - d. Specifies states requested.
  
- 2. Abstract:** Include an abstract of no more than 350 words that briefly explains the following:
  - a. Research question(s).
  - b. Methods & software.
  - c. Discussion of intended outcomes.
  - d. Rationale for using PRAMS data.
  - e. (Optional) Justification for state-specific questionnaire variable request.
  - f. Type of publication.
  
- 3. Signed data sharing agreement**
  
- 4. Optional:** List of additional questionnaire indicators that are not part of the core PRAMS Research File. A justification for the additional variables should be included in the abstract. You may describe the indicators (e.g. hospital breastfeeding practices), or provide the survey question number (e.g. Standard Question B3). Please be as specific as possible when requesting these non-core questionnaire variables.

**NOTE:** Any requests for additional birth certificate variables that are not part of the PRAMS Analytic Research File are not handled via the described proposal process. All such requests must be sent to the individual states for approval.

## Authorship

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Because PRAMS is a collaborative effort among state health departments and CDC's Division of Reproductive Health, CDC and PRAMS states created a PRAMS Working Group. The PRAMS Working Group is comprised of one designated representative from each PRAMS state and the entire CDC PRAMS Team. The PRAMS Working Group serves as a mechanism for acknowledging state and CDC participation and identifies contact persons in PRAMS states, if additional information is needed. CDC and PRAMS states have agreed to support the following authorship guidelines:

For projects that use data from more than one PRAMS state, the PRAMS Working Group should appear as an acknowledgment, with a listing of the working group members. The following example illustrates how the acknowledgment should appear:

### **Sample Acknowledgments (January 2010)**

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The most updated list is available on the PRAMS website (<http://www.cdc.gov/prams>) in the publication section.

#### ***The PRAMS Working Group***

PRAMS Working Group: Alabama—Albert Woolbright, PhD ; Alaska—Kathy Perham-Hester, MS, MPH; Arkansas—Mary McGehee, PhD; Colorado—Alyson Shupe, PhD; Delaware—George Yocher, MS; Florida—Marie Bailey, MA, MSW, MPH; Georgia—Carol Hoban, Ph.D, MS,.MPH; Hawaii—Mark Eshima, MA; Illinois—Theresa Sandidge, MA; Louisiana—Joan Wightkin; Maine—Tom Patenaude; Maryland—Diana Cheng, MD; Massachusetts—Hafsatou Diop, MD, MPH; Michigan—Violanda Grigorescu, MD, MSPH; Minnesota—Judy Punyko, PhD, MPH; Mississippi—Marilyn Jones, M.Ed; Missouri—Venkata Garikapaty, MSc, MS, PhD, MPH; Montana—JoAnn Dotson; Nebraska—Brenda Coufal; New Jersey—Lakota Kruse, MD; New Mexico—Eirian Coronado, MPH; New York State—Anne Radigan-Garcia; New York City—Candace Mulready-Ward, MPH; North Carolina—Paul Buescher, PhD; North Dakota—Sandra Anseth; Ohio—Connie Geidenberger; Oklahoma—Alicia Lincoln, MSW, MSPH; Oregon—Kenneth Rosenberg, MD; Pennsylvania—Tony Norwood; Rhode Island—Sam Viner-Brown, PhD; South Carolina—Mike Smith; South Dakota Tribal—Christine Rinki, MPH; Texas—Kate Sullivan, PhD; Tennessee—David Law, PhD; Utah—Laurie Baksh; Vermont—Peggy Brozicevic; Virginia—Marilyn Wenner; Washington—Linda Lohdefinck; West Virginia—Melissa Baker, MA; Wisconsin—Katherine Kvale, PhD; Wyoming—Angi Crotsenberg; CDC PRAMS Team, Applied Sciences Branch, Division of Reproductive Health

### **Submission steps**

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Send research proposals electronically to [PRAMSProposals@cdc.gov](mailto:PRAMSProposals@cdc.gov)

Proposals will be reviewed by a member of the CDC PRAMS team regarding the suitability of PRAMS data for the proposed analysis and the appropriateness of the analysis plan considering the PRAMS survey design.

All researchers who are listed on the proposal will sign a Data Sharing agreement and submit the form to CDC with the proposal via scanned electronic copy. Approval to analyze PRAMS data applies only to the topic described in the research proposal. If a researcher desires to conduct additional analyses, a separate application is required.

CDC PRAMS will respond to the primary researcher within four weeks. This response will include a summary of comments/questions the CDC PRAMS team member and notification of an approval/disapproval to conduct the analysis.

Approved proposals will be distributed to states by CDC on a monthly basis for reference and possible review. States will correspond directly with the researcher with questions or clarifications. A copy of the correspondence can be sent to CDC PRAMS for reference purposes only.

CDC will create a standard SAS analysis data set on a CD-ROM or a diskette(s) for the primary researcher. A letter describing the contents of the CD-ROM or diskette will accompany the data. Sample SAS and SUDAAN programs are available upon request.

Once the analysis described in the research proposal has been completed, researchers are to destroy their copy of the data (confirm in writing) or return the data to CDC.

## **Publication or presentation**

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Before submitting and abstract using PRAMS data, researchers must submit their abstract to CDC PRAMS team for distribution to PRAMS states for comment at least two weeks prior submission. A courtesy copy of slides for oral presentations is also requested prior to presentation.

As a condition of the data sharing agreement that researchers sign to obtain the PRAMS data, researchers are also required to send a copy of any manuscripts that use PRAMS data to CDC PRAMS for distribution to PRAMS states at least two weeks prior to submitting the manuscript to a peer-reviewed journal. CDC researchers are required to submit copies of their work to the CDC PRAMS team and PRAMS States at the time the manuscript is being submitted for CDC clearance.