6 Data Management

6.1 Software Requirements for Daily Operations

6.1a ***Software Provided by CDC.*** Several software applications are required for conducting daily PRAMS operations. Of these, CDC provides the following eight applications at no cost to state PRAMS projects.

i. ***PRAMTrac*** is the centerpiece of the applications used for daily operations. PRAMTrac is used to schedule and track data collection activities, produce personalized mail correspondence using the mail merge capabilities of a word processor, and record data on mail and telephone results.

ii. ***QDS*** is used to record mothers' responses from mail questionnaires. QDS is also used to record mothers' responses from "late" mail questionnaires that have been returned after a batch is closed, and to record the operations information for these "late" mail questionnaires.

iii. ***Comment*** is used to record mothers' miscellaneous written comments that fall outside of the standard questions and answers of the mail questionnaire.

iv. ***AdHoc*** is a reporting program that can be used to list or summarize current operational data from PRAMTrac and Comment in order to facilitate daily operations.

v. ***PRAMS*** (sometimes called ***"the PRAMS shell program"***) has several functions: launching other applications, backing up data files, administering security for other programs, and performing certain utilities.

vi. ***SDN (Secure Data Network)*** is used for transmitting data files from completed batches in the states to CDC.

vii. ***FTP (File Transport Protocol)*** is used by CDC to place large files (i.e. software executable files) in a folder on the Internet that can be reached by the states. It is secured with an address and password.

viii. ***Web-CATI system*** is used for telephone follow-up and consists of two components, the Case Management System (CMS) and the Web Interview system (WI). CMS manages call attempts for telephone interviews. It will keep track of scheduled appointments, manage multiple

phone numbers, prioritize cases to call, assign current status codes for each mother, and generate phone operations files for downloading into PRAMTrac. The WI records phone survey responses and extraneous comments provided by mothers.

6.1b ***Software Provided by the State.*** States are responsible for providing software applications that are used for conducting daily operations and monitoring phone interviews:

i. ***Microsoft Office 2000 or higher (Word and Access are required).*** PRAMTrac works in conjunction with a word processor to produce personalized letters that are a part of each mailing.

ii. ***Commercial Zip Program (e.g., PKZip or WinZip).*** States are required to "zip" data and report files when submitting completed batches to CDC. "Zipping" is a process that compresses one or more computer files into a single file that is generally smaller in size than the total size of the original files. Zip programs used for PRAMS must provide support for long file and directory names.

iii. ***Real VNC*** (freeware/modest fee) for monitoring www.realvnc.com. This is the recommended software for performing screen capture of CATI interviews. A copy of the software must be installed on each interviewer's work station and the monitor's work station. (It is possible to capture screens without the interviewer's knowledge using Real VNC). The cost depends on the number of interviewer computer screens that you need to monitor. You do not have to purchase a separate license for the computer that will just be monitoring the interviews. Please visit the Web site for specific pricing questions. Other screen capture software such as PCAnywhere may also be used for this purpose.

6.1c ***Web-based Analytic Tools Provided by CDC.*** CDC provides the following tools at no cost to state PRAMS projects.

i. PONDER, the PRAMS On-line Data for Epidemiologic Research (PONDER), is a menu-driven, web-based query system which is located on the limited access internal PRAMS website also know as **Inside PRAMS**. The system allows the user to perform quick descriptive analyses on their state's data. All analyses are built and executed dynamically based on the user's requests. All core and computed variables (i.e. Kessner Index or gestational age) are included as well as the more common standard questions. To protect the confidentiality of participants in PRAMS, only cells where the marginal totals have at least a sample size of 30 are

included in the outputs. Access to each state's data in PONDER is managed by the state's PONDER administrator.

ii. **CPONDER** is a public use version of PONDER which includes selected indicators from the PRAMS Surveillance reports. A minimum 70% response rate is required for state data to be included in CPONDER. CPONDER allows display of indicators across states and years. The data runs are based on a system of pre-programmed analyses generated using SUDAAN. In order to protect the confidentiality of participants in PRAMS, only cells where the marginal totals have at least a sample size of 30 are included in the outputs, and only 1 break-out variable at a time may be specified.

6.2 Computer Platform Requirements

CDC has developed the following minimum recommended computing platform for computers using PRAMS software:

- A personal computer with at least a 300MHz or higher microprocessor clock speed,
- 233 MHz minimum required (single or dual processor system);* Intel Pentium/Celeron family, or AMD K6/Athlon/Duron family, or compatible processor recommended
- At least 64 MB of RAM (128MB or more recommended)
- At least 1.5 gigabytes of available hard disk space for PRAMS software and data on a single local or network hard drive
- A 15" monitor capable of SVGA (800x600) resolution or higher resolution video adaptor (17" monitor with 1024x768 resolution recommended)
- A CD-ROM or DVD drive
- One of Microsoft's 32-bit Windows operating systems (Windows XP or later release)
- A laser printer that prints on envelopes, letterhead, label sheets, and traditional letter- and legal-size paper and that has a correctly functioning printer driver for the operating system being used. [In general, laser printers that are less than three years old and that are made by one of the mainstream printer manufacturers (such as Hewlett-Packard, Lexmark, Okidata) will meet these requirements.]

- A backup device that can efficiently save on a daily basis at least 50 MB of data files (Examples include 100 or 250 MB Zip drives, 120 MB LS-120 “super floppy” drives, 1GB and 2GB Jaz drives, tape-backup drives, network hard drives. Standard 1.2MB and 1.44MB floppy drives are not acceptable alternatives.)

- Internet Explorer 6.0 or higher/ Netscape 6.0 or higher

- High speed Internet connection for all interviewer computers

- Phone headsets for all interviewers

- Voice capture capability (dependent on phone system) for monitoring - **TLP-102 Telephone Recording Adapter** from Dynametric Inc: http://www.dynametric.com/index.asp?PageAction=VIEWPROD&ProdID=36 – list price: $51.95. This is the recommended equipment for voice capture for states planning to use the Web-CATI built-in voice capture features for phone monitoring. One adapter must be purchased for each interviewer work station. The interviewer work stations must have computers with a sound card (also known as an audio card) with audio input ports for this product to work. If the computer doesn’t have a sound card, states would need to purchase one of those as well. The TLP-102 device will be plugged into the handset of a standard phone and then plug into the PC.

In general, PRAMS requires a standard entry level personal computer that is capable of running the latest version of the Windows Professional Operating system (currently Windows XP), Internet Explorer 6.0 or higher and MS Office 2000 or higher. As time passes, the standard configuration for an entry-level desktop personal computer will change with the operating system requirements.

Additionally, PRAMTrac, Comment, AdHoc, and the PRAMS shell will support the following network operating system:

- Microsoft Windows NT Server 4.0

6.3 Backing Up Data

Failure to conduct regular backups risks severe interruption of operations due to database corruption, hardware or software failure, electrical problems, unintentional file deletion, theft, and intentional destruction of data. Several instances of lost or corrupt databases occurred in PRAMS states during the last few years. In at least one instance, several days or weeks of data had to be re-created from paper records and re-entered in order to resume normal operations.

6.3a Types of Data Loss. Backups guard against two types of disasters: database corruption and database loss. The first type of disaster is the corruption of a database. This can occur when a program crashes, when power to a computer is turned off while a program is running, or when incorrect data are entered and cannot be removed. Standard precautions against this type of disaster include performing periodic backups and performing backups immediately prior to critical data entry activities (such as importing a batch).

The second type of disaster is the loss of a database. This can happen when a database is deleted (either accidentally or intentionally), when a hard drive or computer crashes, or when a computer is stolen. The standard precaution against such a disaster is performing periodic backups to an external drive or backup device.

6.3b What to Backup. There are two basic philosophies about performing backups. The first holds that everything should be backed up, including all programs, data files, and user-created documents. The second holds that only data files and user-created documents should be backed up because programs can always be re-installed.

In general, because of changes in the way programs interact with the Windows operating systems, most software vendors encourage users to fix corrupted programs by re-installing them and not by restoring them from a backup. For this reason, backing up programs is generally no longer considered to be necessary.

CDC has adopted the following policy for PRAMS: **PRAMS states will be required to backup data files to both a local and an external backup device on any day that data are entered or changed, but will not be required to backup PRAMS programs.**

The Web-CATI system will have its own internal backup procedures. (**See Appendix V – CATI Data Security Plan**). <STATE> will not be responsible for back-up of any data residing on the Web-CATI system.

Unless otherwise specified, use of the term “data files” in this document should be interpreted to include the following:

- PRAMTrac database file “PTdata.mdb”
- Comment database file “PTcmt.mdb”
- PRAMS database file “PTfiles.mdb”
- Transaction log database file “PTlog.mdb”

- Reporting database file “PTrpt.mdb”

- Output database file “PTout.mdb”

- QDS data files that contain mail questionnaire data for each batch (stML#.QPD, stML#.QDW, where st=state initials and #=batch number)

This definition of “data files” does not include mail merge form files, AdHoc report profiles, and other user-created documents that may be used for conducting PRAMS. For this reason, it will be important for PRAMS states to perform manual backups of these user-created documents.

6.3c ***Types of Backups.*** There are two general types of backups that should be used to safeguard PRAMS data.

i. ***Local backups*** should backup data files to a directory on the local or network drive that holds PRAMS applications and data files.

ii. ***External backups*** should backup data files to an external drive or backup device.

While local backups are sufficient for guarding against data corruption, they do not guard against all types of data loss. External backups, on the other hand, guard against both data corruption and data loss.

PRAMS users can perform these two types of backups manually. However, the PRAMS shell program can help with the local backup procedure. From the PRAMS shell program, users can backup the databases used by PRAMTrac, Comment, AdHoc, and PRAMS into a password-protected .zip file; the PRAMS program refers to this as a “local backup”. The password that is used is known only to the computer and to CDC and is sufficiently long to provide adequate encryption protection.

The local backup procedure in the PRAMS program will only backup the first six database files listed in the definition of “data files” in **Section 6.3b** above. QDS data files are not included in the local backup, and states should perform manual backups that include QDS data files.

Also, the local backup procedure in the PRAMS program does not include user-created documents such as mail merge form files, AdHoc report profiles, correspondence with CDC, a state’s PRAMS protocol, stored electronic mail messages, manuscripts, and data sets. Users should backup these and other user-created documents to an external backup device on a regular basis,

probably at least once each week. Users are encouraged to use passwords when creating backups, especially for backups that contain data files.

6.3d ***Securing Removable Backup Media.*** Though network drives are described above as an acceptable external backup device, devices that use removable backup media, such as backup tapes and high-capacity removable disks, are popular for performing backups. While it is important to backup data to ensure smooth and uninterrupted operations, it is equally important that data on removable backup media do not fall into the wrong hands or become lost. Backup media, just like the original, contain confidential information. Therefore, it should be stored in a locked, secured location to prevent inappropriate disclosure or loss.

Protocol Development Task

Specify the medium and procedures that are to be used for backing up data files. Specify which PRAMS staff will be in charge of performing backups.

6.3e ***Computer Virus Protection.*** In addition to these precautions, all computers used for PRAMS should have anti-virus software installed. State PRAMS staff should use anti-virus software to scan floppy disks, e-mail attachments, and files downloaded from the Internet. Also, anti-virus software needs to be kept up-to-date by acquiring new virus definition files when the software manufacturer makes these available. Most state health departments have rather strict requirements for the use of anti-virus software. If not, CDC can make specific usage recommendations.

Protocol Development Task

Specify the brand name and version of the computer virus protection software to be used to protect your computer and data diskettes from viruses.

6.4 Data Security and Personal Identifiers

The software applications used for daily PRAMS operations contain substantial personally identified information. For this reason, the following security precautions exist for PRAMTrac, Comment, AdHoc, and the PRAMS shell program:

- A screen saver login is required.

- The PRAMS shell program is the starting point for launching PRAMTrac, Comment, QDS (data entry), and AdHoc.

- Each application documents user login activity.

Some computer-generated reports and other electronic and paper documents contain personally identified information. Therefore, PRAMS states must implement physical security to protect these files and documents. Physical security should include the following precautions:

- Files stored on a network should be in directories accessible only by PRAMS staff.

- Computers should have password-protected screen savers so that unauthorized people cannot use a computer that has access to PRAMS files.

- Completed questionnaires should be stored in locked cabinets.

- Completed questionnaires and other printed documents that contain personally identified information should be destroyed (shredded or burned) and not simply thrown away or recycled when they are no longer needed. See **Section 10.4** for your state's policy on the archival and destruction of records.

- When a computer used for PRAMS is taken out of service, any hard drives that may have once contained PRAMS data should be reformatted before being used for another purpose.

- Floppy disks and other removable storage media that are no longer needed for PRAMS should be destroyed and not used for another purpose.

For the Web-CATI system, which also houses substantial personally identified information, extensive security precautions have been put in place to protect the confidentiality of this information. (see **Appendix V, CATI Data Security Plan**). There are additional security measure that state staff can implement to further protect the data. These measures include the following:

- Staff logged into the Web-CATI system should log out before leaving their desk, even if just for a short break.

- CATI administrators should promptly delete user accounts for state or contract staff that leave the project.

- Staff with access to Web-CATI should memorize their login information and never share it with anyone.

Protocol Development Task

Describe in detail all security precautions developed to protect access to PRAMS computer and paper files. If using a LAN, provide details on LAN security precautions.

In 1999, CDC's Institutional Review Board (IRB) reviewed the PRAMS protocol and other documents, and PRAMS received IRB approval. As a result of this process, the CDC PRAMS team has implemented procedures for taking greater care when handling personal identifiers (e.g., names, birth certificate numbers, social security numbers), either in final data, during weighting, or when performing software support. The following guidelines have been implemented:

- Birth certificate numbers are no longer used as the key index for any application's database or program. This reduces the number of reports and files that contain birth certificate numbers along with other identifiers.

- CDC and the CDC contractor (which provides support for the PRAMTrac, WebCATI, Comment, AdHoc, and PRAMS applications) will make every effort to resolve software support problems without asking states to send database files using electronic mail to CDC or the CDC contractor.

- Despite the best efforts of CDC and the CDC contractor, some software support situations will require states to send database files to CDC or the CDC contractor. When database files or other documents containing personal identifiers are sent over the Internet (as electronic mail attachments or by other means), they must be encrypted using the PRAMS Local Backup procedure.

- CDC and the CDC contractor have identified only a few individuals who may need to access personal identifiers for the reasons stated above. Access to files with personal identifiers are limited to those individuals.

6.5 Data Files

Nine monthly data files are produced for PRAMS surveillance, and eight are maintained and sent to CDC each month. These files are discussed below.

6.5a Sampling Frame Birth Certificate Variable File (stFR#.DAT). This file is created by <STATE> and will contain one record for every mother in the sampling frame (all records eligible for inclusion in the sample). The Sampling Frame file is used to evaluate the sample selection and to assess any bias that

may have been introduced in drawing the sample. It does not become part of the PRAMS analysis data set. The variables and layout of the Sampling Frame file are identical to the variables and layout of the Sample Birth Certificate file to facilitate the assessment of selection bias. For an explanation of the creation of the Sampling Frame file, see **Section 4.4a.**

6.5b ***Sample Birth Certificate Variable File (stBC#.DAT).*** This file is also created by <STATE> and contains information from the birth certificate that will be included in the analysis file. There is one record for each mother in the PRAMS sample (all records selected for PRAMS). These data will be used to assess response bias, verify demographic and other data, and analyze the relationships between maternal behaviors and birthweight and gestational age. Core birth certificate data items have been identified and incorporated into the Sample Birth Certificate file. <STATE> can select up to 25 additional columns of data to be included in this file, if desired.

6.5c ***Sample Contact Information File (BCENTRY.DAT).*** This file is created by vital records each month and is used to transfer contact information from birth certificate records into PRAMTrac. It is important to note that this file differs from the monthly Sample Birth Certificate file in that it includes names, addresses, and several other variables that are required for tracking and contacting sampled mothers. Because of the personally identified information in this file, it is not maintained as part of the monthly batch data, is not sent to CDC, and does not become part of the analysis data set. Because this file is imported into PRAMTrac, it is important that this file be thoroughly tested by CDC. **See Appendix P** for guidelines on the monthly creation of the BCENTRY.DAT file.

Protocol Development Task

Specify procedures for obtaining or downloading the Sampling Frame file, the Sample Birth Certificate file, and the BCENTRY.DAT file from vital records to the PRAMS-dedicated computer each month.

6.5d ***Operational Output Files (stOP#.DAT, stMD#.DAT, stTD#.DAT).*** These three files contain information that summarizes the results of mail and telephone contact attempts. This information is important for monitoring and evaluating the ongoing surveillance methodology and the resulting response rates. The three output files (Operations, Mail Details, and Telephone Details) are produced by the PRAMTrac application that CDC provides. Some information included in the Operations and the Telephone Details file are collected via the CATI system and downloaded into PRAMTrac. The download must occur prior to generating the files in PRAMTrac. The Operations Output file becomes part of the analysis data

set. The Mail Details and Telephone Details files are stand-alone files that can be used to evaluate the efficiency and quality of mail and telephone operations.

6.5e Questionnaire Files (stQ#.XPT, stC#.XPT). These files contain responses recorded from completed mail and telephone questionnaires. This information provides the basis for the analysis data set. Mail questionnaire responses are keyed using the data entry program that CDC provides; the program performs range and edit checks as data are entered. The program produces the Mail Questionnaire data file that becomes part of the analysis data set. Telephone questionnaire responses are keyed into the Web-CATI system, which also performs range and edit checks as the data are entered. The Telephone Questionnaire data file is produced by the CATI system but is submitted to CDC along with the mail questionnaire file. The questionnaire data files contain core items, common to all PRAMS states, as well as state-specific items that states have chosen to add to their questionnaires.

6.5f Comment Output File (stCM#.DAT). This file contains any additional comments that were written on the questionnaire or that were expressed in a telephone interview. Write-in comments are often invaluable in clarifying or interpreting the response to a particular question. The Comment file can be linked to the questionnaire files so that the questionnaire responses and write-in comments can be viewed together. Using the Comment program that CDC provides, mail comments are entered verbatim, with one exception. No names, addresses, telephone numbers, or e-mail addresses are recorded for either the woman or her provider(s). The Web-CATI system allows for the entry of telephone comments during the telephone interview. The CATI system will generate a telephone comment output file in a format consistent with the mail comments. This file can be imported into the Comment program so that mail and telephone comments for a batch can be combined. A combined mail and telephone Comment output file is produced by the Comment program and sent to CDC each month.

The operational, questionnaire, and comment data files are produced each month with software provided by CDC. <STATE> is responsible for producing the birth certificate variable files (stFR#.DAT, stBC#.DAT) and the BCENTRY.DAT file from state birth certificate records. **Appendix Q** provides uniform file layouts for all files except BCENTRY.DAT; the uniform file layout for BCENTRY.DAT is located in **Appendix P.**

Protocol Development Task

Your state is responsible for developing variable definitions for the state-specific portions of the ***sample birth certificate file***. CDC will assign variable names. Describe the state-specific variables selected for the sample birth certificate file in **Appendix Q (Uniform File Layouts)**. See **Chapter 4 (Sampling)** for more information about the layout of the state-specific portions of the Sample Birth Certificate file.

Your state is responsible for selecting standard and/or state-developed questions to add to your questionnaire. CDC will develop variable definitions, assign variable names, and provide a codebook for the ***questionnaire files***. Insert the questionnaire codebook provided by CDC in **Appendix Q (Uniform File Layouts)**.

6.6 Quality Control

6.6a Data Cleaning and Editing. Data editing is the process of checking the batch data files for data entry errors and inconsistencies before submitting the files to CDC. Data editing should be done after questionnaire and comment data entry are completed and the batch is closed (completed) in PRAMTrac. CDC has developed guidelines for the general cleaning and editing of all data files (see the **PRAMS Implementation Manual** for instruction), and PRAMTrac will produce a Compare Report to assist in this process.

6.6b Data Entry Verification. The questionnaire data entry programs provide automatic range and skip pattern checks. However, it cannot detect erroneous data that are within the range defined for those data items. The mail data entry program has a procedure that allows double-entry of selected questionnaires to check for keying errors. It is necessary that 10% of all mail questionnaires be double-entry verified. These procedures are especially useful in evaluating new data entry personnel and for identifying "problem" questions that are particularly prone to keying errors. See the **PRAMS Implementation Manual** for guidelines for verification of questionnaire data entry and forms for summarizing verification activities. The nature of the Web-CATI system does not allow for double-entry of telephone survey responses. However, it is possible to have a staff person listen in on the interview and record the mother's responses on a hard copy of the questionnaire. After the interview is completed, the hardcopy can be compared to what the interviewer entered into CATI. If a discrepancy occurs, there is no way to determine which value is correct. This procedure is only useful for identifying questions that are more prone to keying errors.

6.6c Telephone Interviewer Monitoring. CDC has developed procedures for monitoring the consistency and quality of telephone interviewing. A proportion (at least 10%) of calls made by each telephone interviewer should be monitored for each batch. See **Section 5.8, Appendix M (Telephone Interviewer Monitoring Procedures) and The PRAMS Web-CATI "How to" Guide,** for a more detailed discussion about interviewer monitoring.

6.6d Batch Checking Procedures at CDC. When a state completes data cleaning and editing and data entry verification and monitoring for a batch, it sends eight

data files to CDC. Data and report files sent to CDC will not include personal identifiers such as names and addresses but will contain the identification number for each record. (The BCENTRY.DAT file that is created each month and imported into PRAMTrac is **not** sent to CDC with these eight files.) Batch data files are zipped into a single file and submitted electronically to CDC monthly (see the **PRAMS Implementation Manual** for instructions on submitting data). Each batch submission will also include ten reports, which are described in **Section 6.7** below.

Once the data arrive at CDC, the files are processed by an automated system that performs consistency checks on the files. A report summarizing the batch checking process is returned to the state for review. If there are any data errors on the report, the state will make the necessary corrections and resubmit the batch to CDC. If there are any problems that the state is unable to correct, CDC should be called for assistance.

The following table provides the name (where st=state's two-letter abbreviation and #=batch number), description, and source for the data files submitted to CDC:

File Name	Description	Source
stFR#.dat	Sampling Frame Birth Certificate Variable File	State sampling program
stBC#.dat	Sample Birth Certificate Variable File	State sampling program
stOP#.dat	Operations Output File	PRAMTrac
stMD#.dat	Mail Details Output File	PRAMTrac
stTD#.dat	Telephone Details Output File	PRAMTrac
stML#.xpt	Mail Questionnaire Data File	QDS
stPH#.xpt	Telephone Questionnaire Data File	CATI
stCM#.dat	Comment Output File	Comment and CATI

6.7 Batch Reports

AdHoc produces seven reports that are used by the Project Coordinator for evaluating and processing completed batches. States also submit these reports to CDC along with the data files described in **Section 6.6d** above. The seven reports are as follows:

- st#-ActivityTimingReport.rtf
- st#-AgeReport.rtf
- st#-MailContactReport.rtf
- st#-TelephoneContactReport.rtf
- st#-ParticipationSummaryReport.rtf

- st#-CompareReport.rtf

Additionally, QDS produces a report that summarizes the verification process for the mail data. This report is included in the batch submissions with the data files and AdHoc reports listed above.

- st#-MailVerifyReport.rtf

Finally, the Summary Monitoring Report (see **Appendix M [Telephone Interviewer Monitoring Procedures]** for details) summarizes the monitoring efforts for the batch and is included in the batch submissions with the data files and AdHoc reports listed above. The report form itself can be produced in PRAMTrac but must be completed by the Project Coordinator or other appropriate staff person, such as the supervisor of a survey research laboratory, before including in the monthly batch submission.

- st#-MonitoringSummary.doc

Protocol Development Task

In **Sections 6.5a-6.5f,** in the table in **Section 6.6d,** and in **Section 6.7** above, replace the "st" segment of the file and report names with your own two-letter state abbreviation. For example, Alabama's Sampling Frame Birth Certificate Variable file name would be ALFR#.DAT.

6.8 Creating the PRAMS Analysis File

Annually, CDC will create for <STATE> a master analysis data set from which all PRAMS analyses will be conducted, provided the criteria below are satisfied. This analysis data set contains birth certificate, operations, and questionnaire data, and includes weights, other variables required by SUDAAN, and additional computed variables. For specific analyses, <STATE> will create smaller subsets of this master file, selecting the particular variables of interest. For CDC to create the PRAMS analysis file, the following criteria must be met:

6.8a ***Successful File Linkage.*** To permit linkage of the birth certificate, questionnaire, and operations files into the analysis data set, <STATE> needs a common identification number for each mother on each file. When the BCENTRY.DAT file is imported into PRAMTrac, PRAMTrac assigns a unique identifier called MomID. MomID contains information about the year of birth, batch number, and state, but does not contain any personal identifiers. MomID is used as a key index variable for PRAMTrac, Comment, AdHoc, and QDS.

So that the data files can be weighted each year, a second common identifier, preferably the infant's birth certificate number, is assigned in the birth certificate variable files (stFR#.DAT, stBC#.DAT) and the BCENTRY.DAT file when these files are created.

6.8b ***Proper Data Management Procedures.*** <STATE> must have carried out all data management procedures properly. These procedures include proper usage of software, monthly cleaning and editing of data, questionnaire verification, monthly batch report generation, and transmission of data to CDC at designated intervals and in the correct format.

6.8c ***Adequate Response Rates.*** <STATE> must have achieved a weighted response rate of at least 70% for meaningful analyses to be undertaken. The weighted response rate indicates the proportion of women sampled who completed a survey, adjusted for sample design. Adequate stratum-specific response rates (at least 70%) should be achieved to perform stratum-specific analyses. All states that follow sound operational procedures are provided with a weighted dataset. However, only those with weighted response rates of 70% or higher should be used for analyses that will be presented outside the health department. We do, however, encourage all states to use their data internally for program development, evaluation, and collaboration.

6.8d ***Evaluation of Sampling Procedures.*** CDC must have evaluated <STATE>'s sampling procedures.

6.8e ***Sending of Final Birth File.*** <STATE> will send CDC the final birth file in requested format (currently the 1999 or 2003 NCHS format with some additional PRAMS and state-specific variables appended) for the calendar year. Each state is sent a data layout by the CDC that is fairly easy to implement (since each state already generates a similar file for the NCHS). This birth file is necessary to create the weighted data set that is used for data analysis. This file is compared with the PRAMS Sampling Frame files to identify records that were omitted from the frame that were in fact eligible for PRAMS. The state should reserve batch number "999" for the final birth file. The birth file should be submitted to CDC over the Secure Data Network (SDN) with an indication that the file is a year-end birth file at the bottom of the upload page (select the "birth file" option). Birth files, once uploaded, are transmitted directly to the primary weighting statistician.

When the preceding criteria have been met, CDC will compute analysis weights. The analysis weight for each observation can be divided into three components, each accounting for a different factor. The adjustment components are:

- Sample Design

- Nonresponse

- Omissions from the Sampling Frame (i.e., Noncoverage of the Sampling Frame)

CDC will provide <STATE> with a written summary of the analysis weight computation each year. For more information concerning the computation and use of analysis weights, **see Appendix B**.

States generally have the analysis data set for a given calendar year 6-9 months beyond the birth year. This time frame is dependent upon the receipt of cleaned and edited data files and the final birth file from the state. CDC will provide this weighted data set for states to use approximately 1-2 months after receiving the final birth file. The birth file (and all PRAMS operational files and questionnaire data) must be received by CDC no later than December 1 of the year following the birth year to be included in the CDC multi-state surveillance report for that year. This birth file is accessible only by the CDC PRAMS weighting statistician and computer network personnel responsible for assigning data access-privileges. These parties have obtained CDC security clearance and have been trained in the handling of confidential and sensitive data.