National Immunization Survey

A User's Guide for the
1997 Public-Use Data File

Centers for Disease Control and Prevention

National Immunization Program
and
National Center for Health Statistics

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1. Introduction

In 1992 the Childhood Immunization Initiative (CII) (CDC 1994) was established to 1) improve the delivery of vaccines to children; 2) reduce the cost of vaccines for parents; 3) enhance awareness, partnerships, and community participation; 4) improve vaccinations and their use; and 5) monitor vaccination coverage and occurrences of disease. Subsequently the Healthy People 2000 and 2010 objectives established the goal of having at least 90% of 2-year-old children fully vaccinated with the recommended schedule of vaccines. To fulfill the CII mandate of monitoring vaccination coverage and marking progress toward achieving those goals, the National Immunization Survey (NIS) has been implemented by the National Immunization Program and the National Center for Health Statistics, Centers for Disease Control and Prevention (CDC), and its contractor, Abt Associates Inc.

The target population for the NIS is children aged 19 to 35 months living in the United States at the time of the interview. The official coverage estimates reported from the NIS are rates of being up-to-date with respect to the recommended numbers of doses of all recommended vaccines (CDC 1997). These vaccines and their recommended numbers of doses are: diphtheria and tetanus toxoids and pertussis vaccine (DTP), 4 doses; poliovirus vaccine (polio), 3 doses; measles-containing vaccine (MCV), 1 dose; *Haemophilus influenzae* type b vaccine (Hib), 3 doses; hepatitis B vaccine (Hep B), 3 doses; and varicella zoster vaccine, 1 dose. In addition to these vaccines, interest focuses on coverage rates for vaccine series, including the 4:3:1:3 series (4 DTP, 3 polio, 1 MCV, and 3 Hib). The NIS collects data on

each of these vaccines. All except for varicella have been included in the NIS from its start in 1994. Varicella vaccine was added in the third quarter of 1996.

The NIS uses a random-digit-dialing (RDD) telephone survey to identify households containing children in the target age range and interview an adult who is knowledgeable about the child's vaccinations. With the consent of the child's parent or guardian, the NIS also contacts (by mail) the child's health care providers to request information on vaccinations from the child's medical records.

Samples of telephone numbers are drawn independently, for each calendar quarter, within 78 Immunization Action Plan (IAP) areas. Of the 78 IAP areas, 28 (including the District of Columbia) are urban areas. The remaining 50 are either an entire state or a "rest of state" IAP area (where the state contains one or more urban IAP areas). This design makes it possible to produce annualized estimates of vaccination coverage levels within each of the 78 IAP areas with a specified degree of precision (a coefficient of variation of no more than 5%). Further, by using the same data collection methodology and survey instruments in all IAP areas, the NIS produces vaccination coverage levels that are comparable among IAP areas and over time.

For 1997 the RDD interviews of households began on December 31, 1996 and ended on February 16, 1998, and provider data collection extended from March 1997 to May 1998. A total sample of approximately 2 million telephone numbers yielded household interviews for 32,742 children, and 22,806 of those children had provider data that were adequate to

determine whether the child was up-to-date with respect to the recommended immunization schedule. The 1997 NIS public-use file (PUF) contains data for the 32,742 children with completed household interviews (and more extensive data for children with provider data). Published tables of estimates of vaccination coverage for 1997 are available on the National Immunization Program (NIP) Web site, http://www.cdc.gov/nip/coverage, and are discussed in an *MMWR* article (CDC 1998).

The accompanying code book (*National Immunization Survey 1997 Public-Use Data File: Documentation, Code Book and Frequencies*) documents the contents of the 1997 NIS public-use data file. For reference Appendix G reproduces the table of contents and the alphabetical index of variables from the code book.

Additional information on the NIS is available at:

        www.cdc.gov/nip/coverage
        www.cdc.gov/nis/
        www.nisabt.org

For additional information on the NIS data file, please contact the NCHS staff:

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2. Sample Design

The NIS uses two phases of data collection to obtain vaccination information for a large national probability sample of young children: a random-digit-dialing survey designed to identify households with children 19 to 35 months of age, followed by the Provider Record Check study (PRC), which obtains provider-reported vaccination histories for these children. This section gives a summary of these two phases of data collection. Other descriptions of the sample design are given by Ezzati-Rice et al. (1995), Zell et al. (2000), and Smith et al. (2001a).

The NIS RDD Sample

The NIS RDD sampling phase uses independent quarterly samples of telephone numbers in the 78 IAP areas. Table H.1 (in Appendix H) lists the 78 IAP areas by state and shows the number of children living in each state and IAP area in 1997.

The NIS uses the list-assisted method of random-digit dialing (Lepkowski 1988). This method selects a random sample of telephone numbers from "banks" of 100 consecutive telephone numbers (e.g., 617-495-0000 to 617-495-0099) that contain one or more directory-listed residential telephone numbers. The sampling frame of telephone numbers is updated each quarter in order to include new telephone exchanges and area codes. Although the number of cellular telephone users in the U.S. has increased rapidly, most households continue to maintain land-line telephone service. Also, most cellular telephone users pay for

incoming calls. Therefore, the NIS sampling frame excluded cellular telephone exchanges in 1997.

The target sample size for each IAP area was 110 children with completed telephone interviews per quarter (440 for the year). Approximately 70% of children with completed telephone interviews had adequate provider data. The phrase "adequate provider data" means that sufficient vaccination history information was obtained from the providers to determine whether the child is up-to-date with respect to the recommended vaccination schedule. The percentage of children with adequate provider data varies among the IAP areas.

The design and implementation of the NIS sample involve four procedures. First, statistical models predict the number of sample telephone numbers needed in each IAP area to meet a target number of interviews (Buckley et al. 1998). Second, the sample for an IAP area is divided into random subsamples called replicates. By administering the sample release on a replicate-by-replicate basis, it is possible to spread the interviews for each IAP area evenly across the entire calendar quarter. Third, an automated procedure eliminates a portion of the nonworking and nonresidential telephone numbers from the sample before the interviewers dial them (Battaglia et al. 1995b). Fourth, the sample telephone numbers are matched with a national database of directory-listed residential telephone numbers in order to obtain usable mailing addresses for as many sample households as possible. To promote participation in the NIS, an advance letter is sent to these addresses approximately two weeks prior to the RDD interview.

The NIS Provider Record Check Study

At the end of the NIS RDD interview, consent to contact the child's vaccination providers is requested from the parent/guardian. When verbal consent is obtained, those providers are mailed an immunization history questionnaire (IHQ). This mail survey portion of the NIS is the Provider Record Check study.

The IHQ is sent by mail to vaccination providers with instructions to mail or fax the questionnaire back upon completion. Two weeks later, a thank you/reminder postcard is sent to each provider. If no response has been received, another questionnaire packet is mailed five weeks after the initial mailing. Finally, seven weeks after the initial mailing, a telephone call is made to providers who have still not responded, to remind and encourage them to complete the form and either mail or fax the information back. In some instances, provider-reported vaccination histories are accepted over the phone. The data from the IHQs are entered, cleaned, edited, and merged with the household information from the RDD survey to produce a child-level record.

Summary of Data Collection

Table 1 presents selected operational results of NIS data collection for calendar year 1997. Children who were 19 to 35 months of age during 1997 were born from February 1994 to May 1996. The original sample (in replicates that were released for use) consisted of 2,118,796 telephone numbers. Of those, 395,488 numbers were eliminated by the automated

Table 1: Selected Operational Results of NIS Data Collection for 1997

ROW	KEY INDICATOR	NUMBER	PERCENT
	RDD Phase		
1	Total Selected Telephone Numbers in Released Replicates	2,118,796	--
2	Phone Numbers Resolved before CATI	395,488	18.7% (Row 2/Row 1)
3	Total Phone Numbers Called	1,723,308	--
4	Advance Letters Mailed	573,748	33.3% (Row 4/Row 3)
5	Resolved Phone Numbers* – *Resolution Rate*	1,950,500	92.1% (Row 5/Row 1)
6	Households Identified	943,834	48.4% (Row 6/Row 5)
7	Households Successfully Screened for Presence of Age-Eligible Children – *Screening Completion Rate*	924,328	97.9% (Row 7/Row 6)
8	Households with no NIS Age-Eligible Children	889,758	96.3% (Row 8/Row 7)
9	Households with NIS Age-Eligible Children – *Eligibility Rate*	34,570	3.7% (Row 9/Row 7)
10	Households with NIS Age-Eligible Children with Completed RDD Interviews– *Interview Completion Rate*	32,434	93.8% (Row 10/Row 9)
11	CASRO Response Rate**	NA	84.6% (Row 5*Row 7* Row 10)
12	Age-Eligible Children with Completed RDD Interviews	32,742	--
	PRC Phase		
13	Children with Consent Obtained to Contact Vaccination Providers	27,169	83.0% (Row 13/Row 12)
14	Immunization History Questionnaires Mailed to Providers	34,848	--
15	Immunization History Questionnaires Returned from Providers	28,389	81.5% (Row 15/Row14)
16	Children with Adequate Provider Data	22,806	69.7% (Row 16/Row 12)

*Includes phone numbers resolved before CATI (Row 2).
**CASRO, Council of American Survey Research Organizations.

procedure as nonworking or nonresidential numbers. The remaining 1,723,308 telephone

numbers were called to identify 943,834 households, as shown in Rows 3 and 6 of Table 1.

Among the identified households, 924,328 (97.9%) were successfully screened for age-eligible children. Of these, 889,785 did not contain an age-eligible child, and 34,570 (3.7%) contained one or more age-eligible children. Among these households 32,434 (93.8%) completed the NIS household RDD interview.

A standard approach for measuring response rates for RDD surveys, known as the CASRO household response rate, has been defined by the Council of American Survey Research Organizations (Frankel 1983). In 1997 the CASRO household response rate (Row 11) was 84.6%. The CASRO response rate equals the product of the resolution rate (92.1%, Row 5) the screening completion rate (97.9%, Row 7) and the interview completion rate among eligible households (93.8%, Row 10). The resolution rate is the percentage of the total phone numbers called that are classifiable as nonworking, nonresidential, or residential. The screening completion rate is the percentage of known households that are successfully screened for the presence of age-eligible children. The interview completion rate is the percentage of households with one or more age-eligible children that complete the NIS RDD interview.

Row 12 of Table 1 shows that 32,742 age-eligible children had completed RDD interviews. Rows 13 through 16 of Table 1 give results for the PRC phase. Specifically, Row 13 gives the rate of obtaining verbal consent from household respondents to contact their children's vaccination providers – 83.0% in 1997. The number of IHQs that were mailed to vaccination providers was 34,848. This number exceeds the number of completed child interviews in

Row 12 because some children have more than one vaccination provider. In 1997 the mean

number of vaccination providers identified for a child was 1.34.

Among vaccination providers who were mailed an IHQ, 81.5% returned the questionnaire or

other information pertaining to the child's vaccination history. Among the children with

completed household RDD interviews 22,806 (69.7%) had adequate vaccination histories

returned by their vaccination provider(s). The other 30.3% of children lacked adequate

provider data for a variety of reasons, such as the parent did not give consent to contact

providers, or the providers did not have medical records for the child.

For each IAP area and each state Table H.1 shows the number of children with completed

RDD interviews and the number of children with adequate provider data.

Informed Consent, Security, and Confidentiality of Information

The Screener Introduction, the Advance Letter, and the Oral Consent assure the respondent

of the confidentiality of his/her responses and the voluntary nature of the survey.   Informed

consent is obtained from the respondent (generally the parent or guardian of the child) to

participate in the household interview and also (at the end of the interview) to contact the

child's vaccination providers.

Information in the NIS is collected and processed under high security. To ensure privacy of

the respondents and confidentiality of sensitive information, NCHS has established standards

for release of data from all NCHS surveys. All CDC staff and contractor staff involved with the NIS sign the NCHS confidentiality agreement and follow instructions to prevent disclosure.

All information in the NIS is collected under strict confidentiality and can be used only for research purposes [Section 308(d) of the Public Health Service Act, 42 U.S. Code 242m(d), and the Privacy Act of 1974 (5 U.S. Code 552a)]. Prior to the public release, the contents of the PUF go through an extensive review by the NCHS Disclosure Review Board to protect confidentiality of the participants as well as the data.

3. Content of NIS Questionnaires

This section describes the questionnaires used in the 1997 NIS telephone interview of households and in the NIS PRC survey, and changes made to those questionnaires during 1997. The confidentiality of respondents and their data is required by Section 308(d) of the Public Health Service Act [42 U.S. Code 242m(d)].

Content of the NIS Household Questionnaire

The Computer-Assisted Telephone Interview (CATI) questionnaire used in the RDD phase of NIS data collection (Appendix B) consists of two parts: a screener to identify households with children aged 19 to 35 months and an interview portion. The questionnaire is modeled on the Immunization Supplement to the National Health Interview Survey (NHIS) (NCHS

1999). The NIS CATI questionnaire has been translated into Spanish, and the AT&T

Language Line is used for real-time translation into many other languages (Wall et al. 1995).

Table 2 summarizes the content of each section of the 1997 NIS household interview.

Table 2: Content of the 1997 NIS Household Interview

Screener	Screening questions to determine eligibility, roster of eligible children, availability of shot records
Section MR	Most-knowledgeable-respondent callback questions
Section SR	Shot-record callback questions
Section A	Vaccination history, asked if shot records are available
Section B	Vaccination history, asked if shot records are not available
Section C	Demographic and socioeconomic questions
Section D	Provider information and request for consent to contact the eligible child's vaccination providers

In the screener the purpose of the survey is explained to the respondent, and the household is

screened to determine whether it contains any children 19 to 35 months of age. If the

household has an eligible child, the respondent is asked whether he/she is the most

knowledgeable person (MKP) for the child's vaccination history. If the respondent indicates

that another person in the household is more knowledgeable, the interviewer asks to speak to

him or her at that time. If that person is unavailable to be interviewed, the interview

proceeds to Section MR, the name of the MKP is recorded, and a "callback" is scheduled for

a later date.

Also during the screener the person being interviewed is asked whether he/she has a written record (shot card) of the child's vaccination history, and whether it is easily accessible. If the shot card is available, the respondent is asked to provide information directly from it in Section A. If the child does not have a shot card, the interview proceeds with Section B, which asks the respondent to recall from memory information about the child's vaccinations. If the child has a shot card but it is not easily accessible, the interview proceeds to Section SR. In this section the interviewer makes an appointment to call at a later date, when the shot card will be available, and also gathers general information about the child's immunization history.

Section C obtains information that includes the relationship of the respondent to the child, the race of the child, the race of the mother, household income and educational attainment of the mother of the child, and other information on the socioeconomic characteristics of the household and its eligible children. This section is asked of all respondents upon completion of Section A, B, or SR.

At the conclusion of the NIS household interview, consent is requested to contact the child's vaccination providers (Section D). If verbal consent is obtained, identifying information (name, address, and telephone number) on the vaccination provider(s) is requested, as well as the full names of the child and the respondent, so that NIS personnel can contact the providers and identify the child whose immunization information the NIS is requesting. When verbal consent and sufficient identifying information are obtained, the IHQ is mailed to the child's vaccination provider(s).

One change was made to the NIS CATI questionnaire in 1997. In the first two quarters of 1997 the family income questions asked about family income in the past 12 months. In the last two quarters the reference period was changed to the last calendar year to be more consistent with the National Health Interview Survey. Appendix B describes these changes in more detail.

Content of the Immunization History Questionnaire

The IHQ (Appendix C) is designed to be simple and brief, to minimize burden on the providers and to encourage participation in the survey. It consists of two pages. Page 1 includes space for a label that gives the child's name and birth date and the full name of the parent or guardian. Page 1 also includes a grid for recording dates of vaccinations. The columns of the grid correspond to recommended vaccines, and an additional column is available for recording other vaccines. Page 2 of the IHQ contains several questions about the facility and vaccination provider (for example, whether the facility is public or private, and whether the provider participates in the Vaccines for Children program). *During 1997 no changes were made to the IHQ.*

4. Data Preparation and Processing Procedures

The household data collection and provider data collection in the NIS incorporate extensive data preparation and processing procedures.   During the household interview the CATI system makes many edits as the interviewer enters the data. After the completion of

interviewing for a quarter, post-CATI editing and data cleaning produce a final interview data file. The editing of the provider data begins with a manual review of returned IHQs, data entry of the IHQs, and cleaning of the provider data file. If a provider reported a different date of birth, gender, or name for the child, a check of the IHQ is made to determine whether the IHQ was filled out for the correct child. After the provider data are merged with the household interview data, and responses from multiple providers for a child are consolidated into a child-level data record, the editing continues. The end product is an analytic file containing household and provider data for use in estimating vaccination coverage.

Data Preparation

The editing and cleaning of NIS data involve several steps. First, the CATI system incorporates an automatic editing process. Further cleaning and editing take place in a post-CATI clean-up stage, involving an extensive review of data values, crosschecks, and the recoding of verbatim responses for race, ethnicity, and vaccinations. The next step involves the creation of numerous composite variables. Finally, provider data are cleaned in a separate step. After these steps have been completed, imputations are performed for item nonresponse on selected variables, and weights are calculated. The procedures and rules of the National Health Interview Survey serve as the standard in all stages of data editing and cleaning.

Editing in the CATI System

The CATI software checks consistency across data elements and does not allow interviewers to enter invalid values. Catching potential errors early increases the efficiency of post-survey data cleaning and processing.

The CATI system makes a number of edits as an interviewer enters data. These edits correct data entry errors that can be reconciled while the respondent is on the telephone; they focus, in particular, on items critical to the conduct of the study, such as those that determine a child's eligibility (e.g., date of birth). To the extent possible without making the CATI system overly complicated, out-of-range and inconsistent responses produce a warning screen, allowing the interviewer to correct errors as they occur.

A CATI system cannot simultaneously incorporate every possible type of error check and maximize system performance. To reconcile this trade-off, post-CATI edits are used to resolve problems that do not require access to the respondent, as well as unanticipated logic problems that appear in the data.

Post-CATI Edits

The post-CATI editing process produces final, cleaned data files for each quarter. The steps in this process, implemented after all data collection activities for a quarter are completed, are described below.

Initial Post-CATI Edits and File Creation

After the completion of interviewing each quarter, the raw data are extracted from the CATI data system and used to create two files: the Sample File and the Interview File. The Sample File contains one record for each sample telephone number. It contains summary information for telephone numbers and households. The Interview File contains one record for each eligible sample child. It contains all vaccination data that the household reported for the child.

Following the creation of these files, a preliminary analysis of each file identifies out-of-range values and extraneous codes. The first check verifies the eligibility status of children, based on date of birth and date of interview. Once the required corrections are verified, the invalid values are replaced with either an appropriate data value or a missing-value code.

Frequency Review

After the pre-programmed edits are run, frequency distributions of all variables in each file are produced and reviewed. Each variable's range of values is examined for any invalid values or unusual distributions. If blank values exist for a variable, they are checked to see whether they are allowable and whether they occur in excessive numbers. Any problems are investigated and corrected as appropriate.

File Crosschecks

Crosscheck programs make sure that cases exist across files in a consistent manner.

Specifically, checks ensure that each case in the Interview File is also present in the Sample

File and that each case in the Sample File was released to the CATI center. Checks also

ensure that no duplicate households exist in the Sample File and no duplicate children exist

in the Interview File.

When all of these checks have been performed, the final quarterly Interview File is created.

Programmers and statisticians then create composite variables for each child. Weights

(described in Section 6) are added to each record.

Editing of Provider Data

Six to eight weeks after the close of household data collection for a quarter, the collection of

Immunization History Questionnaires from providers ends. The data from the hard-copy

questionnaires are entered and independently re-entered to provide 100% verification. The

Provider Data File is cleaned, in a similar fashion to the household data, for out-of-range

values and consistency. A computer program back-codes all "other shot" verbatim responses

into the proper vaccine category (e.g., Energix B counts as Hep B, and Tetramune counts as

DTP and Hib). These translations come from a file that contains all such verbatim responses

ever encountered in the NIS. Also, the Provider File is checked for duplicate records, and

exact duplicates are removed from the file. If the IHQ contains a date of birth of the child,

gender of the child or child name that differs from the household interview, the IHQ is

examined to see whether it may have been filled out for the wrong child. IHQs that appear to have been filled out for the wrong child are removed from the provider database. When a child has data from more than one IHQ, decision rules are applied to produce the most complete picture of the child's immunization history.

Once these data have been cleaned, they are combined with the household interview data. Information from up to five providers can be added to a child's record.

Limitations of Data Editing Procedures

Although data editing procedures were used for the 1997 NIS, the data user should be aware that some inconsistent data may remain in the public-use file. The variables that indicate whether a child is up-to-date on each vaccine or series (on which the estimates of vaccination coverage are based) are derived from provider-reported data. Hence the household-reported vaccination dates (from interviews conducted with a shot card) are not edited for discrepancies beyond the built-in checks in the CATI system.

The NIS does not recontact households or providers to attempt to reconcile potential discrepancies in provider-reported vaccination dates or to resolve date-of-birth reporting errors. However, beginning with the 1999 NIS, the provider-reported data were manually reviewed and edited to correct specific reporting errors. The *National Immunization Survey: Guide to Quality Control Procedures* discusses the editing procedures in more detail. The provider-data edits that were added in 1999 are not reflected in the 1997 NIS data. A small

number of children will therefore have provider-reported vaccination dates that contain

potential discrepancies. Among children in the 1997 NIS PUF with adequate provider data,

2.7% have one or more provider-reported vaccination dates listed before the date of birth of

the child, 5.0% have vaccination dates less than or equal to 14 days apart, and 2.9% have a

vaccination other than hepatitis B reported as administered from 0-37 days of life. The

section on Subsets of the Data (below) includes additional information related to the first

dose of hepatitis B vaccine, which for the 1997 NIS was often given early in life. Overall,

even with these minor limitations, the NIS is a rich source of data for assessment of up-to-

date status and age-appropriate immunization.

Variable-Naming Conventions

To facilitate access to the contents of the PUF, the names of variables adhere to the SAS

(Version 6.12) convention of having no more than 8 characters, and they follow a systematic

pattern as much as possible. The code book for the PUF groups the variables into nine broad

categories according to the source of the data (household or providers) and the content of the

variable (see Appendix G).

The household report of vaccinations received by the child is used to create household up-to-

date indicator variables. The names of these variables begin with FULL. For example,

FULL_HEP indicates whether the child has received three or more hepatitis B vaccinations.

Additional household up-to-date variables combine each vaccine with use of a shot card.

The names of these variables begin with C_. For example, C_HEP has five values,

corresponding to up-to-date on hepatitis B from a shot card, not up-to-date on hepatitis B from a shot card, up-to-date on hepatitis B not from a shot card, not up-to-date on hepatitis B not from a shot card, and vaccination status on hepatitis B indeterminate.

The provider data from the IHQs are used to create numerous child-level composite variables, as described below. The names of the variables giving the number of doses received for each vaccine begin with P_NUM. For example, P_NUMHEP gives the number of doses of hepatitis B vaccine according to the provider data. An up-to-date indicator variable also exists for each vaccine, and these variables begin with P_UTD. For example, P_UTDHEP indicates whether the child received 3 or more doses of hepatitis B vaccine.

The provider data are also used to form variables for age in days and age in months at time of vaccination. For age in days and age in months, either 4 or 8 variables are created, depending on the vaccine. The variables for age in months end with n_AGE, where n is the dose number. For example, HEP1_AGE to HEP8_AGE give age in months for 8 possible doses of hepatitis B vaccine. Similarly, for age in days at vaccination, the variables start with D and end with the dose number. For example, DHEPB1 to DHEPB8 give age in days for 8 possible doses of hepatitis B vaccine.

Missing-Value Codes

The missing-value codes for household variables are 6 and 96 for DON'T KNOW and 7 and 97 for REFUSED. Some household variables may also contain blanks, if the question was

not asked. The variables developed from the IHQ generally do not have specific missing-value codes. For example, if a provider failed to answer the question on types of care provided, the response category variables for that question would be blank. For provider-reported vaccination dates before the date of birth of the child, the age in months and age in days variables are recoded to **–1**. For provider-reported vaccination dates after 36 months of age, the age in months variables are recoded to **40**. For the corresponding provider-reported vaccination dates after 1125 days of age, the age in days variables are recoded to **1210**. The official published estimates of vaccination coverage include these vaccination dates in the count of vaccines received by a child.

Imputation for Item Nonresponse

The NIS uses imputation primarily to replace missing values on selected socioeconomic and demographic variables collected in the household survey. A sequential hot-deck method is used to assign imputed values (Cox 1980). Each imputation cell has at least four donors. The Notes section of the code book identifies variables that contain imputed values. These variables include maternal education, firstborn status of the child, Hispanic origin, race, race/ethnicity, maternal marital status, and maternal age group.

Vaccine-Specific Recoding of Verbatim Responses

During the household interview, respondents are given the option to report vaccinations in addition to, or instead of, the categories specifically read to them. These verbatim responses

are entered into the CATI system by the interviewer and stored in the Interview File. They are reviewed in the post-CATI editing process in order to reclassify the responses into the listed categories, where possible. NIP personnel manually review the verbatim responses and determine to which category or categories (for combination shots), if any, each should be recoded. Once the recoding has been completed, a quality control review ensures that the responses were correctly recoded and are consistent with one another.

Composite Variables

A number of composite variables (constructed from basic variables) are created and included in the NIS PUF. Composite variables assist users and data analysts by eliminating duplication of effort and making NIS data easier to use.

Since the initial years of NIS data collection, the household composite variables have included up-to-date status on individual vaccinations, race of child and mother, household income, and up-to-date status on several vaccination series. As the questionnaire was modified over time, new composite variables were created. Examples include a maternal age variable and an indicator of whether the child is firstborn. Many of these composite household variables are included in the NIS PUF. Table 3 lists some of the key demographic variables and their categories.

The composite race variables in the 1997 PUF contain three categories: white, black and all other races. The "all other races" category includes American Indian, Asian, Alaska Native,

Table 3: Key Demographic Composite Variables

AGEGRP – age category of child	19-23 months 24-29 months 30-35 months
RACEKIDR – race/ethnicity of child	Hispanic White, nonHispanic Black, nonHispanic All other, nonHispanic
SEX – gender of child	Male Female
EDUC1 – education of the mother	<12 years 12 years >12 years, not a college graduate College graduate
MARITAL – marital status of mother	Widowed, divorced or separated Never married Currently married Deceased
M_AGEGRP – age group of mother	Under 20 years 20-29 years 30 years or older
INCPOV1R – poverty status	At or above poverty level Below poverty level Not determined

Native Hawaiian, Pacific Islander, and other races. If more than one race was selected during the administration of the race questions, the respondent was asked to select the race that best characterizes the child/mother. The 1997 PUF uses these questions to assign each child and mother to a single race category.

The provider data from the IHQs are used to create numerous child-level composite variables. The most important variables give the number of doses received for each type of vaccine. Up-to-date indicator variables are created for each individual vaccine and for several vaccine series. Another set of variables gives age in days at time of vaccination. For each dose of a vaccine, the age in days is constructed from the date of birth of the child and

the date of the shot. Corresponding variables give exact age in months at time of vaccination.

The IHQs also contain information on provider characteristics. This information is used to create composite variables related to provider facility type (PROV_FAC), types of care offered by the provider (NCARER1 to NCARER6), participation in the Vaccines for Children program (VFC_PRO), and whether the provider facility was ever the child's Medical Home for primary care (MEDHOME).

Subsets of the Data

The NIS PUF contains data for all children aged 19 to 35 months who have a completed household (RDD) interview. An interview is considered complete if the respondent answered either Section A or Section B of the questionnaire. As explained in Section 6, each child with a completed household interview is assigned a weight (HY_WGT) for use in estimation.

The NIS uses the provider-reported vaccination histories to form the estimates of vaccination coverage, because the provider data are considered much more accurate. Thus, the most important subset of the data consists of children with adequate provider data. For these children one or more providers returned the IHQ, and the vaccination information reported by those providers is sufficient to determine whether the child is up-to-date on the recommended vaccinations. As discussed in Section 7, the PDAT variable identifies the

children with adequate provider data (PDAT=1). These children have a separate weight (W0) that should be used to form estimates of vaccination coverage.

Confidentiality and Disclosure Avoidance

To prevent identification of participants in the NIS and the resulting disclosure of information, certain items from the questionnaires are not included in the PUF. In addition, some of the released variables are top- or bottom-coded, or their categories are collapsed.

5. Quality Control and Quality Assurance Procedures

A major contributor to the quality of the NIS data is its sample management system, which manages 312 RDD samples annually (78 IAP areas times 4 quarters) and uses 20 performance measures to track their progress toward completion. Important aspects of the quality assurance program for the RDD component of the NIS include on-line interviewer monitoring; on-line look-ups in topic-oriented databases integrated with the CATI system, including names, addresses and telephone numbers of vaccination providers; and automated range-edits and consistency checks. These and other quality assurance procedures contribute to a reduction in the total cost of the data collection, by minimizing interviewer labor and overall burden to respondents. Khare et al. (2000), Khare et al. (2001), and the *National Immunization Survey: Guide to Quality Control Procedures* discuss the procedures in more detail.

The quality assurance procedures of the PRC component follow a proven methodology documented by Dillman (1978). The most critical quality assurance activities occur during post-processing of the returned questionnaires or vaccination records. All returned IHQs are examined to identify and correct any obvious errors prior to data entry and then key-entered with 100% verification. The National Immunization Program additionally has conducted a manual quality assurance review of 10% of forms returned by providers. Resulting error rates for the edit process are estimated to be less than 1%.

Some special conditions apply to the first dose of hepatitis B, which is typically given at 0 to 7 days. The count of vaccinations for a specific vaccine is based on the number of unique vaccination dates reported by the child's provider(s). For a very small percentage of children a provider indicates that the child received hepatitis B at birth by checking a box on the IHQ but does not record a vaccination date. Because no date is given, this dose is not included in the count of hepatitis B vaccinations for these children, resulting in a slight underestimation of hepatitis B vaccination coverage. The PUF contains a variable (HEP_BRTH) to indicate whether at least one provider checked the given-at-birth box. The data user has the option of determining whether the first dose of hepatitis B was not given at 0 to 7 days by using the DHEPB1 variable. If the date of the birth dose is not present but the HEP_BRTH variable indicates that the birth dose was given, the data user has the option of imputing the missing age at immunization (in days) for the birth dose by using the 1997 distribution (Table 4).

Table 4: Distribution of Age (in days) at the Birth Dose of Hepatitis B Vaccine, 1997

Age in Days at Birth Dose	Unweighted Percentage of Birth Doses
0	40.6
1	37.8
2	11.8
3	3.9
4	1.9
5	1.4
6	1.1
7	1.5

6. Sampling Weights

Each of the two stages of data collection results in a sampling weight for the children who have data at that stage. The RDD sampling weights (HY_WGT) permit analyses of data from children with completed household interviews. Each child with adequate provider data (the subset on which official estimates of vaccination coverage are based) has a "partial-nonresponse-adjusted sampling weight" (W0).

A sampling weight may be interpreted as the approximate number of children in the target population that the child in the sample represents. Thus, for example, the sum of the sampling weights of children who are up-to-date (on a particular vaccine or series of vaccines) yields an estimate of the total number of children in the target population who are up-to-date. Dividing this sum by the total of the sampling weights for all children gives an estimate of the corresponding vaccination coverage rate.

This section describes how these weights are developed and adjusted so as to achieve an accurate representation of the target population. The weights reflect each child's probability of being selected into the sample; and the adjustments take into account the number of telephone lines in the household, nonresponse to the household interview, noncoverage of households that do not have telephones, and nonresponse by providers.

Adjusted Base Sampling Weight

In each quarterly NIS sample, each child with a completed RDD interview receives a base sampling weight. This weight is equal to the total number of telephone numbers in the sampling frame for the IAP area divided by the total number of telephone numbers that were randomly sampled from that sampling frame during that quarter. Because households with multiple telephone lines have a greater chance of being sampled, each child's base sampling weight is adjusted by dividing it by the total number of residential telephone lines reported in the household (up to a maximum of 3).

Adjustment for Interview Nonresponse

Nonresponse occurs in population-based surveys when respondents refuse to participate or are not available at the time of the interview. Thus, the sum of the adjusted base sampling weights of children with completed RDD interviews will underestimate the size of the target population in the IAP area, because some sampled households containing age-eligible children do not complete the RDD interview. As a result, the adjusted base sampling weights

must be further adjusted so that they more accurately reflect the number of children in the target population that each sampled child with a completed RDD interview represents.

Some sampled households with age-eligible children fail to complete the RDD interview because of unit nonresponse: some telephone numbers are never determined to be residential despite multiple call attempts, some households cannot be determined to have age-eligible children, and some households with age-eligible children do not complete the RDD interview. To compensate for these three types of unit nonresponse, the sampling weights of children with a completed RDD interview are adjusted to account for the estimated number of age-eligible children in households whose telephone numbers are never determined to be residential, the estimated number of age-eligible children in households that fail to complete the screening interview, and the number of identified age-eligible children for whom the RDD interview is not completed. Each of these adjustments is carried out within IAP areas by forming weighting cells based on the residential directory-listed status of the sample telephone number and socioeconomic and demographic characteristics of the IAP area's telephone exchanges (e.g., 4 weighting cells formed from directory-listed versus non-directory-listed telephone number by telephone exchanges with 75% or higher white population versus telephone exchanges with less than 75% white population).

Because the quarterly interview-nonresponse-adjusted base sampling weights pertain to the entire target population and because annualized vaccination coverage estimates are obtained from data for four consecutive quarters, the adjusted base sampling weights are divided by 4 when the data from the four quarters are combined.

Adjustment for Households That Do Not Have Telephones

The NIS sampling frame includes only households that have telephones. Because the target

population consists of all children 19 to 35 months of age living in households regardless of

whether they have telephones, the interview-nonresponse-adjusted base sampling weights

need to be adjusted to compensate for the noncoverage of children living in households

without telephones. Although national telephone coverage for age-eligible children is

estimated to be 90%, telephone coverage is known to be as low as 76% in some IAP areas.

Further, data from the NHIS, which samples both "telephone" and "nontelephone"

households, indicate that children living in households without telephones have significantly

lower vaccination coverage. Thus, the adjustment to the sampling weights to compensate for

noncoverage of nontelephone households may be particularly important in IAP areas in

which the percentage of households that have telephones is relatively low.

In order to reduce the impact of this potential bias, two separate adjustments to sampling

weights are made.   In the first adjustment, the weighted distributions of "poststratification"

variables, which are known to be strongly associated with variation in vaccination coverage

rates, are adjusted to agree with those obtained from Vital Statistics (NCHS 1993) compiled

by the National Center for Health Statistics (NCHS). The poststratification variables are

race/ethnicity of the child's mother, the level of educational attainment of the child's mother,

and the age of the child. Because the Vital Statistics data give the counts of all live births in

the U.S., regardless of whether the household has telephone service, this adjustment corrects

in part for underrepresentation of children who belong to households that are less likely to

have telephones (typified by racial/ethnic minorities or mothers with low educational attainment).

The second adjustment for nontelephone households depends on whether a sample child is up-to-date on the 4:3:1:3 vaccination series and also on two other factors: the IAP-area-specific proportion of children that live in households that do not have telephones, as estimated from the Current Population Survey (Bureau of Labor Statistics 2000) for each combination of levels of the poststratification variables described above, and the ratio of the national 4:3:1:3 vaccination coverage rate among children living in nontelephone households to the national 4:3:1:3 vaccination coverage rate among children living in telephone households, as estimated using data for major race/ethnicity groups from the NHIS. For children belonging to a specific race/ethnicity group, the adjustment to the sampling weight is larger for children who are not 4:3:1:3 up-to-date than for children who are 4:3:1:3 up-to-date when: the percentage of children living in nontelephone households in the IAP area is large and the estimated national 4:3:1:3 vaccination coverage rate among children living in nontelephone households is less than the estimated national 4:3:1:3 vaccination coverage rate among children living in telephone households. In this situation the adjustment for households that do not have telephones tends to reduce estimated vaccination coverage rates slightly. A further description is given by Battaglia et al. (1995a).

The base sampling weights after adjustment for multiple residential telephones, unit nonresponse, and nontelephone coverage constitute the "RDD sampling weights."

Adjustment for Provider Nonresponse

Among the 32,742 children with a completed RDD interview, 22,806 (69.7%) had adequate provider data. Failure to obtain adequate provider data for the remaining 30.3% was attributable to:

- the parent or guardian not giving consent to contact the child's vaccination providers (17.0%),

- inadequate information to contact the provider, the provider did not respond, or the provider responded but did not report any immunization information for the child (12.5%), and

- children with two or more identified providers but not all of the providers responded and the responding providers did not report sufficient information to determine the child's vaccination status (0.8%).

The 9,936 children for whom an RDD interview was completed but adequate provider data were not obtained are "partial nonresponders" because they provide a partial response to the NIS as a whole.

Empirical results suggest that children with adequate provider data have characteristics that are believed to be associated with a greater likelihood of being up-to-date, compared to partial nonresponders. Specifically, children with adequate provider response are more likely to live in households that have higher total family income, to have a white mother, and to live outside a central city of a Metropolitan Statistical Area. Also, a partial nonresponder is less likely to live in the state where the mother resided when the child was born and less likely to have a parent/guardian who could locate a shot card. Both of these factors indicate a

potential lack of continuity of health care, and are associated with lower vaccination rates (Coronado et al. 2000). If no adjustment is made to the RDD sampling weights to account for these differences, estimated vaccination coverage rates may be biased.

To reduce potential bias in estimated vaccination coverage estimates attributable to partial nonresponse, a "weighting-class adjustment" is used in each IAP area (Brick and Kalton 1996). This adjustment involves two steps. In the first step, sampled children are classified according to the quintile of their estimated probabilities of having adequate provider data. In the statistical literature these probabilities are called response propensities (Rosenbaum and Rubin 1983, 1984; Rosenbaum 1987). Children who have similar response propensities will also be similar with respect to variables that are strongly associated with the probability of having adequate provider data. In this important respect, children in each class are comparable. Because of this comparability, any subsample of children in a class may represent all of the children in the class. Therefore, the weighting-class adjustment uses the children with adequate provider data to represent all of the children in the class.

In the second step of the weighting-class adjustment, within each class, an adjustment factor redistributes the RDD sample weights of the partial nonresponders among the children who have adequate provider data. These revised RDD sampling weights of children with adequate provider data are "partial-nonresponse-adjusted RDD sampling weights" (W0). Because of the comparability of children within each weighting class, any estimate that uses data only from the children with adequate provider data, along with their partial-nonresponse-adjusted RDD sampling weights, will have less bias attributable to differences

between children with adequate provider data and partial nonresponders. Smith et al.

(2001b) describe the development of this approach in more detail. Appendix D summarizes

the distribution of the sampling weights (HY_WGT and W0) in each IAP area.

In 1999 the CDC adopted this nonresponse-adjustment methodology for producing all

public-use files and for calculating estimates of vaccination coverage for 1998 (and

subsequent years). It replaced the approach that had been used to calculate estimates for

1997 (and earlier years). Thus, estimates calculated from the 1997 PUF may differ slightly

from those in the *MMWR* article (CDC 1998). Estimates from the 1997 PUF do agree with

those published at the NIP website (http://www.cdc.gov/nip/coverage), in the column labeled

Tables, and also shown in Table H.7 in Appendix H of this User's Guide, which are based on

the new methodology. More information can be found at the NIP website

(`http://www.cdc.gov/nip/coverage/NIS/analysis-methodologies.htm`).

7. Analytic and Reporting Guidelines

The NIS PUF can be used to produce national, state and IAP area estimates of vaccination

coverage rates. Information in the data file can be used to calculate standard errors of the

vaccination coverage rates that reflect the complex sample design of the NIS. The file

includes IAP area and state identifiers (ITRUEIAP and STATE). The sample is stratified by

the 78 IAP areas, and the IAP area identifier and the coded household identifier

(SEQNUMHH) are key variables for obtaining standard errors for IAP area, state and

national estimates of vaccination coverage rates. Demographic and socioeconomic variables

in the file can be used to obtain national vaccination coverage rates for subgroups of the population. Data users should, however, be aware that estimates for such subgroups at the state or IAP area level will generally have large standard errors because of the small sample sizes. The NCHS standard for precision of subgroup estimates is that the ratio of the standard error to the estimate should be less than or equal to 30%, and each analytic cell should contain at least 30 respondents.

Key Variables

The variables in the NIS PUF fall into two major categories: 1) variables that apply to all children with completed household interviews and 2) variables that apply only to children with adequate provider data (i.e., PDAT=1). Variables in the first group include the household report of vaccinations received by the child, and various demographic and socioeconomic characteristics of the child, the mother and the household. Because of reporting and recall errors, the household report of vaccinations is not used to produce vaccination coverage rates. As discussed below, the provider report of vaccinations received by the child is used to produce vaccination coverage rates.

Table 5 lists variables that are commonly used in analyses or for published estimates of vaccination coverage.

The SEQNUMC variable is the unique child identifier. Key geographic variables include IAP area (ITRUEIAP), state (STATE), and Census Region (REGION).

Table 5: NIS Variables That Are Commonly Used in Analyses or for Published Estimates

ID variable	
SEQNUMC – unique child ID variable	
Geographic variables	
ITRUEIAP – IAP area	
STATE – state FIPS code	
REGION – Census Region	Northeast Midwest South West
Child demographic variables	
AGEGRP – age category of child	19-23 months 24-29 months 30-35 months
RACEKIDR – race/ethnicity of child	Hispanic White, nonHispanic Black, nonHispanic All other, nonHispanic
SEX – gender of child	Male Female
FRSTBRN – firstborn status of child	No Yes
Mother demographic variables	
EDUC1 – education of the mother	<12 years 12 years >12 years, not a college graduate College graduate
MARITAL – marital status of mother	Widowed, divorced or separated Never married Currently married Deceased
M_AGEGRP – age group of mother	Under 20 years 20-29 years 30 years or older
RACEMOMR – race/ethnicity of mother	Hispanic White, nonHispanic Black, nonHispanic All other, nonHispanic
Income and poverty variables	
INCPOV1R – poverty status	At or above poverty level Below poverty level Not determined

Presence of provider data variable	
PDAT – adequate provider data indicator	Yes
	No
Number of provider-reported doses of vaccine	
P_NUMDTP – total number of DT/DTP/DTaP doses	
P_NUMPOL – total number of IPV/OPV doses	
P_NUMMMR – total number of MCV doses	
P_NUMHIB – total number of Hib doses	
P_NUMHEP – total number of Hep B doses	
P_NUMVRC – total number of varicella doses	
Provider characteristics	
PROV_FAC – provider facility type	All public facilities
	All hospital facilities
	All private facilities
	All military/other facilities
	Mixed types
	Unknown
VFC_PRO – participation of child's provider(s) in VFC program	All providers
	Some but not all providers
	No providers
	Unknown
MEDHOME – provider facility ever the child's Medical Home for primary care	All providers
	Some but not all providers
	No providers
	Unknown
NCARER1 to NCARER6 – types of services offered by child's provider(s)	All providers
	Some but not all providers
	No providers/unknown

Key demographic variables include race/ethnicity category of the child (RACEKIDR), age category of the child (AGEGRP), age category of the mother (M_AGEGRP), marital status category of the mother (MARITAL), and firstborn status of the child (FRSTBRN). Key socioeconomic variables include education category of mother (EDUC1), and poverty status (INCPOV1R).

Selecting children with PDAT equal to 1 identifies children with adequate provider data (DISPCODE = 1 to 6 or 8 to 11). Children who do not have provider data (DISPCODE = MISSING) or who have provider data that are not adequate to determine the up-to-date vaccination status of the child (DISPCODE = 7) have PDAT equal to 2. (Appendix E gives the definition of the values of DISPCODE.) The NIS PUF contains many variables constructed from the provider data. One set of variables indicates the number of doses the child received for each of the vaccines. For example, P_NUMDTP indicates the number of doses of DTP. It counts all DTP-containing vaccines, including DTP, DTaP, DT and DTP-Hib. Both the individual vaccines and the vaccine series have up-to-date indicator variables. For example, PUTD4313 is an indicator variable for whether the child has 4 or more DTP vaccinations, 3 or more polio vaccinations, 1 or more measles-containing vaccinations (MCV), and 3 or more Hib vaccinations. Section 4 discusses the naming conventions for these variables.

The NIS PUF includes a set of variables for age in days at each vaccination. These variables can be used to examine age at vaccination, vaccination spacing intervals, and age-appropriate immunization. Another set of variables gives age in months at time of vaccination. These

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variables can be used to determine, for example, whether a child received at least four DTP

vaccinations by the age of 19 months. Section 4 discusses the naming conventions for these

variables.

The final key set of provider variables relates to characteristics of the provider: provider

facility type (PROV_FAC), type of care offered by the provider (NCARER1 to NCARER6),

participation in the Vaccines for Children program (VFC_PRO), and an indicator of whether

the child's vaccination providers are his/her Medical Home for primary care (MEDHOME).

Use of the NIS Sampling Weights

The NIS PUF contains two child-level weights.   The HY_WGT variable gives the household

weight for each child. It should be used to form estimates from the children with completed

household interviews. This weight reflects the stratified sample design and also adjusts for

unit nonresponse, for poststratification to population control totals, and for the exclusion of

nontelephone children from the NIS. The weight variable that applies to children with

adequate provider data is W0. This weight should be used to form estimates of vaccination

coverage. Each child with adequate provider data (PDAT = 1) has a value of W0.

The NIS PUF does not contain any provider-level weights. The NIS does not sample

providers directly; rather, they are included in the survey through the children they vaccinate.

A user of the NIS PUF should not attempt provider-level analyses (e.g., estimate the

percentage of providers in the U.S. that participate in the Vaccines for Children program), because the NIS sample was not designed for that purpose.

Estimation and Analysis

Estimating Vaccination Coverage Rates

Vaccination coverage rates are ratio estimates, as described by the statistical literature on methods for complex sample surveys. Because of the adjustment to the sampling weights for partial nonresponse, statistical analyses require only data from children with adequate provider data (PDAT = 1), along with their partial-nonresponse-adjusted sampling weights (W0). To summarize the statistical methodology by which vaccination coverage rates and their standard errors are obtained from these data, let Y_{hij} be an indicator, for the jth child with adequate provider data in the ith sampled household in the hth stratum (IAP area) of the NIS sampling design, that is equal to 1 if the child is up-to-date according the provider data and 0 otherwise. Also, let W_{hij} denote the value of W0 for this child. Then, letting

$\hat{Y}_h = \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} W_{hij} Y_{hij}$ and $\hat{T}_h = \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} W_{hij}$, the national estimator of the vaccination coverage rate

may be expressed as

$$\hat{q} = \frac{\sum_{h=1}^{L} \hat{Y}_h}{\sum_{h=1}^{L} \hat{T}_h}$$

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where L denotes the number of strata (the 78 IAP areas), n_h denotes the number of sampled

households containing children with adequate provider data in the hth IAP area, and m_{hi}

denotes the number of age-eligible children with adequate provider data in the ith household

in the hth IAP area.

Letting L denote the number of IAP areas in a state, the above formula can also be used to

calculate vaccination coverage rates for states containing two or more IAP areas and for

states containing only one IAP area.

Estimating Standard Errors of Vaccination Coverage Rates

The Taylor-series method can be used to estimate the sampling variance of vaccination

coverage rates for the U.S., the states, and IAP areas. Letting $Z_{hij} = \dfrac{W_{hij}(Y_{hij} - \hat{q})}{\hat{T}_h}$,

$Z_{hi} = \sum_{j=1}^{m_{hi}} Z_{hij}$, and $\bar{Z}_h = \dfrac{\sum_{i=1}^{n_h} Z_{hi}}{n_h}$, an estimator of the variance of the vaccination coverage rate,

$\hat{q}$, is

$$\hat{V}(\hat{q}) = \sum_{h=1}^{L} \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} (Z_{hi} - \bar{Z}_h)^2 .$$

The calculation of standard errors for estimates of vaccination coverage rates in the NIS can

be implemented in statistical software such as SUDAAN (Shah et al. 1997), SAS (SAS

Institute Inc. 1999) and Stata (Stata Corporation 2001). Appendix F gives examples of the

use of SUDAAN to estimate vaccination coverage rates and their standard errors for IAP

areas and states. For PROC CROSSTAB, the DESIGN = WR (with-replacement sampling

of Primary Sampling Units within stratum) option is used, because the sampling fractions for

households within an IAP area are all quite small. In these applications the IAP area

(ITRUEIAP) is used as the stratum variable, and the household identifier (SEQNUMHH) is

used as the Primary Sampling Unit identifier. The data file should first be sorted on

ITRUEIAP and then sorted on SEQNUMHH within ITRUEIAP before running SUDAAN.

As indicated above, W0 is used as the weight variable.

8.   Summary Tables

Appendix H contains seven tables. As mentioned in Section 2, **Table H.1** lists the 78 IAP

areas by state. For the U.S. and for each state and IAP area, it gives the estimated population

total of children 19 to 35 months of age in 1997 and (from 1997 NIS data collection) the

number of children with completed household interviews and the number of children with

adequate provider data.

Tables H.2 through H.5 summarize pairs of variables: age group of child by maternal

education (Table H.2), age group by family income (Table H.3), age group by race/ethnicity

(Table H.4), and age group by gender (Table H.5). Each of these tables gives the unweighted

and weighted counts of children who have completed household interviews and the

unweighted and weighted counts of children with adequate provider data.

Table H.6 gives unweighted counts of children for shot card use by the presence of adequate provider data.

Table H.7 presents estimates of vaccination coverage and 95-percent confidence-interval half-widths obtained from SUDAAN. The data user should obtain the same estimates from the public-use file.

9.   Citations for NIS Data

In publications please acknowledge CDC (NCHS and NIP) as the original data source. The reference for the 1997 NIS Public-Use File is:

U.S. Department of Health and Human Services (DHHS). National Center for Health Statistics. The 1997 National Immunization Survey, CD-ROM No. 3. Hyattsville, MD: Centers for Disease Control and Prevention, 2002.

Please place the acronym "NIS" in the titles, keywords, or abstracts of journal articles and other publications in order to facilitate the retrieval of such materials in bibliographic searches.

10.   References

Battaglia, M.P., Malec, D.J., Spencer, B.D., Hoaglin, D.C., and Sedransk J. (1995a). Adjusting for noncoverage of nontelephone households in the National Immunization Survey. *1995 Proceedings of the Section on Survey Research Methods*, Alexandria: VA: American Statistical Association, pp. 678-683.

Battaglia, M.P., Starer, A., Oberkofler, J., and Zell, E.R. (1995b). Pre-identification of nonworking and business telephone numbers in list-assisted random-digit-dialing samples. *1995 Proceedings of the Section on Survey Research Methods,* Alexandria, VA: American Statistical Association, pp. 957-962.

Brick, J.M. and Kalton, G. (1996). Handling missing data in survey research. *Statistical Methods in Medical Research*, 5:215–238.

Buckley, P., Dennis, J.M., Saulsberry, C., Coronado, V.G., Ezzati-Rice, T., Maes, E., Rodén, A.-S., and Wright, R.A. (1998). Managing 78 simultaneous RDD samples. *1998 Proceedings of the Section on Survey Research Methods*, Alexandria, VA: American Statistical Association, pp. 957-961.

Bureau of Labor Statistics, U.S. Department of Labor (2000). Current Population Survey: Design and Methodology. Technical Paper 63.

Centers for Disease Control and Prevention (1994). Reported vaccine-preventable diseases - United States, 1993, and the Childhood Immunization Initiative. *MMWR,* 43:57-60.

Centers for Disease Control and Prevention (1998). National, state, and urban area vaccination coverage levels among children aged 19–35 months—United States, 1997. *MMWR*, 47(26):547-554.

Centers for Disease Control and Prevention (1997). Recommended childhood immunization schedule—United States, 1997. *MMWR*, 46(02):35-39.

Coronado, V.G., Maes, E.F., Rodewald, L.E., Chu, S., Battaglia, M.P., Hoaglin, D.C., Merced, N.L., Yusuf, H., Cordero, J.F., and Orenstein, W.A. (2000). Risk factors for underimmunization among 19-35 month-old children in the United States: National Immunization Survey, July 1996-June 1998. Unpublished manuscript, Centers for Disease Control and Prevention, Atlanta.

Cox, B.G. (1980). The weighted sequential hot-deck imputation procedure. *1980 Proceedings of the Section on Survey Research Methods*. Washington, DC: American Statistical Association, pp. 721-726.

Dillman, D. (1978). *Mail and Telephone Surveys: The Total Design Method.* New York: John Wiley & Sons.

Ezzati-Rice, T.M., Zell, E.R., Battaglia, M.P., Ching, P.L.Y.H. and Wright, R.A. (1995). The design of the National Immunization Survey. *1995 Proceedings of the Section on Survey Research Methods,* Alexandria, VA: American Statistical Association, pp. 668-672.

Frankel, L.R. (1983). The report of the CASRO task force on response rates. In: Wiseman, F., editor. *Improving Data Quality in Sample Surveys*. Cambridge, MA: Marketing Science Institute, pp. 1-11.

Khare, M., Battaglia, M.P., Huggins, V.J., Stokley, S., Hoaglin, D.C., Wright, R.A. and Roden, A.S. (2000). Accuracy of vaccination dates reported by immunization providers in the National Immunization Survey. *2000 Proceedings of the Section on Survey Research Methods*. Alexandria, VA: American Statistical Association, pp. 665-670.

Khare, M., Battaglia, M.P., Stokley, S., Wright, R.A. and Huggins, V.J. (2001). Quality of immunization histories reported in the National Immunization Survey. *Proceedings of the International Conference on Quality in Official Statistics* (CD-ROM). Stockholm: Statistics Sweden.

Lepkowski, J.M. (1988). Telephone sampling methods in the United States. *Telephone Survey Methodology*. Edited by Groves, R.M., Biemer, P.P., Lyberg, L.E., Massey, J.T., Nicholls, W.L., and Waksberg, J. New York: John Wiley & Sons, pp. 73-98.

National Center for Health Statistics. (1993). Public Use Data Tape Documentation: 1991 Detail Natality. U.S. Department of Health and Human Services, Pubic Health Service, Centers for Disease Control and Prevention, National Center for Health Statistics, Hyattsville, MD.

National Center for Health Statistics (1999). National Health Interview Survey: Research for the 1995-2004 Redesign. Vital and Health Statistics, Series 2, No. 126. (DHHS publication no. (PHS) 99-1326). Hyattsville, MD: National Center for Health Statistics.

Rosenbaum, P.R. (1987). Model-based direct adjustment. *Journal of the American Statistical Association*, 82:387-394.

Rosenbaum, P.R. and Rubin, D.B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika*, 70:41-55.

Rosenbaum, P.R. and Rubin, D.B. (1984). Reducing bias in observational studies using subclassification on the propensity score. *Journal of the American Statistical Association*, 79:516-534.

Rust, K.F., and Rao, J.N.K. (1996). Variance estimation for complex surveys using replication techniques. *Statistical Methods in Medical Research*, 5:283-310.

SAS Institute Inc. (1999). *SAS/STAT User's Guide, Version 8*. Cary, NC: SAS Institute Inc.

Shah, B.V., Barnwell, B.G. and Bieler, G.S. (1997). *SUDAAN User's Manual, Release 7.5*. Research Triangle Park, NC: Research Triangle Institute.

Smith, P.J., Battaglia, M.P., Huggins, V.J., Hoaglin, D.C., Rodén, A.-S., Khare, M., Ezzati-Rice, T.M., and Wright, R.A. (2001a). Overview of the sampling design and statistical methods used in the National Immunization Survey. *American Journal of Preventive Medicine*, Volume 20, Number 4S, pp. 17-24.

Smith, P.J., Rao, J.N.K., Battaglia, M.P., Ezzati-Rice, T.M., Daniels, D., Khare, M. (2001b). Compensating for provider nonresponse using response propensities to form adjustment cells: The National Immunization Survey. Vital and Health Statistics, Series 2, No. 133

(DHHS publication no. (PHS) 2001-1333). Hyattsville, MD: National Center for Health Statistics.

Stata Corporation (2001). *Stata Reference Manual.* College Station, TX: Stata Press.

Wall, T.P., Kochanek, K.M., Fitti, J.E., and Zell, E.R. (1995). The use of real time translation services in RDD telephone surveys. Presented at the 1995 Conference of the American Association for Public Opinion Research, Fort Lauderdale, FL. This paper is posted at http://www.nisabt.org/ .

Zell, E.R., Ezzati-Rice, T.M., Battaglia, M.P., and Wright, R.A. (2000). National Immunization Survey: The methodology of a vaccination surveillance system. *Public Health Reports*, 115(1), 65-77.

Appendix A

Glossary of Abbreviations and Terms

Glossary of Commonly-Used Abbreviations and Terms

4:3:1   The series of 4 or more DTP vaccinations, 3 or more polio vaccinations, and 1 or more MCV vaccinations

4:3:1:3   The series of 4 or more DTP vaccinations, 3 or more polio vaccinations, 1 or more MCV vaccinations, and 3 or more Hib vaccinations

4:3:1:3:3   The series of 4 or more DTP vaccinations, 3 or more polio vaccinations, 1 or more MCV vaccinations, 3 or more Hib vaccinations, and 3 or more hepatitis B vaccinations

CATI   Computer-Assisted Telephone Interviewing

CDC   Centers for Disease Control and Prevention

DOB   Date of birth

DTaP   Diphtheria and tetanus toxoids and acellular pertussis vaccine

DTP   Diphtheria and tetanus toxoids and pertussis vaccine

DT   Diphtheria and tetanus toxoids

Hep B   Hepatitis B

Hib   *Haemophilus influenzae* type b

IHQ   Immunization history questionnaire

IPV   Inactivated poliovirus vaccine

MCV   Measles-containing vaccine

MMR   Measles, mumps, and rubella

NCHS   National Center for Health Statistics

NHIS   National Health Interview Survey

NIP   National Immunization Program

NSC	Non-shot-card
OPV	Oral poliovirus vaccine
RDD	Random-digit dialing
SC	Shot card
UTD	Up-to-date
VFC	Vaccinations for Children program
VRC	Varicella

Appendix B

NIS Household Questionnaire

For Q3/1997 and Q4/1997 the wording was changed on question C12:

The old wording:

Please think about your total combined FAMILY income during the past 12 months for ALL members of the family.   Include money from jobs, social security, retirement income, unemployment payments, public assistance, and so forth. Also, include income from interest, dividends, net income from business, farm, or rent, and any other money income received. Was your total family income during the past 12 months more or less than $20,000?

The new wording:

Please think about your total combined FAMILY income during (LAST CALENDAR YEAR) for ALL members of the family.   Include money from jobs, social security, retirement income, unemployment payments, public assistance, and so forth. Also, include income from interest, dividends, net income from business, farm, or rent, and any other money income received. Was your total family income during (LAST CALENDAR YEAR) more or less than $20,000?

September 12, 1996

USER'S NOTE: The primary revision done on this date was to correct a numbering problem in the income questions of Section C. It only affected the hard copy of the questionnaire and not the CATI system. There also have been some typos corrected since the July 25 version. Both parts of the hard copy questionnaire are now dated 9/12/96.

July 25, 1997

The wording was changed on question C12

> The old wording:
> C12. Please think about your total combined FAMILY income during the past 12 months for all members of the family.
>
> The new wording:
> C12. Please think about your total combined FAMILY income during 1996 for all members of the family.

Questionnaire is now dated 7/25/97.

July 31, 1997

The wording was modified on question C12 to include the second occurrance of the change listed above on 7/25. C12 now reads as follows:

> Please think about your total combined FAMILY income during (LAST CALENDAR YEAR) for ALL members of the family. Include money from jobs, social security, retirement income, unemployment payments, public assistance, and so forth. Also, include income from interest, dividends, net income from business, farm, or rent, and any other money income received. Was your total family income during (LAST CALENDAR YEAR) more or less than $20,000?

Questionnaire and Screener are now both dated 7/31/97

September 23, 1997

The parantheses were removed from the exit screens. The following screens, in this document, were changed: S_NUMB, S3.1KID, S3.MKIDS, S_DAY_Q.

Questionnaire and Screener dates were not changed. A new master copy was provided to the telephone center and will be implemented as additional hard copies are needed in the center.

NIS Hard Copy Questionnaire

SCREENER

July 31, 1997

CASE ID_____ DATE _____

INTERVIEWER ID_____

TELEPHONE NUMBER _____

DATA ENTRY: DATE_____ ENTERED BY _____ (INTERVIEWER ID)

#1.	IF AT ANY POINT DURING THE INTRO OR S1, THE RESPONDENT STATES THAT THE PHONE NUMBER IS FOR A BUSINESS AND <u>HANGS UP</u>, USE **<ALT><B>** KEYS. THEN GO TO RECORD OF CALLS, AND ENTER COMMENTS DESCRIBING CALL.		409
#2.	IF THE TELEPHONE IS INITIALLY ANSWERED IN A WAY THAT INDICATES THE PHONE NUMBER IS FOR BUSINESS USE ONLY (E.G., "CLEVELAND CHAMBER OF COMMERCE") USE **<ALT> <Z>** AT INTRO TO PROBE "Is this telephone number for business use only". IF THE ANSWER IS "YES", GO TO RECORD OF CALLS, AND ENTER COMMENTS DESCRIBING CALL. IF THE ANSWER IS "NO", SELECT RESPONSE AND YOU WILL GO BACK TO THE INTRODUCTION AND COMPLETE INTERVIEW.		409
#3.	IF AT ANY POINT DURING THE INTRO OR S1, THE RESPONDENT STATES THAT THERE ARE NO CHILDREN <u>AND HANGS UP</u>, USE **<ALT><K>** KEYS TO CODE AS HAVING NO CHILDREN, GO TO RECORD OF CALLS, AND ENTER COMMENTS DESCRIBING CALL.		429
#4.	USE **<F9>** KEY PROBE IF R VOLUNTEERS "NO CHILDREN" AT INTRO, S1, S2, OR S3 BUT <u>DOES NOT</u> HANG UP: "Just to make sure I have this correct, are there any children between the ages of 12 months and 3 years old living or staying in your household?" YES 1 CONTINUE AT BEGINNING OF QUESTION WHERE INTERRUPTION OCCURRED NO 2 GO TO ELIGIBILITY STATUS CHECKPOINT (S1=YES=1, S2=DK=6)		429

Intro_1 Hello, my name is _____. I'm calling on behalf of the Centers for Disease Control and Prevention. We're conducting a nationwide immunization study to find out how many children under 4 (years of age) are receiving all of the recommended vaccinations for childhood diseases. Your telephone number has been selected at random to be included in the study. The questions I have will take only a few minutes.

CONTINUE WITH INTERVIEW 1
HUDI - During 1st/2nd Sentence 2
HUDI - After end 2nd sentence 3
HUDI - After end 3rd sentence 4
HUDI - After end last sentence 5

S1.   Am I speaking to someone who lives in this household who is over 17 years old? (Verify age if necessary through interviewer instructions.)

I AM THAT PERSON 1   GO TO S_NUMB

THIS IS A BUSINESS 2   We are interviewing only in private residences. Thank you very much. [**TERMINATE INTERVIEW**]

NEW PERSON COMES TO PHONE 3   REPEAT INTRO_1 HERE, VERIFY PERSON'S AGE AND GO TO S_NUMB

REFUSED 7   GO TO REFUSAL CONVERSION

DOES NOT LIVE IN HOUSEHOLD 8   CALLBACK

NO PERSON AT HOME WHO
IS AT LEAST 17 9   GO TO S2_B

S2_B   Does anyone live in your household who is over 17 years old?

YES 1   When would be a good time for me to call back and talk to that person?[SCHEDULE APPOINTMENT]

NO 2   GO TO S_NUMB

S_NUMB   How many children between the ages of 12 months and 3 years old are living or staying in your household?

IF ONE OR MORE,
ENTER # OF CHILDREN . . . . _____   (01 TO 09)

NO CHILDREN 00   These are all the questions I have. This survey is collecting information about the health of children between 12 months and 3 years old only. I'd like to thank you on behalf of the Centers for Disease Control and Prevention for the time you spent answering these questions. [**TERMINATE INTERVIEW**]

S3_LTR   A letter describing this study may have been sent to your home recently. Do you remember seeing the letter?

YES 1
NO 2

DON'T KNOW 6
REFUSED 7

S3_INTRO   As the letter explained, this study is voluntary and is authorized by the U.S. Public Health Service Act. The information you give will be kept in strict confidence and will be summarized for research purposes only. It's all right to skip any questions you don't want to answer.

S3_EVAL   In order to evaluate my performance, my supervisor may record and listen as I ask the questions. I READ THESE STATEMENTS TO THE RESPONDENT.

             YES 1

☐   1.   IF S_NUMB = 1   (ONLY 1 CHILD)

☐   2.   IF S_NUMB $ 2   (MORE THAN 1 CHILD))))))))))))))Q   GO TO
                                                                     S3.MKIDS

W

S3.1KID.   So I'll know which vaccination questions to ask, please tell me the month, day and year of birth of the [child] in your household who [is] between 12 months and 3 years old.

             HAS A CHILD UNDER 4 1   GO TO S3.3.

             NO CHILD UNDER 4   0   **YES**: REPEAT S3.1KID.
                                                                               NO: These are all the questions I have. This survey is collecting information about the health of children between 12 months and 3 years old only. I'd like to thank you on behalf of the Centers for Disease Control and Prevention for the time you spent answering these questions.   [**TERMINATE INTERVIEW**]

             DON'T KNOW 6   GO TO S_NODAY

             REFUSED NAMES OR INITIALS 7   GO TO S_NODAY

6

S3.MKIDS.   So I'll know which vaccination questions to ask, please tell me the month, day and year of birth of the [# from S_NUMB] children in your household who are between 12 months and 3 years old.

       HAS CHILDREN UNDER 4 1   GO TO S3.3.

       NO CHILDREN UNDER 4 0   **YES**: REPEAT S3.MKIDS.
                                              NO: These are all the questions I have. This survey is collecting information about the health of children between 12 months and 3 years old only.   I'd like to thank you on behalf of the Centers for Disease Control and Prevention for the time you spent answering these questions. [**TERMINATE INTERVIEW**]

       DON'T KNOW   6   GO TO S_NODAY
       REFUSED NAMES OR INITIALS 7   GO TO S_NODAY

S_NODAY   I would like to assure you that ALL information will be kept in strict confidence and will be summarized for research purposes only. Our questions are about the vaccinations of children in a specific age range. We only ask for children's birth dates in order to determine what age range they fall with in and to help us research the numbers and types of vaccinations that children of various ages have received. [IF NECESSARY: If you could at least tell me the month and year of your child's birth that would be extremely helpful and we could proceed with that information.]

    IF RESPONDENT STILL REFUSES TO PROVIDE THE BIRTH DATE, SKIP TO S_DAY_Q; ELSE GO TO S3.3 TO CORRECT DATES.

S_DAY_Q   I understand your concerns but without your child(ren)'s birth date(s) we cannot proceed any further with our survey. These are all the questions I have. I would like to thank you on behalf of the Centers for Disease Control and Prevention for the time and effort you have spent answering these questions. [**TERMINATE INTERVIEW**]

S3.3   ENTER BIRTH DATES (mm/dd/yyyy)
        FROM S3.1KID OR S3.MKIDS IN ELIGIBILITY GRID ON PAGE 7.

S3_CONF.   Based on the birth dates you provided me earlier, that would make the [ordinal # of kid derived from S_NUMB] child [age of child in months] months old; is that correct?

        DON'T KNOW 6
        REFUSED 7

S3.4.   Is the child born in [insert month and year of birth] male or female?

        DON'T KNOW 6
        REFUSED 7

S3.5.   So I'll know how to refer to [him/her] during the interview, please tell me [his/her] first name or initials.

        DON'T KNOW 6
        REFUSED 7

S3_C.   I have listed [NAMES FROM S3.5]. Have I missed any babies or small children between 12 months and 3 years old?

        YES   1   CONFIRM # AT S_NUMB, CHANGE
                                                                        AS NECESSARY AND REPEAT S3.3,
                                                                        S3_CONF, S3.4, S3.5 for missed children
        NO   2   GO TO ELIG.CHECKPOINT

ELIGIBILITY GRID

LISTING TABLE OF CHILDREN BETWEEN THE AGES OF 12 MONTHS AND 3 YEARS OLD

<u>CHECK BELOW, WHERE APPLICABLE</u>

	COL. 1	**COL. 2**	**COL. 3**

	S3.3 **Date of Birth**	**S3_CONF** **Age Confirm**	**S3.4** **Sex**	**S3.5** **First Name/ Initials**	**Primary Eligible** **19 to 35 months** ___/___/_____ to ___/___/_____	**Secondary Eligible** 12 to 18 months ___/___/_____ to ___/___/_____	36 to 47 months ___/___/__ to ___/___/__
Child 1	___/___/____ _	**Y N**	M F				
Child 2	___/___/____ _	Y N	M F				
Child 3	___/___/____ _	Y N	M F				
Child 4	___/___/____ _	Y N	M F				
Child 5	___/___/____ _	Y N	M F				
Child 6	___/___/____ _	Y N	M F				
Child 7	___/___/____ _	Y N	M F				
Child 8	___/___/____ _	Y N	M F				

| Child 9 | ___/___/____ _ | Y   N | M   F | | | | GO TO S4 | |

ELIGIBILITY STATUS CHECKPOINT

9

☐ 1:	ANY Checks in Column 1)))))))))))))))))))))) 0
☐ 2.	2. NO Checks in Column 1)))))))))))))))))) 0

ANY Checks in Column 2 or 3

NO Checks in Column 2 or 3

GO TO S3_TERM

9

[ASK S3.SEC.A THROUGH S3.SEC.D FOR EACH RESPONSE IN S3.1KID OR S3.MKIDS; RECORD ON GRID BELOW]

	S3.5 First Name	**S3_SEC_A. Do you have any shot records for [NAME of FIRST CHILD from S3.5]?**	**S3_SEC_B. Are the shot records for [NAME of FIRST CHILD from S3.5] accessible?**	**S3_SEC_C Are you the person who took [NAME of FIRST CHILD from S3.5] for most of [(his/her) from S3.4] shots? (Most means at least one-half of the shots)**	**S3_SEC_D In your opinion, has [NAME of FIRST CHILD from S3.5] received all of the recommended shots for [(his/her) from S3.4.]'s age?**
Child 1		YES NO DK REF ____w____/ GO TO S3_SEC_C	YES NO DK REF	YES NO	YES NO ___w___/ Next child or S3_TERM
Child 2		YES NO DK REF ____w____/ GO TO S3_SEC_C	YES NO DK REF	YES NO	YES NO ___w___/ Next child or S3_TERM
Child 3		YES NO DK REF ____w____/ GO TO S3_SEC_C	YES NO DK REF	YES NO	YES NO ___w___/ Next child or S3_TERM
Child 4		YES NO DK REF ____w____/ GO TO S3.SEC.C	YES NO DK REF	YES NO	YES NO ___w___/ Next child or S3_TERM

S3_TERM   Those are all the questions I have. (I'd like to thank you on behalf of the Centers for Disease Control and Prevention for the time and effort you spent answering these questions.) [**TERMINATE INTERVIEW**]

S4.   Since this survey asks about immunizations children may have received, I need to speak to the person living in your household who knows the most about the immunizations or shots that [FIRST NAMES/INITIALS from S3.5] (has/have) received. Are you this person?

        YES   1   GO TO S6_INTRO
        NO   2

S5.   May I speak with this person now?

        YES   1   GO TO S5_BOX
        NO, NOT AT HOME 2   GO TO MR1

S5_BOX   READ WHEN NEW PERSON COMES TO THE PHONE
                                         OR
            FOR Most Knowledgeable Respondent CALLBACK INTRODUCTION

> Hello, my name is _____. I'm calling on behalf of the Centers for Disease Control and Prevention. We're conducting a national study about the vaccinations of children between the ages of 12 months and 3 years old.   I'd like you to know that this study is voluntary and is authorized by the U.S. Public Health Service Act. The information you give will be kept in strict confidence and will be summarized for research purposes only. It's all right to skip any questions you don't want to answer.

S6_INTRO   The following questions ask about immunizations or shots for [FIRST NAMES OF ALL ELIGIBLE CHILDREN, FROM S3.5]. Because the Centers for Disease Control and Prevention needs accurate information on immunizations children receive, we would like you to refer to shot records.

THIS PAGE

SHOULD

BE BLANK

	S3.5 First Name	S6_X Do you have <u>any</u> shot records for [NAME OF FIRST CHILD]?	S7_X Are the shot records for [NAME OF FIRST CHILD] handy?		S7.A. Can you please go get the shot records for [FIRST NAMES OF CHILD(REN) WITH SHOT RECORDS -- S7_X.=YES] while I wait on the phone?		S7.B_X Am I correct that you have the shot records for [NAMES OF ALL CHILDREN WITH SHOT RECORDS]?
CHILD 1		YES NO DK REF _____W_____/ Repeat S6_X for next child or Go To S8	YES 9 Repeat S6_X for next child or Go To S7.A	NO 9 Repeat S6_X for next child or Go to S8	YES NO		YES NO 9 9 Go To S8.A. 9 9 Go To S8.B.
CHILD 2		YES NO DK REF _____W_____/ Repeat S6_X for next child or Go To S8	YES 9 Repeat S6_X for next child or Go To S7.A	NO 9 Repeat S6_X for next child or go to S7.A OR S8	YES NO		YES NO 9 9 Go To S8.A. 9 9 Go To S8.B.
CHILD 3		YES NO DK REF _____W_____/ Repeat S6_X for next child or Go To S8	YES 9 Repeat S6_X for next child or Go To S7.A	NO 9 Repeat S6_X for next child or go to S7.A OR S8	YES NO		YES NO 9 9 Go To S8.A. 9 9 Go To S8.B.
CHILD 4		YES NO DK REF _____W_____/ Repeat S6_X for next child or Go To S8	YES 9 Repeat S6_X for next child or Go To S7.A	NO 9 Repeat S6_X for next child or go to S7.A OR S8	YES NO		YES NO 9 9 Go To S8.A. 9 9 Go To S8.B.
CHILD 5		YES NO DK REF _____W_____/ Repeat S6_X for next child or Go To S8	YES 9 Repeat S6_X for next child or Go To S7.A	NO 9 Repeat S6_X for next child or go to S7.A OR S8	YES NO		YES NO 9 9 Go To S8.A. 9 9 Go To S8.B.

13

DK = DON'T KNOW   REF = REFUSAL

S8. EXISTENCE OF SHOT RECORDS CHECKPOINT

```
ALL S6_X ANSWERS ARE "YES". . . . . . . . . . . . . . . . . . . . . . . .1      GO TO S8.A.
ALL S6_X ANSWERS ARE "NO". . . . . . . . . . . . . . . . . . . . . .2

                                                                    GO TO B1 AND ASK FOR
                                                                    EACH CHILD IN
                                                                    HOUSEHOLD

ALL  OTHERS . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

                                                                    GO TO S8.B.
```

S8.A.   CHECKPOINT FOR HOUSEHOLDS WHERE ALL CHILDREN HAVE SHOT RECORDS

```
ALL S7.A. AND S7.B_X ANSWERS ARE "YES". .. .1      GO TO SECTION A SHOT RECORD
                                                    (NO CALLBACK NEEDED)

ALL S7.A AND S7.B_X ANSWERS ARE "NO" . . . 2      GO TO SR1 (CALLBACK NEEDED)

ALL  OTHERS . . . . . . . . . . . . . . . . . . . . . . . . . . 3      ASK  SECTION A FOR CHILDREN
                                                    WITH SHOT RECORDS AND SECTION
                                                    B FOR CHILDREN WITHOUT SHOT
                                                    RECORDS (NO CALLBACK NEEDED)
```

S8.B.   CHECKPOINT FOR HOUSEHOLDS WHERE SOME CHILDREN HAVE SHOT RECORDS AND
        SOME   CHILDREN DO NOT HAVE SHOT RECORDS

```
ALL S7.A AND S7.B_X ANSWERS ARE "YES" . . . .1      ASK SECTION A FOR CHILDREN
                                                    WITH SHOT RECORDS AND
                                                    SECTION B FOR CHILDREN
                                                    WITHOUT SHOT RECORDS
                                                    (NO CALLBACK NEEDED)
ALL S7.A AND S7.B_X ANSWERS ARE "NO" . . . . .2

                                                    GO TO B1 AND ASK FOR EACH
                                                    CHILD IN HOUSEHOLD
ALL  OTHERS . . . . . . . . . . . . . . . . . . . . . . . . .. . . . 3      (NO CALLBACK NEEDED)


                                                    ASK SECTION A FOR CHILDREN
                                                    WITH SHOT RECORDS AND
                                                    SECTION B FOR CHILDREN
                                                    WITHOUT SHOT RECORDS
                                                    (NO CALLBACK NEEDED)
```

14

CASE ID _____

TELEPHONE NUMBER _____

INTERVIEW DATE _____

INTERVIEWER ID _____

DATA ENTRY: DATE_____   BY _____(INTERVIEWER ID)

NIS Hard Copy Questionnaire

PART 2

July 31, 1997

SECTION MR - *Most Knowledgeable Respondent Callback*

SECTION SR - *Shot Record Callback*

SECTION A - *Available Shot Records*

SECTION B - *NO Shot Records*

SECTION C - *Demographics*

SECTION D - *Provider*

SECTION MR

Most Knowledgeable Respondent Callback Questions

MR1. Before we hang up, please tell me the first name of the person who knows the most about (this child's/these children's) immunizations.

FIRST NAME _____

REFUSED 7

MR2. When would be a good time to call back to speak with [FILL VAR: this person/NAME FROM MR1]?

MR2   DATE_____

MR2_2   TIME_____

MR3. Would I call the same telephone number where I reached you?

YES 1   GO TO MR_TERM

NO 2

MR4. What number should I call?

AREA CODE: _____

NUMBER: _____

MR_TERM.
Those are all the questions I have. (I'd like to thank you on behalf of the Centers for Disease Control and Prevention for the time and effort you spent answering these questions.) **[TERMINATE INTERVIEW]**

SECTION SR

Shot Record Callback Questions

I would like to ask you a few questions now, and we can complete the rest of the questions when I call back.

SR1.   If I called you back (in a few minutes/later), would you be able to have shot records available for [FILL VAR: FIRST NAMES OF ALL ELIGIBLE CHILDREN FROM S3.5]?

        YES 1
        NO 2   GO TO B1
        DON'T KNOW 6   GO TO B1
        REFUSED 7   GO TO B1

SR2.   When is a good time to call you back?

        SR2   DATE_____

        SR2_2 TIME_____

SR3. And what is your first name, so that I know who to ask for?

        _____
        (FIRST NAME)

        REFUSED 7

SR4. Has [FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5] ever received an immunization, that is a shot or drops?

        YES   1
        NO   2   GO TO C1
        DON'T KNOW 6   GO TO C1
        REFUSED 7   GO TO C1

SR5. How many D-T-P or D-T shots (sometimes called a D-P-T shot, diphtheria-tetanus-pertussis shot, baby shot, three-in-one shot) did [FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5] ever receive?

NUMBER OF SHOTS . . . . □

ALL 50

DON'T KNOW 96

REFUSED 97

SR6. How many polio vaccine shots (by mouth, pink drops, or by a polio shot) did [FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5] ever receive?

NUMBER OF VACCINES . . . . □

ALL 50

DON'T KNOW 96

REFUSED 97

SR7. How many measles or M-M-R (Measles-Mumps-Rubella) shots did [FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5] ever receive?

NUMBER OF SHOTS . . . . □

ALL 50

DON'T KNOW 96

REFUSED 97

SR8. How many H-I-B shots (this is for Meningitis and is called Haemophilus Influenzae {HA-MA-FI-LUS IN-FLU-EN-ZI}, H-I-B vaccine, or H flu vaccine) did [FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5] ever receive?

NUMBER OF SHOTS . . . . □

ALL 50

DON'T KNOW 96

REFUSED 97

SR9. How many Hepatitis B shots did [FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5] ever receive?

NUMBER OF SHOTS . . . . □

ALL 50

DON'T KNOW 96

REFUSED 97

SR0. How many chicken pox (or Varicella) shots did [FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5] ever receive?

NUMBER OF SHOTS . . . . ☐
ALL   50
DON'T KNOW   96
REFUSED   97

GO TO C1: DEMOGRAPHICS

SECTION A

Available Shot Records

**NOTE: SECTION A IS ASKED ONLY FOR
CHILDREN WITH SHOT RECORDS
AVAILABLE (FROM S6 AND S7)**

**NOTE: EACH SECTION (A, B, AND C) IS
ASKED IN ITS ENTIRETY FOR EACH
CHILD.**

SHOT RECORD FOR DTP/DT SHOT

A1.	Looking at the shot record, please tell me how many times **[FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5]** has received a D-T-P or D-T shot, sometimes called a D-P-T shot, diphtheria-tetanus-pertussis shot, baby shot, or three-in-one shot.

Shots . . . . ☐   RECORD DATES BELOW

   de NONE 0   GO TO A2
   de DON'T KNOW 6   GO TO A2
   de REFUSED 7   GO TO A2

A1.A.   What is the date (on the record) for the [FILL VAR: (First/Second/...Eighth)] (D-T-P or D-T) shot?

1st Shot	___ / ___ / _____ MO DAY YEAR	**de** DON'T KNOW . 9996 GO TO A2 **de** REFUSED . . . . . 9997 GO TO A2
2nd Shot	___ / ___ / _____ MO DAY YEAR	**de** DON'T KNOW . 9996 GO TO A2 **de** REFUSED . . . . . 9997 GO TO A2
3rd Shot	___ / ___ / _____ MO DAY YEAR	**de** DON'T KNOW . 9996 GO TO A2 **de** REFUSED . . . . . 9997 GO TO A2
4th Shot	___ / ___ / _____ MO DAY YEAR	**de** DON'T KNOW . 9996 GO TO A2 **de** REFUSED . . . . . 9997 GO TO A2
5th Shot	___ / ___ / _____ MO DAY YEAR	**de** DON'T KNOW . 9996 GO TO A2 **de** REFUSED . . . . . 9997 GO TO A2
6th Shot	___ / ___ / _____ MO DAY YEAR	**de** DON'T KNOW . 9996 GO TO A2 **de** REFUSED . . . . . 9997 GO TO A2
7th Shot	___ / ___ / _____ MO DAY YEAR	**de** DON'T KNOW . 9996 GO TO A2 **de** REFUSED . . . . . 9997 GO TO A2
8th Shot	___ / ___ / _____ MO DAY YEAR GO TO A2	**de** DON'T KNOW . 9996 GO TO A2 **de** REFUSED . . . . . 9997 GO TO A2

SHOT RECORD FOR POLIO (DROPS OR SHOTS)

	A2. Looking at the shot record, please tell me how many times **[FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5]** has received a polio vaccine -- pink drops -- or a polio shot.
	Shots . . . . ☐ RECORD DATES BELOW **de** NONE . . . . 0 GO TO A3 **de** DON'T KNOW . . . . 6 GO TO A3 **de** REFUSED . . . . 7 GO TO A3
	A2.A. What is the date (on the record) for the [FILL VAR: (First/Second/...Eighth)] polio vaccine?
1st Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A3 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A3
2nd Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A3 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A3
3rd Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A3 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A3
4th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A3 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A3
5th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A3 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A3
6th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A3 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A3
7th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A3 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A3
8th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A3 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A3 GO TO A3

SHOT RECORD FOR MEASLES/MMR (SHOTS)

	A3. Looking at the shot record, please tell me how many times **[FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5]** has received a measles or M-M-R, that is, a measles, mumps, and rubella, shot.
	Shots . . . . ☐ RECORD DATES BELOW **de** NONE . . . . 0 GO TO A4 **de** DON'T KNOW . . . . 6 GO TO A4 **de** REFUSED . . . . 7 GO TO A4
	A3.A. What is the date (on the record) for the [FILL VAR: (First/Second/...Fourth)] (measles or M-M-R) shot? A3.B. Was that shot measles only or M-M-R only?
1st Shot	___ / ___ / ____ **de** DON'T KNOW . . . . 9996 GO TO A4 MO DAY YEAR **de** REFUSED . . . . 9997 GO TO A4 **de** MEASLES ONLY . . . . 1 **de** MMR ONLY . . . . 2 **de** DON'T KNOW . . . . 6 **de** REFUSED 7
2nd Shot	___ / ___ / ____ **de** DON'T KNOW . . . . 9996 GO TO A4 MO DAY YEAR **de** REFUSED . . . . 9997 GO TO A4 **de** MEASLES ONLY . . . . 1 **de** MMR ONLY . . . . 2 **de** DON'T KNOW . . . . 6 **de** REFUSED 7
3rd Shot	___ / ___ / ____ **de** DON'T KNOW . . . . 9996 GO TO A4 MO DAY YEAR **de** REFUSED . . . . 9997 GO TO A4 **de** MEASLES ONLY . . . . 1 **de** MMR ONLY . . . . 2 **de** DON'T KNOW . . . . 6 **de** REFUSED 7
4th Shot	___ / ___ / ____ **de** DON'T KNOW . . . . 9996 GO TO A4 MO DAY YEAR **de** REFUSED . . . . 9997 GO TO A4 **de** MEASLES ONLY . . . . 1 **de** MMR ONLY . . . . 2 **de** DON'T KNOW . . . . 6 **de** REFUSED . . . . 7 GO TO A4

	SHOT RECORD FOR HIB (SHOT)

	A4. (Looking at the shot record) Please tell me how many times **[FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5]** has received an H-I-B shot. (This is for Meningitis and is called HA-MA-FI-LUS IN-FLU-EN-ZI , H-I-B vaccine, or H flu vaccine.)
	Shots . . . . ☐ RECORD DATES BELOW
	de NONE . . . . 0 GO TO A5
	de DON'T KNOW . . . . 6 GO TO A5
	de REFUSED . . . . 7 GO TO A5
	A4.A. What is the date (on the record) for the [FILL VAR: (First/Second/...Eighth)] (H-I-B) shot?
1st Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A5 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A5
2nd Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A5 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A5
3rd Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A5 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A5
4th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A5 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A5
5th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A5 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A5
6th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A5 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A5
7th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A5 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A5
8th Shot	___ / ___ / ____ **de** DON'T KNOW . . 9996 GO TO A5 MO DAY YEAR **de** REFUSED . . . . . . 9997 GO TO A5 GO TO A5

SHOT RECORD FOR HEPATITIS B

A5.   (Looking at the shot record) Please tell me how many times **[FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5]** has received a Hepatitis B shot.

Shots . . . . ☐   RECORD DATES BELOW

de NONE 0   GO TO A5.b.
de DON'T KNOW 6   GO TO A5.b.
de REFUSED 7   GO TO A5.b.

A5.A. What is the date (on the record) for the [FILL VAR: (First/Second/...Eighth)] (Hepatitis B) shot?

1st Shot	___ / ___ / 19__ MO DAY YEAR	de DON'T KNOW . . . . 9996 GO TO A5.b. de REFUSED . . . . 9997 GO TO A5.b.
2nd Shot	___ / ___ / 19__ MO DAY YEAR	de DON'T KNOW . . . . 9996 GO TO A5.b. de REFUSED . . . . 9997 GO TO A5.b.
3rd Shot	___ / ___ / 19__ MO DAY YEAR	de DON'T KNOW . . . . 9996 GO TO A5.b. de REFUSED . . . . 9997 GO TO A5.b.
4th Shot	___ / ___ / 19__ MO DAY YEAR	de DON'T KNOW . . . . 9996 GO TO A5.b. de REFUSED . . . . 9997 GO TO A5.b.
5th Shot	___ / ___ / 19__ MO DAY YEAR	de DON'T KNOW . . . . 9996 GO TO A5.b. de REFUSED . . . . 9997 GO TO A5.b.
6th Shot	___ / ___ / 19__ MO DAY YEAR	de DON'T KNOW . . . . 9996 GO TO A5.b. de REFUSED . . . . 9997 GO TO A5.b.
7th Shot	___ / ___ / 19__ MO DAY YEAR	de DON'T KNOW . . . . 9996 GO TO A5.b. de REFUSED . . . . 9997 GO TO A5.b.
8th Shot	___ / ___ / 19__ MO DAY YEAR	de DON'T KNOW . . . . 9996 GO TO A5.b. de REFUSED . . . . 9997 GO TO A5.b. GO TO A5.b.

	### SHOT RECORD FOR CHICKEN POX

	A5.b. (Looking at the shot record) Please tell me how many times **[FILL VAR: NAME OF FIRST/SECOND... /SIXTH CHILD, FROM S3.5]** has received a chicken pox (or Varicella) shot.
	Shots . . . . ☐ RECORD DATES BELOW **de** NONE . . . . 0 GO TO A6 OR NEXT CHILD **de** DON'T KNOW . . . . 6 GO TO A6 OR NEXT CHILD **de** REFUSED . . . . 7 GO TO A6 OR NEXT CHILD
	A5.c. What is the date (on the record) for the [FILL VAR: (First/Second/...Fourth)] (chicken pox) shot?
1st Shot	___ / ___ / 19__ **de** DON'T KNOW . 9996 GO TO A6 OR NEXT CHILD MO DAY YEAR **de** REFUSED . . . . . 9997 GO TO A6 OR NEXT CHILD
2nd Shot	___ / ___ / 19__ **de** DON'T KNOW . 9996 GO TO A6 OR NEXT CHILD MO DAY YEAR **de** REFUSED . . . . . 9997 GO TO A6 OR NEXT CHILD
3rd Shot	___ / ___ / 19__ **de** DON'T KNOW . 9996 GO TO A6 OR NEXT CHILD MO DAY YEAR **de** REFUSED . . . . . 9997 GO TO A6 OR NEXT CHILD
4th Shot	___ / ___ / 19__ **de** DON'T KNOW . 9996 GO TO A6 OR NEXT CHILD MO DAY YEAR **de** REFUSED . . . . . 9997 GO TO A6 OR NEXT CHILD GO TO A6 OR NEXT CHILD

A6.   Has **[FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5]** received any
       other immunizations that are listed on the shot records that I have not asked you about?

       de YES 1
       de NO 2   GO TO A7
       de DON'T KNOW 6   GO TO A7
       de REFUSED 7   GO TO A7

A6.A. How many other shots are listed there (that I have not asked you about)?

       NUMBER . . . . ☐   RECORD NAMES AND DATES BELOW

       de REFUSED 7   GO TO A7

A6.B. What is the name of the **FIRST** other shot listed on the record?

       de FOUR-IN-ONE 02
       de BCG (TUBERCULOSIS) 03
       de TYPHOID 04
       de YELLOW FEVER 05
       de MALARIA 06
       de DTaP 07
       de DTP/HiB 08
       de DTP/HepB 09

       de OTHER (SPECIFY) 95
       _____

       de DON'T KNOW 96   GO TO A7 OR SECOND SHOT
       de REFUSED 97   GO TO A7 OR SECOND SHOT

A6.C.   What is the date (on the record) for this shot?

       ____ / ____ / _____   de DON'T KNOW . . . . 9996 GO TO A7 OR SECOND SHOT
        MO DAY YEAR   de REFUSED . . . . 9997 GO TO A7 OR SECOND SHOT

                        GO TO A7 OR SECOND SHOT (NEXT FRAME)

A6.B.2 What is the name of the **SECOND** <u>other</u> shot listed on the record?

       de FOUR-IN-ONE 02
       de BCG (TUBERCULOSIS) 03
       de TYPHOID 04
       de YELLOW FEVER 05
       de MALARIA 06
       de DTaP 07
       de DTP/HiB 08
       de DTP/HepB 09

       de OTHER (SPECIFY) 95

       _____

     de DON'T KNOW 96   GO TO A7 OR THIRD SHOT
     de REFUSED 97   GO TO A7 OR THIRD SHOT

A6.C.2 What is the date (on the record) for this shot?

     _____ /_____ / _____   **de** DON'T KNOW . . . . 9996 GO TO A7 OR THIRD SHOT
      MO DAY YEAR   **de** REFUSED . . . . 9997 GO TO A7 OR THIRD SHOT

            GO TO A7 OR THIRD SHOT (NEXT FRAME)

A6.B.3 What is the name of the **THIRD** <u>other</u> shot listed on the record?

     de FOUR-IN-ONE 02
     de BCG (TUBERCULOSIS) 03
     de TYPHOID 04
     de YELLOW FEVER 05
     de MALARIA 06
     de DTaP 07
     de DTP/HiB 08
     de DTP/HepB 09

     de OTHER (SPECIFY) 95

      _____

     de DON'T KNOW 96   GO TO A7 OR FOURTH SHOT
     de REFUSED 97   GO TO A7 OR FOURTH SHOT

A6.C.3 What is the date (on the record) for this shot?

     _____ / _____ / _____   **de** DON'T KNOW . . . . 9996 GO TO A7 OR FOURTH SHOT
      MO DAY YEAR   **de** REFUSED . . . . 9997 GO TO A7 OR FOURTH SHOT

             GO TO A7 OR FOURTH SHOT (NEXT FRAME)

A6.B.4 What is the name of the **FOURTH** <u>other</u> shot listed on the record?

     de FOUR-IN-ONE 02
     de BCG (TUBERCULOSIS) 03
     de TYPHOID 04
     de YELLOW FEVER 05
     de MALARIA 06
     de DTaP 07
     de DTP/HiB 08
     de DTP/HepB 09

     de OTHER (SPECIFY) 95

      _____

     de DON'T KNOW 96   GO TO A7 OR FIFTH SHOT
     de REFUSED 97   GO TO A7 OR FIFTH SHOT

A6.C.4 What is the date (on the record) for this shot?

     _____ / _____ / _____   **de** DON'T KNOW . . . . 9996 GO TO A7 OR FIFTH SHOT
      MO DAY YEAR   **de** REFUSED . . . . 9997 GO TO A7 OR FIFTH SHOT

             GO TO A7 OR FIFTH SHOT (NEXT FRAME)

A6.B.5 What is the name of the **FIFTH** <u>other</u> shot listed on the record?

    de FOUR-IN-ONE 02
    de BCG (TUBERCULOSIS) 03
    de TYPHOID 04
    de YELLOW FEVER 05
    de MALARIA 06
    de DTaP 07
    de DTP/HiB 08
    de DTP/HepB 09

    de OTHER (SPECIFY) 95

        _____

    de DON'T KNOW 96   GO TO A7
    de REFUSED 97   GO TO A7

A6.C.5 What is the date (on the record) for this shot?

    ____ /_____ / _____   de DON'T KNOW . . . . 9996 GO TO A7
      MO   DAY   YEAR   de REFUSED . . . . 9997 GO TO A7
                                                        GO TO A7

A7.   Are all the immunizations that [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received included on this shot record?

                YES   1   GO TO A14
                NO   2
                DON'T KNOW 6
                REFUSED 7

A8.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received an additional D-T-P shot (sometimes called D-P-T shot, diphtheria-tetanus-pertussis shot, baby shot, or three-in-one shot?

                YES   1

                NO   2
                DON'T KNOW 6   GO TO A9
                REFUSED 7   **A**

A8.A.   How many additional D-T-P shots has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] received?

                NUMBER OF SHOTS . . . . ☐
                ALL   50
                DON'T KNOW 96
                REFUSED 97

A9.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received an additional polio vaccine by mouth (pink drops) or by a polio shot?

                YES   1
                NO   2
                DON'T KNOW 6   GO TO A10
                REFUSED 7   **A**

A9.A.   How many additional polio vaccines has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] received?

                NUMBER OF VACCINES . . . . ☐
                ALL   50
                DON'T KNOW 96
                REFUSED 97

A10.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5]   ever received
        an additional measles or M-M-R, that is, measles - mumps - rubella shot?

                YES   1
                NO   2
                DON'T KNOW 6   GO TO A11

                REFUSED 7   **A**

        A10.A. How many additional measles or M-M-R shots has [FILL VAR: NAME OF
                FIRST/SECOND... /NINTH CHILD, FROM S3.5] received?

                NUMBER OF SHOTS . . . . ☐
                ALL   50
                DON'T KNOW 96
                REFUSED 97

A11.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received
        an additional H-I-B shot? (This shot is for Meningitis and is called Haemophilus Influenzae
        {HA-MA-FI-LUS IN-FLU-EN-ZI}, H-I-B vaccine or H flu vaccine.)

                YES   1
                NO   2
                DON'T KNOW 6   GO TO A12

                REFUSED 7   **A**

A11.A.   How many additional H-I-B shots has [FILL VAR: NAME OF FIRST/SECOND...
                /NINTH CHILD, FROM S3.5] received?

                NUMBER OF SHOTS . . . . ☐
                ALL   50
                DON'T KNOW 96
                REFUSED 97

A12.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received
        an additional Hepatitis B shot?

                YES   1
                NO   2
                                                                                                 GO TO A12B
                DON'T KNOW 6

REFUSED . . . . 7 **A**

A12.A.   How many additional Hepatitis B shots has [FILL VAR: NAME OF FIRST/SECOND...
/NINTH CHILD, FROM S3.5] received?

NUMBER OF SHOTS . . . . ☐
ALL   50
DON'T KNOW 96
REFUSED 97

A12.B. Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received
an additional chicken pox (or Varicella) shot?

YES   1
NO   2   GO TO A13

DON'T KNOW 6

REFUSED . . . . 7 **A**

A12.C. How many additional chicken pox shots has [FILL VAR: NAME OF FIRST/SECOND... /NINTH
CHILD, FROM S3.5] received?

NUMBER OF SHOTS . . . . ☐
ALL   50
DON'T KNOW 96
REFUSED 97

A13.   Has **[FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5]** received any
other additional immunizations that are not listed on the shot records that I have not asked you about?

de YES 1
de NO 2   GO TO A14
de DON'T KNOW 6   GO TO A14
de REFUSED 7   GO TO A14

A13.A. How many other additional shots are there (that I have not asked you about)?

Number . . . . ☐   RECORD NAMES BELOW

de REFUSED 7   GO TO A14

A13.B.   What is the name of the **FIRST** additional <u>other</u> shot (not listed on the records)?

     de FOUR-IN-ONE 02
     de BCG (TUBERCULOSIS) 03
     de TYPHOID 04
     de YELLOW FEVER 05
     de MALARIA 06
     de DTaP 07
     de DTP/HiB 08
     de DTP/HepB 09

     de OTHER (SPECIFY) 95

     ————————————————

     de DON'T KNOW 96   GO TO A14 OR SECOND SHOT
     de REFUSED 97   GO TO A14 OR SECOND SHOT

<div align="center">GO TO A14 OR SECOND SHOT (NEXT FRAME)</div>

A13.B.2   What is the name of the **SECOND** additional <u>other</u> shot (not listed on the records)?

     de FOUR-IN-ONE 02
     de BCG (TUBERCULOSIS) 03
     de TYPHOID 04
     de YELLOW FEVER 05
     de MALARIA 06
     de DTaP 07
     de DTP/HiB 08
     de DTP/HepB 09

     de OTHER (SPECIFY) 95

     ————————————————

     de DON'T KNOW 96   GO TO A14 OR THIRD SHOT
     de REFUSED 97   GO TO A14 OR THIRD SHOT

<div align="center">GO TO A14 OR THIRD SHOT (NEXT FRAME)</div>

A13.B.3 What is the name of the **THIRD** additional <u>other</u> shot (not listed on the records)?

de FOUR-IN-ONE 02
de BCG (TUBERCULOSIS) 03
de TYPHOID 04
de YELLOW FEVER 05
de MALARIA 06
de DTaP 07
de DTP/HiB 08
de DTP/HepB 09

de OTHER (SPECIFY) 95

_____

de DON'T KNOW 96   GO TO A14 OR FOURTH SHOT
de REFUSED 97   GO TO A14 OR FOURTH SHOT

GO TO A14 OR FOURTH SHOT (NEXT FRAME)

A13.B.4 What is the name of the **FOURTH** additional <u>other</u> shot (not listed on the records)?

de FOUR-IN-ONE 02
de BCG (TUBERCULOSIS) 03
de TYPHOID 04
de YELLOW FEVER 05
de MALARIA 06
de DTaP 07
de DTP/HiB 08
de DTP/HepB 09

de OTHER (SPECIFY) 95

_____

de DON'T KNOW 96   GO TO A14 OR FIFTH SHOT
de REFUSED 97   GO TO A14 OR FIFTH SHOT

GO TO A14 OR FIFTH SHOT (NEXT FRAME)

A13.B.5   What is the name of the **FIFTH** additional other shot (not listed on the records)?

     de FOUR-IN-ONE 02
     de BCG (TUBERCULOSIS) 03
     de TYPHOID 04
     de YELLOW FEVER 05
     de MALARIA 06
     de DTaP 07
     de DTP/HiB 08
     de DTP/HepB 09

     de OTHER (SPECIFY) 95

                     _____

     de DON'T KNOW 96   GO TO A14
     de REFUSED 97   GO TO A14

GO TO A14

A14.   Are you the person who took [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] for most of [FILL VAR: (his/her) FROM S3.4] shots? (Most means at least one-half of the shots.)

        YES   1
        NO   2
        DON'T KNOW 6
        REFUSED 7

A15.   In your opinion, has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] received all of the recommended shots for [FILL VAR: (his/her) FROM S3.4] age?

        YES   1
        NO   2
        DON'T KNOW 6
        REFUSED 7

A16.   REPEAT A6 - A15 FOR EACH CHILD WITH AVAILABLE SHOT RECORDS ON ANOTHER HARDCOPY QUESTIONNAIRE.

A17.   INTERVIEWER CHECKPOINT.

CALLBACK INTERVIEW (SR OR MR COMPLETE)	INITIAL INTERVIEW
de IF CHILDREN WITH NO AVAILABLE SHOT RECORDS, GO TO B1.	**de** IF CHILDREN WITH NO AVAILABLE SHOT RECORDS, GO TO B1.
de ALL OTHERS, Those are all the questions I have. (I'd like to thank you on behalf of the Centers for Disease Control and Prevention for the time and effort you spent answering these questions.) [**TERMINATE INTERVIEW**]	**de** ALL OTHERS, GO TO C1

SECTION B

NO Shot Records

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┌─────────────────────────────────────┐
│       NOTE:  SEE S6 - S8.B TO        │
│   DETERMINE WHICH CHILDREN           │
│     ARE ASKED SECTION B              │
└─────────────────────────────────────┘
```

B1.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received an immunization, that is a shot or drops?

        YES   1

        NO   2   GO TO B10

        DON'T KNOW 6

        REFUSED 7   **A**

B2.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received a D-T-P shot (sometimes called a D-P-T shot, diphtheria-tetanus-pertussis shot, baby shot, or three-in-one shot)?

        YES   1

        NO   2

        DON'T KNOW 6   GO TO B3

        REFUSED 7   **A**

B2.A.   How many D-T-P shots did [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever receive?

        NUMBER OF SHOTS . . . . □

        ALL   50

        DON'T KNOW 96

        REFUSED 97

B3.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received a
polio vaccine by mouth, pink drops or by a polio shot?

                    YES   1
                    NO   2
                    DON'T KNOW 6   GO TO B4

                    REFUSED 7   **A**

B3.A.   How many polio vaccine shots did [FILL VAR: NAME OF FIRST/SECOND... /NINTH
CHILD, FROM S3.5] ever receive?

                    NUMBER OF VACCINES . . . . ☐
                    ALL   50
                    DON'T KNOW 96
                    REFUSED 97

B4.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received a
measles or M-M-R (Measles-Mumps-Rubella) shot?

                    YES   1

                    NO   2
                    DON'T KNOW 6   GO TO B5

                    REFUSED 7   **A**

B4.A.   How many measles or M-M-R shots did [FILL VAR: NAME OF FIRST/SECOND...
/NINTH CHILD, FROM S3.5] ever receive?

                    NUMBER OF SHOTS . . . . ☐   IF = 1 GO TO B4.B IF
                                                                                                 = 2 OR MORE GO TO
                                                                                                 B5

                    ALL   50
                    DON'T KNOW 96
                    REFUSED 97

B4.B. Was that shot measles only or M-M-R only?

                    MEASLES ONLY 1
                    M-M-R ONLY 2
                    DON'T KNOW 6

REFUSED 7

B5.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received an
       H-I-B shot? (This is for Meningitis and is called Haemophilus Influenzae {HA-MA-FI-LUS IN-
       FLU-EN-ZI}, H-I-B vaccine, or H flu vaccine?)

              YES   1

              NO   2
              DON'T KNOW 6   GO TO B6

              REFUSED 7   **A**

B5.A. How many H-I-B shots did [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM
       S3.5] ever receive?

              NUMBER OF SHOTS . . . . □
              ALL   50
              DON'T KNOW 96
              REFUSED 97

B6.   Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received a
       Hepatitis B shot?

              YES   1
              NO   2
              DON'T KNOW 6   GO TO B6.B.

              REFUSED 7   **A**

B6.A. How many Hepatitis B shots did [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD,
       FROM S3.5] ever receive?

              NUMBER OF SHOTS . . . . □
              ALL   50
              DON'T KNOW 96
              REFUSED 97

B6.B. Has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever received a
       chicken pox (or Varicella) shot?

              YES   1
              NO   2
              DON'T KNOW 6   GO TO B7

REFUSED 7   **A**

B6.C. How many chicken pox shots did [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] ever receive?

NUMBER OF SHOTS . . . . [ ]
ALL   50
DON'T KNOW 96
REFUSED 97

B7.   Has **[FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5]** received any <u>other</u> immunizations that I have <u>not</u> asked you about?

de YES 1
de NO 2   GO TO B8
de DON'T KNOW 6   GO TO B8
de REFUSED 7   GO TO B8

B7.A. How many <u>other</u> shots are there (that I have not asked you about)?

Number . . . . [ ]   RECORD NAMES IN B7.B

de DON'T KNOW 6   GO TO B7.B
de REFUSED 7   GO TO B8

B7.B.1 What is the name of the first <u>other</u> shot(s)?

de FOUR-IN-ONE 02
de BCG (TUBERCULOSIS), TB 03
de TYPHOID 04
de YELLOW FEVER 05
de MALARIA 05
de DTAP 07
de DTP/HiB 08
de DTP/HepB 09

de OTHER (SPECIFY) 00
_____

de DON'T KNOW 96   GO TO B8 OR NEXT SHOT
de REFUSED 97   GO TO B8 OR NEXT SHOT

GO TO B8 OR NEXT SHOT

B7.B.2 What is the name of the second <u>other</u> shot(s)?

   de FOUR-IN-ONE 02
   de BCG (TUBERCULOSIS), TB 03
   de TYPHOID 04
   de YELLOW FEVER 05
   de MALARIA 05
   de DTAP 07
   de DTP/HiB 08
   de DTP/HepB 09

   de OTHER (SPECIFY) 00
   _____

   de DON'T KNOW 96   GO TO B8 OR NEXT SHOT
   de REFUSED 97   GO TO B8 OR NEXT SHOT

GO TO B8 OR NEXT SHOT

B7.B.3 What is the name of the third <u>other</u> shot(s)?

   de FOUR-IN-ONE 02
   de BCG (TUBERCULOSIS), TB 03
   de TYPHOID 04
   de YELLOW FEVER 05
   de MALARIA 05
   de DTAP 07
   de DTP/HiB 08
   de DTP/HepB 09

   de OTHER (SPECIFY) 00
   _____

   de DON'T KNOW 96   GO TO B8 OR NEXT SHOT
   de REFUSED 97   GO TO B8 OR NEXT SHOT

GO TO B8 OR NEXT SHOT

B7.B.4 What is the name of the fourth <u>other</u> shot(s)?

   de FOUR-IN-ONE 02
   de BCG (TUBERCULOSIS), TB 03
   de TYPHOID 04
   de YELLOW FEVER 05
   de MALARIA 05
   de DTAP 07
   de DTP/HiB 08
   de DTP/HepB 09

   de OTHER (SPECIFY) 00
   _____

   de DON'T KNOW 96   GO TO B8 OR NEXT SHOT
   de REFUSED 97   GO TO B8 OR NEXT SHOT

GO TO B8 OR NEXT SHOT

B7.B.5 What is the name of the fifth _other_ shot(s)?

    de FOUR-IN-ONE 02
    de BCG (TUBERCULOSIS), TB 03
    de TYPHOID 04
    de YELLOW FEVER 05
    de MALARIA 05
    de DTAP 07
    de DTP/HiB 08
    de DTP/HepB 09

    de OTHER (SPECIFY) 00

    _____

    de DON'T KNOW 96   GO TO B8
    de REFUSED 97   GO TO B8

GO TO B8

B8.   Are you the person who took [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] for most of [FILL VAR: (his/her) FROM S3.4] shots? (Most means at least 1/2 of the shots.)

        YES   1
        NO   2
        DON'T KNOW 6
        REFUSED 7

B9.   In your opinion, has [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD, FROM S3.5] received all of the recommended shots for [FILL VAR: (his/her) FROM S3.4] age?

        YES   1
        NO   2
        DON'T KNOW 6
        REFUSED 7

B10.   REPEAT B1-B9 FOR EACH CHILD WITH NO AVAILABLE SHOT RECORDS.

B11.   INTERVIEWER CHECKPOINT.

CALLBACK INTERVIEW (SR OR MR COMPLETE)	INITIAL INTERVIEW
de Those are all the questions I have. (I'd like to thank you on behalf of the Centers for Disease Control and Prevention for the time and effort you spent answering these questions.) [**TERMINATE INTERVIEW**]	**de** GO TO C1

SECTION C

Demographics

C1.   Including the adults and all the children, how many people live in this household?

          NUMBER OF PEOPLE . . . . [＿＿＿]

C1.A.   How many of these are adults 18 years of age or older?

          NUMBER OF ADULTS . . . . [＿＿＿]

C1.B. And that means that [FILL VAR: ANSWER TO C1 - ANSWER TO C1A] of these people are under 18 years of age?

       YES   1
       NO   2
       REFUSED 7   SKIP TO C1.C

[IF ANSWER TO C1.B IS GREATER THAN OR EQUAL TO S_NUMB + 1, THEN ASK C1.C; OTHERWISE, SKIP TO C2]

C1.C How many children <u>less than 12 months old</u> live in this household?

          NUMBER OF CHILDREN < 12 MONTHS . . . . [＿＿＿]

       DON'T KNOW 96
       REFUSED 97

C2.   Is [FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5] of Spanish or Hispanic descent, that is, Mexican, Mexican-American, Chicano, Puerto Rican, or Cuban? [CHECK ALL THAT APPLY]

       NO, NOT SPANISH/HISPANIC 01
       YES, MEXICAN 02
       YES, MEXICAN-AMERICAN 03
       YES, CHICANO 04
       YES, PUERTO RICAN 05
       YES, CUBAN 06
       YES, OTHER SPANISH (SPECIFY) 07

       DON'T KNOW 96
       REFUSED 97

C3.   Is [FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5] White, Black,
       American Indian, Asian, or another race? [CHECK ALL THAT APPLY]

            WHITE   1
            BLACK   2
            AMERICAN INDIAN 3
            ASIAN   4
            OTHER (SPECIFY) 5

            _____

            DON'T KNOW 6
            REFUSED 7

[IF MORE THAN ONE ANSWER AT C3, ASK C4]

C4.   Which do you feel best describes [FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD,
       FROM S3.5]'s race?

            WHITE   1
            BLACK   2
            AMERICAN INDIAN 3
            ASIAN   4
            OTHER (SPECIFY) 5

            _____

            DON'T KNOW 6
            REFUSED 7

C5.   What is your relationship to [FILL VAR: NAME OF FIRST/SECOND... /NINTH CHILD,
       FROM S3.5]?

            MOTHER (STEP, FOSTER, ADOPTIVE) OR FEMALE GUARDIAN 01
            FATHER (STEP, FOSTER, ADOPTIVE) OR MALE GUARDIAN 02
            SISTER OR BROTHER (STEP/FOSTER/HALF/ADOPTIVE) 03
            IN-LAW OF ANY TYPE 04
            AUNT/UNCLE 05
            GRANDPARENT 06
            OTHER FAMILY MEMBER 07
            FRIEND 08
            DON'T KNOW 96
            REFUSED 97

C6.   What is the highest grade or year of regular school (you have/[FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother has) ever completed?

| 0 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 9 | 10 | 11 | 12 | | 13 | 14 | 15 | 16 | | 17+ |

| NEVER ATTENDED/ KINDERGARTEN (41) | ELEMENTARY (51) | HIGH SCHOOL (61) | COLLEGE (71) | GRADUATE (81) |

DON'T KNOW 96
REFUSED 97

C7.   (Are you/is [FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother) now married, widowed, divorced, separated, or (have you/has she) never been married?

MARRIED 01
WIDOWED 02
DIVORCED 03
SEPARATED 04
NEVER MARRIED 05
DECEASED 06   GO TO C12
DON'T KNOW 96
REFUSED 97

C8.	(Are you/is [FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother) of Spanish or Hispanic descent, that is, Mexican, Mexican-American, Chicano, Puerto Rican, or Cuban? [CHECK ALL THAT APPLY]

	NO, NOT SPANISH/HISPANIC 01

	YES, MEXICAN 02
	YES, MEXICAN-AMERICAN 03
	YES, CHICANO 04
	YES, PUERTO RICAN 05
	YES, CUBAN 06
	YES, OTHER SPANISH (SPECIFY) 07

	_____

	DON'T KNOW 96
	REFUSED 97

C9.	(Are you/is [FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother) White, Black, American Indian, Asian, or another race? [CHECK ALL THAT APPLY]

	WHITE 1
	BLACK 2
	AMERICAN INDIAN 3
	ASIAN 4
	OTHER (SPECIFY) 5

	_____

	DON'T KNOW 6
	REFUSED 7

[IF MORE THAN ONE ANSWER AT C9, ASK C10; OTHERWISE SKIP TO C10A.]

C10.	Which do you feel best describes (your/[FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother's) race?

	WHITE 1
	BLACK 2
	AMERICAN INDIAN 3
	ASIAN 4
	OTHER (SPECIFY) 5

	_____

	DON'T KNOW 6
	REFUSED 7

C10A. What is (your/[FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother's) month, day, and year of birth?

_____ / _____ / _____   (mm/dd/yyyy)

[IF MONTH=DK/REF OR YEAR=DK/REF, THEN SKIP TO C10B. OTHERWISE, SKIP TO C11.]

C10B.   What is (your/[FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother's) current age?

AGE   . . . . ☐

_____

DON'T KNOW 96
REFUSED 97

C11.   (Do you/Does [FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother) live at the same address as (you/she) did when [FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5] was born?

YES   1   GO TO C12
NO   2
DON'T KNOW 6   GO TO C12
REFUSED 7   GO TO C12

C11A. In what city, county, and state did (you/[FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother) live when [FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5] was born?

CITY   _____

COUNTY _____

STATE   _____

OR

COUNTRY _____   GO TO C12

REFUSED 7

C11.B. What was (your/[FILL VAR: NAME OF FIRST/SECOND.../NINTH CHILD, FROM S3.5]'s mother's) zipcode at that time?

☐☐☐☐☐

DON'T KNOW 6

REFUSED 7

C12.   Please think about your total combined FAMILY income during (LAST CALENDAR YEAR)
        for ALL members of the family.   Include money from jobs, social security, retirement income,
        unemployment payments, public assistance, and so forth. Also, include income from interest,
        dividends, net income from business, farm, or rent, and any other money income received. Was
        your total family income during (LAST CALENDAR YEAR) more or less than $20,000?

            MORE THAN $20,000 1   GO TO C16
            $20,000   2   GO TO C19
            LESS THAN $20,000 3   GO TO C13
            DON'T KNOW 6   GO TO C19
            REFUSED 7   GO TO C19

C13.   Was the total combined FAMILY income more or less than $10,000?

            MORE THAN $10,000 1   GO TO C15
            $10,000   2   GO TO C19
            LESS THAN $10,000 3   GO TO C14.A
            DON'T KNOW 6   GO TO C19
            REFUSED 7   GO TO C19

C14.A   Was it more than $7,500?

            YES   1
            NO   2
            DON'T KNOW 6   GO TO C19

            REFUSED 7   A

C15.   Was it more than $15,000?

            YES   1   GO TO C15.A
            NO   2   GO TO C15.B
            DON'T KNOW 6
            REFUSED 7   A GO TO C19

C15.A   Was it more than $17,500?

        YES   1
        NO   2
        DON'T KNOW 6   GO TO C19

        REFUSED 7   **A**

C15.B   Was it more than $12,500?

        YES   1
        NO   2
        DON'T KNOW 6   GO TO C19

        REFUSED 7   **A**

C16.   Was the total combined FAMILY income more or less than $50,000?

        MORE THAN $50,000 1   GO TO C18
        $50,000   2   GO TO C19
        LESS THAN $50,000 3   GO TO C17
        DON'T KNOW 6   GO TO C19
        REFUSED 7   GO TO C19

C17.   Was the total combined FAMILY income more or less than $30,000?

        MORE THAN $30,000 1
        $30,000   2
        LESS THAN $30,000 3   GO TO C19
        DON'T KNOW 6

        REFUSED 7   **A**

C18.   Was the total combined FAMILY income more or less than $75,000?

        MORE THAN $75,000 1
        $75,000   2
        LESS THAN $75,000 3   GO TO C19
        DON'T KNOW 6

        REFUSED 7   **A**

C19.   In what city, county and state do you live?

        CITY   _____

        COUNTY _____

        STATE   _____

        REFUSED 7

C19.A. What is your zip code?

        ☐ ☐ ☐ ☐ ☐

        DON'T KNOW 6
        REFUSED 7

C19.B   Do you live within the city limits?

        YES   1
        NO   2
        REFUSED 7

C20.   The next questions are about the telephone numbers in your household. Do you have any other home phone numbers in addition to [FILL VAR: AREA CODE/TELEPHONE NUMBER FROM SAMPLE TELEPHONE NUMBER].

        YES 1
        NO . . . . 2 GO TO D5
        REFUSED . . . . 7 GO TO D5

C21.   Is this <u>second</u> number for home use <u>only</u>, for business use <u>only</u>, or for <u>both</u> home and business use?

        HOME ONLY 1
        BUSINESS ONLY . . . . 2 GO TO C22
        BOTH HOME AND BUSINESS 3
        REFUSED . . . . 7 GO TO D5

C21.A. Is this <u>second</u> number used <u>only</u> for computer or fax communication?

        YES 1
        NO 2
        DON'T KNOW 6
        REFUSED . . . . 7 GO TO D5

C22.   Do you have a <u>third</u> home phone number in addition to the two you have already told me about?

                    YES 1
                    NO 2   GO TO D5
                    REFUSED 7   GO TO D5

C23.   Is this third number for home use <u>only</u>, for business use <u>only</u>, or for <u>both</u> home and business use?

                    HOME ONLY 1
                    BUSINESS ONLY 2   GO TO D5
                    BOTH HOME AND BUSINESS 3
                    REFUSED 7   GO TO D5

        C23.A.   Is this third number used <u>only</u> for computer or fax communication?

                    YES 1
                    NO 2
                    DON'T KNOW 6
                    REFUSED 7

☐ IF YOU HAVE SET A Shot Record (SR SECTION) CALLBACK---------------> GO TO D5

☐ ALL OTHERS--->   GO TO D5

SECTION D

Provider Questions

D5 To get a complete picture of the vaccinations received by your (children/child), we would like to contact doctors or health clinics to obtain a copy of the vaccination records for your (children/child). This study is voluntary and is authorized by the U.S. Public Health Service Act. It's all right to skip any questions you don't want to answer. The information you give will be kept in strict confidence and will be summarized for research purposes only.

D6 How many doctors or clinics have provided vaccinations for your child named [NAME OF (FIRST) ELIGIBLE CHILD] whose birth date is [DATE OF BIRTH OF (FIRST) ELIGIBLE CHILD]?

NUMBER: |___|___|

D6A.1 Starting with the most recent, please tell me the name, address and telephone number for each doctor or clinic. (Would you take a moment to find shot cards, appointment cards or other records you may have?)

YES, CONTINUE ON 1
NO, CAN'T FIND, CONTINUE 2
REFUSED 7   GO TO D14

D6B.1.1.1 What is the last name of the doctor?

LAST_____

D6B.2.1.1 Do you know the doctor's first name?

FIRST_____

D6B.3.1.1 Please tell me the name of the office or the clinic.

OFFICE_____

D6B.4.1.1 What is the street address of the office or the clinic?

STREET_____

D6B.5.1.1 Is there a suite, floor, or room number?

SUITE #_____

D6B.6.1.1 What city is that in?

CITY_____

D6B.7.1.1   What state is that in?

STATE_____

D6B.8.1.1   What is the zip code?

ZIP CODE_____

D6B.9.1.1   What is their telephone number?

TELEPHONE_____

INTERVIEWER NOTE: IF MORE THAN ONE PROVIDER GO TO THE SUPPLEMENTAL
PROVIDER SHEET - D6B.1.2.1

D6C.   Thank you. The vaccination records collected from (this/these) provider(s) will be kept in
             strict confidence.

D7   Do we have your permission to contact the provider(s) named in this interview, give the
             provider(s) basic information that identifies your child, and request that information relevant
             to your child's immunization history be sent to the Centers for Disease Control and
             Prevention or its contractors for study purposes only?

             YES 1
             NO . . . . 2 GO TO D14
             YES, IF YOU SEND
             WRITTEN ALSO . . . . 3 GO TO D8 - D9C. THEN GO TO
                                                                      D10 - SHADED BOXED AREA
             SEND ME SOMETHING
             IN WRITING . . . . 4 GO TO D9A. - D9C. THEN GO TO
                                                                      D10 - SHADED BOXED AREA

D8   In order to help the doctor or clinic locate your child's vaccination records,

D8A.1   What is [NAME OF (FIRST) ELIGIBLE CHILD]'s full name - first, middle, and last
             name?

FIRST_____

D8B.1   (What is the [NAME OF (FIRST) ELIGIBLE CHILD]'s full name - first, middle, and last
             name?)

MIDDLE_____

D8C.1   (What is the [NAME OF (FIRST) ELIGIBLE CHILD]'s full name - first, middle, and last
             name?)

LAST _____

D9A.   What is your full name - first, middle, and last?

FIRST_____

D9B.   (What is your full name - first, middle, and last?)

MIDDLE_____

D9C.   (What is your full name - first, middle, and last?)

LAST _____

ASK ONLY IF D7 = 3 or 4, OTHERWISE GO TO D14

D10   What is your street address?

ADDRESS:_____

D11   Am I correct that you live in [CITY AND STATE]?

YES . . . . 1 GO TO D12
NO . . . . 2 GO TO D11A

D11A.   In what city and state do you live?

CITY _____

D11B.   STATE _____

REFUSED 7

D12   Am I correct that your zip code is [ZIP CODE]?
YES . . . . 1 GO TO D13
NO . . . . 2 GO TO D12A.

D12A.   What is your zip code?

ZIP CODE_____

INTERVIEWER NOTE: IF THERE ARE ANY ADDITIONAL ELIGIBLE CHILDREN, GO TO THE SUPPLEMENTAL CHILD SHEET, D6.2.

D14   Those are all the questions I have. (I'd like to thank you again on behalf of the Centers for Disease Control and Prevention for the time and effort you've spent answering these questions.) [**TERMINATE INTERVIEW**]

SUPPLEMENTAL PROVIDER SHEET

CASE # |__|__|__|__|__|__|__|__|

ELIGIBLE CHILD'S NAME:_____ CHILD#:_____

ELIGIBLE CHILD'S BIRTH DATE: ____ / ____ / ____ PROVIDER#:_____

D6B.1.2.1 What is the last name of the next doctor?

       LAST_____

D6B.2.2.1 Do you know the doctor's first name?

       FIRST_____

D6B.3.2.1 Please tell me the name of the office or the clinic.

       OFFICE_____

D6B.4.2.1 What is the street address of the office or the clinic?

       STREET_____

D6B.5.2.1 Is there a suite, floor, or room number?

       SUITE #_____

D6B.6.2.1 What city is that in?

       CITY_____

D6B.7.2.1 What state is that in?

       STATE_____

D6B.8.2.1 What is the zip code?

       ZIP CODE_____

D6B.9.2.1 What is their telephone number?

       TELEPHONE_____

INTERVIEWER NOTE: IF THERE ARE ANY ADDITIONAL PROVIDERS, OBTAIN ANOTHER SUPPLEMENTAL PROVIDER SHEET. WHEN YOU ARE FINISHED USING THE SUPPLEMENTAL PROVIDER SHEETS, RETURN TO THE QUESTIONNAIRE AT QUESTION

D6C.

Supplemental Provider Sheet

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┌─────────────────────────────────┐
│    SUPPLEMENTAL CHILD SHEET      │
│           PAGE 1                 │
└─────────────────────────────────┘
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CASE # |___|___|___|___|___|___|___|___|

NEXT ELIGIBLE CHILD'S NAME:_____CHILD#:_____

NEXT ELIGIBLE CHILD'S BIRTH DATE: _____ / _____ / _____

WHICH SHOT SECTION COMPLETED? (circle one): A / B

D6.2   How many doctors or clinics have provided vaccinations for your child named [NAME OF
        (NEXT) ELIGIBLE CHILD] whose birth date is [DATE OF BIRTH OF (NEXT) ELIGIBLE
        CHILD]?

        NUMBER: |___|___|

D6A.2   Starting with the most recent, please tell me the name, address and telephone number for each
        doctor or clinic. (Would you take a moment to find shot cards, appointment cards or other
        records you may have?)

        YES, CONTINUE ON 1
        NO, CAN'T FIND, CONTINUE 2
        REFUSED . . . . 7 GO TO D14B

D6B.1.1.2 What is the last name of the next doctor?

        LAST_____

D6B.2.1.2 Do you know the doctor's first name?

        FIRST_____

D6B.3.1.2 Please tell me the name of the office or the clinic.

        OFFICE_____

D6B.4.1.2 What is the street address of the office or the clinic?

        STREET_____

D6B.5.1.2 Is there a suite, floor, or room number?

        SUITE #_____

Supplemental Child Sheet - Page 1

D6B.6.1.2 What city is that in?

CITY_____

SUPPLEMENTAL CHILD SHEET
PAGE 2

D6B.7.1.2 What state is that in?

STATE_____

D6B.8.1.2 What is the zip code?

ZIP CODE_____

D6B.9.1.2 What is their telephone number?

TELEPHONE_____

INTERVIEWER NOTE: IF MORE THAN ONE PROVIDER GO TO AN ADDITIONAL
SUPPLEMENTAL PROVIDER SHEET - D6B.1.2.1

D8A.2 In order to help the doctor or clinic locate your child's vaccination records, what is
[NAME OF (NEXT) ELIGIBLE CHILD]'s full name - first, middle, and last name?

FIRST_____

D8B.2 MIDDLE_____

D8C.2 LAST _____

INTERVIEWER NOTE: IF THERE ARE ANY ADDITIONAL ELIGIBLE
CHILDREN, OBTAIN ANOTHER SUPPLEMENTAL CHILD FORM.

D14B Those are all the questions I have. (I'd like to thank you again on behalf of the Centers
for Disease Control and Prevention for the time and effort you've spent answering these
questions.) [**TERMINATE INTERVIEW**]

Appendix C

NIS Provider Questionnaire

INSTRUCTIONS: Please review your records and complete this questionnaire for the child identified below. Then, mail it in the postage-paid envelope provided or fax it to: *Victor G. Coronado, MD, MPH,   FAX #: (312) 867-4419*

1. Which of the following best describes your records of immunization for this child? (Check only one box.).

   ₁ **G**   a. Have immunization record for this child. (Go to question 2a below.)
   ₂ **G**   b. Have provided care to this child, but do not have his/her immunization record. (Go to question 10 on next page.)
   ₄ **G**   c. Have no record of providing care to this child. (Return questionnaire to CDC as instructed above.)
   ₅ **G**   d. Other: _____

2a. Referring to all sources of immunization history, please specify below the month, day and year that each of the following immunizations was given, either by your office or another provider (OP), as documented in your records. If you prefer, you may attach a copy of the complete immunization history and complete Page 2.

   Circle the "OP" for any immunization given by another provider, after the date for that immunization.

	Dates of immunization:				
	(1) mm-dd-yy	(2) mm-dd-yy	(3) mm-dd-yy	(4) mm-dd-yy	(5) mm-dd-yy
DT/DTP/DTaP (check one box per date)	___-___-___ OP **9** DT **9** DTP **9** DTaP	___-___-___ OP **9** DT **9** DTP **9** DTaP	___-___-___ OP **9** DT **9** DTP **9** DTaP	___-___-___ OP **9** DT **9** DTP **9** DTaP	___-___-___ OP **9** DT **9** DTP **9** DTaP
DTP-Hib (Tetramune or Acthib)	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP
Hib	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP
Hep-B (enter date or check box)	___-___-___ OP **9** Administered at birth	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP
Polio (OPV or IPV) (check one box per date)	___-___-___ OP **9** OPV **9** IPV	___-___-___ OP **9** OPV **9** IPV	___-___-___ OP **9** OPV **9** IPV	___-___-___ OP **9** OPV **9** IPV	___-___-___ OP **9** OPV **9** IPV
MMR	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP
Measles only	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP
Varicella	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP
Other Vaccines (Specify)	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP	___-___-___ OP

2b. If you circled any "OPs" above to indicate immunizations given by another provider, enter the name, address, and phone of each other provider below. Otherwise, go to question 3.

   (1) _____   (2) _____
       _____   _____
       _____   _____
       (____) _____   (____) _____

3. What was the date of this child's <u>first</u> visit for any reason to this place of practice?

_____ - _____ - _____   or   ₈ **G** Don't Know
   mm   dd   yy

4. What was the date of this child's <u>most recent</u> visit for any reason to this place of practice?

_____ - _____ - _____   or   ₈ **G** Don't Know
   mm   dd   yy

5. Which types of care does this facility routinely provide (Check all that apply.)

   ₁ **G** a. Comprehensive well child care (examination, anticipatory guidance, screening)
   ₂ **G** b. Acute illness care
   ₃ **G** c. Followup visits   ₅ **G** e. WIC Program/Services
   ₄ **G** d. After-hours telephone coverage   ₆ **G** f. Other (Describe:)_____

6. Which of the following best describes this facility? (Check only one box.)

   ₁ **G** a. Private Practice   ₄ **G** d. Community/Migrant Health Center
   ₂ **G** b. Public Health Department-operated Clinic   ₅ **G** e. Military Health Care Facility
   ₃ **G** c. Hospital Outpatient Clinic   ₆ **G** f. Other Facility (Describe:)_____

7. Is this facility a Vaccines for Children provider?

   ₁ **G** a. Yes   ₃ **G** c. Unknown
   ₂ **G** b. No

8a. Was this facility ever this child's medical home for primary care? (**Medical home**: the place where care is delivered or directed by practioners known to the child and family, who are able to manage or facilitate essentially all aspects of pediatric care.)

   ₁ **G** a. Yes (Go to question 8b.)   ₃ **G** c. Unknown (Go to item 9)
   ₂ **G** b. No (Go to item 9)

8b. If "Yes," what specialty is (was) this child's primary care provider?

     ₁ **G** a. Pediatrician   ₃ **G** c. General practitioner
     ₂ **G** b. Family Physician   ₄ **G** d. Other (Describe)_____

9. Name of person completing questionnaire:_____

   Phone: (_____)_____

10. According to your records, what is this child's date of birth?

_____-_____-_____   or   ₈ **G** Don't know
   mm   dd   yy

11. According to your records, did this child ever use another last name (excluding names prior to adoption)?

   ₁ **G** Yes [Specify name(s):] _____
   ₂ **G** No

INSTRUCTIONS: If no immunization record, or the record is currently located elsewhere, continue with Question 12. Otherwise, return this questionnaire to CDC. Call 1-800-886-4993 with any questions. Thank you.

---

12. Please enter below the names, addresses and telephone numbers of other providers who may have an immunization record for this child.

   (1) _____   (2) _____
       _____   _____

(   ) _____

(   ) _____

Appendix D

Summary Statistics for Sampling Weights by IAP Area

```
        Q1/1997-Q4/1997 : Child Weight for Completed Household Interviews (HY_WGT)

IAP Area                        N        SUM       MIN       MAX      MEAN       CV

       TOTAL U.S.           32742  5665212.61     3.855   2185.01   173.026   115.361
  1    CT                     423    65192.03    10.282    244.88   154.118    26.582
  2    MA-REST OF STATE       426   103793.55    11.244    390.46   243.647    27.108
  3    MA-CITY OF BOSTON      404    12305.98     7.521     77.87    30.460    26.137
  4    ME                     418    21482.12    19.020    109.53    51.393    28.669
  5    NH                     406    21680.84    20.353     84.47    53.401    27.341
  6    RI                     424    18467.01    15.753     74.77    43.554    24.376
  7    VT                     425    10279.69     9.713     38.75    24.188    21.481
  8    NJ-REST OF STATE       451   162780.92     3.855   1438.76   360.933    57.896
  9    NJ-CITY OF NEWARK      366     8298.10     5.568    113.74    22.672    43.331
 10    NY-REST OF STATE       423   206126.04    10.089    884.37   487.296    24.945
 11    NY-NYC 5 COUNTIES      399   180580.01    10.239    977.21   452.581    41.971
 12    DISTRICT OF COLUMBIA   424    11574.54     7.398     49.95    27.298    31.822
 13    DE                     416    14041.69    10.902     66.43    33.754    33.307
 14    MD-REST OF STATE       454    95720.19    10.961    409.80   210.837    42.726
 15    MD-CITY OF BALTIMORE   373    17548.39     9.039    139.31    47.047    44.335
 16    PA-REST OF STATE       422   183638.11     9.884    650.39   435.161    20.086
 17    PA-PHILADELPHIA COUNTY 400    35369.51    27.310    155.83    88.424    23.189
 18    VA                     428   139898.34     8.576    554.02   326.865    35.395
 19    WV                     421    29390.95    16.604    120.75    69.812    31.079
 20    AL-REST OF STATE       430    74777.87    17.787    477.62   173.902    43.394
 21    AL-JEFFERSON COUNTY    403    13663.88     9.052     60.63    33.905    32.539
 22    FL-REST OF STATE       424   221161.79    26.077    999.63   521.608    32.049
 23    FL-DUVAL COUNTY        411    17602.47     7.986     87.46    42.828    38.695
 24    FL-DADE COUNTY         413    49545.06    29.993    242.09   119.964    37.748
 25    GA-REST OF STATE       415   132246.50    26.686    643.93   318.666    41.269
 26    GA-FULTON/DEKALB COUNTIES 402 30961.43    16.950    284.90    77.018    42.761
 27    KY                     429    75232.68    48.429    315.26   175.368    29.731
 28    MS                     415    59345.06    46.504    299.01   143.000    38.095
 29    NC                     418   148513.26   108.913    803.27   355.295    37.089
 30    SC                     426    76276.74    55.229    340.16   179.053    30.499
 31    TN-REST OF STATE       419    70207.84    16.639    358.43   167.560    35.817
 32    TN-SHELBY COUNTY       407    20747.09    13.412    141.37    50.976    35.650
 33    TN-DAVIDSON COUNTY     421    11396.47     5.830    131.67    27.070    45.211
 34    IL-REST OF STATE       393   189886.96   140.336    870.19   483.173    31.227
 35    IL-CITY OF CHICAGO     434    79717.40    14.524    774.07   183.681    48.501
 36    IN-REST OF STATE       442    99388.38    15.249    414.31   224.861    42.790
 37    IN-MARION COUNTY       397    20044.42    16.332    202.65    50.490    42.012
 38    MI-REST OF STATE       454   169156.83    24.119    775.25   372.592    42.406
 39    MI-CITY OF DETROIT     385    25964.92    14.202    283.40    67.441    48.375
 40    MN                     426    93726.65    81.235    361.30   220.016    27.433
 41    OH-REST OF STATE       453   168473.72    25.855    660.33   371.907    38.522
 42    OH-CUYAHOGA COUNTY     417    28470.49    22.581    139.04    68.275    35.496
 43    OH-FRANKLIN COUNTY     385    22977.80    23.074     91.08    59.683    19.647
 44    WI-REST OF STATE       441    76191.69    27.286    254.52   172.770    24.306
 45    WI-MILWAUKEE COUNTY    434    22997.02    17.927    228.41    52.989    39.682
 46    AR                     449    50428.45    33.364    213.28   112.313    27.023
 47    LA-REST OF STATE       418    79784.56     8.384    551.03   190.872    47.032
 48    LA-ORLEANS PARISH      398    11359.66     6.979     56.01    28.542    39.170
 49    NM                     427    39403.43    28.829    206.18    92.280    41.671
```

```
        Q1/1997-Q4/1997 : Child Weight for Completed Household Interviews (HY_WGT)

IAP Area                        N        SUM       MIN       MAX      MEAN       CV

50  OK                         419    65819.12   49.9524    282.96    157.09   34.2097
51  TX-REST OF STATE           482   295845.03   27.2201   1578.98    613.79   53.9019
52  TX-DALLAS COUNTY           397    52398.80   22.3009    288.03    131.99   34.0035
53  TX-EL PASO COUNTY          414    22014.10   12.7588     89.22     53.17   39.9080
54  TX-CITY OF HOUSTON         385    58077.65   41.4107    630.66    150.85   41.5445
55  TX-BEXAR COUNTY            415    32529.04   25.8984    156.14     78.38   30.9800
56  IA                         426    52280.88   40.0191    197.62    122.73   21.7578
57  KS                         411    54771.76   43.7502    273.01    133.26   32.0843
58  MO                         434   103618.94   64.4889    384.83    238.75   29.4591
59  NE                         431    32274.94   27.6650    140.85     74.88   32.4834
60  CO                         416    75379.66   21.7070    375.41    181.20   21.2902
61  MT                         427    15732.05   11.1959     61.15     36.84   29.4470
62  ND                         438    10857.26    9.0525     38.75     24.79   22.9765
63  SD                         425    15182.85   11.7909     68.34     35.72   37.9123
64  UT                         418    52369.64   45.4663    225.25    125.29   31.3569
65  WY                         430     8898.99    6.1543     72.83     20.70   28.3677
66  AZ-REST OF STATE           430    40163.07   29.3835    184.59     93.40   31.9690
67  AZ-MARICOPA COUNTY         419    61694.71   41.0860    329.06    147.24   37.3164
68  CA-REST OF STATE           426   448250.26   27.9467   2185.01   1052.23   38.3752
69  CA-LOS ANGELES COUNTY      422   258854.05   96.6837   1539.84    613.40   25.9110
70  CA-SANTA CLARA COUNTY      408    38327.66   25.5531    289.94     93.94   32.7586
71  CA-SAN DIEGO COUNTY        417    67643.71   23.5473    350.87    162.22   29.8540
72  HI                         421    27374.59   21.5030    109.49     65.02   29.7325
73  NV                         425    38983.22   26.7144    223.98     91.73   22.2005
74  AK                         417    14498.29   11.8745     57.82     34.77   26.0390
75  ID                         433    25641.07   23.6051    100.03     59.22   19.9512
76  OR                         421    62983.34   51.5360    260.96    149.60   29.0547
77  WA-REST OF STATE           433    82564.95   37.8522    266.60    190.68   23.0741
78  WA-KING COUNTY             413    32364.39   22.5998    199.77     78.36   30.8971
```

```
      Q1/1997-Q4/1997 : Child Weight for Children with Adequate Provider Data (W0)


IAP Area                        N       SUM       MIN       MAX      MEAN       CV

    TOTAL U.S.              22806 5665212.62     6.451   4603.91   248.409   129.467
 1  CT                        308   65192.03    56.938    475.32   211.662    35.190
 2  MA-REST OF STATE          314  103793.55    12.728    844.18   330.553    35.760
 3  MA-CITY OF BOSTON         284   12305.98     8.690    137.52    43.331    42.468
 4  ME                        333   21482.12    24.827    156.65    64.511    33.893
 5  NH                        311   21680.84    23.295    157.87    69.713    31.180
 6  RI                        310   18467.01    18.742    127.05    59.571    30.737
 7  VT                        341   10279.69    11.359     56.25    30.146    26.334
 8  NJ-REST OF STATE          295  162780.92     6.691   4393.74   551.800    77.063
 9  NJ-CITY OF NEWARK         205    8298.10     6.451    182.85    40.479    73.137
10  NY-REST OF STATE          287  206126.04    21.782   1709.44   718.209    37.532
11  NY-NYC 5 COUNTIES         238  180580.01   132.136   2899.87   758.740    59.611
12  DISTRICT OF COLUMBIA      244   11574.54     9.995    170.19    47.437    50.526
13  DE                        283   14041.69    13.384    124.78    49.617    39.297
14  MD-REST OF STATE          316   95720.19    13.143   1305.21   302.912    56.018
15  MD-CITY OF BALTIMORE      237   17548.39     9.489    263.94    74.044    63.196
16  PA-REST OF STATE          301  183638.11    55.286   1491.69   610.093    32.744
17  PA-PHILADELPHIA COUNTY    248   35369.51    37.155    453.30   142.619    39.107
18  VA                        310  139898.34    28.642   1198.16   451.285    42.940
19  WV                        319   29390.95    22.617    244.35    92.135    40.003
20  AL-REST OF STATE          302   74777.87    26.097   1011.97   247.609    59.375
21  AL-JEFFERSON COUNTY       286   13663.88    11.954    103.42    47.776    33.825
22  FL-REST OF STATE          298  221161.79    32.719   3122.57   742.154    52.072
23  FL-DUVAL COUNTY           280   17602.47    13.898    193.66    62.866    50.540
24  FL-DADE COUNTY            258   49545.06    48.422    556.50   192.035    49.231
25  GA-REST OF STATE          294  132246.50    40.189   1302.34   449.818    47.191
26  GA-FULTON/DEKALB COUNTIES 273   30961.43    23.659    400.18   113.412    47.447
27  KY                        307   75232.68    68.906    607.61   245.058    41.418
28  MS                        300   59345.06    53.387    583.94   197.817    48.842
29  NC                        309  148513.26   149.490   1447.42   480.625    46.509
30  SC                        311   76276.74    58.839    677.55   245.263    43.417
31  TN-REST OF STATE          312   70207.84    16.837    604.28   225.025    47.259
32  TN-SHELBY COUNTY          271   20747.09    17.139    292.09    76.558    52.107
33  TN-DAVIDSON COUNTY        298   11396.47     6.998    210.66    38.243    64.857
34  IL-REST OF STATE          270  189886.96   184.048   2071.46   703.285    47.956
35  IL-CITY OF CHICAGO        263   79717.40    67.711   1293.27   303.108    67.256
36  IN-REST OF STATE          342   99388.38    18.205    718.91   290.609    48.718
37  IN-MARION COUNTY          263   20044.42    22.390    482.04    76.215    60.550
38  MI-REST OF STATE          332  169156.83    37.597   1470.85   509.509    48.487
39  MI-CITY OF DETROIT        253   25964.92    21.026    410.65   102.628    58.813
40  MN                        310   93726.65    92.511    791.96   302.344    39.767
41  OH-REST OF STATE          329  168473.72    38.264   1485.17   512.078    49.737
42  OH-CUYAHOGA COUNTY        266   28470.50    25.390    414.76   107.032    55.376
43  OH-FRANKLIN COUNTY        261   22977.80    29.587    213.76    88.038    35.107
44  WI-REST OF STATE          340   76191.69    30.047    454.02   224.093    31.789
45  WI-MILWAUKEE COUNTY       306   22997.02    24.050    247.91    75.154    45.588
46  AR                        333   50428.45    29.752    420.74   151.437    43.327
47  LA-REST OF STATE          281   79784.56     9.151   1086.78   283.931    51.442
48  LA-ORLEANS PARISH         228   11359.66    10.237    209.93    49.823    65.040
49  NM                        293   39403.43    41.971    534.58   134.483    54.019
```

```
       Q1/1997-Q4/1997 : Child Weight for Children with Adequate Provider Data (W0)
```

IAP	Area	N	SUM	MIN	MAX	MEAN	CV
50	OK	291	65819.12	49.292	892.76	226.18	58.1686
51	TX-REST OF STATE	312	295845.03	63.914	4182.31	948.22	68.6042
52	TX-DALLAS COUNTY	237	52398.80	61.508	881.53	221.09	53.1073
53	TX-EL PASO COUNTY	284	22014.11	16.346	207.96	77.51	45.0104
54	TX-CITY OF HOUSTON	229	58077.65	55.602	1010.43	253.61	59.0233
55	TX-BEXAR COUNTY	260	32529.04	27.968	501.19	125.11	56.6845
56	IA	337	52280.88	52.063	355.88	155.14	32.2070
57	KS	289	54771.76	53.841	628.10	189.52	46.4606
58	MO	295	103618.94	64.086	1145.36	351.25	47.8573
59	NE	340	32274.94	32.980	244.47	94.93	37.4352
60	CO	287	75379.66	26.704	585.75	262.65	32.5230
61	MT	334	15732.05	12.392	126.42	47.10	38.6978
62	ND	320	10857.26	9.479	96.89	33.93	41.9801
63	SD	318	15182.85	13.709	139.62	47.74	48.2697
64	UT	315	52369.64	45.011	443.69	166.25	39.3105
65	WY	345	8898.99	7.170	81.84	25.79	37.7447
66	AZ-REST OF STATE	287	40163.07	26.633	380.64	139.94	46.9171
67	AZ-MARICOPA COUNTY	272	61694.71	56.524	640.38	226.82	49.7461
68	CA-REST OF STATE	282	448250.26	56.027	4219.85	1589.54	45.0379
69	CA-LOS ANGELES COUNTY	246	258854.05	228.873	4603.91	1052.25	59.5962
70	CA-SANTA CLARA COUNTY	282	38327.66	32.351	383.92	135.91	45.6066
71	CA-SAN DIEGO COUNTY	287	67643.71	62.974	643.54	235.69	40.4907
72	HI	265	27374.59	28.280	332.22	103.30	50.6099
73	NV	284	38983.22	41.206	399.50	137.26	40.0241
74	AK	291	14498.30	18.583	127.02	49.82	39.1194
75	ID	327	25641.07	26.396	159.45	78.41	32.0136
76	OR	318	62983.34	66.293	482.81	198.06	34.7930
77	WA-REST OF STATE	319	82564.95	64.443	702.21	258.82	38.4080
78	WA-KING COUNTY	300	32364.39	27.786	349.51	107.88	49.6596

Appendix E

**Disposition of Child with respect to Provider Record Check
for NIS, Q1/1997 to Q4/1997**

DISPCODE: Disposition of Child with Respect to Provider Record Check for NIS - Q1\1997 to Q4\1997:

Number
Of
Children   Disposition Code Number and Definition

11,192 1 = All identified providers responded,
              no problems indicated in cross check between household and provider shot dates.

9,379   2 = All identified providers responded,
             no NIS shot card to cross check.

810   3 = All identified providers responded,
           poor immunization history matching results.

141   4 = All identified providers responded,
           poor immunization history matching results,
           additional mismatch indicators present.

963   5 = Some but not all identified providers responded,
           but provider information indicates 4:3:1
           up-to-date.

47   6 = Some but not all identified providers responded,
          but provider information matches
          NIS shot card immunization history.

274   7 = Some but not all identified providers responded,
           completeness of provider immunization
           history is unknown.

24   8 = Some but not all identified providers responded,
          but provider information indicates 4:3:1
          up-to-date when post-RDD-interview
          immunizations are included.

42   9 = Some but not all identified providers responded,
          but provider information indicates at least
          as many doses for each vaccine as the RDD
          respondent (or at least 1 dose for MCV).

108   10 = Some but not all identified providers responded,
           but the household reported an inexact
           number of vaccinations ("All","Don't Know",
           "Refused" or missing) for one or more vaccines
           and any exact responses meet previous
           criteria (for DISPCODE 9).

100   11 = Some but not all identified providers responded,
           but definite number of shots was reported
           by household not from a shot card for one or
           more vaccines and any other vaccines meet
           previous criteria (for DISPCODE 9 or 10).

23,080   TOTAL

Notes: The criteria for all dispositions (except 7) were applied in order. A case where some but not all providers responded is assigned disposition 7 if it does not qualify for dispositions 5, 6, 8, 9, 10 or 11.

When checking the criteria for dispositions 10 and 11, the provider history must contain at least three distinct vaccination dates (visits) for the provider immunization count to be accepted for vaccines for which an inexact response was reported, from recall, in the household survey.

Appendix F

**Examples of the Use of SUDAAN To Estimate Vaccination
Coverage Rates and Their Standard Errors**

```
********************;
title1 'SUD_IAP.SAS';
********************************************************************
THIS PROGRAM WILL PRODUCE IAP AREA  ESTIMATES AND STANDARD ERRORS
FOR PUTD4313 USING SAS CALLABLE SUDAAN.

SUDAAN NOTES:
   1. ALL VARIABLES USED MUST BE NUMERIC.
   2. VARIABLES IN THE SUBGROUP STATEMENT MUST HAVE VALUES 1,2,..K
      WHERE K IS THE NUMBER OF LEVELS FOR EACH VARIABLE.
   3. DATA MUST BE SORTED ACCORDING TO THE SAMPLE DESIGN VARIABLES
      (STRATUM AND PRIMARY SAMPLING UNIT), SPECIFIED IN THE
      NEST STATEMENT.
********************************************************************;
options ps=78 ls=90 obs= max;

libname dd      'c:\nispuf97'; *--- SPECIFY PATH TO SAS DATASET ---*;
libname library 'c:\nispuf97'; *--- IF DATASET WAS CREATED WITH FORMATS STORED ---*;
                  *--- PERMANENTLY SPECIFY PATH TO LIBRARY       ---*;
                  *--- OTHERWISE COMMENT THIS STATEMENT OUT      ---*;

%let in_file=dd.nispuf97; *--- NAME OF SAS DATASET ---*;
%let wt=w0;            *--- WEIGHT TO USE ---*;

Proc format;
        /*
           THE FOLLOWING FORMAT WILL BE USED FOR PUTD4313.
           ORIGINAL VALUES OF PUTD4313 ARE 1,0.
           MUST BE CONVERTED TO 1,2 IN SUDAAN.
        */
 value put4313f
   1='4:3:1:3 Up-to-date'
   2='Not 4:3:1:3 Up-to-date';

 value itrueiaf
  0 ='U.S Total'
  01='Connecticut'
  02='MA-Rest of State'
  03='MA-City of Boston'
  04='Maine'
  05='New Hampshire'
  06='Rhode Island'
  07='Vermont'
  08='NJ-Rest of State'
  09='NJ-City of Newark'
  10='NY-Rest of State '
  11='NY-5 Counties    '
  12='Dist of Columbia '
  13='Delaware         '
  14='MD-Rest of State '
  15='MD-Baltimore City'
  16='PA-Rest of State '
  17='PA-Philadelphia  '
  18='Virginia         '
  19='West Virginia    '
  20='AL-Rest of State '
```

```
21='AL-Jefferson Cnty'
22='FL-Rest of State '
23='FL-Duval County  '
24='FL-Dade County   '
25='GA-Rest of State'
26='GA-Fulton/Dekalb '
27='Kentucky         '
28='Mississippi      '
29='North Carolina   '
30='South Carolina   '
31='TN-Rest of State '
32='TN-Shelby County '
33='TN-Davidson Cnty '
34='IL-Rest of State '
35='IL-City Chicago  '
36='IN-Rest of State '
37='IN-Marion County '
38='MI-Rest of State '
39='MI-Detroit       '
40='Minnesota        '
41='OH-Rest of State '
42='OH-Cuyahoga Cnty '
43='OH-Franklin Cnty '
44='WI-Rest of State '
45='WI-Milwaukee Cnty'
46='Arkansas         '
47='LA-Rest of State '
48='LA-Orleans Parish'
49='New Mexico       '
50='Oklahoma         '
51='TX-Rest of State '
52='TX-Dallas County '
53='TX-El Paso Cnty  '
54='TX-City Houston  '
55='TX-Bexar County  '
56='Iowa             '
57='Kansas           '
58='Missouri         '
59='Nebraska         '
60='Colorado         '
61='Montana          '
62='North Dakota     '
63='South Dakota     '
64='Utah             '
65='Wyoming          '
66='AZ-Rest of State '
67='AZ-Maricopa Cnty '
68='CA-Rest of State '
69='CA-Los Angeles   '
70='CA-Santa Clara   '
71='CA-San Diego Cnty'
72='Hawaii           '
73='Nevada           '
74='Alaska           '
75='Idaho            '
76='Oregon           '
```

```
  77='WA-Rest of State '
  78='WA-King County   ';

data sud_file;
 set &in_file(keep= seqnumhh seqnumc putd4313 itrueiap  w0);

 if putd4313=0 then putd4313=2; *--- CONVERT PUTD4313=0 TO PUTD4313=2 ---*;

 nseqnumh=1*seqnumhh; *--- CONVERT HOUSEHOLD ID SEQNUMHH FROM CHARACTER TO NUMERIC ---*;

*=== SORT BY NEST VARIABLES: ITRUEIAP (STRATUM) NSEQNUMH (PRIMARY SAMPLING UNIT) ===*;
proc sort;
 by itrueiap nseqnumh;

proc crosstab data=sud_file filetype=sas design=wr;
weight &wt;
nest itrueiap nseqnumh;
subgroup  itrueiap putd4313 ;
levels      78     2     ;
tables    itrueiap * putd4313 ;
print nsum wsum  rowper serow/style=nchs ;
rtitle "4:3:1:3  ESTIMATES BY IAP";
rformat itrueiap itrueiaf.;
rformat putd4313 put4313f.;
output rowper serow/filename=sud_est filetype=sas;

proc print data=sud_est(where=(putd4313=1)) noobs label;
format itrueiap itrueiaf.;
var itrueiap rowper serow ;
label
    rowper='Percent 4:3:1:3 Up -to-date'
    serow='Standard Error'
 ;
title "4:3:1:3  ESTIMATES BY IAP";
```

```
********************;
title1 'SUDSTATE.SAS';
************************************************************************
THIS PROGRAM WILL PRODUCE STATE  ESTIMATES AND STANDARD ERRORS
FOR PUTD4313 USING SAS CALLABLE SUDAAN.

NOTE : THE STATE VARIABLE IS BASED ON FIPSTATE CODES ,THERE ARE
     NO STATES WITH FIPS CODES 3,7,14,43,52.

SUDAAN NOTES:
    1. ALL VARIABLES USED MUST BE NUMERIC.
    2. VARIABLES IN THE SUBGROUP STATEMENT MUST HAVE VALUES 1,2,..K
      WHERE K IS THE NUMBER OF LEVELS FOR EACH VARIABLE.
    3. DATA MUST BE SORTED ACCORDING TO THE SAMPLE DESIGN VARIABLES
      (STRATUM AND PRIMARY SAMPLING UNIT), SPECIFIED IN THE
      NEST STATEMENT.
************************************************************************;
options ps=78 ls=90 obs= max;

libname dd     'c:\nispuf97'; *--- SPECIFY PATH TO SAS DATASET ---*;
libname library 'c:\nispuf97'; *--- IF DATASET WAS CREATED WITH FORMATS STORED ---*;
              *--- PERMANENTLY SPECIFY PATH TO LIBRARY        ---*;
              *--- OTHERWISE COMMENT THIS STATEMENT OUT      ---*;

%let in_file=dd.nispuf97; *--- NAME OF SAS DATASET ---*;
%let wt=w0;           *--- WEIGHT TO USE ---*;

PROC FORMAT;
 /*
  THE FOLLOWING FORMAT WILL BE USED FOR PUTD4313.
  ORIGINAL VALUES OF PUTD4313 ARE 1,0.
  MUST BE CONVERTED TO 1,2 IN SUDAAN.
 */
 value put4313f
   1='4:3:1:3 Up-to-date'
   2='Not 4:3:1:3 Up-to-date'
 ;
 value statef
   0 ='U.S. Total     '
   1 ='Alabama        '
   2 ='Alaska         '
   4 ='Arizona        '
   5 ='Arkansas       '
   6 ='California      '
   8 ='Colorado       '
   9 ='Connecticut     '
   10 ='Delaware       '
   11 ='Dist. of Columbia'
   12 ='Florida        '
   13 ='Georgia        '
   15 ='Hawaii         '
   16 ='Idaho          '
   17 ='Illinois       '
   18 ='Indiana        '
   19 ='Iowa           '
   20 ='Kansas         '
```

```
   21 ='Kentucky        '
   22 ='Louisiana       '
   23 ='Maine           '
   24 ='Maryland        '
   25 ='Massachusetts   '
   26 ='Michigan        '
   27 ='Minnesota       '
   28 ='Mississippi     '
   29 ='Missouri        '
   30 ='Montana         '
   31 ='Nebraska        '
   32 ='Nevada          '
   33 ='New Hampshire   '
   34 ='New Jersey      '
   35 ='New Mexico      '
   36 ='New York        '
   37 ='North Carolina  '
   38 ='North Dakota    '
   39 ='Ohio            '
   40 ='Oklahoma        '
   41 ='Oregon          '
   42 ='Pennsylvania    '
   44 ='Rhode Island    '
   45 ='South Carolina  '
   46 ='South Dakota    '
   47 ='Tennessee       '
   48 ='Texas           '
   49 ='Utah            '
   50 ='Vermont         '
   51 ='Virginia        '
   53 ='Washington      '
   54 ='West Virginia   '
   55 ='Wisconsin       '
   56 ='Wyoming         '
;

data sud_file;
 set &in_file(keep= seqnumhh seqnumc putd4313  itrueiap state w0);

 if putd4313=0 then putd4313=2; *** CONVERT PUTD4313=0 TO PUTD4313=2 ***;

 nseqnumh=1*seqnumhh;   *** CONVERT HOUSEHOLD ID SEQNUMH FROM CHARACTER TO NUMERIC ***;

*=== SORT BY NEST VARIABLES: ITRUEIAP (STRATUM) NSEQNUMH (PRIMARY SAMPLING UNIT) ===*;
proc sort;
 by itrueiap nseqnumh;

proc crosstab data=sud_file filetype=sas design=wr;
weight w0;
nest itrueiap nseqnumh;
subgroup  state putd4313 ;
levels    56   2    ;
tables state * putd4313 ;
print nsum wsum  rowper serow/style=nchs ;
rtitle "4:3:1:3  ESTIMATES BY STATE";
rformat state statef.;
```

```
rformat putd4313 put4313f.;
output rowper serow  / filename=sud_est filetype=sas;

*** EXCLUDE 3,7,14,43,52 THERE ARE NO STATES WITH THESE FIPS CODES *** ;
proc print data=sud_est(where=(putd4313=1
                  & state notin (3,7,14,43,52))) label noobs;
var state rowper serow ;
label
    rowper='Percent 4:3:1:3 Up -to-date'
    serow='Standard Error'
 ;
title "4:3:1:3  ESTIMATES BY STATE";
```

Appendix G

Table of Contents

and

Alphabetical Index of Variables

from

National Immunization Survey
1997 Public-Use Data File
Documentation, Code Book and Frequencies

1997 National Immunization Survey Public-Use Data File

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ALPHABETICAL INDEX OF VARIABLES

VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
AGEGRP	0055	0055	3	AGE CATEGORY OF CHILD (RECODE)
ALL4SHOT	0037	0037	2	4:3:1:3 UP-TO-DATE (HH REPORT)
C_431	0038	0038	2	HOUSEHOLD REPORT OF 4:3:1 UP-TO-DATE BY SHOT CARD USE
C_4313	0039	0039	2	HOUSEHOLD REPORT OF 4:3:1:3 UP-TO-DATE BY SHOT CARD USE
C_DTP	0040	0040	2	HOUSEHOLD REPORT OF 4+ DTP UP-TO-DATE BY SHOT CARD USE
C_HEP	0041	0041	2	HOUSEHOLD REPORT OF 3+ HEPATITIS B UP-TO-DATE BY SHOT CARD USE
C_HIB	0042	0042	2	HOUSEHOLD REPORT OF 3+ HIB UP-TO-DATE BY SHOT CARD USE
C_MMR	0043	0043	2	HOUSEHOLD REPORT OF 1+ MEASLES-CONTAINING VACCINE UP-TO-DATE BY SHOT CARD USE
C_POL	0044	0044	2	HOUSEHOLD REPORT OF 3+ POLIO UP-TO-DATE BY SHOT CARD USE
C_VRC	0045	0045	2	HOUSEHOLD REPORT OF 1+ VARICELLA UP-TO-DATE BY SHOT CARD USE
C1R	0056	0057	3	NUMBER OF PEOPLE LIVING IN THE HOUSEHOLD (RECODE)
C5R	0058	0059	3	RELATIONSHIP OF RESPONDENT TO CHILD (RECODE)
CEN_REG	0060	0060	3	CENSUS REGION BASED ON STATE
CHILDNM	0061	0061	3	NUMBER OF CHILDREN LESS THAN 18 YEARS IN HH (RECODE)
D6R	0082	0082	5	NUMBER OF VACCINATION PROVIDERS IDENTIFIED BY RESPONDENT (RECODE)
D7	0083	0083	5	CONSENT TO OBTAIN CHILD'S IMMUNIZATION RECORDS FROM VACCINATION PROVIDERS IDENTIFIED IN QUESTION D6 IN THE INTERVIEW
DDTAP1	0575	0578	9	AGE IN DAYS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #1
DDTAP2	0579	0582	9	AGE IN DAYS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #2
DDTAP3	0583	0586	9	AGE IN DAYS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #3
DDTAP4	0587	0590	9	AGE IN DAYS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #4
DDTAP5	0591	0594	9	AGE IN DAYS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #5
DDTAP6	0595	0598	9	AGE IN DAYS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #6
DDTAP7	0599	0602	9	AGE IN DAYS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #7
DDTAP8	0603	0606	9	AGE IN DAYS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #8
DDTM1	0607	0610	9	AGE IN DAYS OF PROVIDER-REPORTED DT (MARKED) SHOT #1

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
DDTM2	0611	0614	9	AGE IN DAYS OF PROVIDER-REPORTED DT (MARKED) SHOT #2
DDTM3	0615	0618	9	AGE IN DAYS OF PROVIDER-REPORTED DT (MARKED) SHOT #3
DDTM4	0619	0622	9	AGE IN DAYS OF PROVIDER-REPORTED DT (MARKED) SHOT #4
DDTM5	0623	0626	9	AGE IN DAYS OF PROVIDER-REPORTED DT (MARKED) SHOT #5
DDTM6	0627	0630	9	AGE IN DAYS OF PROVIDER-REPORTED DT (MARKED) SHOT #6
DDTM7	0631	0634	9	AGE IN DAYS OF PROVIDER-REPORTED DT (MARKED) SHOT #7
DDTM8	0635	0638	9	AGE IN DAYS OF PROVIDER-REPORTED DT (MARKED) SHOT #8
DDTP1	0639	0642	9	AGE IN DAYS OF PROVIDER-REPORTED DTP SHOT (ALL TYPES INCLUDING DT) #1
DDTP2	0643	0646	9	AGE IN DAYS OF PROVIDER-REPORTED DTP SHOT (ALL TYPES INCLUDING DT) #2
DDTP3	0647	0650	9	AGE IN DAYS OF PROVIDER-REPORTED DTP SHOT (ALL TYPES INCLUDING DT) #3
DDTP4	0651	0654	9	AGE IN DAYS OF PROVIDER-REPORTED DTP SHOT (ALL TYPES INCLUDING DT) #4
DDTP5	0655	0658	9	AGE IN DAYS OF PROVIDER-REPORTED DTP SHOT (ALL TYPES INCLUDING DT) #5
DDTP6	0659	0662	9	AGE IN DAYS OF PROVIDER-REPORTED DTP SHOT (ALL TYPES INCLUDING DT) #6
DDTP7	0663	0666	9	AGE IN DAYS OF PROVIDER-REPORTED DTP SHOT (ALL TYPES INCLUDING DT) #7
DDTP8	0667	0670	9	AGE IN DAYS OF PROVIDER-REPORTED DTP SHOT (ALL TYPES INCLUDING DT) #8
DDTPHB1	0671	0674	9	AGE IN DAYS OF PROVIDER-REPORTED DTP/HIB SHOT (ALL TYPES) #1
DDTPHB2	0675	0678	9	AGE IN DAYS OF PROVIDER-REPORTED DTP/HIB SHOT (ALL TYPES) #2
DDTPHB3	0679	0682	9	AGE IN DAYS OF PROVIDER-REPORTED DTP/HIB SHOT (ALL TYPES) #3
DDTPHB4	0683	0686	9	AGE IN DAYS OF PROVIDER-REPORTED DTP/HIB SHOT (ALL TYPES) #4
DDTPHB5	0687	0690	9	AGE IN DAYS OF PROVIDER-REPORTED DTP/HIB SHOT (ALL TYPES) #5
DDTPHB6	0691	0694	9	AGE IN DAYS OF PROVIDER-REPORTED DTP/HIB SHOT (ALL TYPES) #6
DDTPHB7	0695	0698	9	AGE IN DAYS OF PROVIDER-REPORTED DTP/HIB SHOT (ALL TYPES) #7

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
DDTPHB8	0699	0702	9	AGE IN DAYS OF PROVIDER-REPORTED DTP/HIB SHOT (ALL TYPES) #8
DDTPM1	0703	0706	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (MARKED) #1
DDTPM2	0707	0710	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (MARKED) #2
DDTPM3	0711	0714	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (MARKED) #3
DDTPM4	0715	0718	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (MARKED) #4
DDTPM5	0719	0722	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (MARKED) #5
DDTPM6	0723	0726	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (MARKED) #6
DDTPM7	0727	0730	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (MARKED) #7
DDTPM8	0731	0734	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (MARKED) #8
DDTPN1	0735	0738	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #1
DDTPN2	0739	0742	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #2
DDTPN3	0743	0746	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #3
DDTPN4	0747	0750	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #4
DDTPN5	0751	0754	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #5
DDTPN6	0755	0758	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #6
DDTPN7	0759	0762	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #7
DDTPN8	0763	0766	9	AGE IN DAYS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #8
DHB1_AGE	1119	1120	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP/HIB (ALL TYPES) SHOT #1
DHB2_AGE	1121	1122	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP/HIB (ALL TYPES) SHOT #2
DHB3_AGE	1123	1124	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP/HIB (ALL TYPES) SHOT #3
DHB4_AGE	1125	1126	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP/HIB (ALL TYPES) SHOT #4
DHB5_AGE	1127	1128	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP/HIB (ALL TYPES) SHOT #5
DHB6_AGE	1129	1130	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP/HIB (ALL TYPES) SHOT #6

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
DHB7_AGE	1131	1132	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP/HIB (ALL TYPES) SHOT #7
DHB8_AGE	1133	1134	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP/HIB (ALL TYPES) SHOT #8
DHEPB1	0767	0770	9	AGE IN DAYS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #1
DHEPB2	0771	0774	9	AGE IN DAYS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #2
DHEPB3	0775	0778	9	AGE IN DAYS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #3
DHEPB4	0779	0782	9	AGE IN DAYS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #4
DHEPB5	0783	0786	9	AGE IN DAYS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #5
DHEPB6	0787	0790	9	AGE IN DAYS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #6
DHEPB7	0791	0794	9	AGE IN DAYS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #7
DHEPB8	0795	0798	9	AGE IN DAYS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #8
DHIB1	0799	0802	9	AGE IN DAYS OF PROVIDER-REPORTED HIB SHOT (ALL TYPES) #1
DHIB2	0803	0806	9	AGE IN DAYS OF PROVIDER-REPORTED HIB SHOT (ALL TYPES) #2
DHIB3	0807	0810	9	AGE IN DAYS OF PROVIDER-REPORTED HIB SHOT (ALL TYPES) #3
DHIB4	0811	0814	9	AGE IN DAYS OF PROVIDER-REPORTED HIB SHOT (ALL TYPES) #4
DHIB5	0815	0818	9	AGE IN DAYS OF PROVIDER-REPORTED HIB SHOT (ALL TYPES) #5
DHIB6	0819	0822	9	AGE IN DAYS OF PROVIDER-REPORTED HIB SHOT (ALL TYPES) #6
DHIB7	0823	0826	9	AGE IN DAYS OF PROVIDER-REPORTED HIB SHOT (ALL TYPES) #7
DHIB8	0827	0830	9	AGE IN DAYS OF PROVIDER-REPORTED HIB SHOT (ALL TYPES) #8
DIPVM1	0831	0834	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/IPV SHOT (MARKED) #1
DIPVM2	0835	0838	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/IPV SHOT (MARKED) #2
DIPVM3	0839	0842	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/IPV SHOT (MARKED) #3
DIPVM4	0843	0846	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/IPV SHOT (MARKED) #4
DIPVM5	0847	0850	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/IPV SHOT (MARKED) #5

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
DIPVM6	0851	0854	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/IPV SHOT (MARKED) #6
DIPVM7	0855	0858	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/IPV SHOT (MARKED) #7
DIPVM8	0859	0862	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/IPV SHOT (MARKED) #8
DISPCODE	0084	0085	6	NIS PROVIDER RECORD-CHECK DISPOSITION CODE
DMMR1	0863	0866	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES-CONTAINING VACCINE SHOT #1
DMMR2	0867	0870	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES-CONTAINING VACCINE SHOT #2
DMMR3	0871	0874	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES-CONTAINING VACCINE SHOT #3
DMMR4	0875	0878	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES-CONTAINING VACCINE SHOT #4
DMMRX1	0879	0882	9	AGE IN DAYS OF PROVIDER-REPORTED MMR SHOT #1
DMMRX2	0883	0886	9	AGE IN DAYS OF PROVIDER-REPORTED MMR SHOT #2
DMMRX3	0887	0890	9	AGE IN DAYS OF PROVIDER-REPORTED MMR SHOT #3
DMMRX4	0891	0894	9	AGE IN DAYS OF PROVIDER-REPORTED MMR SHOT #4
DMP1	0895	0898	9	AGE IN DAYS OF PROVIDER-REPORTED MUMPS SHOT #1
DMP2	0899	0902	9	AGE IN DAYS OF PROVIDER-REPORTED MUMPS SHOT #2
DMP3	0903	0906	9	AGE IN DAYS OF PROVIDER-REPORTED MUMPS SHOT #3
DMP4	0907	0910	9	AGE IN DAYS OF PROVIDER-REPORTED MUMPS SHOT #4
DMPRB1	0911	0914	9	AGE IN DAYS OF PROVIDER-REPORTED MUMPS/RUBELLA SHOT #1
DMPRB2	0915	0918	9	AGE IN DAYS OF PROVIDER-REPORTED MUMPS/RUBELLA SHOT #2
DMPRB3	0919	0922	9	AGE IN DAYS OF PROVIDER-REPORTED MUMPS/RUBELLA SHOT #3
DMPRB4	0923	0926	9	AGE IN DAYS OF PROVIDER-REPORTED MUMPS/RUBELLA SHOT #4
DMS1	0927	0930	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES SHOT #1
DMS2	0931	0934	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES SHOT #2
DMS3	0935	0938	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES SHOT #3
DMS4	0939	0942	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES SHOT #4
DMSMP1	0943	0946	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES/MUMPS SHOT #1
DMSMP2	0947	0950	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES/MUMPS SHOT #2

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
DMSMP3	0951	0954	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES/MUMPS SHOT #3
DMSMP4	0955	0958	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES/MUMPS SHOT #4
DMSRB1	0959	0962	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES/RUBELLA #1
DMSRB2	0963	0966	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES/RUBELLA #2
DMSRB3	0967	0970	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES/RUBELLA #3
DMSRB4	0971	0974	9	AGE IN DAYS OF PROVIDER-REPORTED MEASLES/RUBELLA #4
DOPVM1	0975	0978	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/OPV SHOT #1
DOPVM2	0979	0982	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/OPV SHOT #2
DOPVM3	0983	0986	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/OPV SHOT #3
DOPVM4	0987	0990	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/OPV SHOT #4
DOPVM5	0991	0994	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/OPV SHOT #5
DOPVM6	0995	0998	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/OPV SHOT #6
DOPVM7	0999	1002	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/OPV SHOT #7
DOPVM8	1003	1006	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO/OPV SHOT #8
DPM1_AGE	1135	1136	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (MARKED) SHOT #1
DPM2_AGE	1137	1138	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (MARKED) SHOT #2
DPM3_AGE	1139	1140	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (MARKED) SHOT #3
DPM4_AGE	1141	1142	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (MARKED) SHOT #4
DPM5_AGE	1143	1144	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (MARKED) SHOT #5
DPM6_AGE	1145	1146	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (MARKED) SHOT #6
DPM7_AGE	1147	1148	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (MARKED) SHOT #7
DPM8_AGE	1149	1150	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (MARKED) SHOT #8
DPN1_AGE	1151	1152	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #1
DPN2_AGE	1153	1154	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #2
DPN3_AGE	1155	1156	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #3

VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
DPN4_AGE	1157	1158	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #4
DPN5_AGE	1159	1160	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #5
DPN6_AGE	1161	1162	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #6
DPN7_AGE	1163	1164	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #7
DPN8_AGE	1165	1166	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (UNMARKED) SHOT #8
DPOLIO1	1007	1010	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO SHOT (ALL TYPES) #1
DPOLIO2	1011	1014	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO SHOT (ALL TYPES) #2
DPOLIO3	1015	1018	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO SHOT (ALL TYPES) #3
DPOLIO4	1019	1022	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO SHOT (ALL TYPES) #4
DPOLIO5	1023	1026	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO SHOT (ALL TYPES) #5
DPOLIO6	1027	1030	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO SHOT (ALL TYPES) #6
DPOLIO7	1031	1034	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO SHOT (ALL TYPES) #7
DPOLIO8	1035	1038	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO SHOT (ALL TYPES) #8
DPOLN1	1039	1042	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #1
DPOLN2	1043	1046	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #2
DPOLN3	1047	1050	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #3
DPOLN4	1051	1054	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #4
DPOLN5	1055	1058	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #5
DPOLN6	1059	1062	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #6
DPOLN7	1063	1066	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #7
DPOLN8	1067	1070	9	AGE IN DAYS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #8
DRB1	1071	1074	9	AGE IN DAYS OF PROVIDER-REPORTED RUBELLA SHOT #1
DRB2	1075	1078	9	AGE IN DAYS OF PROVIDER-REPORTED RUBELLA SHOT #2
DRB3	1079	1082	9	AGE IN DAYS OF PROVIDER-REPORTED RUBELLA SHOT #3
DRB4	1083	1086	9	AGE IN DAYS OF PROVIDER-REPORTED RUBELLA SHOT #4

VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
DRB5	1087	1090	9	AGE IN DAYS OF PROVIDER-REPORTED RUBELLA SHOT #5
DRB6	1091	1094	9	AGE IN DAYS OF PROVIDER-REPORTED RUBELLA SHOT #6
DRB7	1095	1098	9	AGE IN DAYS OF PROVIDER-REPORTED RUBELLA SHOT #7
DRB8	1099	1102	9	AGE IN DAYS OF PROVIDER-REPORTED RUBELLA SHOT #8
DTA1_AGE	1167	1168	9	AGE IN MONTHS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #1
DTA2_AGE	1169	1170	9	AGE IN MONTHS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #2
DTA3_AGE	1171	1172	9	AGE IN MONTHS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #3
DTA4_AGE	1173	1174	9	AGE IN MONTHS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #4
DTA5_AGE	1175	1176	9	AGE IN MONTHS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #5
DTA6_AGE	1177	1178	9	AGE IN MONTHS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #6
DTA7_AGE	1179	1180	9	AGE IN MONTHS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #7
DTA8_AGE	1181	1182	9	AGE IN MONTHS OF PROVIDER-REPORTED DTAP (MARKED) SHOT #8
DTM1_AGE	1183	1184	9	AGE IN MONTHS OF PROVIDER-REPORTED DT (MARKED) SHOT #1
DTM2_AGE	1185	1186	9	AGE IN MONTHS OF PROVIDER-REPORTED DT (MARKED) SHOT #2
DTM3_AGE	1187	1188	9	AGE IN MONTHS OF PROVIDER-REPORTED DT (MARKED) SHOT #3
DTM4_AGE	1189	1190	9	AGE IN MONTHS OF PROVIDER-REPORTED DT (MARKED) SHOT #4
DTM5_AGE	1191	1192	9	AGE IN MONTHS OF PROVIDER-REPORTED DT (MARKED) SHOT #5
DTM6_AGE	1193	1194	9	AGE IN MONTHS OF PROVIDER-REPORTED DT (MARKED) SHOT #6
DTM7_AGE	1195	1196	9	AGE IN MONTHS OF PROVIDER-REPORTED DT (MARKED) SHOT #7
DTM8_AGE	1197	1198	9	AGE IN MONTHS OF PROVIDER-REPORTED DT (MARKED) SHOT #8
DTP_SOUR	0046	0046	2	SHOT CARD USED FOR DTP REPORTING
DTP1_AGE	1199	1200	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (ALL TYPES INCLUDING DT) SHOT #1
DTP2_AGE	1201	1202	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (ALL TYPES INCLUDING DT) SHOT #2
DTP3_AGE	1203	1204	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (ALL TYPES INCLUDING DT) SHOT #3
DTP4_AGE	1205	1206	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (ALL TYPES INCLUDING DT) SHOT #4

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
DTP5_AGE	1207	1208	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (ALL TYPES INCLUDING DT) SHOT #5
DTP6_AGE	1209	1210	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (ALL TYPES INCLUDING DT) SHOT #6
DTP7_AGE	1211	1212	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (ALL TYPES INCLUDING DT) SHOT #7
DTP8_AGE	1213	1214	9	AGE IN MONTHS OF PROVIDER-REPORTED DTP (ALL TYPES INCLUDING DT) SHOT #8
DVRC1	1103	1106	9	AGE IN DAYS OF PROVIDER-REPORTED VARICELLA SHOT #1
DVRC2	1107	1110	9	AGE IN DAYS OF PROVIDER-REPORTED VARICELLA SHOT #2
DVRC3	1111	1114	9	AGE IN DAYS OF PROVIDER-REPORTED VARICELLA SHOT #3
DVRC4	1115	1118	9	AGE IN DAYS OF PROVIDER-REPORTED VARICELLA SHOT #4
EDUC1	0062	0062	3	EDUCATION OF MOTHER CATEGORIES
ENTRY	0063	0063	3	CHILD LIVES IN STATE WITH HEPATITIS B STATE ENTRY LAW FOR DAY CARE/HEAD START (1996-1997 SCHOOL YEAR)
FRSTBRN	0064	0064	3	FIRST BORN STATUS OF CHILD
FUL2_MMR	0047	0047	2	HOUSEHOLD REPORT OF 1+ MMR AT ANY AGE
FULL_CPO	0048	0048	2	HOUSEHOLD REPORT OF 1+ VARICELLA AT ANY AGE
FULL_DTP	0049	0049	2	HOUSEHOLD REPORT OF 4+ DTP
FULL_HEP	0050	0050	2	HOUSEHOLD REPORT OF 3+ HEPATITIS B
FULL_HIB	0051	0051	2	HOUSEHOLD REPORT OF 3+ HIB
FULL_POL	0052	0052	2	HOUSEHOLD REPORT OF 3+ POLIO
HEP_BRTH	0096	0096	8	HEPATITIS B GIVEN AT BIRTH FLAG
HEP1_AGE	1215	1216	9	AGE IN MONTHS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #1
HEP2_AGE	1217	1218	9	AGE IN MONTHS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #2
HEP3_AGE	1219	1220	9	AGE IN MONTHS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #3
HEP4_AGE	1221	1222	9	AGE IN MONTHS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #4
HEP5_AGE	1223	1224	9	AGE IN MONTHS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #5
HEP6_AGE	1225	1226	9	AGE IN MONTHS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #6
HEP7_AGE	1227	1228	9	AGE IN MONTHS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #7
HEP8_AGE	1229	1230	9	AGE IN MONTHS OF PROVIDER-REPORTED HEPATITIS B (ALL TYPES) SHOT #8

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
HIB1_AGE	1231	1232	9	AGE IN MONTHS OF PROVIDER-REPORTED HIB (ALL TYPES) SHOT #1
HIB2_AGE	1233	1234	9	AGE IN MONTHS OF PROVIDER-REPORTED HIB (ALL TYPES) SHOT #2
HIB3_AGE	1235	1236	9	AGE IN MONTHS OF PROVIDER-REPORTED HIB (ALL TYPES) SHOT #3
HIB4_AGE	1237	1238	9	AGE IN MONTHS OF PROVIDER-REPORTED HIB (ALL TYPES) SHOT #4
HIB5_AGE	1239	1240	9	AGE IN MONTHS OF PROVIDER-REPORTED HIB (ALL TYPES) SHOT #5
HIB6_AGE	1241	1242	9	AGE IN MONTHS OF PROVIDER-REPORTED HIB (ALL TYPES) SHOT #6
HIB7_AGE	1243	1244	9	AGE IN MONTHS OF PROVIDER-REPORTED HIB (ALL TYPES) SHOT #7
HIB8_AGE	1245	1246	9	AGE IN MONTHS OF PROVIDER-REPORTED HIB (ALL TYPES) SHOT #8
HUTD4313	0053	0053	2	HOUSEHOLD REPORT OF 4:3:1:3 UTD (UP-TO-DATE)
HY_WGT	0012	0021	1	MODIFIED-POSTSTRATIFICATION (HH) WEIGHT FOR CHILD
I_HISP_K	0068	0068	3	HISPANIC ORIGIN OF CHILD
I_HISP_M	0069	0069	3	HISPANIC ORIGIN OF MOTHER
I_RACEKR	0070	0070	3	RACE OF CHILD (RECODE)
I_RACEMR	0071	0071	3	RACE OF MOTHER (RECODE)
INCOMER	0066	0067	3	FAMILY INCOME CATEGORIES (RECODE)
INCPOV1R	0065	0065	3	POVERTY STATUS(RECODE)
IPV1_AGE	1247	1248	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/IPV (MARKED) SHOT #1
IPV2_AGE	1249	1250	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/IPV (MARKED) SHOT #2
IPV3_AGE	1251	1252	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/IPV (MARKED) SHOT #3
IPV4_AGE	1253	1254	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/IPV (MARKED) SHOT #4
IPV5_AGE	1255	1256	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/IPV (MARKED) SHOT #5
IPV6_AGE	1257	1258	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/IPV (MARKED) SHOT #6
IPV7_AGE	1259	1260	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/IPV (MARKED) SHOT #7
IPV8_AGE	1261	1262	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/IPV (MARKED) SHOT #8
ITRUEIAP	0078	0079	4	IAP AREA OF CURRENT RESIDENCE
M_AGEGRP	0074	0074	3	AGE OF MOTHER CATEGORIES
MARITAL	0072	0072	3	MARITAL STATUS OF MOTHER CATEGORIES

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
MEDHOME	0087	0087	7	WAS THIS FACILITY EVER CHILD'S MEDICAL HOME FOR PRIMARY CARE
MMR1_AGE	1263	1264	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES-CONTAINING VACCINE SHOT #1
MMR2_AGE	1265	1266	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES-CONTAINING VACCINE SHOT #2
MMR3_AGE	1267	1268	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES-CONTAINING VACCINE SHOT #3
MMR4_AGE	1269	1270	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES-CONTAINING VACCINE SHOT #4
MMX1_AGE	1271	1272	9	AGE IN MONTHS OF PROVIDER-REPORTED MMR SHOT #1
MMX2_AGE	1273	1274	9	AGE IN MONTHS OF PROVIDER-REPORTED MMR SHOT #2
MMX3_AGE	1275	1276	9	AGE IN MONTHS OF PROVIDER-REPORTED MMR SHOT #3
MMX4_AGE	1277	1278	9	AGE IN MONTHS OF PROVIDER-REPORTED MMR SHOT #4
MOBIL	0073	0073	3	GEOGRAPHIC MOBILITY STATUS: STATE OF RESIDENCE OF CHILD AT BIRTH VERSUS CURRENT STATE OF RESIDENCE
MP1_AGE	1279	1280	9	AGE IN MONTHS OF PROVIDER-REPORTED MUMPS SHOT #1
MP2_AGE	1281	1282	9	AGE IN MONTHS OF PROVIDER-REPORTED MUMPS SHOT #2
MP3_AGE	1283	1284	9	AGE IN MONTHS OF PROVIDER-REPORTED MUMPS SHOT #3
MP4_AGE	1285	1286	9	AGE IN MONTHS OF PROVIDER-REPORTED MUMPS SHOT #4
MPR1_AGE	1287	1288	9	AGE IN MONTHS OF PROVIDER-REPORTED MUMPS/RUBELLA SHOT #1
MPR2_AGE	1289	1290	9	AGE IN MONTHS OF PROVIDER-REPORTED MUMPS/RUBELLA SHOT #2
MPR3_AGE	1291	1292	9	AGE IN MONTHS OF PROVIDER-REPORTED MUMPS/RUBELLA SHOT #3
MPR4_AGE	1293	1294	9	AGE IN MONTHS OF PROVIDER-REPORTED MUMPS/RUBELLA SHOT #4
MS1_AGE	1295	1296	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES-ONLY SHOT #1
MS2_AGE	1297	1298	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES-ONLY SHOT #2
MS3_AGE	1299	1300	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES-ONLY SHOT #3
MS4_AGE	1301	1302	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES-ONLY SHOT #4
MSM1_AGE	1303	1304	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES/MUMPS SHOT #1
MSM2_AGE	1305	1306	9	AGE IN MONTHS OF PROVIDER-REPORTED

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
				MEASLES/MUMPS SHOT #2
MSM3_AGE	1307	1308	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES/MUMPS SHOT #3
MSM4_AGE	1309	1310	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES/MUMPS SHOT #4
MSR1_AGE	1311	1312	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES/RUBELLA SHOT #1
MSR2_AGE	1313	1314	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES/RUBELLA SHOT #2
MSR3_AGE	1315	1316	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES/RUBELLA SHOT #3
MSR4_AGE	1317	1318	9	AGE IN MONTHS OF PROVIDER-REPORTED MEASLES/RUBELLA SHOT #4
N_PRVR	0086	0086	6	NUMBER OF PROVIDERS RESPONDING WITH VACCINATION DATA FOR CHILD (RECODE)
NCARER1	0088	0088	7	CHILD'S PROVIDERS OFFER COMPREHENSIVE CHILD CARE
NCARER2	0089	0089	7	CHILD'S PROVIDERS OFFER ACUTE ILLNESS CARE
NCARER3	0090	0090	7	CHILD'S PROVIDERS OFFER FOLLOW UP VISITS
NCARER4	0091	0091	7	CHILD'S PROVIDERS OFFER AFTER-HOURS TELEPHONE COVERAGE
NCARER5	0092	0092	7	CHILD'S PROVIDERS OFFER WIC PROGRAM/SERVICES
NCARER6	0093	0093	7	CHILD'S PROVIDERS OFFER OTHER SERVICES
OPV1_AGE	1319	1320	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/OPV (MARKED) SHOT #1
OPV2_AGE	1321	1322	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/OPV (MARKED) SHOT #2
OPV3_AGE	1323	1324	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/OPV (MARKED) SHOT #3
OPV4_AGE	1325	1326	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/OPV (MARKED) SHOT #4
OPV5_AGE	1327	1328	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/OPV (MARKED) SHOT #5
OPV6_AGE	1329	1330	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/OPV (MARKED) SHOT #6
OPV7_AGE	1331	1332	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/OPV (MARKED) SHOT #7
OPV8_AGE	1333	1334	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO/OPV (MARKED) SHOT #8
P_NUMDHB	0109	0109	8	NUMBER OF DTP/HIB COMBINATION SHOTS (ALL TYPES), AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
P_NUMDTA	0110	0110	8	NUMBER OF DTAP (MARKED) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMDTM	0111	0111	8	NUMBER OF DT (MARKED) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMDTP	0112	0112	8	NUMBER OF DTP SHOTS (ALL TYPES INCLUDING DT), AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMHEP	0113	0113	8	NUMBER OF HEPATITIS B (ALL TYPES) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMHIB	0114	0114	8	NUMBER OF HIB (ALL TYPES) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMIPV	0115	0115	8	NUMBER OF IPV (MARKED) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMMMR	0116	0116	8	NUMBER OF MCV (MEASLES-CONTAINING VACCINE) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMMMX	0117	0117	8	NUMBER OF TRUE MMR (NOT INCLUDING MEASLES-ONLY SHOTS), AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMOLN	0118	0118	8	NUMBER OF POLIO (UNMARKED) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMOPV	0119	0119	8	NUMBER OF OPV (MARKED) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMPOL	0120	0120	8	NUMBER OF POLIO (ALL TYPES) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMRB	0121	0121	8	NUMBER OF RUBELLA SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
P_NUMTPM	0122	0122	8	NUMBER OF DTP (MARKED) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMTPN	0123	0123	8	NUMBER OF DTP (UNMARKED) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_NUMVRC	0124	0124	8	NUMBER OF VARICELLA (CHICKEN POX) SHOTS, AS DETERMINED FROM PROVIDER INFORMATION. DOES NOT INCLUDE SHOTS REPORTED BY THE PROVIDER(S) AS OCCURRING AFTER THE RDD INTERVIEW DATE.
P_U12VRC	0101	0101	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 1+ VARICELLA AT 12+ MONTHS
P_UTD331	0100	0100	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 3:3:1
P_UTD431	0097	0097	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 4:3:1
P_UTDHEP	0102	0102	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 3+ HEPATITIS B
P_UTDHIB	0103	0103	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 3+ HIB
P_UTDMCV	0104	0104	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 1+ MCV
P_UTDMMX	0105	0105	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 1+ MMR (NOT INCLUDING ANY MEASLES-ONLY SHOTS)
P_UTDPOL	0106	0106	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 3+ POLIO
P_UTDTP3	0107	0107	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 3+ DTP
P_UTDTP4	0108	0108	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 4+ DTP
PDAT	0036	0036	1	CHILD HAS ADEQUATE PROVIDER DATA
PLN1_AGE	1335	1336	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #1
PLN2_AGE	1337	1338	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #2
PLN3_AGE	1339	1340	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #3
PLN4_AGE	1341	1342	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #4
PLN5_AGE	1343	1344	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #5
PLN6_AGE	1345	1346	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #6
PLN7_AGE	1347	1348	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #7
PLN8_AGE	1349	1350	9	AGE IN MONTHS OF PROVIDER-REPORTED POLIO (UNMARKED) SHOT #8
POL1_AGE	1351	1352	9	AGE ON MONTHS OF PROVIDER-REPORTED POLIO (ALL TYPES) SHOT # 1
POL2_AGE	1353	1354	9	AGE ON MONTHS OF PROVIDER-REPORTED POLIO (ALL TYPES) SHOT # 2

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VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
POL3_AGE	1355	1356	9	AGE ON MONTHS OF PROVIDER-REPORTED POLIO (ALL TYPES) SHOT # 3
POL4_AGE	1357	1358	9	AGE ON MONTHS OF PROVIDER-REPORTED POLIO (ALL TYPES) SHOT # 4
POL5_AGE	1359	1360	9	AGE ON MONTHS OF PROVIDER-REPORTED POLIO (ALL TYPES) SHOT # 5
POL6_AGE	1361	1362	9	AGE ON MONTHS OF PROVIDER-REPORTED POLIO (ALL TYPES) SHOT # 6
POL7_AGE	1363	1364	9	AGE ON MONTHS OF PROVIDER-REPORTED POLIO (ALL TYPES) SHOT # 7
POL8_AGE	1365	1366	9	AGE ON MONTHS OF PROVIDER-REPORTED POLIO (ALL TYPES) SHOT # 8
PROV_FAC	0094	0094	7	PROVIDER FACILITY TYPE
PUT43133	0099	0099	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 4:3:1:3:3
PUTD4313	0098	0098	8	UTD (UP-TO-DATE) FLAG FOR PROVIDER 4:3:1:3
RACEKIDR	0075	0075	3	RACE/ETHNICITY OF CHILD (RECODE)
RACEMOMR	0076	0076	3	RACE/ETHNICITY OF MOTHER (RECODE)
RB1_AGE	1367	1368	9	AGE IN MONTHS OF PROVIDER-REPORTED RUBELLA SHOT #1
RB2_AGE	1369	1370	9	AGE IN MONTHS OF PROVIDER-REPORTED RUBELLA SHOT #2
RB3_AGE	1371	1372	9	AGE IN MONTHS OF PROVIDER-REPORTED RUBELLA SHOT #3
RB4_AGE	1373	1374	9	AGE IN MONTHS OF PROVIDER-REPORTED RUBELLA SHOT #4
RB5_AGE	1375	1376	9	AGE IN MONTHS OF PROVIDER-REPORTED RUBELLA SHOT #5
RB6_AGE	1377	1378	9	AGE IN MONTHS OF PROVIDER-REPORTED RUBELLA SHOT #6
RB7_AGE	1379	1380	9	AGE IN MONTHS OF PROVIDER-REPORTED RUBELLA SHOT #7
RB8_AGE	1381	1382	9	AGE IN MONTHS OF PROVIDER-REPORTED RUBELLA SHOT #8
SEQNUMC	0001	0006	1	UNIQUE CHILD IDENTIFIER
SEQNUMHH	0007	0011	1	UNIQUE HOUSEHOLD IDENTIFIER
SEX	0077	0077	3	GENDER OF CHILD
SHOTCARD	0054	0054	2	SHOT CARD USE FLAG
STATE	0080	0081	4	STATE OF RESIDENCE (STATE FIPS CODE)
VB11	0125	0154	8	VERBATIM TEXT FOR 1ST OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 1ST PROVIDER.
VB12	0155	0184	8	VERBATIM TEXT FOR 1ST OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 2ND PROVIDER.

VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
VB13	0185	0214	8	VERBATIM TEXT FOR 1ST OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 3RD PROVIDER.
VB21	0215	0244	8	VERBATIM TEXT FOR 2ND OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 1ST PROVIDER.
VB22	0245	0274	8	VERBATIM TEXT FOR 2ND OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 2ND PROVIDER.
VB23	0275	0304	8	VERBATIM TEXT FOR 2ND OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 3RD PROVIDER.
VB31	0305	0334	8	VERBATIM TEXT FOR 3RD OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 1ST PROVIDER.
VB32	0335	0364	8	VERBATIM TEXT FOR 3RD OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 2ND PROVIDER.
VB33	0365	0394	8	VERBATIM TEXT FOR 3RD OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 3RD PROVIDER.
VB41	0395	0424	8	VERBATIM TEXT FOR 4TH OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 1ST PROVIDER.
VB42	0425	0454	8	VERBATIM TEXT FOR 4TH OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 2ND PROVIDER.
VB43	0455	0484	8	VERBATIM TEXT FOR 4TH OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 3RD PROVIDER.
VB51	0485	0514	8	VERBATIM TEXT FOR 5TH OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 1ST PROVIDER.
VB52	0515	0544	8	VERBATIM TEXT FOR 5TH OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 2ND PROVIDER.
VB53	0545	0574	8	VERBATIM TEXT FOR 5TH OTHER SHOT (ADDITIONAL SHOT OF TYPE NOT PRE-PRINTED ON PROVIDER SURVEY FORM) REPORTED BY 3RD PROVIDER.
VFC_PRO	0095	0095	7	PARTICIPATION OF CHILD'S PROVIDERS IN VACCINES FOR CHILDREN PROGRAM
VRC1_AGE	1383	1384	9	AGE IN MONTHS OF PROVIDER-REPORTED VARICELLA

1997 National Immunization Survey Public-Use Data File

ALPHABETICAL INDEX OF VARIABLES

VARIABLE NAME	BEGIN POSITION	END POSITION	SECTION NUMBER	VARIABLE LABEL
				SHOT #1
VRC2_AGE	1385	1386	9	AGE IN MONTHS OF PROVIDER-REPORTED VARICELLA SHOT #2
VRC3_AGE	1387	1388	9	AGE IN MONTHS OF PROVIDER-REPORTED VARICELLA SHOT #3
VRC4_AGE	1389	1390	9	AGE IN MONTHS OF PROVIDER-REPORTED VARICELLA SHOT #4
W0	0022	0031	1	OVERALL VACCINATION HISTORY NONRESPONSE ADJUSTED WEIGHT FOR CHILDREN WITH ADEQUATE PROVIDER DATA
YEAR	0032	0035	1	YEAR OF INTERVIEW

Appendix H

Summary Tables

Table H.1: Estimated population total and sample sizes of children 19-35 months of age by state and IAP area, 1997 NIS

State/IAP Area	Estimated Population Total of Children	Number of Children with Completed HH Interviews	Number of Children with Adequate Provider Data
U.S. National	5,665,213	32,742	22,806
Alabama	88,442	833	588
Rest of State	74,778	430	302
Jefferson County	13,664	403	286
Alaska	14,498	417	291
Arizona	101,858	849	559
Rest of State	40,163	430	287
Maricopa County	61,695	419	272
Arkansas	50,428	449	333
California	813,076	1,673	1,097
Rest of State	448,250	426	282
Los Angeles Co.	258,854	422	246
Santa Clara County	38,328	408	282
San Diego County	67,644	417	287
Colorado	75,380	416	287
Connecticut	65,192	423	308
Delaware	14,042	416	283
Dist. of Columbia	11,575	424	244
Florida	288,309	1,248	836
Rest of State	221,162	424	298
Duval County	17,602	411	280
Dade County	49,545	413	258
Georgia	163,208	817	567
Rest of State	132,247	415	294
Fulton/DeKalb Cos.	30,961	402	273
Hawaii	27,375	421	265
Idaho	25,641	433	327
Illinois	269,604	827	533
Rest of State	189,887	393	270
City of Chicago	79,717	434	263
Indiana	119,433	839	605
Rest of State	99,388	442	342
Marion County	20,044	397	263
Iowa	52,281	426	337
Kansas	54,772	411	289
Kentucky	75,233	429	307

Table H.1: Estimated population total and sample sizes of children 19-35 months of age by state and IAP area, 1997 NIS (continued)

State/IAP Area	Estimated Population Total of Children	Number of Children with Completed HH Interviews	Number of Children with Adequate Provider Data
Louisiana	91,144	816	509
Rest of State	79,785	418	281
Orleans Parish	11,360	398	228
Maine	21,482	418	333
Maryland	113,269	827	553
Rest of State	95,720	454	316
Baltimore City	17,548	373	237
Massachusetts	116,100	830	598
Rest of State	103,794	426	314
City of Boston	12,306	404	284
Michigan	195,122	839	585
Rest of State	169,157	454	332
City of Detroit	25,965	385	253
Minnesota	93,727	426	310
Mississippi	59,345	415	300
Missouri	103,619	434	295
Montana	15,732	427	334
Nebraska	32,275	431	340
Nevada	38,983	425	284
New Hampshire	21,681	406	311
New Jersey	171,079	817	500
Rest of State	162,781	451	295
City of Newark	8,298	366	205
New Mexico	39,403	427	293
New York	386,706	822	525
Rest of State	206,126	423	287
NYC - 5 Counties	180,580	399	238
North Carolina	148,513	418	309
North Dakota	10,857	438	320
Ohio	219,922	1,255	856
Rest of State	168,474	453	329
Cuyahoga County	28,470	417	266
Franklin County	22,978	385	261
Oklahoma	65,819	419	291
Oregon	62,983	421	318

Table H.1: Estimated population total and sample sizes of children 19-35 months of age by state and IAP area, 1997 NIS (continued)

State/IAP Area	Estimated Population Total of Children	Number of Children with Completed HH Interviews	Number of Children with Adequate Provider Data
Pennsylvania	219,008	822	549
Rest of State	183,638	422	301
Philadelphia Co.	35,370	400	248
Rhode Island	18,467	424	310
South Carolina	76,277	426	311
South Dakota	15,183	425	318
Tennessee	102,351	1,247	881
Rest of State	70,208	419	312
Shelby County	20,747	407	271
Davidson County	11,396	421	298
Texas	460,865	2,093	1,322
Rest of State	295,845	482	312
Dallas County	52,399	397	237
El Paso County	22,014	414	284
City of Houston	58,078	385	229
Bexar County	32,529	415	260
Utah	52,370	418	315
Vermont	10,280	425	341
Virginia	139,898	428	310
Washington	114,929	846	619
Rest of State	82,565	433	319
King County	32,364	413	300
West Virginia	29,391	421	319
Wisconsin	99,189	875	646
Rest of State	76,192	441	340
Milwaukee County	22,997	434	306
Wyoming	8,899	430	345

Table H.2: Age Group by Maternal Education, National Immunization Survey, 1997

Age Group In Months	Maternal Education	Children with Completed Household Interviews		Children with Adequate Provider Data	
		Unweighted Sample Size	Weighted Sample Size	Unweighted Sample Size	Weighted Sample Size
19 - 23	LESS THAN 12 YEARS	1195	271353.8	763	279055.5
19 - 23	12 YEARS	3156	645873.5	2210	644406.5
19 - 23	GREATER 12 YEARS, NOT COLLEGE GRADUATE	2022	282671.0	1445	270635.9
19 - 23	COLLEGE GRADUATE	3254	458450.9	2337	457539.5
24 - 29	LESS THAN 12 YEARS	1429	326497.3	958	339959.2
24 - 29	12 YEARS	3894	798940.7	2621	782670.8
24 - 29	GREATER 12 YEARS, NOT COLLEGE GRADUATE	2485	356294.7	1754	366637.8
24 - 29	COLLEGE GRADUATE	3940	550966.0	2847	559136.2
30 - 35	LESS THAN 12 YEARS	1511	344720.6	957	342682.7
30 - 35	12 YEARS	3667	764721.4	2487	763539.1
30 - 35	GREATER 12 YEARS, NOT COLLEGE GRADUATE	2414	330804.4	1705	326729.5
30 - 35	COLLEGE GRADUATE	3775	533918.3	2722	532220.0

Table H.3: Age Group by Family Income, National Immunization Survey, 1997

Age Group in Months	Family Income	Children with Completed Household Interviews		Children with Adequate Provider Data	
		Unweighted Sample Size	Weighted Sample Size	Unweighted Sample Size	Weighted Sample Size
19 - 23	MISSING	120	17284.2	34	6766.0
19 - 23	0 - $ 7,500	356	59218.7	254	57735.5
19 - 23	$ 7,501 - $10,000	562	126043.7	371	115515.3
19 - 23	$10,001 - $12,500	190	35851.0	148	39463.6
19 - 23	$12,501 - $15,000	279	53202.5	206	54588.4
19 - 23	$15,001 - $17,500	276	47336.8	196	45822.4
19 - 23	$17,501 - $20,000	451	81403.6	316	76397.1
19 - 23	$20,001 - $30,000	1279	223185.3	936	215816.1
19 - 23	$30,001 - $50,000	2050	331622.5	1527	328898.0
19 - 23	$50,001 +	2343	367208.4	1745	370299.7
19 - 23	DON'T KNOW	1055	198803.3	671	236039.4
19 - 23	REFUSED	666	117189.3	351	104295.9
24 - 29	MISSING	121	23006.7	29	4801.7
24 - 29	0 - $ 7,500	455	79110.7	315	78343.7
24 - 29	$ 7,501 - $10,000	711	145129.6	497	147652.4
24 - 29	$10,001 - $12,500	197	42986.1	146	44288.5
24 - 29	$12,501 - $15,000	377	68057.4	267	68629.2
24 - 29	$15,001 - $17,500	310	60195.4	233	57132.1
24 - 29	$17,501 - $20,000	575	111097.6	407	109514.6
24 - 29	$20,001 - $30,000	1649	271390.2	1157	259199.1
24 - 29	$30,001 - $50,000	2337	358076.1	1712	371809.7
24 - 29	$50,001 +	3010	485720.3	2261	487045.2
24 - 29	DON'T KNOW	1149	234071.8	720	279078.3
24 - 29	REFUSED	857	153856.8	436	140909.4
30 - 35	MISSING	138	25419.2	25	6012.2
30 - 35	0 - $ 7,500	423	78823.3	300	71754.9
30 - 35	$ 7,501 - $10,000	667	125173.9	462	121897.6
30 - 35	$10,001 - $12,500	204	41169.1	149	44356.7
30 - 35	$12,501 - $15,000	394	70067.2	289	72143.7
30 - 35	$15,001 - $17,500	314	49782.9	234	51632.6
30 - 35	$17,501 - $20,000	557	99511.7	407	105647.4
30 - 35	$20,001 - $30,000	1541	250685.8	1082	245691.2
30 - 35	$30,001 - $50,000	2332	366098.7	1680	354544.7
30 - 35	$50,001 +	2875	479537.7	2160	491049.0
30 - 35	DON'T KNOW	1117	256475.8	683	283081.4
30 - 35	REFUSED	805	131419.4	400	117359.8

Table H.4: Age Group by Race/Ethnicity, National Immunization Survey, 1997

Age Group In Months	Race/Ethnicity Of Child	Children with Completed Household Interviews		Children with Adequate Provider Data	
		Unweighted Sample Size	Weighted Sample Size	Unweighted Sample Size	Weighted Sample Size
19 - 23	HISPANIC	1377	319804.7	928	317939.6
19 - 23	WHITE, NON HISPANIC	6036	990615.1	4436	991604.0
19 - 23	BLACK, NON HISPANIC	1597	255216.6	962	243249.7
19 - 23	ALL OTHER, NON HISPANIC	617	92712.9	429	98844.2
24 - 29	HISPANIC	1734	393253.4	1158	395272.3
24 - 29	WHITE, NON HISPANIC	7328	1212125.8	5348	1218624.5
24 - 29	BLACK, NON HISPANIC	1985	318953.5	1210	322507.1
24 - 29	ALL OTHER, NON HISPANIC	701	108366.0	464	112000.1
30 - 35	HISPANIC	1643	388925.6	1053	388798.2
30 - 35	WHITE, NON HISPANIC	7095	1171854.3	5178	1154009.8
30 - 35	BLACK, NON HISPANIC	1962	301665.8	1200	310244.2
30 - 35	ALL OTHER, NON HISPANIC	667	111719.1	440	112119.0

Table H.5: Age Group by Gender, National Immunization Survey, 1997

Age Group In Months	Gender	Children with Completed Household Interviews		Children with Adequate Provider Data	
		Unweighted Sample Size	Weighted Sample Size	Unweighted Sample Size	Weighted Sample Size
19 - 23	MALE	4943	855408.6	3455	849913.9
19 - 23	FEMALE	4684	802940.6	3300	801723.5
24 - 29	MALE	6026	1034445.2	4167	1038494.4
24 - 29	FEMALE	5722	998253.4	4013	1009909.5
30 - 35	MALE	5859	1016756.6	4063	1018202.0
30 - 35	FEMALE	5508	957408.2	3808	946969.2

Table H.6: Shot Card Use by Presence of Adequate Provider Data, National Immunization Survey, 1997

Shot Card Use	Presence of Adequate Provider Data	Unweighted Sample Size
SHOT CARD	ADEQUATE PROVIDER DATA	12355
SHOT CARD	NO ADEQUATE PROVIDER DATA	3734
NO SHOT CARD	ADEQUATE PROVIDER DATA	10451
NO SHOT CARD	NO ADEQUATE PROVIDER DATA	6202

Table H.7: Estimates of Vaccination Coverage and 95-Percent Confidence-Interval Half-Widths, National Immunization Survey, 1997

State/IAP Area	3+ DTP	4+ DTP	3+ POLIO	1+ MCV	3+ HIB	3+ HEP B	1+ VARICELLA	3:3:1	4:3:1	4:3:1:3	4:3:1:3:3
US National	95.4±0.5	81.5±0.9	90.7±0.6	90.4±0.7	92.5±0.6	83.6±0.8	25.8±0.9	85.2±0.8	77.9±0.9	76.2±0.9	68.5±1.0
Alabama	98.3±1.4	89.9±3.2	96.1±1.6	93.8±2.5	97.1±1.7	85.9±3.8	26.5±4.9	90.8±3.0	87.9±3.4	87.4±3.4	76.5±4.6
AL-Jefferson Cnty	98.0±1.6	87.3±4.0	94.0±2.8	93.8±3.0	96.6±2.0	90.2±3.6	33.5±5.8	90.6±3.6	84.4±4.4	83.0±4.5	76.7±5.1
AL-Rest of State	98.4±1.6	90.4±3.7	96.5±1.9	93.8±2.9	97.2±1.9	85.1±4.5	25.2±5.7	90.8±3.5	88.5±3.9	88.2±3.9	76.5±5.4
Alaska	93.9±3.1	81.0±5.1	91.6±3.5	87.4±4.3	89.4±3.9	87.4±4.1	11.9±4.1	84.2±4.7	78.1±5.3	75.2±5.6	68.8±5.9
Arizona	91.1±2.7	77.6±4.1	85.5±3.4	88.0±3.1	89.0±2.9	77.7±4.0	27.3±4.2	80.1±3.9	72.4±4.4	70.6±4.4	62.0±4.7
AZ-Maricopa Cnty	90.7±3.9	77.5±5.8	83.9±5.0	88.8±4.3	88.3±4.1	76.8±5.6	27.3±5.9	80.2±5.3	71.4±6.1	69.5±6.2	60.0±6.6
AZ-Rest of State	91.7±3.6	77.7±5.6	88.0±4.2	86.8±4.5	90.1±3.9	79.0±5.4	27.5±5.7	79.8±5.4	73.8±5.9	72.2±6.0	65.1±6.3
Arkansas	94.5±2.9	83.2±4.4	91.1±3.6	92.3±3.1	93.2±3.2	87.9±3.9	15.4±4.2	86.8±4.1	80.0±4.8	80.0±4.8	74.8±5.2
California	94.4±1.9	79.0±3.6	90.0±2.4	88.8±2.9	90.8±2.5	81.2±3.4	33.4±4.0	84.5±3.1	76.2±3.7	74.2±3.8	67.1±4.1
CA-Los Angeles	92.9±4.0	76.3±6.3	89.8±4.5	91.4±4.2	90.4±4.6	81.1±5.9	37.9±7.1	84.8±5.3	74.1±6.6	71.6±6.8	64.6±7.2
CA-San Diego Cnty	94.9±2.9	82.6±4.8	88.8±3.9	95.1±2.5	92.9±3.4	82.6±4.6	36.1±6.0	87.2±4.1	79.0±5.1	77.5±5.2	69.6±5.7
CA-Santa Clara	95.9±3.1	81.4±5.9	86.8±5.0	89.6±4.3	90.9±4.2	84.8±5.0	38.3±6.3	80.6±5.6	72.3±6.5	69.4±6.6	63.2±6.7
CA-Rest of State	95.1±2.5	79.7±5.3	90.5±3.4	86.3±4.5	90.8±3.6	80.8±5.1	30.0±5.8	84.2±4.6	77.3±5.5	75.5±5.7	68.6±6.1
Colorado	95.2±2.8	80.4±5.0	89.9±3.8	94.1±3.2	91.9±3.6	82.0±4.8	19.2±4.7	85.8±4.5	76.0±5.4	74.3±5.5	64.4±5.9
Connecticut	98.6±1.2	92.0±3.1	94.3±2.5	93.7±2.8	95.7±2.3	85.3±4.2	26.5±5.3	90.7±3.3	88.1±3.7	86.3±3.9	76.0±5.0
Delaware	98.1±1.8	85.1±4.9	95.0±2.6	91.1±3.7	94.9±2.8	82.7±4.7	28.7±5.9	89.2±4.0	82.5±5.1	80.0±5.3	68.3±6.0
Dist. of Columbia	92.8±4.2	78.3±6.6	87.0±4.9	89.7±4.4	88.7±4.7	78.9±5.8	34.8±6.7	82.6±5.3	73.4±6.7	71.3±6.8	62.4±7.1
Florida	95.2±2.5	80.0±4.3	90.5±3.1	90.1±3.2	91.4±3.4	85.3±3.8	26.9±4.3	86.8±3.5	77.1±4.4	74.4±4.6	67.3±4.9
FL-Dade Cnty	95.2±3.3	79.7±5.8	88.3±4.6	88.5±5.1	93.3±3.6	82.3±5.4	22.4±5.5	84.8±5.6	75.8±6.4	74.5±6.4	65.5±6.8
FL-Duval Cnty	95.3±3.2	74.6±6.7	89.2±4.4	87.3±5.4	91.9±4.0	90.4±4.3	35.3±6.2	81.6±6.1	69.9±6.8	68.8±6.8	65.5±6.9
FL-Rest of State	95.2±3.2	80.5±5.4	91.1±3.8	90.7±4.0	90.9±4.4	85.5±4.8	27.3±5.5	87.6±4.4	78.0±5.5	74.8±5.9	67.8±6.2
Georgia	98.2±1.2	84.0±4.0	94.0±2.5	91.2±3.1	95.5±1.9	88.8±3.5	24.7±4.5	87.5±3.5	80.0±4.3	78.2±4.4	72.9±4.8
GA-Fulton/DeKalb	95.6±2.5	83.3±4.9	88.7±4.2	91.5±3.7	91.6±3.8	82.9±5.3	35.4±6.5	83.6±5.0	76.9±5.7	73.5±6.0	66.7±6.4
GA-Rest of State	98.8±1.3	84.2±4.7	95.2±2.9	91.1±3.8	96.5±2.1	90.1±4.1	22.2±5.3	88.4±4.2	80.7±5.1	79.3±5.2	74.4±5.7
Hawaii	92.7±3.8	82.1±5.7	88.5±5.0	90.4±4.7	90.1±4.4	87.8±4.6	32.5±6.4	85.1±5.4	78.9±6.1	77.3±6.2	73.2±6.4
Idaho	91.4±3.4	74.0±5.3	88.6±3.8	88.0±4.0	88.1±3.9	79.7±4.6	6.1±2.6	82.8±4.5	72.1±5.4	70.8±5.4	63.9±5.6
Illinois	94.6±2.7	80.3±4.3	88.7±3.6	89.0±3.5	92.1±2.9	81.4±4.0	20.1±4.1	83.3±4.1	75.2±4.7	73.8±4.7	67.4±4.9
IL-City of Chicago	93.0±4.5	72.7±7.1	87.9±5.1	87.2±5.1	88.4±5.1	75.3±6.9	14.3±4.5	81.2±5.9	68.8±7.2	65.9±7.2	60.4±7.3
IL-Rest of State	95.3±3.3	83.5±5.4	89.0±4.6	89.8±4.4	93.7±3.5	83.9±4.9	22.5±5.5	84.1±5.3	77.9±5.9	77.2±6.0	70.4±6.3
Indiana	94.2±2.3	77.3±4.5	89.1±3.2	88.5±3.4	90.6±3.0	80.0±4.1	16.7±3.7	83.0±3.9	73.7±4.7	71.7±4.8	62.7±5.0
IN-Marion Cnty	95.0±3.4	83.3±5.4	90.9±4.1	90.0±4.3	92.9±3.7	79.3±5.8	20.7±6.4	84.9±5.0	80.3±5.6	79.9±5.6	66.9±6.7
IN-Rest of State	94.1±2.7	76.0±5.3	88.8±3.8	88.1±4.0	90.1±3.5	80.2±4.8	15.9±4.2	82.7±4.6	72.3±5.5	70.0±5.6	61.8±5.9
Iowa	97.1±2.0	84.5±4.2	90.7±3.5	89.8±3.4	95.8±2.3	88.8±3.7	17.5±4.4	83.2±4.4	77.9±4.8	77.3±4.8	71.0±5.2
Kansas	96.3±2.3	86.5±4.3	93.3±3.4	93.7±3.3	95.3±2.5	82.3±4.8	24.7±5.5	89.8±4.2	84.4±4.8	84.4±4.8	72.1±5.8
Kentucky	95.2±3.0	82.7±5.0	92.3±3.7	89.5±4.1	93.4±3.6	82.8±5.0	29.1±5.6	85.0±4.7	80.2±5.3	78.4±5.5	70.2±6.0
Louisiana	96.3±2.0	81.5±4.5	91.7±3.1	88.1±3.7	94.1±2.5	86.6±3.8	17.1±4.1	83.7±4.2	77.7±4.8	77.1±4.8	70.6±5.3
LA-Orleans Parish	90.4±4.8	74.6±7.2	82.7±6.1	84.7±6.3	84.9±5.5	75.7±6.6	17.6±6.3	77.5±7.0	71.9±7.3	69.3±7.4	58.4±7.7

Table H.7: Estimates of Vaccination Coverage and 95-Percent Confidence-Interval Half-Widths, National Immunization Survey, 1997 (continued)

State/IAP Area	3+ DTP	4+ DTP	3+ POLIO	1+ MCV	3+ HIB	3+ HEP B	1+ VARICELLA	3:3:1	4:3:1	4:3:1:3	4:3:1:3:3
LA-Rest of State	97.1±2.2	82.5±5.0	93.0±3.4	88.6±4.1	95.4±2.7	88.2±4.3	17.0±4.6	84.5±4.7	78.6±5.4	78.2±5.4	72.3±5.9
Maine	98.7±1.3	91.6±3.3	96.4±2.0	95.3±2.4	96.5±2.1	86.9±4.0	12.5±3.9	93.1±2.8	88.9±3.7	86.7±4.0	78.4±4.9
Maryland	97.9±1.6	87.6±3.9	92.9±2.9	95.3±2.6	94.8±2.3	87.4±3.6	40.2±5.4	91.0±3.2	83.2±4.4	80.8±4.5	73.7±4.9
MD-Baltimore City	97.5±2.4	90.1±4.6	92.4±4.2	94.9±3.4	95.0±3.1	83.9±6.2	23.0±6.3	89.6±4.7	85.8±5.3	83.8±5.5	72.5±7.1
MD-Rest of State	97.9±1.8	87.1±4.5	93.0±3.3	95.4±3.0	94.7±2.6	88.1±4.1	43.3±6.3	91.3±3.7	82.7±5.1	80.2±5.2	74.0±5.6
Massachusetts	98.7±1.3	93.7±2.6	95.1±2.4	95.6±2.4	96.8±2.0	90.5±3.2	22.5±4.6	91.8±3.1	88.9±3.4	87.5±3.6	81.1±4.2
MA-City of Boston	97.9±1.8	91.0±3.5	96.4±2.2	94.6±2.7	95.8±2.6	91.8±3.3	19.6±5.0	92.1±3.2	88.2±3.9	86.4±4.2	80.9±4.8
MA-Rest of State	98.8±1.5	94.0±2.9	94.9±2.6	95.7±2.6	96.9±2.2	90.4±3.6	22.8±5.1	91.7±3.4	89.0±3.8	87.7±4.0	81.2±4.7
Michigan	94.3±2.4	79.9±4.3	90.0±3.1	89.2±3.4	90.8±3.0	83.7±3.9	15.7±3.9	84.4±3.8	77.5±4.4	75.0±4.6	69.3±4.8
MI-City of Detroit	88.6±5.0	71.2±6.7	80.1±6.0	82.2±5.7	78.8±6.6	76.0±6.7	12.3±4.3	74.6±6.4	66.3±6.9	60.2±7.3	54.6±7.3
MI-Rest of State	95.1±2.7	81.2±4.9	91.6±3.5	90.3±3.8	92.7±3.3	84.9±4.3	16.2±4.5	85.9±4.3	79.2±5.0	77.2±5.2	71.6±5.5
Minnesota	95.1±3.0	83.0±5.3	92.3±3.5	91.7±4.1	92.2±3.6	75.2±5.6	39.1±5.9	86.6±4.8	80.4±5.5	78.3±5.6	63.7±6.1
Mississippi	95.0±4.1	83.5±5.5	92.2±4.6	90.7±4.0	93.4±4.3	86.2±4.5	10.5±3.8	87.2±5.2	81.5±5.6	80.4±5.7	70.8±6.2
Missouri	96.8±2.3	83.0±4.9	91.1±3.8	90.1±3.9	96.1±2.5	82.3±5.0	23.3±5.3	84.3±4.7	79.3±5.2	78.8±5.2	67.6±6.0
Montana	95.6±2.6	80.4±4.7	90.6±3.6	87.0±4.1	91.9±3.3	80.4±4.7	19.8±4.4	80.8±4.7	75.8±5.1	74.8±5.1	64.3±5.6
Nebraska	95.5±2.5	78.7±4.9	89.5±3.8	89.4±3.8	92.9±3.2	83.7±4.3	23.6±4.9	83.6±4.5	75.5±5.0	73.8±5.1	66.4±5.4
Nevada	92.0±3.5	76.7±5.5	87.3±4.5	87.9±4.2	89.2±4.3	85.4±4.6	10.8±3.9	79.5±5.4	71.4±6.0	69.8±6.1	65.5±6.2
New Hampshire	99.3±1.1	90.5±3.8	94.5±2.8	95.5±2.6	97.2±2.0	88.4±3.8	28.1±5.3	91.7±3.3	86.1±4.3	85.0±4.4	76.8±5.0
New Jersey	98.2±1.6	81.9±5.1	92.2±3.3	93.6±3.0	94.3±2.7	91.6±4.2	28.1±5.8	88.1±4.0	78.2±5.4	76.2±5.5	70.5±6.3
NJ-City of Newark	93.4±3.5	74.2±7.4	82.1±6.2	85.6±5.7	85.3±6.0	79.8±7.0	14.1±5.0	77.8±7.0	71.2±7.6	67.9±7.8	62.4±8.2
NJ-Rest of State	98.5±1.7	82.3±5.3	92.7±3.5	94.0±3.1	94.8±2.8	92.2±4.4	28.8±6.1	88.7±4.2	78.6±5.7	76.6±5.8	70.9±6.6
New Mexico	93.2±4.0	79.9±5.6	86.4±5.0	84.5±5.3	89.6±4.6	80.8±5.7	20.0±5.5	79.0±5.7	75.3±5.9	72.7±6.1	66.1±6.3
New York	97.9±1.7	82.6±4.0	90.7±3.0	92.5±2.9	92.8±2.8	87.6±3.4	25.1±4.1	86.4±3.6	77.5±4.3	74.5±4.4	68.1±4.6
NY-NYC 5 Counties	97.4±3.0	81.4±6.5	91.5±4.3	91.9±4.8	90.9±4.7	86.3±5.6	20.4±5.9	86.7±5.4	76.3±6.8	72.0±7.0	65.6±7.2
NY-Rest of State	98.3±1.8	83.6±4.9	89.9±4.2	93.1±3.6	94.4±3.3	88.7±4.0	29.2±5.7	86.2±4.7	78.5±5.4	76.7±5.6	70.4±5.8
North Carolina	98.4±1.8	84.4±4.8	96.2±2.4	94.4±2.7	95.0±3.3	91.5±3.6	32.4±5.9	91.9±3.3	81.3±5.0	79.8±5.2	76.5±5.4
North Dakota	98.2±1.5	87.2±4.1	92.3±3.4	90.6±3.4	95.3±2.6	87.8±4.0	24.0±5.2	85.2±4.4	81.3±4.9	79.6±5.1	73.2±5.5
Ohio	96.4±1.8	79.6±4.1	88.8±3.3	89.2±3.1	93.0±2.5	82.9±3.9	23.0±4.0	82.1±3.9	74.8±4.3	72.3±4.5	63.9±4.7
OH-Cuyahoga Cnty	95.2±3.3	76.9±6.2	88.8±5.0	90.6±4.2	92.3±4.0	84.4±5.1	24.6±5.8	84.6±5.4	71.7±6.7	70.1±6.8	63.3±6.9
OH-Franklin Cnty	95.5±2.8	78.4±5.4	86.8±4.5	89.5±3.9	93.5±3.2	77.1±6.1	30.4±5.9	81.7±5.1	73.7±5.8	72.6±5.8	59.7±6.6
OH-Rest of State	96.7±2.2	80.3±5.2	89.1±4.2	89.0±3.9	93.1±3.2	83.4±5.0	21.8±5.0	81.7±5.0	75.5±5.5	72.7±5.6	64.6±6.0
Oklahoma	94.8±3.0	75.8±6.0	90.4±4.0	87.1±4.8	92.8±3.4	84.4±4.6	25.7±5.5	81.8±5.4	71.1±6.3	70.0±6.4	65.0±6.5
Oregon	95.1±2.6	78.5±5.2	88.6±4.1	88.4±4.4	92.8±3.1	81.7±4.6	28.9±5.4	82.5±4.9	73.1±5.5	72.1±5.6	62.0±5.9
Pennsylvania	94.8±2.7	84.2±3.9	88.3±3.6	92.1±2.8	92.1±3.2	83.8±3.9	40.1±5.2	84.9±3.9	81.3±4.1	79.4±4.3	70.9±4.7
PA-Philadelphia	95.8±2.7	84.6±4.8	92.1±3.4	93.9±3.0	94.2±3.0	82.5±5.0	41.2±6.6	89.5±3.9	82.8±4.9	81.4±5.1	69.3±6.1
PA-Rest of State	94.6±3.2	84.1±4.6	87.6±4.2	91.8±3.3	91.6±3.7	84.1±4.5	39.9±6.0	83.9±4.5	81.1±4.8	79.0±5.0	71.2±5.4
Rhode Island	99.7±0.6	90.6±3.4	95.1±2.7	95.8±2.3	96.2±2.2	87.0±4.0	36.7±5.6	91.5±3.4	85.1±4.4	81.8±4.7	72.0±5.4
South Carolina	95.8±2.6	83.5±4.6	92.0±3.3	90.6±3.8	95.1±2.7	88.2±4.2	26.9±5.4	86.8±4.2	81.4±4.8	80.5±4.9	74.4±5.5
South Dakota	95.9±3.0	80.1±5.2	92.6±3.7	89.9±4.1	94.7±3.2	81.0±4.9	NA	85.7±4.7	78.0±5.4	76.8±5.5	67.0±5.9
Tennessee	95.9±1.9	84.0±3.5	91.9±2.4	90.4±2.8	95.2±1.9	85.6±3.1	21.9±3.5	85.5±3.3	79.4±3.7	79.0±3.7	71.3±4.1

Table H.7: Estimates of Vaccination Coverage and 95-Percent Confidence-Interval Half-Widths, National Immunization Survey, 1997 (continued)

State/IAP Area	3+ DTP	4+ DTP	3+ POLIO	1+ MCV	3+ HIB	3+ HEP B	1+ VARICELLA	3:3:1	4:3:1	4:3:1:3	4:3:1:3:3
TN-Davidson Cnty	95.0±3.1	83.1±5.1	88.9±4.1	88.7±4.5	93.2±3.5	77.4±5.6	29.1±6.1	81.3±5.3	76.1±5.7	76.1±5.7	64.7±6.4
TN-Shelby Cnty	95.3±2.9	79.3±5.8	89.0±4.4	88.4±4.3	92.0±3.5	87.8±4.8	22.2±5.2	80.6±5.7	72.1±6.4	70.2±6.5	67.4±6.6
TN-Rest of State	96.2±2.6	85.5±4.7	93.2±3.2	91.3±3.8	96.4±2.5	86.2±4.3	20.6±4.8	87.6±4.4	82.1±5.0	82.1±5.0	73.5±5.6
Texas	91.4±2.4	77.5±3.5	87.9±2.8	87.6±2.9	89.2±2.6	78.6±3.8	23.8±4.0	80.4±3.5	74.8±3.7	73.9±3.7	65.3±4.3
TX-Bexar Cnty	94.7±3.1	83.0±5.4	93.7±3.4	90.7±4.4	93.5±3.5	86.7±5.0	23.9±6.7	86.8±5.0	80.4±5.8	79.2±5.9	71.3±6.5
TX-City of Houston	85.9±5.8	66.1±7.4	81.5±6.1	86.0±5.5	80.5±6.6	69.8±7.1	20.3±5.9	73.4±6.8	64.3±7.4	61.7±7.5	51.0±7.6
TX-Dallas Cnty	95.5±2.7	79.7±5.6	90.9±4.1	87.6±4.7	90.9±3.9	83.0±5.2	25.6±6.3	84.5±5.3	77.8±5.8	74.6±6.1	67.0±6.6
TX-El Paso Cnty	88.1±4.6	67.9±6.1	85.8±4.8	81.5±5.2	85.5±4.8	72.5±6.0	16.5±4.6	75.2±5.9	64.5±6.4	62.5±6.4	53.7±6.4
TX-Rest of State	91.6±3.5	79.5±5.1	88.2±4.2	88.1±4.2	90.5±3.8	79.1±5.7	24.8±6.0	80.7±5.1	76.4±5.4	76.4±5.4	68.0±6.3
Utah	93.2±3.1	73.7±5.4	89.7±3.7	86.1±4.4	90.1±3.8	69.7±5.7	14.3±4.2	82.2±4.8	70.8±5.6	69.1±5.7	53.7±6.0
Vermont	99.4±0.8	93.1±2.9	96.2±2.3	95.3±2.3	97.1±1.8	85.8±3.8	21.3±4.5	92.1±3.1	89.2±3.5	87.1±3.8	78.0±4.6
Virginia	93.9±3.3	76.2±5.3	90.2±3.8	89.5±3.8	91.2±3.8	84.6±4.7	30.5±5.6	83.1±4.7	72.8±5.6	71.7±5.7	66.6±5.9
Washington	96.0±2.2	83.6±3.6	92.2±2.7	91.1±2.7	93.1±2.6	78.3±3.9	12.2±3.0	85.9±3.3	80.5±3.8	79.3±3.9	66.6±4.4
WA-King Cnty	95.9±2.6	84.4±4.8	92.2±3.5	92.3±3.4	92.5±3.6	79.3±5.0	11.7±3.8	87.1±4.3	82.3±5.0	81.1±5.1	69.7±6.0
WA-Rest of State	96.1±2.9	83.3±4.7	92.2±3.5	90.7±3.5	93.3±3.4	77.9±5.1	12.4±3.8	85.4±4.3	79.8±4.9	78.6±5.0	65.4±5.7
West Virginia	98.5±1.3	87.4±4.1	94.6±2.9	91.5±3.5	97.4±1.7	86.4±4.0	20.0±4.8	87.7±4.1	82.1±4.8	81.2±4.9	73.4±5.4
Wisconsin	94.8±2.1	85.2±3.3	92.4±2.4	91.3±2.8	93.2±2.3	82.2±3.5	22.1±3.7	87.8±3.1	82.7±3.4	81.2±3.5	70.9±4.1
WI-Milwaukee Cnty	93.6±3.2	78.0±5.3	88.4±4.2	93.8±2.7	87.8±4.2	76.7±5.3	24.8±5.3	84.7±4.6	74.9±5.4	71.7±5.6	58.8±6.1
WI-Rest of State	95.1±2.6	87.4±4.0	93.7±2.8	90.6±3.6	94.8±2.7	83.8±4.3	21.3±4.6	88.8±3.8	85.1±4.2	84.1±4.3	74.5±5.1
Wyoming	93.6±3.4	79.9±4.8	90.2±3.8	84.4±4.6	92.0±3.6	84.8±4.4	10.4±3.5	83.1±4.6	76.1±5.1	75.3±5.2	69.2±5.4