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Design and Operation of the National Survey of Children's Health, 2003

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

National Center for Health Statistics

Division of Health Interview Statistics

Acknowledgments

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Abstract

Objectives

This report presents the development, plan, and operation of the National Survey of Children's Health (NSCH), a module of the State and Local Area Integrated Telephone Survey, conducted by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics. This survey was designed to produce national and State-specific prevalence estimates for a variety of physical, emotional, and behavioral health indicators and measures of children's experiences with the health care system. The survey also includes questions about the family (e.g., parents' health status, stress and coping behaviors, family activities) and about respondents' perceptions of the neighborhoods where their children live. Primary funding for this survey was provided by the Maternal and Child Health Bureau, Health Resources and Services Administration. Additional support was received from the CDC's National Center for Infectious Diseases, using funds provided by the National Vaccine Program Office.

Methods

A random-digit-dial sample of households with children under 18 years of age was selected from each of the 50 States and the District of Columbia. One child was randomly selected from all children in each identified household to be the subject of the survey. The respondent was the parent or guardian who knew the most about the child's health and health care.

Results

A total of 102,353 interviews were completed from January 2003 to July 2004. The weighted overall response rate was 55.3%. A data file has been released that contains demographic information on the selected child, substantive health and well-being data for the child and his/her family, and sampling weights. Estimates based on the sampling weights generalize to the noninstitutionalized population of children in each State and nationwide.

Keywords: child health • child well-being • access to care • medical home • family functioning • health surveys • needs assessment

Design and Operation of the National Survey of Children's Health, 2003

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Introduction

For nearly a century, the Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration (HRSA) has been charged with the primary responsibility for promoting and improving the health of the Nation's mothers and children. The mission of MCHB is to ensure the continued improvement in the health, safety, and well-being of America's women, infants, children, adolescents, and their families (1,2).

MCHB relies on data from population-based systems to evaluate progress toward its mission. National-level data on child health and well-being are available from a number of ongoing surveys. However, valid and reliable State-level statistical estimates cannot be made from these national datasets for all States. One source of valid and reliable State-level estimates for children's risk behaviors is the Youth Risk Behavior Survey, but these data are only available for adolescents in grades 9–12. For younger children, some States conduct their own State-specific, population-based surveys with health and well-being questions, but varying design strategies make comparisons among estimates among States impossible. Recognizing the need for health and well-being data that could be meaningfully compared across States and nationally for all children under 18 years of age, MCHB utilized the State and Local Area Integrated Telephone Survey (SLAITS) program to sponsor the National Survey of Children's Health (NSCH).

State and Local Area Integrated Telephone Survey Program

The SLAITS program, conducted by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS), is a broad-based, ongoing surveillance system available at the State and local level for tracking and monitoring the health and well-being of children and adults. SLAITS uses the sampling frame of the National Immunization Survey (NIS), which is conducted jointly by NCHS and CDC's National Immunization Program (3). NIS is a large-scale random-digit-dialed (RDD) telephone survey that screens for the presence of young children in selected households and collects immunization history information for eligible children. The size of the NIS sampling frame provides an economical opportunity for SLAITS projects to survey other populations in addition to the rare population that eventually screens into the NIS itself. Through the NIS sampling frame, SLAITS modules enjoy cost savings by avoiding some of the expense of frame development, sample selection, and screening.

The National Survey of Children's Health is the third SLAITS survey to

produce national estimates concerning the health of children. It is the second SLAITS survey to take full advantage of the NIS sampling frame to produce children's health estimates at the State level.

SLAITS began in 1997 with a pilot test in two States (Iowa and Washington) of a series of questions on health, including issues of access to care, health status, and insurance. In 1998, a SLAITS module concerning child well-being and welfare issues was implemented using three samples: a Texas RDD sample, known Medicaid program participants seeded into the Texas RDD sample, and known Medicaid or MinnesotaCare participants in Minnesota. The first national SLAITS survey was fielded in 2000. The National Survey of Early Childhood Health collected data from a national sample regarding parents' perceptions of their children's pediatric care and examined relationships between the promotion of health in the pediatric office and promotion of health in the home (4). Then, from late 2000 to early 2002, the SLAITS program conducted the National Survey of Children with Special Health Care Needs to produce national and State-level estimates of the prevalence of special health care needs, describe the types of services that children with special health care needs (CSHCN) need and use, and assess shortcomings in the system of care for these children (5).

In 2003 and 2004, SLAITS fielded the National Asthma Survey, which was developed to help understand the health, socioeconomic, behavioral, and environmental factors that relate to better control of asthma, as well as to determine detailed prevalence rates by various demographic characteristics on a national level. Data from the National Asthma Survey will be released this year.

MCHB Goals and the National Survey of Children's Health

According to its vision statement, the MCHB strives "for a society where children are wanted and born with optimal health, receive quality care, and are nurtured lovingly and sensitively as they mature into healthy, productive adults." MCHB also seeks to ensure that "there is equal access for all to quality health care in a supportive, culturally competent, family and community setting" (1,2). This effort is achieved by providing block grants that are matched by State funds.

This survey was conducted to assess how well each State and the Nation as a whole are meeting MCHB's strategic plan goals and national performance measures, which include: providing national leadership for maternal and child health; promoting an environment that supports maternal and child health; eliminating health barriers and disparities; improving the health infrastructure and systems of care; assuring quality care; working with States and communities to plan and implement policies and programs to improve the social, emotional, and physical environment; and acquiring the best available evidence to develop and promote guidelines and practices to assure a social, emotional, and physical environment that supports the health and well-being of women and children. The results from this survey support these goals by providing a basis for Federal and State program planning and evaluation efforts.

The content of the NSCH is broad, addressing a variety of physical, emotional, and behavioral health indicators and measures of children's health experiences with the health care system. The survey includes an extensive battery of questions about the family, including parental health, stress and coping behaviors, family activities, and parental concerns about their children. The NSCH also asks respondents for their perceptions of the child's neighborhood. No other survey provides this breadth of information about children, families, and neighborhoods with sample sizes sufficient for State-level analyses in every State, collected in a manner that allows comparison among States and nationally (6).

It is anticipated that Maternal and Child Health programs in each State and MCHB at the Federal level will use data from the NSCH to characterize children's health status, understand their families and communities, and identify the challenges they face in navigating the health care system. Federal and State Title V programs should find the data invaluable for planning and evaluating programs. Researchers and public policy analysts at State and Federal levels will also use these data to assess issues such as the prevalence of uninsured children, the relationship of family health to children's health, and the impact of State programs on children's health and well-being. Finally, the data will also provide baseline estimates for several MCHB companion objectives for Healthy People 2010 (7,8).

Sampling Design

As noted earlier, SLAITS studies benefit from the large number of screening calls required for the NIS. Telephone numbers for the NSCH were initially selected from the telephone numbers randomly generated for the NIS screening effort. Therefore, the procedures for drawing the NIS sample were the first steps in the procedures for drawing NSCH sample.

The next two sections describe the basic NIS sample design and serve as a nontechnical description of the NSCH sample design and allocation procedures. "Appendix I" of this report includes a more technical description. For more detail on the NIS sample design, readers are encouraged to obtain chapter 3 of the *NIS Annual Methodology Report* (9), which is available from NCHS. Further information regarding the NIS can be found in *National Immunization Survey: The Methodology of a Vaccination Surveillance System* (10).

The National Immunization Survey Sampling Plan

NIS was established in 1994 to monitor immunization levels of very young children within 78 geographic areas called Immunization Action Plan (IAP) areas. These 78 nonoverlapping

areas (including the District of Columbia and 27 other urban areas) encompass the entire United States, and each IAP area (except the District of Columbia) is within the borders of a single State. Every 3 months (or calendar quarter), NIS selects a random sample of telephone numbers in each IAP area. NIS screens over 1 million households per year, but interviews only a small portion of them (those containing children aged 19–35 months, who are the primary targets of immunization programs). Because less than 5% of households in the United States contain children in this age range, a large number of households are screened to identify households with NIS-eligible children. Households identified as having any children under 18 years of age were eligible for the NSCH.

In the United States, telephone numbers consist of an area code (3 digits), a prefix or exchange (3 digits), and a suffix (4 digits). A random sample of telephone numbers can be chosen by randomly selecting an area code and prefix combination currently in use and appending a randomly chosen four-digit number between 0000 and 9999. For NIS, prior to the selection of the sample of telephone numbers, banks of 100 consecutive numbers in the same area code and prefix combination that contain zero directory-listed residential telephone numbers—that is, banks of 100 numbers that have a low probability of containing working residential numbers—are deleted from the sampling frame. For this step, the GENESYS Sampling System (a proprietary product of Marketing Systems Group) uses a file of directory-listed residential numbers from Donnelley Marketing Information Services. A random sample of 10-digit telephone numbers is then drawn from the retained banks of 100 numbers. Identified business and nonworking telephone numbers are removed from this sample prior to dialing.

Each remaining telephone number is then called by an interviewer. If the telephone call reaches a household, the person answering the telephone is asked whether any children aged 19–35 months are living or staying in the household. If the household contains an NIS-eligible child or children, a household respondent is interviewed about each age-eligible child's immunization history and the demographic characteristics of the household. The NIS interviewer also asks for permission to contact the immunization providers of the children to obtain vaccination information from each child's medical record.

NSCH Sample Design and Allocation

The goal of the NSCH was to select representative samples of children under 18 years of age in each State. The target number of interviews was set at 2,000 per State to permit reasonably precise estimates of the characteristics of children in each State. Sufficient precision was defined as a maximum relative standard error of 5% for point estimates of 20%. This same level of precision can alternatively be defined as a 95% confidence interval no wider than 5 percentage points for all point estimates.

The target number of completed interviews in each IAP area within a State was determined by allocating the total of 2,000 interviews among the IAP areas within the State in proportion to the total number of households with children in each IAP area. To achieve the given number of completed NSCH interviews in each IAP area, the number of households to be screened (i.e., to determine if children live in the household) was calculated using the expected proportion of households with children. Next, the number of telephone numbers that needed to be called for the NSCH was computed using the expected working residential number rate. This number of telephone numbers was then increased to compensate for the fact that not all respondents would agree to participate. Finally, these numbers were randomly selected from the pool of telephone numbers selected to be called for the NIS. In other words, telephone numbers selected for the NIS were assigned to be either NIS-only telephone numbers or NIS/NSCH telephone numbers in such proportion that the required number of completed NSCH interviews could be achieved.

When NIS/NSCH telephone numbers were called, they were initially screened for residential status and for the presence of NIS age-eligible children. NIS interviews were conducted if NIS age-eligible children lived in the household. If NIS age-eligible children did not live in the household, interviewers asked if there were any children under age 18 living in the household. Then, regardless of whether an NIS interview was conducted, if children were in the household, one child was randomly sampled for the NSCH interview.

Although the initial study plan called for 2,000 completed interviews per State, this plan was subsequently revised. Not all States had sufficient NIS sample available within the data collection period to obtain the full number of interviews, and a decision was made not to draw more telephone numbers from the GENESYS Sampling System than was needed for the NIS. In addition, a monetary incentive was implemented part way through the data collection period to increase response. This incentive was implemented differentially by State. (A detailed description of the design for the incentive effort appears in ''Appendix II.'') Thus, the number of completed interviews varied by State, ranging from 1,848 in New Mexico to 2,241 in Louisiana and Ohio, with an average of 2,007. One State—Utah—was outside the range noted above, with only 1,483 interviews completed. Compared with other States, a substantially larger proportion of Utah households are NIS-eligible, thus decreasing the number of telephone numbers called to complete the NIS within the State. As a result of the smaller screener sample available, fewer NSCH interviews were conducted in Utah. Table A details the total number of interviews completed by State.

Questionnaire

The framework for the NSCH was initially discussed on September 10, 2001. A National Expert Panel consisting of State and Federal MCHB program directors, representatives of family organizations, child health

Table A. Number of completed interviews by State

State	Number of completed interviews
All States	102,353
Alabama	2,167
Alaska	1,904
Arizona	1,919
Arkansas	1,878
California	2,223
Colorado	1,855
Connecticut	2,146
Delaware	2,156
District of Columbia	2,049
Florida	2,116
Georgia	1,864
Hawaii	2,021
Idaho	1,861
Illinois	2,158
Indiana	1,874
Iowa	1,949
Kansas	1,849
Kentucky	1,953
Louisiana	2,241
Maine	1,920
Maryland	2,128
Massachusetts	2,114
Michigan	2,191
Minnesota	1,864
Mississippi	2,035
Missouri	2,220
Montana	1,941
Nebraska	1,874
Nevada	2,064
New Hampshire	1,925
New Jersey	2,113
New Mexico	1,848
New York	2,021
North Carolina	2,084
North Dakota	1,955
Ohio	2,241
Oklahoma	1,937
Oregon	1,969
Pennsylvania	2,200
Rhode Island	2,019
South Carolina	2,157
South Dakota	1,868
Tennessee	1,922
Texas	2,179
Utah	1,483
Vermont	1,902
Virginia	2,179
Washington	1,932
West Virginia	2,022
Wisconsin	1,970
Wyoming	1,893

services researchers, and survey design experts met to recommend the content domains for the survey. (See table B for a list of panel members.) The eight recommended domains, selected for their epidemiological and policy importance, included demographics, physical and mental health status, health insurance, health care utilization and access to health care, medical home, family functioning, parents' health, and neighborhood characteristics. In addition, age-specific modules were recommended to capture the developmentally appropriate aspects of child health and well-being.

A subset of the National Expert Panel was selected to comprise a Technical Expert Panel, which would guide the development and testing of specific questionnaire items. The initial meeting of this panel was suspended due to the events of September 11, 2001. Further meetings were conducted by teleconference over the next 15 months. Where possible, questions from existing surveys were used for the NSCH to permit comparisons with those surveys and to reduce the need for extensive pretesting. Surveys reviewed by the Technical Expert Panel included (but was not limited to):

- National Health Interview Survey (NHIS), conducted annually by NCHS;
- National Survey of Children with Special Health Care Needs, sponsored by MCHB and conducted by NCHS;
- Consumer Assessment of Health Plans Survey (CAHPS), sponsored by the Agency for Healthcare Research and Quality;
- The National Survey of America's Families, sponsored by the Annie E. Casey Foundation and other funders and conducted by the Urban Institute;
- The Promoting Healthy Development Survey and the Living with Illness Survey, developed by the Child and Adolescent Health Measurement Initiative and the Foundation for Accountability; and
- Youth Risk Behavior Survey (YRBS), conducted biennially by CDC.

Questionnaire items recommended for inclusion by the Technical Expert Panel were assessed through reviews by outside experts and selected members of the community of potential data users. Comments were also solicited from State Maternal and Child Health agencies. MCHB management made the final decisions regarding the content of the survey.

Content

The NSCH questionnaire was designed to immediately follow a completed NIS interview in households with an NIS-eligible child or the NIS screener in households without an NIS-eligible child. The questionnaire was divided into 11 sections, summarized below.

1. *Age-Eligibility Screening and Demographic Characteristics*—This section consists of the introduction to the interview and a question to determine if any children under the age of 18 years were living in the household. All children living in the household were rostered by age, and one child was randomly sampled for the detailed NSCH interview.

In this section, respondents were asked questions about their relationship to the sampled child, the number of people living in their household, the highest education attained by anyone in the household, and the primary language spoken in the household. Respondents were also asked to identify the sex of the sampled child.

2. *Health and Functional Status*— The questions in this section were asked to determine whether the sampled child had acute or chronic physical, mental, behavioral, learning, or developmental conditions and, when present, the impact of these conditions upon the child's life. Respondents were asked additional specific questions (from the National Health Interview Survey) to determine the presence of various acute and chronic health conditions.

This section included the CSHCN Screener (11), a screening tool developed by the Child and Adolescent Health Measurement Initiative to identify special health care needs in children. The CSHCN Screener includes five stem questions on health care needs that could be the consequence of chronic health conditions. If a child currently experiences one of those consequences, followup questions determine whether this health care need

Table B. National Expert Panel members (September 2001)

Name	Affiliation (in 2001)
Henry Bernstein, D.O.	Harvard University
Christina Bethell, Ph.D., M.B.A., M.P.H.[1]	The Foundation for Accountability
Stephen Blumberg, Ph.D.[1]	National Center for Health Statistics, CDC[2]
Claire Brindis, Dr.P.H..	University of California at San Francisco
James Collins, Jr., M.D., M.P.H.	Northwestern University
James Crall, D.D.S., Sc.D.	Columbia University
Marcie Cynamon, M.A.[1]	National Center for Health Statistics, CDC[2]
Denise Dougherty, Ph.D..	Agency for Healthcare Research and Quality
Paula Duncan, M.D.[1]	University of Vermont
V. Jeffrey Evans, Ph.D., J.D.	National Institute for Child Health and Human Development, NIH[3]
Floyd Fowler, Jr., Ph.D.[1]	University of Massachusetts, Boston
Katherine Grimes, M.D., M.P.H.	Harvard University
Neal Halfon, M.D., M.P.H.	University of California at Los Angeles
David Heppel, M.D.[1]	Maternal and Child Health Bureau, HRSA[4]
Donald Hernandez, Ph.D.	State University of New York at Albany
Solomon Iyasu, M.D.	Centers for Disease Control and Prevention
Michael Kogan, Ph.D.[1]	Maternal and Child Health Bureau, HRSA[4]
Cassie Lauver, A.C.S.W.[1]	Maternal and Child Health Bureau, HRSA[4]
Kristin Anderson Moore, Ph.D.[1]	Child Trends
Paul Newacheck, Dr.P.H., M.P.P.[1] (chairperson)	University of California at San Francisco
Kerry Nesseler, R.N., M.S.N.[1]	Maternal and Child Health Bureau, HRSA[4]
Matthew Stagner, Ph.D.	The Urban Institute
Ruth Stein, M.D.[1]	Yeshiva University
Betty Thompson, M.S.N	Metropolitan Health Department (Nashville)
Peter van Dyck, M.D., M.P.H.[1]	Maternal and Child Health Bureau, HRSA[4]
Michael Weitzman, M.D.	Center for Child Health Research
Jerry West, Ph.D.	National Center for Education Statistics
Cindy White	Family Voices

[1]This denotes the person was also a member of the Technical Expert Panel (TEP).
[2]CDC is Centers for Disease Control and Prevention.
[2]NIH is National Institutes of Health.
[4]HRSA is Health Resources and Services Administration.

is the result of a medical, behavioral, or other health condition that has lasted or is expected to last for 12 months or longer. Those with affirmative answers to the stem and the followup questions are considered to have special health care needs. This screener was also used for the National Survey of CSHCN (5).

This section also includes a question on children's difficulties with emotions, concentration, behavior, or being able to get along with other people. This question and its followup were drawn from the impact supplement to the Strengths and Difficulties Questionnaire (SDQ) (12). Due to an inadvertent error in the questionnaire development process, the choices of answers for the followup question do not match the answer choices for the copyrighted SDQ. Analysts should use caution when comparing estimates derived from the NSCH followup question to estimates derived from the proper SDQ impact question used in other surveys (e.g., the NHIS).

3. *Health Insurance Coverage*—The focus of this section is on establishing whether the sampled child had any type of private or public health care coverage in the 12 months prior to the interview.

4. *Health Care Access and Utilization*—The questions in this section address the availability of medical services for the sampled child within the 12 months prior to the interview and the degree to which these services were needed and used during that time period. A battery of questions also assessed Hepatitis A vaccination status for children aged 2 and over. The Hepatitis A vaccination questions were sponsored by the Division of Viral Hepatitis at CDC's National Center for Infectious Diseases, using funding from the National Vaccine Program Office.

5. *Medical Home*—The main goal of this section was to determine whether the sampled child had a primary health care provider and to assess the quality of care for, and communication with, the sampled child and his/her parents or guardians. The questions in this section were also designed to determine whether the child received special services such as physical therapy, medical equipment,

special educational services, or counseling, and whether the child's primary health care provider coordinated care received from various providers and services. Together, the items in this section permit an assessment of whether children have access to a "medical home," which is defined by the American Academy of Pediatrics as primary care that is accessible, continuous, comprehensive, family centered, coordinated, compassionate, and culturally effective (13).

6. *Early Childhood (0–5 years)*—This section, administered if the sampled child was 5 years old or younger, included questions about learning, development, behavior, child care arrangements, and the occurrence of accidental injuries and poisonings in the 12 months prior to the interview. This section included questions from the Parent's Evaluation of Developmental Status (PEDS). The PEDS is a tool to identify children at risk for developmental, behavioral, or social delays (14). Therefore, it was used in this section as a risk assessment tool to

identify children who either have or are more likely to have problems. Researchers interested in analyzing the PEDS data should consult the PEDS documentation for scoring instructions (15). (Health care providers wishing to use PEDS in practice to assess risk status or to make decisions about developmental status for individual children must use the clinical version of the test, which can be obtained from Ellsworth & Vandermeer Press, LLC (14). It was not used for the NSCH.) National data on the PEDS are also available from the 2000 National Survey of Early Childhood Health (4).

7. *Middle Childhood and Adolescence (6–17 years)* —This section, administered if the sampled child was aged 6 years or over, focused on school performance, activities outside school, and behaviors exhibited by the child. Respondents were also asked about their attendance at the sampled child's events and activities; whether they had met all, some, or none of the sampled child's friends; and the amount of time the sampled child spent caring for himself or herself.

This section includes a series of questions about social competence, behavior problems, and depression. Several of these questions (S7Q41, S7Q44, S7Q45, S7Q48, S7Q56, S7Q62, and S7Q63) were drawn from the Behavior Problems Index (16). S7Q52 was from the Positive Behaviors Scale (17). Others were developed by researchers from Child Trends for use in this survey. In collaboration with researchers at the U.S. Census Bureau and Child Trends, NCHS is in the process of validating scales based on these questions and producing scaled scores for public release. Contact SLAITS staff (slaits@cdc.gov) for more information.

8. *Family Functioning*—The goal of this section was to determine the number of recreational outings and religious services attended by the sampled child, the level of parental involvement with the sampled child, and the level of stress on the family resulting from the demands of parenting. Four of the parental stress questions (S8Q07–10) comprise the Aggravation in Parenting Scale, which was derived

from the Parental Stress Index (18) and the Parental Attitudes about Childrearing scale (19). It has been used previously in the Panel Survey of Income Dynamics, the Survey of Income and Program Participation, and the Survey of Program Dynamics. Analysts should note that prior research revealed that the Aggravation in Parenting Scale has limited cultural validity among Spanish-speaking Latino parents (20). Removal of a single question (S8Q09) from the scale improved the measure for this group.

This section also includes several questions about how families deal with serious disagreements. These questions were drawn from the National Survey of Families and Households and from the Early Childhood Longitudinal Survey. They were modified slightly to refer to all household members.

9. *Parental Health*—Questions in this section were designed to obtain the number and type of parents (or people acting as parents) who lived inside or outside the sampled child's household and to assess the physical, mental, and emotional health, and insurance status of the parents living in the household (or of the respondent if he or she was not the child's parent).

10. *Neighborhood Characteristics*— The primary goal of this section was to ascertain the respondents' perceptions of their neighborhoods and to determine the degree to which the respondents believed their children were safe in the neighborhood and in school. Four of the questions in this section (S10Q01–03, S10Q05) consider parents' perceived level of neighborhood social capital, focusing specifically on positive aspects of social capital relating to children (21). This concept, alternatively called ''social support,'' is similar to the concept of ''social cohesion and trust,'' which is related to variations in violence among inner-city neighborhoods (22). These questions were originally developed for the Longitudinal Studies of Child Abuse and Neglect and have also been used for the Survey of Income and Program Participation.

11. *Additional Demographic Characteristics*—In this section, respondents were asked a series of demographic questions, including the

number of times the family had moved since the child was born, household utilization of assistance from county welfare programs, and the household's ZIP code. Additional questions determined the race and ethnicity of the child and whether the child and his or her parents were born in the United States.

This section also included questions on family income. The annual family income was mapped to Department of Health and Human Services (HHS) Federal Poverty Guidelines for households. This mapping made it possible to determine whether the family's income was below the household poverty level and, if so, to quantify its poverty status.

''Appendix III'' includes a copy of the NSCH questionnaire, ''Appendix IV'' provides a list of changes made in the questionnaire over the course of the study, and ''Appendix V'' has the HHS Federal Poverty Guidelines tables used to determine household poverty status during interview administration and a description of the process for assigning poverty status to households.

CATI Programming

The NSCH was conducted using a computer-assisted telephone interviewing (CATI) system. The CATI data collection software presents the questionnaire on computer screens to each interviewer. The program guides the interviewer through the questionnaire, automatically routing the interviewer to appropriate questions based on answers to previous questions. Interviewers enter survey responses directly into the computer; the CATI program determines whether the selected response is within an allowable range, checks it for consistency against other data collected during the interview, and saves the responses in a survey data file. Online help facilities are available to aid interviewers. This data collection technology reduces the time required for transferring, processing, and releasing data, and promotes data accuracy.

The NSCH questionnaire was programmed as a module of the NIS, integrating the two surveys into a single interview. The instrument made full use

of the CATI system's ability to check whether a response was within a legitimate range, to follow skip patterns, to fill State-specific information in questions as applicable (for example, names of State health insurance programs), and to employ ''pick lists'' for response categories. Certain household and demographic questions were identical in the NIS and the NSCH portions of the interview. If a respondent answered these questions during NIS administration, the system was programmed so that the questions were not repeated in the NSCH. Instead, the answers to these questions in the NIS were copied to the data file for the NSCH, as appropriate. Once initial programming was completed, the instrument underwent rigorous testing to ensure correct functioning of the CATI system.

Interviewer Training

Abt Associates Incorporated and their subcontractors conducted all interviews for the NIS and NSCH. The initial NIS and NSCH data collection staff was recruited from among experienced NIS interviewers during December 2002. To offset interviewer attrition, interviewer recruitment and training continued throughout 2003. Interviewer training was conducted in Abt Associates' telephone centers in Chicago, Illinois; Las Vegas, Nevada; and Amherst, Massachusetts. The use of several telephone centers made it possible to maintain the level of interviewer coverage needed to call such a large sample in multiple time zones. (Interviews were conducted from 9 a.m. to 9 p.m. in each of the six time zones covered by the 50 States.) The numbers of interviewers who completed training each month in each location are shown in table C.

Training sessions began with an explanation of the goals of the study, its sponsors, why the study was being conducted, and what it was designed to accomplish, as well as a description of the target for the number of completed interviews and the expected time frame

Table C. Number of interviewers trained by month and telephone center location

Month	Chicago	Las Vegas	Amherst	Total
All months	514	331	308	1,153
January 2003	196	58	25	279
February 2003	31	25	12	68
March 2003	39	56	16	111
April 2003	45	20	46	111
May 2003	44	0	28	72
June 2003	28	39	38	105
July 2003	33	43	59	135
September 2003	9	12	22	43
October 2003	56	60	31	147
November 2003	33	18	31	82

for data collection. Next, trainers discussed how the NSCH was designed to seamlessly follow the NIS screening (and interview for age-eligible children), including information about the age-eligibility ranges for the two studies, the length of time required to conduct both surveys, and the procedures to be followed for gaining cooperation for each study.

Mock interviews were conducted to acquaint interviewers with the questionnaire and to provide them with the project knowledge and refusal aversion skills necessary to conduct an interview. Two types of mock interviews were performed: trainer-led interviews in which the trainer played the role of the respondent and the interviewers conducted the interview using the CATI system, and dual-trainee interviews in which one trainee performed the role of the interviewer and another acted as the respondent. Emphasis was placed on the skills necessary to display project knowledge and gain cooperation, including in-class practice of answers to questions frequently asked by respondents and refusal aversion techniques along with role-playing exercises.

Final review exercises at the conclusion of each training session consisted of a question-and-answer discussion summarizing the topics taught during the session and an interactive review modeled on a game-show format in which interviewers split into two teams and competed for points based on project knowledge and refusal aversion techniques.

A final test mock interview and written evaluation were administered at

the end of each training session. The final mock interview was standardized, thus allowing interviewers to be evaluated against the same standard on their ability to navigate through CATI, gain cooperation, and display project knowledge. The written evaluation was administered to reinforce what was learned during the training sessions. Each trainer received a written evaluation answer guide to rate the proficiency level of the interviewer. Interviewers had to successfully complete both evaluations before they were permitted to collect data for the NSCH.

Data Collection

Telephone interviewing began on January 29, 2003, and was completed on July 1, 2004, resulting in a total of 102,353 interviews. Table D shows the total number of interviews completed by month. Because 87% of the interviews had been completed by the end of 2003, this survey is referred to as the 2003 National Survey of Children's Health.

Pretests

Two NSCH pretests were fielded. The first was designed to assess respondent comprehension of interview questions and to provide an estimate of questionnaire length. The second incorporated questionnaire revisions based on the first pretest and was designed to ensure that all systems were working properly prior to beginning the main study.

Table D. Number of interviews completed by month

Month	Number[1]	Percent
All months.	102,353	100.00
January 2003	6	0.01
February 2003	4,822	4.71
March 2003	7,118	6.95
April 2003	6,471	6.32
May 2003	8,163	7.98
June 2003	8,038	7.85
July 2003	8,102	7.92
August 2003	10,058	9.83
September 2003	6,616	6.46
October 2003	8,784	8.58
November 2003	12,153	11.87
December 2003	8,986	8.78
January 2004	5,166	5.05
February 2004	1,383	1.35
March 2004	3,801	3.71
April 2004	782	0.76
May 2004	448	0.44
June 2004	1,443	1.41
July 2004	13	0.01

[1]Number of completed interviews includes all interviews completed through the first question on family functioning (Section 8).

The first pretest, conducted between June 12 and June 26, 2002, in 15 States (Arkansas, Connecticut, Delaware, Georgia, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, North Dakota, Pennsylvania, Vermont, Virginia, Washington) and the District of Columbia, resulted in 922 completed interviews. The administration time for the interview was longer than anticipated, at approximately 41 minutes on average. Based on these results, the questionnaire was substantially shortened. A particular focus was placed on eliminating items that, based on observations of the interviews and an evaluation of the resulting data, seemed difficult for respondents to comprehend or did not appear to elicit the desired information. In addition, a number of enhancements to question text and ordering were made.

The second pretest, conducted between December 10, 2002, and February 25, 2003, in four States (California, Florida, Illinois, and Texas), resulted in 119 completed interviews. The questionnaire incorporated revisions based on the results of the first pretest and included a battery of new questions designed to assess Hepatitis A vaccination coverage among children aged 2 years and over. In late December, the objective of the second pretest (to ensure that all systems were ready for the main study) had been met.

However, because this pretest was implemented using an NIS sample, data collection continued throughout the NIS data collection period, thus overlapping with main study data collection for the NSCH.

Few changes were made to the questionnaire following the second pretest. Still, no data collected during the pretests have been included in the publicly released data files for the NSCH.

Advance Letter

Advance letters have been shown to decrease nonresponse by increasing study legitimacy (23). An advance letter ("Appendix VI") was mailed prior to any telephone calls and was mailed when a mailing address could be identified for a sampled telephone number. Letters were mailed for 67.4% of the telephone numbers dialed by the interviewers, which was 39.5% of the telephone numbers randomly generated. (Some known business and nonworking telephone numbers are removed from the sample of randomly generated telephone numbers prior to dialing.)

In the letter, recipients were asked to participate in a voluntary study on the immunization status of their children and the types of health and related services that their children need and use. The letter advised recipients that their telephone numbers had been chosen randomly and indicated that they might be called in the next few weeks. A toll-free telephone number was provided for those who wished to participate immediately or to learn more about the study.

Toll-Free Telephone Number

A toll-free telephone number was provided in the advance letter, in answering machine messages, and by interviewers at the request of respondents. Potential respondents could use this number to alert interviewers that there were no children in the study's age range living or staying in their household, to ask questions about the study, or to complete an interview. During the course of data collection, 9,209 calls were received on this line. (This figure excludes calls received during the incentive effort. Calls received during that effort are described in "Appendix II".) Of these 9,209 calls, 75.6% indicated that the household did not have a child eligible for the study. A total of 1,248 respondents who called the toll-free telephone number completed an interview.

Informed Consent

Consent for participation in the study was obtained from NSCH respondents as soon as it was determined that their household contained an age-eligible child. Respondents were informed about the voluntary nature of the survey, the authorizing legislation, and confidentiality of data collected. In addition, the informed consent script provided information about the content of the survey and the expected duration. The informed consent process also ensured that the person most knowledgeable about the sampled child's health had received the consent information and agreed to participate. In accordance with HHS regulations (45 CFR 46), these procedures were reviewed by the NCHS Research Ethics Review Board (ERB) and the Abt Associates Institutional Review Board (IRB). Approval for data collection was

received in April 2002 from the NCHS ERB and in May 2002 from the Abt Associates IRB.

Assurance of Confidentiality

Participation in surveys conducted by NCHS is voluntary, and information collected on individuals is confidential. For the NSCH, assurance of confidentiality was given to potential respondents as part of the informed consent procedures. In the CATI system, interviewers acknowledged that they had read the following script to potential respondents:

Before we get to questions about the health of [CHILD], I'd like you to know that your answers will be kept strictly private, as required by the U.S. Public Health Service Act. Your participation in this research is voluntary. You may choose not to answer any question you don't want to answer or stop at any time without penalty.

If a respondent requested more information on the U.S. Public Health Service Act, the interviewer read the following:

The Public Health Service Act is Volume 42 of the U.S. Code, Section 242k. The collection of information in this survey is authorized by Section 306 of this Act. The confidentiality of your responses is assured by Section 308d of this Act.

Section 308d of the Public Health Service Act (42 U.S.C. 242m) states that:

No information, if an establishment or person supplying the information or described in it is identifiable, obtained in the course of activities undertaken or supported under section. . .306. . .may be used for any purpose other than the purpose for which it was supplied unless such establishment or person has consented (as determined under regulations of the Secretary) to its use for such other purpose and in the case of information obtained in the course of health statistical or

epidemiological activities under section . . .306, such information may not be published or released in other form if the particular establishment or person supplying the information or described in it is identifiable unless such establishment or person has consented (as determined under regulations of the Secretary) to its publication or release in other form.

Strict procedures are used to prevent disclosure of confidential data in survey operations and data dissemination.

Respondent Selection

The respondent for the NSCH was the adult in a household who was most knowledgeable about the sampled child's health and health care. In over 95% of households, the respondent was the child's mother/female guardian or father/male guardian. Table E shows the frequency distribution of the relationship of study respondents to the sampled child. If any children in the household were eligible for the NIS, the respondent for the NSCH was almost always the same as the respondent for the NIS.

Spanish-Language Interviewing

NSCH interviews were administered in Spanish as well as in English. A professional translator with extensive experience in the translation of health surveys produced a Spanish-language version of the NSCH questionnaire. A team of experienced Spanish-language telephone interviewers and supervisors reviewed the translation and evaluated it for accuracy and cultural

appropriateness. Issues raised during this review were resolved in consultation with the original translator, and a Spanish-language CATI instrument reflecting the final translation was produced.

When a monolingual interviewer contacted someone who seemed to only speak Spanish, the interviewer assigned the telephone number to a special calling queue. A CATI flag indicated such cases. Cases with this flag were then delivered, via the CATI system, to bilingual interviewers who were specially trained to conduct interviews in both Spanish and English. A total of 12,793 households in the Spanish-language queue were screened, resulting in 6,035 Spanish-language detailed interviews. These cases account for 2.5% of all screened households and 5.9% of all detailed interviews completed.

Interview Length

Mean and median interview length varied by NIS eligibility because some demographic and household questions necessary for both the NIS and the NSCH were administered as part of the NIS interview and not repeated during the NSCH interview. The average interview length for NIS-ineligible households was 28 minutes and 53 seconds, and the median time was 27 minutes and 27 seconds. For NIS-eligible households, the average interview length (excluding the NIS interview itself) was 23 minutes and 25 seconds, and the median time was 21 minutes and 48 seconds. Mean and median interview lengths, by section and NIS eligibility, appear in table F.

Table E. Number and percent of respondents by relationship to sampled child

Relationship of respondent to sampled child	Number	Percent
Total	102,353	100.0
Mother or female guardian.	80,472	78.6
Father or male guardian	17,736	17.3
Grandparent	2,823	2.8
Aunt or uncle	589	0.6
Sister or brother	479	0.5
Other family member	106	0.1
Other nonrelative.	91	0.1
In-law of any type	32	<0.1
Don't know/refused/missing	25	<0.1

Table F. Mean and median length of the National Survey of Children's Health interview by National Immunization Survey eligibility (in minutes and seconds)

	NIS-eligible households		NIS-ineligible households	
	Mean	Median	Mean	Median
Overall length.	23:25	21:48	28:53	27:27
Screener.	1:44	0:58	2:26	1:36
Section 1: Age Eligibility Screening and Demographic Characteristics.	0:30	0:23	0:43	0:37
Section 2: Health and Functional Status	3:44	3:24	4:22	4:01
Section 3: Health Insurance Coverage	0:43	0:39	0:44	0:40
Section 4: Health Care Access and Utilization . . .	2:02	1:52	2:08	1:57
Section 5: Medical Home.	2:17	2:15	2:22	2:19
Section 6: Early Childhood	3:12	3:00	3:19	3:07
Section 7: Middle Childhood and Adolescence . .	6:10	6:28	7:28	6:54
Section 8: Family Functioning.	2:50	2:37	2:52	2:40
Section 9: Parental Health	1:45	1:37	1:50	1:42
Section 10: Neighborhood and Community Characteristics	1:26	1:19	1:29	1:22
Section 11: Additional Demographics	2:18	1:55	3:39	3:16

Interview Breakoffs

In cases where an interview was begun but not completed, specially trained interviewers attempted refusal conversion. By the end of the data collection period, 9,507 interviews were completed with households that had originally refused to participate (9.3% of completed interviews).

There remained 43,552 identified households with children (2.3% of the initial sample) in which an interview was not completed. Of these households, 2,918 broke off during administration of the NIS interview, which preceded the NSCH interview. For the remaining 40,634 breakoff cases, the vast majority stopped during one of the three early stages of the NSCH interview: during the child rostering and sampling process (38.9% of such cases), during the process of identifying the most knowledgeable respondent for the sampled child (12.0%), or during the informed consent process (37.5%). Among the 4,714 cases that stopped the interview after a child had been sampled and the correct respondent identified (11.6% of the breakoff cases; 0.3% of the initial sample), there was little commonality in breakoff location.

Cases Pending at Close of Data Collection

The mean number of calls made to complete an interview was eight, with a median of five calls. Most of the cases pending at the end of the data collection period were ones in which the telephone number had not yet been resolved as residential or nonresidential (67.2% of the pending cases and 15.7% of the initial sample). A smaller number of cases had been identified as residential households without determining if a child was living in the household, and a similarly small number of households with a child did not complete the interview (2.0% and 2.3% of the initial sample, respectively).

Incentive Effort

During NSCH data collection, study response rates were lower than would be expected from the rates observed in the earlier SLAITS projects. A review of the NSCH rates made it clear that increasing the interview completion rate (the percentage of completed interviews among eligible households) would have the most impact on the overall response rate. Therefore, known households with children in which an interview was not completed became part of an incentive effort designed to increase response. An initial pretest was mounted to test the effect of cash incentives on response. Because of the success of this pretest, the use of incentives was substantially expanded. "Appendix II" discusses the methodology and results of the incentive effort.

Response Rates

Response rates provide one measure of the potential for nonresponse bias—that is, the possibility that the sample interviewed differs from the actual population in some meaningful way. Weighted response rates were calculated for the NSCH to reflect the potential for nonresponse bias nationally and in each State (table G). These response rates, based on the Council of American Survey Research Organizations (CASRO) guidelines, were produced and calculated in accordance with the American Association for Public Opinion Research's *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys* (24). The calculation used the assumptions for Response Rate #3 detailed by Ezzati-Rice et al. (25) with one exception. Based on recent research to estimate the percentage of residential telephone numbers among unresolved numbers that had been finalized as "ring-no-answer at all attempts," such ring-no-answer cases were redistributed: 20.4% were categorized as known households and 79.6% were categorized as out-of-scope (26). Response rates reflect this adjustment.

The interview completion rate, a measure of the proportion of completed interviews among known households with children, was 68.8%. The screener completion rate, which measures the proportion of known households where a resident reported whether a child lived in the household, was 87.8%. The resolution rate, indicating the proportion of telephone numbers that could be positively identified as residential or nonresidential, was 91.6%. The overall response rate (the product of these three rates) was 55.3%. State response rates ranged from 49.6% in New Jersey to 64.4% in South Dakota, with 32 States achieving overall response rates above 55%.

The final disposition of the NSCH sample is shown in table H. More detailed information on final sample disposition and unweighted national response rate calculations are in "Appendix VII."

Table G. Weighted response rates by State

State	Resolution rate	Screener completion rate	Interview completion rate	CASRO[1] rate
National	91.6	87.8	68.8	55.3
Alabama	90.4	88.5	70.7	56.5
Alaska	96.0	88.4	71.2	60.4
Arizona	92.0	88.0	64.8	52.5
Arkansas	93.6	90.7	66.3	56.3
California	91.1	86.3	66.2	52.1
Colorado	93.1	88.1	71.2	58.4
Connecticut	90.0	87.9	68.9	54.5
Delaware	88.8	86.4	69.8	53.5
District of Columbia	93.1	81.8	68.6	52.3
Florida	89.4	87.0	65.6	51.0
Georgia	91.3	87.4	65.2	52.1
Hawaii	93.0	89.1	61.0	50.5
Idaho	93.7	90.5	71.7	60.8
Illinois	91.7	86.9	68.8	54.8
Indiana	92.3	89.6	66.8	55.2
Iowa	94.0	90.0	66.9	56.5
Kansas	93.3	90.0	70.4	59.1
Kentucky	92.6	89.7	72.0	59.9
Louisiana	91.9	87.3	69.2	55.5
Maine	89.9	88.1	69.9	55.3
Maryland	90.1	85.8	68.5	53.0
Massachusetts	91.0	87.5	67.3	53.6
Michigan	92.3	87.8	72.6	58.9
Minnesota	93.8	90.3	69.6	58.9
Mississippi	91.0	87.5	67.3	53.6
Missouri	93.0	90.1	73.1	61.2
Montana	94.4	91.9	71.4	62.0
Nebraska	94.3	91.1	71.8	61.6
Nevada	90.3	87.0	68.4	53.7
New Hampshire	90.2	87.8	64.7	51.3
New Jersey	88.7	83.0	67.3	49.6
New Mexico	93.5	88.2	71.4	58.8
New York	91.2	87.0	67.2	53.3
North Carolina	91.4	89.0	72.9	59.3
North Dakota	94.5	91.1	69.1	59.5
Ohio	92.1	89.3	73.4	60.4
Oklahoma	92.8	89.4	66.2	54.9
Oregon	93.4	90.4	68.1	57.5
Pennsylvania	91.6	88.1	71.4	57.7
Rhode Island	90.0	89.4	71.0	57.1
South Carolina	90.4	87.7	70.0	55.5
South Dakota	95.3	91.9	73.5	64.4
Tennessee	91.4	88.5	64.6	52.2
Texas	92.1	87.2	70.6	56.7
Utah	94.4	88.7	76.4	64.0
Vermont	93.3	90.6	71.5	60.4
Virginia	91.2	87.3	71.1	56.7
Washington	92.6	89.2	65.4	54.0
West Virginia	90.4	90.2	69.2	56.4
Wisconsin	93.0	90.2	65.9	55.3
Wyoming	94.3	91.2	69.7	60.0

[1]CASRO is Council of American Survey Research Organizations. The CASRO rate is the product of the resolution rate, the screener completion rate, and the interview completion rate.

Because of the repeated quarterly selection of NIS sample in each IAP area, some telephone numbers were selected more than once over the course of the NSCH data collection period. Such numbers were not contacted a second time for the study. Instead, these cases were automatically finalized.

Response rates reflect the final disposition of a telephone line from its original sampling.

Efforts to Maximize Response Rates

Approaches used to maximize response rates included:

Table H. Final disposition of the National Survey of Children's Health sample

Final Disposition	Number of Selected Telephone Lines
Total	1,872,194
Not resolved as residential/ nonresidential	294,200
Out of scope (i.e., business, nonworking)	1,025,036
Known household, age eligibility not determined	37,520
Screened household, no child in age range	367,087
Screened eligible household, language barrier	2,446
Screened eligible household, interview not completed	43,552
Screened eligible household, partially completed interview	1,047
Completed interview	101,306

NOTE: The 1,047 partially completed interviews noted above were determined to have sufficient data to include them in the final data file, bringing the total number of completed interviews in the file to 102,353.

- Thorough pretesting of the survey instrument to ensure that it was clear to respondents and not unduly burdensome.
- An advance mailing to households having directory-listed telephone numbers to establish the legitimacy of the study, increase rapport prior to the first contact, and convey information about the strict confidentiality protections.
- A toll-free telephone number to allow respondents to contact interviewers, obtain information about the study, establish study eligibility, or voice any concerns.
- A Spanish-language version of the survey instrument to reduce nonresponse bias among Spanish-speaking households.
- A sample management plan that ensured the correct number of cases were in the field at any given time and provided daily review of the status of appointment and refusal cases to ensure timely recontact.
- Flexible calling schedules to permit respondents to complete the interview at their convenience.
- An interviewer training program in refusal aversion to reduce the number of unresolved cases and refusals from eligible respondents.
- Refusal conversion attempts by specially trained interviewers, who

prepared case-specific strategies for each conversion call based on call history.

- Monetary incentives for respondents who had eligible children, but who did not initially participate.

Quality Control

The prepared sample of telephone numbers was checked to ensure that it met the sample design specifications. The sample was monitored on a daily basis to ensure that the pace of data collection was consistent across the data collection period and to prevent the release of excess cases to the telephone centers. Daily analyses of the dynamics in the sample were produced to assist in timely sample management decision-making.

Telephone center supervisors were available to interviewing staff at all times to resolve any questions or concerns about a case. Supervisors regularly observed the data collection process to informally monitor interviewers. In addition, supervisory staff used remote telephone and computer monitoring technologies to evaluate whether the interviewers were performing according to project specifications. They focused on whether introductory materials were properly read, item wording and sequence of the questionnaire were followed correctly, respondent questions were answered properly, and any vague responses were properly probed. Computer monitoring also allowed supervisors to ascertain whether answers were entered accurately into the CATI system.

Supervisory staff monitored 5% of all NSCH calls made. Selection of interviewers for monitoring was automated using an algorithm that ensured newly trained interviewers were monitored more often than experienced interviewers. Experienced interviewers were prioritized for monitoring based upon the length of time since their last monitoring session and recent monitoring scores. Each interviewer was typically monitored at least once a week, but some interviewers were monitored more often.

The CATI system was programmed to help ensure complete and accurate data collection, using automated data checking techniques, such as response-value range checks and consistency edits, during the interview process. These features enabled interviewers to obtain needed clarifications while still on the telephone with the respondent.

Throughout the data collection period, modified versions of the programs that were ultimately used to clean the final data produced weekly checks of the interview data. These programs identified any out-of-range values and incorrect skip logic, and also looked for missing data elements and inconsistency among data fields. If any data were missing from the CATI system, the cases were recontacted, and data were recorded on a hard copy of the survey. The additional data were entered manually into the CATI system, with review by project staff to ensure correctness.

Weighting and Estimation Procedures

To obtain population-based estimates, each sampled child for whom an interview was completed is assigned a sampling weight. This weight should be used for all analyses. The sampling weight is composed of a base sampling weight, an adjustment for multiple telephone lines within a household, and various adjustments for nonresponse. The final, adjusted weight is poststratified so that the sum of the weights for each State equals the number of children in the State, as determined from the July 2003 U.S. Census Bureau estimates and the 5% Public Use Microdata Sample (PUMS) files from Census 2000.

The various steps in the production of the sampling weight are described below. This section is intended as a nontechnical overview of NSCH weighting procedures. A more detailed technical description is in "Appendix I."

Base Sampling Weight

The goal of the NSCH was to complete approximately 2,000 interviews in each State. First, the total number of telephone lines required to obtain this number of completed interviews was estimated. Then, an NIS sample adequate to obtain the requisite number of completed cases for the NSCH for each quarter was selected.

The telephone lines selected to be screened represent a random sample of all possible telephone lines in each geographic area. The probability that any given telephone line will be selected from the population of all possible telephone lines can be calculated.

If there were 1,000 total telephone lines in a given area and 100 of those lines were selected for the study, the probability that any single telephone line would be selected is 100/1000, or 0.10. Thus, each telephone line selected represents some larger number of telephone lines in the geographic area. This number can be calculated as the reciprocal of the probability of selection for any single telephone line.

If the probability of selection for any single telephone line was 0.10, then each telephone line selected represents 1/0.10, or 10, telephone lines in the geographic area. This number—the reciprocal of the probability of selection for any single telephone line—is the base sampling weight for each completed interview in that geographic area. The base sampling weight varied by geographic area, but was the same for every completed interview within that geographic area. Because the population of telephone numbers did not change much by quarter, the base sampling weight was calculated for the overall survey and not separately for each quarter.

Adjustment for Households with Multiple Telephone Lines

If a household has multiple voice-use telephone lines, it has a greater chance of being included in the survey than does a household with only

a single voice-use telephone line. Because the NSCH is a survey of households with children, each household should have an equal probability of being in the sample. To adjust for the increased probability of multiple-telephone households being included in the sample, the base sampling weight is divided by the number of voice-use telephone lines in the household to a maximum of three lines.

If a household had two voice-use telephone lines, it could be included in the sample two times. If it were included twice and its base sampling weight was 10, the household would represent 10 (base sampling weight) x 2 (number of telephone lines) = 20 households. To adjust the weight so that a multiple-line household in the sample represents the same number of households in the geographic area as does a single-line household in the sample, the base sampling weight (10) is divided by the number of telephone lines (2). With an adjusted weight of 5, this household (had it been selected twice) would still represent only 10 households (5 x 2 = 10).

First Form of Nonresponse: Unknown Household Status

When selected telephone lines are called, three results are possible:

1) It is determined that the telephone line belongs to a household.
2) It is determined that the telephone line is not a working residential number, but is a business number or a nonworking number.
3) The status is not determined because the telephone rings without an answer, the person answering the telephone hangs up immediately, or the telephone-answering device does not indicate whether the telephone line belongs to a household.

This third category includes some household telephone lines, but the exact number is unknown. Still, the completed household interviews must represent the households in this "unknown" category. When the number of households in the

unknown category is large, the weight for each completed household interview must be increased substantially. When the number of households in the unknown category is small, the weight for each completed household interview must be increased only slightly. This proportional adjustment is the first unit nonresponse adjustment.

The size of the adjustment is based on the size of the "unknown" category and on previous research in which telephone company business offices reported on the number of households among the "unknown" numbers. This adjustment varies by geographic area, telephone area code, and whether the telephone line was directory-listed. When many telephone numbers in a geographic area and area code go unanswered and most of these numbers are highly likely to be households, the weights for completed interviews in that geographic area and area code are increased greatly. When few telephone numbers in a geographic area and area code go unanswered or few of these numbers are likely to be households, the weights for completed interviews in that geographic area and area code are increased only slightly.

In other words, based on the frequency of the nonresponse in a given area, this nonresponse is compensated by proportionately increasing the weights for those interviews that could be completed in that area. The completed interviews, therefore, represent the households in the "unknown" category.

Second Form of Nonresponse: Unknown Household Eligibility

When a household has been identified, three results are possible:

1) It is determined that the household includes a child and is, therefore, eligible for an interview.
2) It is determined that the household does not include a child and is, therefore, not eligible.
3) Screening is not completed, and the eligibility of the household is unknown.

This third category includes some eligible households. The exact number of eligible households in this category is unknown. Still, the completed household interviews must represent the eligible households in this "unknown" category. When the number of eligible households in the unknown category is large, the weight for each completed household interview must be increased substantially. When the number of eligible households in the unknown category is small, the weight for each completed household interview must be increased only slightly. This proportional adjustment is the second unit nonresponse adjustment.

The size of the adjustment is based on the size of the first two categories. That is, the proportion of eligible households in the unknown category is assumed to be the same as the proportion of eligible households among all households where the screening interview for children was completed. This adjustment varies by geographic area. When the eligibility for many households in a geographic area is unknown and a high proportion of the completed eligibility interviews in that area identify eligible children, the weights for completed interviews in that geographic area and sample are increased greatly. When the eligibility for only a few households in a geographic area and sample is unknown or few of the completed eligibility interviews in that area identify eligible children, the weights for completed interviews in that geographic area and sample are increased only slightly.

In other words, based on the frequency of nonresponse to the screening interview in a given area and in a given sample, this nonresponse is compensated by proportionately increasing the weights for those interviews that could be completed in that area. The completed interviews, therefore, represent the eligible households in the "unknown" category.

Adjustment for Households with More than One Child

One child was randomly selected for interview from among all children

living in the household. In households with multiple children, the randomly selected child represents all of the unselected children in the household. Therefore, the sampling weight for this completed interview must be increased to reflect the fact that this completed interview "represents" multiple children in that household. This adjustment simply multiplies the child weight by the number of eligible children living in the household.

Poststratification of the Child Weight

Despite the weighting efforts and the nonresponse adjustments, the estimated number of children is unlikely to match the total number of children in the population. Any discrepancies are likely due to random sampling error and nonrandom response biases such as increased nonresponse based on age, sex, or race of the child. Poststratification adjusts the weights to match population control totals for key demographic variables obtained from an independent source.

For the NSCH child weight, the initial source for population control totals was the July 2003 Census Bureau State-level estimates of the number of male and female children in three age groups. The number of children according to the Census Bureau in the resulting six "age by sex" categories includes institutionalized children. Because the NSCH was a survey of noninstitutionalized children, these numbers had to be adjusted to reflect that population. The Census 2000 5% Public Use Microdata Sample (PUMS) files were used to estimate the proportion of children in each "age by sex" category who were institutionalized in each State.

Next, the number of noninstitutionalized children of various race and ethnic backgrounds in each "age by sex" category was estimated. The number of race and ethnic categories varied by State. Categories in which the percentage of children in a State was less than 4.5% were merged; if the resulting category was still less than 4.5% of the child population, it

was merged with the largest race/ethnicity category in the State.

The 2000 5% PUMS data were also used to determine the proportion of children in households with fewer than two adults and with two or more adults; the proportion of children in households with one child, two children, and three or more children; and the proportion of children in households in which the highest-educated person has a high school diploma or less and in which the highest-educated person has more than a high school diploma.

Based on these population control totals and estimates, the NSCH child weights were adjusted so that the sum of the weights equals the July 2003 Census Bureau estimates for the number of children in each "age by sex by race/ethnicity" group in each State, and further adjusted so that the State-specific weighted proportion of children in each household size and educational attainment group in the NSCH matches the corresponding State-specific proportion for that group from the 2000 census.

Adjustment for Noncoverage of Households Without Telephones

The poststratification process also includes an adjustment for the potential bias that may exist because the NSCH, as a telephone survey, could not select households without a telephone at the time of the survey. This adjustment was based on State-level estimates of the proportion of children in households without telephones from the 2000 5% PUMS and from the 2003 Current Population Survey (CPS) Annual Demographic Supplement. It incorporated information about households with interrupted telephone service from the NSCH itself. Evidence suggests that households with telephones at the time of the survey, but with interruptions in telephone service during the year, are more similar to households with no telephone service at the time of the survey than households with uninterrupted telephone service during the year (27–30). Therefore, nonresponse by households without

telephones can be somewhat compensated by proportionately increasing the weights for those interviews that could be completed in households with interrupted service. In this way, completed interviews in households with interrupted service represent the households without telephone service at the time of the interview.

Truncation of Large Weights

Extremely large weights were truncated to prevent a small number of cases with large weights from having undue influence on the estimates. "Appendix I" describes how the weights were truncated.

Quality Control

Staff compared the formulas for the weights and adjustments developed by the sampling statistician with the actual weights and adjustments constructed by the statistical programmer. The variables delivered by the data collection staff to the statistical programmer were used in independent calculations of the weights to check the programmer's implementation of the statistician's weighting specifications.

In addition to this independent check, univariate statistics were produced and reviewed for the adjustments and weights. Reviewers used general knowledge about the size of the population and expectations for IAP area-specific response. For example, interview cooperation rates are typically lower in certain IAP areas (e.g., urban centers) than others (e.g., States in the South and Midwest). This tendency was present in the NSCH. In addition, the sums of the various weights were compared to ensure that differences between the sums were in the expected direction.

Data Files

A SAS (v8) data file contains one record for each interview completed at least through the first question on family

functioning (Section 8). There are 102,353 records in this file. Of these, 101,306 are cases that completed the entire interview, and 1,047 are partially completed interviews. Each record contains all interview data for the sampled child and the household in which the child resides.

Editing

Concurrent with the development of the CATI questionnaire, a detailed plan was developed to check and edit the data using the CATI software. The intention was to design into the CATI software consistency checks across data elements, valid range codes, and a method to identify incorrect codes entered by interviewers. To the extent that the CATI software could be developed to perform these tasks, the need for postsurvey data cleaning and processing is reduced.

The CATI system was designed to perform edits as an interviewer enters data into the computer system. These edits dealt with errors that could be reconciled while the respondent was on the telephone and focused, in particular, on items critical to the conduct of the study. The CATI edit specifications were designed to correct respondent errors during the interview (for example, a respondent saying two children lived in the household, but providing only one child's age) and to identify and correct data-entry error by interviewers (for example, a child is reported to have seen a doctor four times in the past year, but the interviewer attempts to enter 44 times). To the extent possible without making the CATI system overly complicated, out-of-range and inconsistent responses resulted in a warning screen for the benefit of the interviewer, who was trained to correct errors as they occurred. These messages were designed primarily to prevent data entry and respondent errors and not to challenge respondents who gave logically inconsistent responses.

The two main types of CATI edits were range checks and consistency checks. A range violation would result in visual notification to the CATI interviewer (a pop-up box). In most cases, the interviewer would have to enter a valid response to continue the interview. However, some extreme responses would produce a warning, and the interviewer would be instructed to verify the answer provided by the respondent. If the respondent confirmed the unusually small or unusually large value, the interviewer was allowed to continue. A consistency violation would also result in a pop-up box indicating that an inconsistency between two responses had been detected. The interviewer would then have the opportunity to change one or both of the values entered. In some cases, the interviewer had the option to proceed if the respondent confirmed the inconsistent values. There are trade-offs between incorporating every possible type of error check into a CATI system and overall performance of the CATI system and the use of development resources. To reconcile this trade-off, post-CATI edits were developed to resolve problems that did not require access to the respondent. Any problems that could not be resolved without contacting the respondent were left inconsistent.

After the preprogrammed edits were run, the first step in the data cleaning process was verification of the valid number of cases in the data file. After verifying the number of cases, initial data frequencies were produced and reviewed. Each variable's range of permissible values was examined for any additional invalid values or unusual distributions. Invalid values, where they occurred, were deleted. Nested variables (i.e., variables that are only asked based on a response to a previous question) were linked to their root variables, and questionnaire paths were traced. If blank values already existed for a variable, they were checked to see whether they were allowable (e.g., due to legitimate skip patterns in the questionnaire) or missing in error. Records that were missing responses for unknown reasons were left missing.

Missing Data

The CATI system is designed to minimize missing data. However, some cases still resulted in missing data for a variety of reasons. Most analysts ignore records with missing data regardless of the reasons for the missing data. However, for analysts who may wish to differentiate between different types of missing values, SAS provides a mechanism to do so. The following key provides a description of the various codes that were used to represent missing data in the file.

(.N) Not in universe (sample logic)—Respondents skipped entire section of questions based on eligibility criteria. For the NSCH, sampled children ages 0–5 years were not eligible for Section 7 of the survey, and children ages 6–17 years were not eligible for Section 6 of the survey.

(.L) Legitimate skip (question logic—Respondents skipped one or more questions within a section because of an answer selected for a root question.

(.P) Partially completed case—The question was not answered because the respondent broke off the interview prior to completing this question. Partially completed interviews, or "partial completes," are those interviews that were completed through the point where at least the first question on family functioning (Section 8) was answered. These cases have interview records and are treated as "completes," although data are missing for questions that were asked late in the interview. The coding of partially completed interviews was slightly different for cases that also completed the NIS than for cases that were ineligible for the NIS. Cases that were ineligible for the NIS received a code of ".P" for all missing data from the point where they ended the NSCH interview. However, if the case was NIS-eligible, then applicable data (e.g., income) that was captured in the NIS interview was transferred to the NSCH data file. For these NIS-eligible cases, actual data and missing value codes of ".L" were used where appropriate. Thus, the NIS-eligible partial completes might have a mixture of actual data and missing value codes of ".L" and ".M," as well as missing value codes of ".P" from the point where respondents ended the NSCH interview.

(.M) Missing in error—A response should have been captured for this question, but was not. Data may be

missing in error if records were not properly transferred or stored after a case was finished, the rules for returning to a previous question were not properly followed by an interviewer, or the recorded answer was determined to be invalid.

(.A) Added question—This question was added after the start of data collection and the respondent was interviewed before the question was added to the interview. For example, question S9Q11B (concerning smoking by household members) originally was not asked when the child was younger than 6 years of age, but was added later for this group of respondents.

Because SAS treats all of the above codes similarly in statistical analyses (i.e., as missing data), analysts using SAS who are not interested in the reasons for the missing data may continue to analyze data as usual.

It is important to note that derived variables (i.e., variables whose response was not directly provided by the respondent) do not include the detailed coding of missing data. All missing values for derived variables received an ".M" code regardless of the reason for the missing data. Similarly, ".M" was used when derived variables were suppressed to protect the confidentiality of the survey participants.

Data missing because the respondent did not know the answer or refused to provide the answer have been treated differently. Rather than assigning a missing value to these records, a numeric code was used to identify these responses. Typically, unknown answers are coded as "6," "96," or "996." Refused responses are coded as "7," "97," or "997." However, the codes may be different for specific variables. Therefore, analysts are encouraged to consult the data documentation and frequency lists to identify the correct codes for each variable. Failure to do so may result in inappropriate calculations, especially for variables measured using ordinal, interval, or ratio scales.

Edits to Protect Confidentiality

NCHS takes extraordinary measures to ensure that the identity of survey

subjects cannot be disclosed. The risk of inadvertent disclosure of confidential information regarding individual respondents is higher with a publicly released data set having detailed geography variables, a detailed and extensive set of survey observations, and a sizeable proportion of the total population of interest. Coarsening a data set by suppressing survey variables, collapsing multiple variables into one, collapsing response categories for other variables, and/or introduction of noise in the data are common techniques to reduce the risk of inadvertent disclosure.

In these data files, household income has been suppressed, but a measure of income relative to the Federal poverty level has been included. The date of the interview and the child's age (in months) have been suppressed, but the child's age (in years) has been reported. The relationship of the respondent to the child has been suppressed when the respondent was not the parent of the child. The length of time that the child or parent has been living in the United States has also been suppressed.

Geography

Geographic information that would identify the specific IAP area in States with multiple IAP areas has been suppressed. However, State identifiers are included in all files. In addition, an indicator identifying whether the household resides inside or outside a metropolitan statistical area (MSA) has been included for some States. This indicator, called MSA_STAT, was suppressed whenever the sum total population for all MSA areas in a given State was less than 500,000 persons or whenever the sum total population for all the non-MSA areas in a given State was less than 500,000 persons. This resulted in the suppression of the MSA identifier in 16 States. The MSA identifier was suppressed in Connecticut, Delaware, Hawaii, Massachusetts, Maryland, New Hampshire, Nevada, and Rhode Island because fewer than 500,000 persons lived in nonmetropolitan areas. The MSA identifier was suppressed in Idaho, Maine, and Montana because fewer than 500,000 persons lived in metropolitan

areas. The MSA identifier was suppressed in Alaska, North Dakota, South Dakota, Vermont, and Wyoming because the non-MSA population size and the MSA population size were both below the 500,000 threshold.

Race

Question S11Q02 asked about the sampled child's race. Respondents were permitted to identify all possible categories that described the child's race. If a race other than one of the seven existing categories was indicated, then a verbatim response was captured. Verbatim responses were reviewed and matched against a database of alternative race terminology maintained by the U.S. Census Bureau. Where possible, "other" race responses were backcoded into one of the seven existing categories. Once all possible verbatim responses were backcoded, a new race variable was created by collapsing the seven categories into one of six categories: white, black or African-American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, and multiple race. "Multiple race" was reserved for cases where more than one of the other five categories applied.

To protect the confidentiality of individual respondents and children, responses for the race variable were further collapsed to four categories: white only, African-American or black only, other race, and multiple race. The "other race" category includes children for whom only one of the other three categories (Asian, Native American or Alaska Native, and Native Hawaiian or Pacific Islander) was reported. Children for whom more than one race was identified (e.g., Asian and Native Hawaiian) were included in the "multiple race" category. If no race was reported—because the respondent did not know or refused to provide the race, or because the verbatim response could not be backcoded and no other race was reported—then race was coded as ".M" for all States except Hawaii. (For Hawaii, if the verbatim response could not be backcoded and no other race was reported, then race was coded as "other.") This new derived race variable (called RACER) is the only

classification available for all 50 States and the District of Columbia.

In several States, however, minority group populations are sufficiently large that the release of additional race categories was possible while still protecting the confidentiality of the respondents and children. To identify these States, data from the decennial 2000 census were examined to identify minority groups that comprise at least 5% of the total population of children in a specific State. Based on this criterion, the data files identify American Indian and Alaskan Native children in Alaska, Arizona, Montana, New Mexico, North Dakota, Oklahoma, and South Dakota. (This race classification variable is called RACEAIAN.) Asian children's race is reported for children in California, New Jersey, New York, and Washington. (This race classification variable is called RACEASIA.) The data files identify both Asian children and Native Hawaiian and Pacific Islander children in Hawaii. (This race classification variable is called RACE_HI.)

Language

Question S1Q06 collected data on the primary language spoken in the household. To protect confidentiality, Spanish-language households could not be distinguished from other non-English-language households in the data file. Of the 7,912 children living in households with a non-English language as the primary language (PLANGUAGE), 83.3% (n = 6,591) lived in Spanish-language households. Because Spanish-language households were not identified in the data file, language of interview was also suppressed.

Height and Weight

Question S2Q02 permitted respondents to report the child's height in either feet and inches or in centimeters. Height reported in centimeters was recoded into inches (S2Q02R). Question S2Q03 permitted respondents to report the child's weight in either pounds or kilograms. Weight reported in kilograms was recoded into

pounds (S2Q03R).

To protect the confidentiality of individual children, very short or very tall heights and very low and very high weights have been suppressed. Extreme values were identified within each single-year age group and were recoded to less extreme values. For example, for 11-year-old children, all reported heights shorter than 43 inches were recoded to 43 inches, and all reported heights taller than 68 inches were recoded to 68 inches. Two flags (HGHT_FLG and WGHT_FLG) have been added to the dataset to enable analysts to determine whether the values were reported or assigned.

Because suppression of height and weight variables may hinder calculations of body mass index (BMI), a variable identifying underweight and overweight children (BMICLASS) has been added to the dataset. Children aged 2–17 years have been identified as either underweight (BMI-for-age is in the 5th percentile or lower), at risk for overweight (BMI-for-age is in the 85th percentile or greater but lower than the 95th percentile), and overweight (BMI-for-age is in the 95th percentile or greater). Percentiles are based on sex and age (see http://www.cdc.gov/nccdphp/dnpa/bmi/bmi-for-age.htm). The 95th percentile means that compared to children of the same sex and age, 95% have a lower BMI. Percentiles were determined using the 2000 CDC growth charts and a SAS program provided online by CDC (http://www.cdc.gov/nccdphp/dnpa/growthcharts/sas.htm). However, this program relies on the child's age in months. Because age was only reported in years for this survey, children were assumed to be at the midpoint of the age-year (i.e., a 10-year-old was assumed to be 126 months of age) for purposes of calculating BMI-for-age. It should be recognized that height and weight were based on the parents' reports and were not independently measured.

Family Structure

To protect the confidentiality of individual children whose families have unique structural characteristics, a single measure of family structure

(FAMSTRUCT) was created from S1Q02, S9Q00–02. The family structure variable refers to parents living in the household. This variable has four levels:

1) two-parent household, which includes both a biological or adoptive mother and a biological or adoptive father;
2) two-parent household with both a mother and a father that includes at least one step-parent;
3) one-parent household with a biological, step, foster, or adoptive mother and no father of any type present;
4) all other family structures.

Any of these four family structures may include other people who act as parents, such as grandparents, aunts, uncles, or unmarried partners of the parents. Legal guardians were not considered to be mothers or fathers.

On July 16, 2003, the CATI instrument wording for S9Q02 was refined to clarify that respondents were not supposed to count themselves as a parent-type in this question. Prior to that date, if the same response was provided for the relationship of the respondent to the child (S1Q02) as for the relationship of the other parent-type to the child (S9Q02), it was not clear whether the respondent was counting himself/herself, or whether there was an additional person of the same parent-type in the household. Households identified as having two mothers of the same type (biological, step, foster, or adoptive) have been classified as ''other family structure;'' However, because of this ambiguity about whether the respondent was also counted as another parent in the household, these households may actually be ''single mother'' households. Other households with ambiguous structure (e.g., where a father refused to indicate whether he was the biological father) were also coded as ''other family structure.''

Detailed information about parents living outside the household also poses a risk to confidentiality. To protect confidentiality while still permitting analysts to work with information about contact with noncustodial biological parents, questions S9Q05 and S9Q05A have been combined into a single

variable, S9Q05R. This new variable indicates how often the child has seen any biological parent living outside the household. The assigned value was based on the response to either S9Q05 (contact with noncustodial biological mother) or S9Q05A (contact with noncustodial biological father) that indicated the greatest frequency of contact. This new variable was assigned a missing value code of ''.L'' if the child lives with two adoptive parents or with one biological parent and one adoptive parent, to protect the confidentiality of adopted children who have contact with a biological parent. A missing value code of ''.L'' may also indicate that the child lives with both biological parents or that the respondent did not report that the child has any biological parents who do not live with the child.

Other Top-Coded Variables

Several other frequency variables have been top-coded to suppress outliers at the high end of the distribution of responses. Due to their unusual characteristics, records including these outliers might have been more readily identifiable.

- For the total number of children living in the household (TOTKIDS4), four or more children is the maximum reported.
- For the total number of adults living in the household (TOTADULT3), three or more adults is the maximum reported.
- For the number of visits to a doctor, nurse, or other health care professional for preventative medical care in the past year (S4Q03R), 20 or more visits is the maximum reported.
- For the number of hospital emergency room visits in the past year (S4Q04R), five or more visits is the maximum reported.
- For the number of hospital emergency room visits in the past year due to accident, injury, or poisoning (S4Q05R), five or more visits is the maximum reported.
- For the number of visits to a doctor, nurse, or other health care professional for sick care in the past year (S4Q06R), 20 or more visits is the maximum reported.

- For the age of the child when breastfeeding stopped (S6Q60R), 1,095 days or older (i.e., 3 years or over) is the maximum reported.
- For the number of days of school missed due to illness or injury in the past year (S7Q02R), 40 or more days is the maximum reported.
- For the number of times that a family member took the child on an outing in the past week (S8Q01R), 20 or more outings is the maximum reported.
- For the frequency that the child attended religious services in the past year (S8Q02R), ''daily'' is the maximum frequency reported.
- For the number of times that the child ever moved to a new address (S11Q06R), 12 or more times is the maximum reported.

Data Perturbations

Despite the modifications detailed above, there was lingering concern that the dataset may include children with unique combinations of identifiable characteristics. To investigate this concern, the Census 2000 5% Public Use Microdata Sample (PUMS) files were used to calculate the ratio between the number of children with various combinations of observable demographic characteristics in the NSCH sample and the number of children with those combinations of characteristics in the general population. When the ratio was large and/or the population size was small, some of the identifiable characteristics in the NSCH data file were changed.

- For five children, the race variable was set to missing.
- For 91 children, the poverty level variable was modified by randomly increasing or decreasing the poverty level by one category (e.g., the poverty level indicator for children in households with incomes at 150%–185% of the Federal Poverty Level was randomly changed to either 133%–150% or 185%–200%).
- For 10 children, the education variable was set to ''don't know.''
- For two children, the number of children living in the household was reduced by one.

- For nine children, the number of adults living in the household was reduced by one.
- For four children whose fathers were not born in the United States, this variable was set to ''born in the U.S.''
- For 13 children who were not born in the United States, this variable was set to ''born in the U.S.''
- For 84 children living with a biological, step, foster, or adoptive mother and no father of any type present, and for 46 children living in a two-parent household that includes at least one step-parent, the family structure variable was set to ''other.''

Analysts interested in working with data that were suppressed to protect confidentiality may access unmodified data files through the NCHS Research Data Center (RDC). This facility, designed for the researcher outside of NCHS, is located in Hyattsville, Maryland. Data files housed in the RDC may also be accessed remotely via e-mail. For more information about how to apply for access, analysts may visit the NCHS Web site at http://www.cdc.gov/nchs/r&d/rdc.htm.

Other Derived Variables

AGEYR_CHILD—The child's age in years was recorded when the child was first identified as the sampled child (which may have been prior to the date that the actual interview was completed). Valid values for age are 0 through 17, where ''0'' means younger than 1 year.

TOTKIDS4—This variable represents the total number of children 17 years of age or under living in the household. As noted previously, this variable was topcoded at four or more children to protect confidentiality.

AGEPOS4—This variable represents the age of the sampled child, relative to the ages of the other children 17 years of age or under living in the household. Because it is not known if the sampled child was related to the other children living in the household, if the child has siblings who do not live in the household, or if the child has

siblings older than 17 years of age, this variable should not be interpreted as birth order.

RELATION—Information collected in question S1Q02 regarding the relationship of the respondent to the sampled child has been collapsed into three categories.

TOTADULT3—The total number of adults in the household was derived by subtracting the total number of children in the household from the total number of persons in the household (S1Q05). During data collection, the CATI system did not reconcile the total number of persons reported as living in the household with the total number of children reported in that household. Therefore, total number of persons reported as living in the household could be fewer than the total number of children in a household plus one. When this occurred, the total number of adults was assigned a missing value code (.M).

EDUCATIONR—The highest level of education attained by anyone in the household was derived from S1Q05A.

PLANGUAGE—The primary language spoken in the household was derived from S1Q06.

POVERTY_LEVELR—This indicator was created using total household members (S1Q05) and the household income value. If data for either of these two components were missing, refused, or had a "don't know" response, this measure was assigned a missing value code. The household income value was the actual dollar amount reported by respondents who reported an exact household income (C11Q01). However, when respondents did not supply a specific dollar amount for household income, it was necessary to go through a series of questions asking respondents whether the household income was below, exactly at, or above threshold amounts (W9Q02 through W9Q12A). If respondents did not complete the income cascade either because they refused or did not know the answer to one of the cascade questions, this measure was assigned a missing value code. Once an income-to-household-size measure was computed, it was compared with DHHS Federal Poverty Guidelines. More detail about the development of this poverty indicator is available in "Appendix V."

Dummy Variables

When respondents were permitted to provide multiple answers for the same question, a variable was created for each possible answer. The values for these new dummy variables are "yes, this answer was given," and "no, this answer was not given." When respondents could not or did not provide an answer to the question, a value of "don't know" or "refused" is reported for each of the dummy variables.

- S2Q55 is represented by S2Q55X01 to S2Q55X12.
- S4Q08 is represented by S4Q08X01 to S4Q08X16.
- S4Q14 is represented by S4Q14X01 to S4Q14X16.
- S4Q18 is represented by S4Q18X01 to S4Q18X16.
- S6Q56 is represented by S6Q56X01 to S6Q56X03.

Additional Data Notes

For the question about the number of days during the past week that the child participated in clubs, organizations, or sports teams (S7Q12), a CATI program error led to 1,707 missing values. This error was corrected on February 20, 2003.

For the questions about whether the child received all needed prescription medications (S4Q17) and the reasons why all prescription medications were not received (S4Q18), an erroneous CATI logic check resulted in missing values for 125 cases. The problem was corrected on May 27, 2003.

For the question about whether anyone in the household smokes (S9Q11B), an oversight in survey planning resulted in 12,549 missing values for children under 6 years of age. This error was corrected on July 15, 2003.

For the question about whether doctors provided information to address concerns about learning, development, or behavior (S6Q29), a CATI program error led to 156 missing values. This error was corrected on July 30, 2003.

For the question about the receipt of free or reduced-cost breakfasts or lunches in school (C11Q11B), a CATI program error led to 1,103 missing values. This error was corrected on September 23, 2003.

A CATI program error during the first wave of the incentive effort resulted in 158 cases with missing data for the income variables and all subsequent variables. The problem was corrected on March 22, 2004.

For the question on children's difficulties with emotions, concentration, behavior, or being able to get along with other people (S2Q59) and its followup question (S2Q60), an inadvertent error in the questionnaire development process resulted in answer choices that do not match the answer choices for the copyrighted Strengths and Difficulties Questionnaire (12). Analysts should use caution when comparing estimates derived from S2Q59 and S2Q60 to estimates derived from the proper answer choices used in other surveys.

Quality Control

A lead programmer was responsible for cleaning data at the end of the data collection period. The lead programmer was also responsible for modifying the cleaning programs for use as data monitoring programs of the interview data during each quarter of data collection. A second programmer was responsible for reviewing the work of the lead programmer and signing off on each completed task. The cleaned data file was also thoroughly checked by project staff. Below is a brief summary of the steps involved in producing the final data file.

Using the CATI questionnaire specifications as a base, the lead programmer followed detailed cleaning specifications and produced a series of cleaning programs. The programmer annotated each cleaning program so that results could be replicated and reviewed by others. These programs were created to check for duplicate cases across NSCH data collection quarters, verify the valid number of completed and partially completed cases in the data file, check that all data elements for a

completed case were present, apply any final data corrections based on data recovery, check that values were within specified ranges and that skip patterns were followed, create derived variables from existing variables, and assign special codes to reflect missing data of various kinds.

A second programmer produced an independent set of programs to serve as a quality control check of the cleaned data. These quality control programs performed three main checks. First, they identified any out-of-range values and incorrect skip logic. Second, derived variables were independently created and cross-checked against variables created by the programmer. Any discrepancies were flagged and reported to the programmer. Third, the programs checked for the correct assignment of the special codes denoting the various types of missing data.

Nested variables (i.e., variables that are only asked based on a response to a previous question) were linked to their root variables, and questionnaire paths were traced. Variables that should correspond with earlier variable values were compared with those values, using cross tabulations, and reconciled with them. Applicable variable frequencies were checked for expected distributions. Variables with anomalous distributions were reviewed individually. Variable labels and statements were checked to ensure that they were consistent with the data documentation provided.

The quality control programs were run on each new version of the data files until no problems were identified. The quality control reviewer then signed off on the data file. The final step of the quality control process involved review of the file by senior project management.

Estimation and Hypothesis Testing

The NSCH data were obtained through a complex sample design involving clustering of children within households and stratification of households within States. To produce estimates that are representative of children nationally and within each State, sampling weights must be used. These sampling weights were developed to account for complex sample design and include adjustments for multiple-telephone households, unit nonresponse, and noncoverage of nontelephone households, as well as adjustments to known population control estimates.

As described earlier, a single sampling weight (WEIGHT_I) has been developed for the NSCH. This weight should be used for both national and State-level analyses.

Variables Used for Variance Estimation

Because of the complex design of the NSCH, the interview records have unequal weights. Therefore, statistical software programs that assume simple random sampling will most often compute standard errors that are too low. Tests of statistical hypotheses may then suggest statistically significant differences or associations that are misleading. However, computer programs are available that provide the capability of variance estimation for complex sample designs (e.g., SUDAAN, STATA, WesVar). To provide the user with the capability of estimating the complex sample variances for the NSCH data, we have provided stratum identifiers and primary sampling unit (PSU) codes on the data files. These variables and the sample weights are necessary for the calculation of variances.

It should be noted that the stratum identifiers reported on the data set are not identical to the strata used for drawing the sample. In States with multiple Immunization Action Plan (IAP) areas, independent samples were selected from each IAP area in proportion to the total number of households with children in each IAP area. Therefore, these IAP areas should be considered strata for variance estimation. However, disclosure of the specific IAP area for each child (even if the code were scrambled) could increase the risk of disclosure of a respondent's identity. For example, the IAP area with the lowest frequency of responses in New Jersey would be readily identifiable as Newark. In the absence of IAP-specific identifiers, data users should use the State identifier (STATE) as the stratum identifier. By using the State identifier rather than the suppressed IAP identifier, the standard errors for national and State estimates with key variables are affected only slightly and not in a consistent direction.

The PSU for the NSCH is the household. Each household is represented by only one child. Therefore, the PSU is represented on the data sets by the unique household identifier, IDNUMR.

The overall number of persons in this survey is sufficient for most statistical inference purposes. However, analyses of some rare responses and analyses of subclasses can lead to estimators that are unreliable. Small sample sizes used in the variance calculations may also produce unstable estimates of the variances. Consequently, these analyses require that the user pay particular attention to the coefficient of variation for the estimates of means, proportions, and totals.

Variance Estimation Using SUDAAN or STATA

Standard errors for the NSCH can be obtained using the Taylor-series approximation method, available in software such as SUDAAN and STATA. As noted previously, the State should be identified as the stratum variable and the household should be identified as the primary sampling unit.

The simplifying assumption that PSUs have been sampled with replacement allows most complex survey sample design computer programs to calculate Taylor-series standard errors in a straightforward way. This method requires no recoding of design variables, but is statistically less efficient (and therefore more conservative) than some other methods because the PSU unit is treated as being sampled with replacement within the stratum unit.

For SUDAAN, the data file needs to be sorted by stratum (STATE) and

PSU (IDNUMR) prior to invoking SUDAAN. The following SUDAAN design statements are used for analyses:

> PROC . . . DESIGN = WR;
> NEST STATE IDNUMR;
> WEIGHT WEIGHT_I.

For STATA, the following design statements are used:

> svyset strata STATE;
> svyset psu IDNUMR;
> svyset pweight WEIGHT_I;
> svyset.

It should be noted that other variance estimation procedures are also applicable to the NSCH. Specifically, the jackknife method with replicate weights and the bootstrap resampling method with replicate weights can also be used (via software such as WesVar) to obtain standard errors that fully reflect the impact of the weighting adjustments on standard errors.

Variance Estimation for Subsets of the Data

Most analyses of the NSCH data will focus on specific population subgroups such as children in only one State or children living in poverty. Some analysts will therefore be tempted to delete all records outside of the domain of interest so they may work with smaller data files and run computer jobs more quickly. This procedure of keeping only select records and deleting other records from the list is called ''subsetting the data.'' Subsetted data that are appropriately weighted can be used to generate correct point estimates (e.g., estimates of population subgroup frequencies or means), but most software packages that analyze complex survey data will incorrectly compute standard errors for subsetted data. When complex survey data are subsetted, the sample design structure is often compromised because the complete design information is not available. Subsetting the data can delete important design information needed for variance estimation (e.g., deleting all records for certain subgroups may result in entire PSUs being removed from the design structure).

The NSCH was designed to provide independent data sets for each of the 50 States and the District of Columbia. Subsetting the survey data to a particular State does not compromise the design structure of the survey. That is, standard errors calculated in SUDAAN for a particular State will not be affected if the data set has been subsetted to that particular State. However, subsetting to specific population subgroups (within or across States) can result in incorrect standard errors. For example, subsetting the data to those children who live in poverty within a specific State will result in incorrectly calculated standard errors. Typically, the standard errors for subsetted data will be inflated, resulting in a higher probability of type-II error (i.e., failing to detect significant differences that do exist). SUDAAN has a SUBPOPN option that allows for the targeting of specific subpopulations for analysis while retaining the full unsubsetted data set that includes the full sample design information. Analysts interested in specific population subgroups should use SUBPOPN instead of subsetting the data sets.

Weighted Frequencies, Prevalence Estimates, and Standard Errors

Weighted State-specific frequencies of the number of children with excellent or very good health (as assessed by the respondent) appear in ''Appendix VIII.'' Prevalence estimates and standard errors are also provided. Analysts may wish to replicate this table to determine if they are using the weights correctly.

Weighted frequencies, prevalence estimates, and standard errors for other survey measures will be available from the National Survey of Children's Health Data Resource Center. This online center is led by the Child and Adolescent Health Measurement Initiative at the Oregon Health and Science University and is sponsored by the Office of Data and Program Development at the Maternal and Child Health Bureau. When available, the data resource center will be accessible at http://www.nschdata.org or http://www.childhealthdata.org.

Guidelines for Data Use

With the goal of mutual benefit, NCHS requests that recipients of data files cooperate in certain actions related to their use.

Any published material derived from the data should acknowledge NCHS as the original source. The suggested citation, ''Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics, State and Local Area Integrated Telephone Survey, National Survey of Children's Health, 2003,'' should appear at the bottom of all tables. It should also include a disclaimer that credits any analyses, interpretations, or conclusions reached to the author (recipient of the file) and not to NCHS, which is responsible only for the initial data. Consumers who wish to publish a technical description of the data should make a reasonable effort to ensure that the description is not inconsistent with that published by NCHS.

The Public Health Service Act (Section 308d) provides that data collected by NCHS may be used only for the purpose of health statistical reporting and analysis. Any effort to determine the identity of any reported case is prohibited by this law. NCHS does all it can to ensure that the identity of data subjects cannot be disclosed. All direct identifiers, as well as any characteristics that might lead to identification, are omitted from the data files. Any intentional identification or disclosure of a person or establishment violates the assurances of confidentiality given to the providers of the information. Therefore, users must:

- Use the data in this data file for statistical reporting and analysis only.
- Make no use of the identity of any person discovered, inadvertently or otherwise, and advise the Director, NCHS, of any such discovery (301–458-4500).
- Not link this data file with individually identifiable data from

any other NCHS or non-NCHS data files.

Use of the data signifies users' agreement to comply with the above-stated statutory-based requirements.

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Appendix I

Sampling and Weighting Technical Summary

The basic design objective of the National Survey of Children's Health (NSCH) was to select a sample of children under 18 years of age to obtain 2,000 completed interviews in each State and the District of Columbia. This sample was selected by identifying households with children under age 18 years by screening a larger sample of households and then selecting one child for a detailed interview from each age-eligible household. The sample of households selected for screening for the NSCH was a subsample of the households screened for the National Immunization Survey (NIS), a continuous list-assisted random-digit-dialing (RDD) survey administered in each of the 50 States and 28 metropolitan Immunization Action Plan (IAP) areas. Therefore, the sampling design for the selection of households in the NSCH was essentially the same as in the NIS.

Drawing the NIS Sample

A brief description of the procedure for the selection of households in the NIS is given below. For more detail on the NIS sample design, readers are encouraged to obtain chapter 3 of the *NIS Annual Methodology Report* (9), which is available from NCHS. Further information regarding the NIS can be found in *National Immunization Survey: The Methodology of a Vaccination Surveillance System* (10).

Associating Telephone Numbers with IAP Areas

To draw a sample of telephone numbers in an IAP area, one must, in effect, compile a list of all telephone numbers that belong to that area. For some IAP areas, this step is straightforward. For example, when the IAP area is a State with a single area code, the list consists of all telephone numbers within the central-office codes that are in service in that area code.

(Combined, an area code and a central-office code form a ''prefix area.'' For example, when a telephone number is 617–555-1234, 617–555 is the prefix area corresponding to the 555 central office in the 617 area code.)

For other IAP areas, however, the step encounters a number of complications. When the IAP area is a city, county, or combination of counties, some prefix areas may cover part of the IAP area and part of an adjacent IAP area. In such situations, the NIS applies a plurality rule: if at least 50% of the directory-listed households in a prefix area fall inside an IAP area, the prefix area is assigned to that IAP area.

Drawing the Initial NIS Sample

The sample frame for an IAP area consists of banks of 100 consecutive telephone numbers within the prefix areas assigned to the IAP area. For example, the numbers from 617–555-7100 to 617–555-7199 constitute a working bank in the 617–555 prefix area. Banks that contain zero directory-listed residential telephone numbers are excluded from the frame because they have very little chance of containing working residential numbers. For this preliminary step, the GENESYS Sampling System (a proprietary product of Marketing Systems Group) uses a file of directory-listed residential numbers from Donnelley Marketing Information Services (DMIS). The result is a file that lists the remaining banks (the ''1+ working banks''). From the 1+ working banks, a random sample of complete 10-digit telephone numbers is drawn for each quarter in such a way that each number has a known and equal probability of being selected. Within each IAP area, the sample is then segmented into replicates, or representative subsamples, with each replicate containing sample telephone numbers from each of the 78 IAP areas. Segmenting the sample into replicates allows for the release of telephone numbers over time in a controlled manner.

Updating the NIS Sampling Frame

The set of telephone banks with at least one directory-listed residential telephone number changes over time. As

a result, the sampling frame of 1+ working banks also needs to be updated. The recent phenomenon of frequent area-code splits has produced additional changes to the sampling frame. The GENESYS database reflects those changes in a quarterly update. Marketing Systems Group (MSG) has developed a separate sampling frame for each IAP area. The database is examined quarterly to determine whether currently included banks should be assigned to different IAP areas and to assign newly included banks to IAP areas. The rules for assignment are the same as in the initial definitions of the IAP areas. After all modifications have been made to the GENESYS database, a number of checks ensure that all changes have been applied correctly and that the new database produces samples that are consistent with those produced prior to the changes. These checks compare the number of active banks and RDD-selectable lines in each IAP area before and after the update. In parallel, the actual exchanges assigned to each IAP area before and after the update are compared. Small changes are expected—new banks are put into service as new numbers are assigned. If a major discrepancy occurs in any of these checks, MSG is notified of the difference and asked to provide documentation of the reasons for the change.

Forming NIS Sample Replicates

The total size of the initial sample for an IAP area is calculated according to the formula:
Total Sample Size = $(1.5)T/(AC)$, where:

T is the quarterly target number of completed interviews for the IAP area (this target number of completes ranged from 95 to 126 in 2003);

A is the proportion of telephone numbers that remain after identifiable business and nonworking numbers have been removed (as discussed below); and

C is the proportion of telephone numbers sent to the telephone center that result in a completed interview.

In the formula, A and C are specific to the IAP area. They are adjusted each quarter, taking into account the results from prior quarters. The target, T, may also reflect the results in the previous quarters; for example, if the three previous quarters have not produced their target total of completes, T is raised accordingly. Likewise, if the three previous quarters have exceeded their target total of completes, T is reduced accordingly. The factor 1.5 allows for variation in actual performance among IAP areas and among quarters.

The total sample selected is then randomly divided into replicates. (In the first quarter of 2003, the number of replicates was 36; the first 26 were equal in size, and the last 10 were half that size. For the second and third quarters, the number of replicates was 30; 24 full-size and 6 half-size. For the fourth quarter, the number of replicates was 31; 27 full-size and 4 half-size.) This procedure permits smoother release of the sample (at the rate of one or two replicates per week) for each IAP area separately, as needed. Toward the end of the quarter, the half-size replicates allow tighter control over the total amount of sample released. The aim is to produce an even distribution of work in the telephone center over the course of a quarter and to give all cases an equal probability of being completed.

Removing Business and Nonworking Numbers

In a traditional RDD survey, all sampled telephone numbers are given to interviewers for dialing. Because over one-half of all selected telephone numbers are businesses, modem lines, or are unassigned, a large part of the interviewers' efforts may be directed simply to identifying and removing these numbers from the active sample. MSG has produced companion products to their GENESYS Sampling System that can quickly and accurately reduce the size of this task.

First, the selected sample is matched against a GENESYS data file containing telephone numbers that are directory-listed in a business Yellow Pages and are not directory-listed in a residential White Pages. Any business numbers that are identified are removed from the sample.

Second, numbers listed in residential White Pages are identified and temporarily set aside.

Third, a hardware system, GENESYS-ID*plus*, screens the remaining sample to remove a portion of the nonworking numbers. Using personal computers with special hardware and software, this system (the "auto-dialer") automatically dials the telephone numbers to detect nonworking and modem numbers. This is indicated by the familiar tri-tone signal for out-of-service numbers, by an extended period of silence, or by continuous noise on the line. If the telephone number being dialed starts to ring, an attendant responds if the telephone is answered. (On a national basis, approximately 15%–20% of the numbers are answered.) The GENESYS-ID*plus* equipment is operated only during daytime hours on weekdays in an attempt to reduce the number of answered calls. In addition, the White Pages directory-listed numbers identified in step two are not dialed. These residential White Pages directory-listed numbers are combined with those that were not removed by the auto-dialer to produce the sample to be dialed by NIS interviewers. Together, these steps cull out approximately 40% of the sampled lines in the NIS sample.

Obtaining Addresses for Advance Letters

To obtain addresses that correspond to telephone numbers in the sample, the numbers for each replicate are sent to a company that provides this matching service. This computerized name-and-address-locating service uses a large database of residential and business telephone numbers, including unpublished telephone numbers. In some instances, by customer preference, a listing may not contain a street address. The resulting file contains both numbers with and without listing matches. Matched listings contain a business or residential identifier.

"Do Not Call" Requests

The NIS maintains a file containing telephone numbers of people who have requested that they not be called. Each quarter's sample is compared with this file, and numbers in the "Do Not Call List" are not included in the quarterly sample of numbers loaded into the CATI system.

Duplicate Telephone Numbers

Because of the repeated quarterly selection of the sample in each IAP area, it is possible that some telephone numbers will be selected more than once. To avoid respondent problems created by recontacts for the same survey, a further step of processing identifies duplicate numbers. Each complete replicate sample file is compared with all sample files released during the four prior quarters (taking into account area code splits). For the NIS, identified duplicates are processed as follows:

If GENESYS-ID*plus* removes an identified duplicate number, that result supersedes the disposition of that sampled number from the original quarter in which it was sampled. Otherwise, the processing depends on whether the number was sampled in the immediately preceding quarter. Duplicates from earlier quarters are mailed advance letters and called with their assigned replicate. Duplicates from the immediately preceding quarter are not mailed advance letters (because they might have received such a letter very recently). If they are released before the immediately preceding quarter was finished, they are put on hold until household data collection for that quarter has closed (to ensure that they do not receive calls simultaneously for two quarters). Numbers that have certain types of refusals (e.g., "take me off the calling list" cases) as their final disposition in the earlier quarter are counted as refusals in the current quarter. Certain final outcomes from the immediately preceding quarter are counted in the current quarter. For example, if the case is called for the preceding quarter in a month when data collection for the current quarter is also open, and the final outcome is "nonworking number," "no child in range," or "complete," the outcome is counted for both quarters, and the data are copied for the current quarter.

Because of the repeated quarterly selection of an NIS sample in each IAP area, some telephone numbers were selected more than once over the course of the NSCH data collection period. Such numbers were not contacted a second time for the NSCH. Instead, these cases were automatically finalized. Response rates reflect the final disposition of a telephone line from its original sampling.

NSCH Sampling Design and Allocation

The number of children required to be selected in each IAP area within a State with multiple IAP areas was determined by allocating the total of 2,000 children in the State among the IAP areas in proportion to their total number of households with children under 18 years of age. Then, the number of households that needed to be screened in each IAP area was calculated using the expected proportion of households with children in the eligible age range. State-level estimates of the proportion of households with age-eligible children were obtained from the Current Population Survey (CPS) and applied to all IAP areas within a State. The number of telephone numbers that needed to be called was then computed, using the expected working residential telephone number rate. The number of telephone numbers that needed to be called was then increased to compensate for a degree of nonresponse because not all respondents will agree to participate.

A random subsample of the telephone numbers to be called for the NIS in each IAP area was selected to become the NIS/NSCH sample. The size of this subsample was equivalent to the number of telephone numbers determined necessary to achieve the required number of NSCH-completed interviews. These NIS/NSCH numbers were called in an attempt to first identify NIS-eligible households, and then to identify households that were eligible for the NSCH. Any household with at least one child under 18 years of age was considered eligible for the NSCH, and all households that were NIS-eligible were also NSCH-eligible.

One child under 18 years of age was selected at random from each NSCH age-eligible household. The selection of the sample was spread over four quarters of NIS data collection (Quarters 1–4 of 2003). The split of the total sample among quarters varied across IAP areas.

Sampling Weights

To produce population-based estimates, each respondent household and child for whom complete data were available was assigned a sampling weight. These sampling weights compensate for varying probabilities of selection of households and children because of stratification by IAP area and clustering of children within households. Also, the weights are needed to account for nonresponding households and for noncoverage of households without telephones (i.e., only households with telephones were included in the sampling frame).

The sampling weight combines (a) the IAP area base weight, which reflects the probability of selecting the household telephone number; (b) an adjustment for households with multiple telephone numbers; and (c) adjustments for unit nonresponse at various data collection phases. A child-level interview weight was determined for responding children in each State. These State weights allow the production of State-level estimates. The national estimate is obtained by aggregating the State-level estimates. There is no separate national weight. The method of determining the overall weight for each respondent child in the survey is described below.

Base Sampling Weight

As mentioned, a sample of telephone numbers was selected in each IAP area, spread over four quarters of NIS data collection. In the NIS, an independent sample of telephone numbers is selected each quarter. A telephone number could have been selected for the NSCH in any of the four quarters of the data collection period. Once a telephone number was selected, it was not selected again for data collection in subsequent quarters.

To compute the base sampling weight, the overall probability of selection was determined, considering the probabilities of selection in the different quarters.

Let the number of quarters over which the total sample is selected be q. Let p_i denote the probability of selecting a telephone number in the ith quarter and p the overall probability of selection of the telephone number of the household. Then

$$p = \sum_{i=1}^{q} p_i$$

Since the sample was selected over four quarters, we have:

$$p_1 = \frac{n_1}{N_1}$$

for the first quarter, where n_1 is the number of telephone numbers selected in the first quarter and N_1 the number of telephone numbers available for selection;

$$p_2 = (1 - \frac{n_1}{N_1}) \frac{n_2}{N_2}$$

for the second quarter, where n_2 is the number of telephone numbers selected in the second quarter and N_2 the number of telephone numbers available for selection;

$$p_3 = (1 - \frac{n_1}{N_1}) (1 - \frac{n_2}{N_2}) \frac{n_3}{N_3}$$

for the third quarter, where n_3 is the number of telephone numbers selected in the third quarter and N_3 the number of telephone numbers available for selection; and

$$p_4 = (1 - \frac{n_1}{N_1}) (1 - \frac{n_2}{N_2}) (1 - \frac{n_3}{N_3}) \frac{n_4}{N_4}$$

for the fourth quarter, where n_4 is the number of telephone numbers selected in the third quarter and N_4 the number of telephone numbers available for selection.

The base sampling weight for a household in a particular IAP area is given by $w = 1 / p$. Generally, this weight is the same for all households within an IAP area.

Because the selection of telephone numbers uses simple random sampling, the probability of selection in each IAP area in each quarter is simply the number of telephone numbers selected divided by the total number of telephone numbers available for selection.

Households with Multiple Telephone Lines

The base sampling weight of eligible households that have multiple voice-use telephone lines was adjusted to compensate for the higher probability of selection of these households. The adjustment divides the base sampling weight by the number of telephone lines in that household. Let t_k denote the number of telephone lines in the kth household in an IAP area. The adjusted base sampling weight for that household is given by

$$w_k = \frac{w}{t_k}$$

If the household had only one telephone line, then the adjusted weight is the same as the base sampling weight.

Unit Nonresponse Adjustment 1 (Residential Status Unknown)

When a selected telephone number is called, three results are possible: (a) the number called is a household, (b) the number called is not a working residential number (it could be a business number or nonworking number), or (c) there is a nonresponse to the screening attempt and the residential status of the telephone number is unknown. In the NSCH, a minimum of 10 call attempts were made before a number was assigned unresolved status.

Adjustment of the base sampling weight to account for possible residential numbers in the third category described above occurred in two steps. First, unresolved telephone numbers that had been finalized as "ring-no-answer at all attempts" were redistributed as follows: 20.4% were grouped with known, unscreened households (the first category above), and 79.6% were grouped with nonresidential numbers (the second category above). This redistribution is based on recent research in which national data were collected to estimate the percentage of residential telephone numbers among unresolved numbers in the "ring-no-answer at all attempts" group (26). Second, adjustment of the base sampling weight to account for nonresponse in the remaining "category 3" numbers is the same as the method used in the NIS.

This method is described in detail in the *1998 NIS Annual Methodology Report* (31). In the NIS, information external to the survey is used to reallocate these unknown numbers to either residential or nonresidential numbers.

Among the n telephone numbers in an IAP area, let the number of telephone numbers in each of the three categories mentioned above be n_1, n_2, and n_3, respectively. The first nonresponse adjustment factor is

$$A_1 = \frac{n_1 + \hat{n}_{31}}{n_1}$$

where $\hat{n}_{31}$ is the estimated number of households among the n_3 in the "status unknown" category. The procedure for estimating the number of households in the unknown category is based on a study conducted in 1994 and 1995, in which telephone company business offices were asked to report on the status of a sample of category 3 telephone numbers (32). The results of the study showed that the proportion of residential numbers varies according to IAP area regional grouping, whether the telephone number was directory-listed, and the type of noncontact (e.g., ring-no-answer versus answering machine). Therefore, the nonresponse adjustment factor within each IAP area was calculated for a set of numbers defined by IAP area grouping, calling disposition code, and whether the number was directory-listed. To keep the notation simple, the adjustment factor is denoted by A_1, although it could differ among households within each IAP area. The nonresponse-adjusted base sampling weight after nonresponse adjustment 1 for the kth household in an IAP area is given by

$$A_1 w_k$$

The adjusted weight is for all known households.

Unit Nonresponse Adjustment 2 (Households of Unknown Eligibility)

A second form of nonresponse may occur because a household does not complete the screener questions relating to the eligibility of the household for the survey. Therefore, for these telephone numbers identified as belonging to a household, there is no determination of eligibility. A description of the adjustment for this form of nonresponse follows. The adjustment is done separately within three urban setting categories based on census-defined metropolitan statistical areas (MSAs). The three categories, from most urban to most rural, used for the adjustment are within a central city of an MSA; outside of a central city, but still within an MSA; and not within an MSA.

Let the number of households (within each urban setting category) screened to be eligible out of the n_1 households contacted be q_1. Let the number of households screened to be ineligible be q_2. Let q_3 denote the number of households that are nonrespondents to the eligibility question. Then

$$n_1 = q_1 + q_2 + q_3$$

The nonresponse adjustment to the sampling weight to account for not being able to determine the eligibility of q_3 households is given by

$$A_2 = \frac{\sum_{k=1}^{n_1} A_1 w_k}{\sum_{k=1}^{q_1 + q_2} A_1 w_k}$$

The adjustment given above is algebraically equivalent to estimating the weighted proportion of eligible households among the q_3 households and redistributing that weight among the q_1 eligible households.

The nonresponse-adjusted base sampling weight after nonresponse adjustment 2 is given by

$$w_{ak} = A_2 A_1 w_k$$

This adjusted weight is determined for all eligible households in which a screening interview was completed.

Child Interview Weight

In households with more than one child, all children were rostered by age and a single child was randomly selected from among all children in the household to be the focus of the interview. In households with multiple eligible children, the randomly selected child represents all of the nonselected children in the household. Therefore, the

sampling weight for this completed interview must be increased to reflect the fact that this completed interview represents multiple children in that household. This adjustment simply multiplies the child weight by the number of eligible children in the household. Let the number of children in kth household in an IAP area be N_k.

One child was randomly selected from every age-eligible household. The sampling weight for the selected child is

$$w_k^c = w_{ak} N_k$$

Poststratification Weight Adjustment for Child Interview Weights

Despite the weighting efforts and nonresponse adjustments, the estimated number of children is unlikely to match the total number of children in the population. Any discrepancies are likely to be due to random sampling error and nonrandom response biases. These biases include bias because of nonresponse related to age, sex, or race of the child. Poststratification adjusts the weights to match population control totals for key demographic variables obtained from an independent source. Through this process, the NSCH child interview weight was further adjusted, such that the sum of the weights over all children agrees with population control totals. The sample of interviewed households was divided into cells representing more-detailed categories of selected variables. Poststratification adjustments were not done in each cell formed by the cross-classification of the categories of the stratification variables, because control totals for each cell were not available. Only the marginal population control totals were determined. Therefore, for adjusting the weights, raking (33) was used. Raking iteratively adjusts the weights so that they match the marginal control totals.

For the NSCH child weight, the initial source for population control totals was the July 2003 Census Bureau State-level estimates of the number of male and female children in three age groups (0–4 years, 5–13 years, 14–17 years). The number of children according to the Census Bureau in the resulting six "age by gender" categories

includes institutionalized children. Because the NSCH was a survey of noninstitutionalized children, these numbers had to be adjusted to reflect that population. To make this adjustment, the total number of children (including institutionalized children) in each "age by gender" category in each State was estimated from the Census 2000 5% Public Use MicroData Sample (PUMS) files. Then, the number of noninstitutionalized children in each "age by gender by race" category (within each age by gender category) was likewise estimated. The ratio of the number of children in each "age by gender by race" category to the total number of children in the "age by gender" category was computed. For each "age by gender" category, there were seven ratios because there were seven race categories. (These ratios do not add up to 1.0 because the denominator includes the institutionalized children whereas the numerator only includes noninstitutionalized children.) The resulting 42 ratios were then applied to the corresponding control totals for "age by gender" to produce control totals of noninstitutionalized children in each of the "age by gender by race" categories in each State. The total of all the 42 categories gave the overall total number of children in the State, used in all the raking margins. Various aggregations of the 42 categories resulted in the following dimensions for raking:

- Number of male and female children in three age groups.
- Number of children of various racial and ethnic backgrounds.
- Number of male and female children by race/ethnicity.

Poststratification control totals were also produced, using 2000 5% PUMS data, for the number of children in the following three margins.

- Number of children in households with fewer than two adults and in households with two or more adults.
- Number of children in households with one child, with two children, and with three or more children.
- Number of children in households in which the highest-educated person

has a high school diploma or less and in households in which the highest-educated person has more than a high school diploma.

For determining these totals, the proportion of children in each category was obtained from the 2000 5% PUMS and applied to the total number of children in each State as obtained from aggregating, by State, the 42 control totals described earlier.

The poststratification process also includes an adjustment for the potential bias that may exist because the NSCH, as a telephone survey, could not select households without a telephone at the time of the survey. This adjustment incorporated information about households with interrupted telephone service from the NSCH. The reason for using households with interrupted telephone service in the weighting process is as follows. Evidence suggests that households with telephones at the time of the survey, but with interruptions in telephone service during the year, are more similar to households with no telephone service at the time of the survey than households with uninterrupted telephone service during the year (27–30). Therefore, nonresponse by nontelephone households can be somewhat compensated by proportionately increasing the weights for those interviews that could be completed in households with interrupted service. In this way, completed interviews in households with interrupted service represent the incomplete interviews in households without telephone service at the time of the interview.

To make this adjustment, two control totals were formed. The first is the total number of children in households with telephone service, but with no interruptions in telephone service during the past year. The second is the total number of children in households with telephones, but with interruptions in telephone service and children in households with no telephone service during the past year.

To determine the control totals, the proportion of children in telephone and nontelephone households was first determined from the 5% PUMS. Let p_s

denote the proportion of children in telephone households in a state obtained from the 5% PUMS. $(1 - p_s)$ denotes the proportion of children in nontelephone households. The proportion p_s is adjusted to reflect the national proportions from the CPS. This is done by multiplying the PUMS-derived proportion for the state by the ratio of the CPS national proportion of children in telephone households to the PUMS-derived national proportion. This gives the adjusted proportion of children in telephone households in the state. Let p_n denote the national proportion of children in telephone households based on the data from PUMS. Let p_n^* denote the national proportion of children in telephone households obtained from the 2003 CPS March Supplement. The adjusted state proportion of children in telephone households is

$$p_s^* = p_s \frac{p_n^*}{p_n}.$$

The adjusted proportion of children in nontelephone households is $(1 - p_s^*)$.

These proportions were then applied to the State control total of the number of children to get the estimated numbers of children in the State in telephone and nontelephone households. Let N_s be the total number of children in the State. The number of children in telephone households was estimated as

$$N_s^t = N_s p_s^*$$

The number of children in nontelephone households in the state is $N_s - N_s^t$.

From the NSCH, the weighted proportion of children in telephone households having an interruption in telephone service of at least 1 week during the past 12 months was computed. This proportion was then applied to the number of children in telephone households to estimate the number of children in telephone households with interruption.

Let the weighted proportions of children in households with an interruption in telephone service in the state be p_s^{It}. The number of children in telephone households with interruptions in telephone service is given by $N_s^{It} = N_s^t p_s^{It}$. The number of children in telephone households without

interruptions in telephone service is given by $N_s^t - N_s^{It}$.

Based on these calculations, two control totals, as described earlier, were produced:

These were $N_s^t - N_s^{It}$ and $N_s^{It} + (N_s - N_s^t)$.

The final child interview weight for the responding child in household k in an IAP area is denoted by w_{kf}^c.

Imputation of Missing Values of Poststratification Variables

Missing values for variables required for poststratification were imputed using Weighted Sequential Hotdeck (34). Details regarding the imputation appear in table I. Only 2.6% of the 102,353 cases required imputation of any variable and no single variable required imputation in more than 1.3% of cases.

Trimming Weights

In sample surveys, very large or extreme sampling weights are often truncated or "trimmed" as large variation in weights can result in large sampling variances of the survey estimates. This is especially true if the sampling weights are not correlated with the values or characteristics of interest. In such cases, the few observations having very large weights may contribute unduly to the overall estimate. Sometimes, large variation in weights is a result of a design in which the probabilities of selection of sampling units are positively correlated with values of observations on those units. Large weights can also be a result of sample selection procedures and adjustments for unit nonresponse.

Although a trimming procedure reduces the variance of the estimates, it may result in increased bias in the estimates. The objective of trimming is to reduce the variance so that the reduction more than compensates for the increase in bias, resulting in a smaller mean squared error than before trimming. Therefore, it is advisable to minimize trimming as much as possible.

No strict rules or procedures for defining extreme weights or trimming such weights exist, and various methods of weight trimming are practiced. In some surveys that employ weighting, the size of the nonresponse and other adjustments to the base sampling weights are restricted to avoid large final weights altogether. Other surveys examine the distribution of the final weights to identify extreme weights and propose trimming rules. This method is more common because it is easier to identify extreme weights by looking at the entire distribution of the weights.

Some common procedures for trimming weights are (a) to identify any sampling weight larger than four or five times the mean weight as an outlier weight and trim that weight by making it equal to the limit; (b) to identify any weight larger than the median weight plus five or six times the interquartile range of the final weights and trim the weight by making it equal to the limit; and (c) to truncate weights above a certain percentile (e.g., 95 or 99) in the distribution of weights. The standard deviation of weights is not used to guide trimming because it is affected by extreme weights.

Table I. Variables with imputed values

Variable	Number of missing values	Donor pool for weighted hotdeck imputation
Sex	80	State
Number of adults.	184	State
Highest education	423	Race/ethnicity group within State
Ethnicity	1,092	State
Number of telephone lines.	1,139	Household size within Immunization Action Plan area
Race (for non-Hispanic children only)	1,268	State
Interrupted telephone service	1,298	Income group (<$30,000 or "don't know," $30,000+ or "refused") within State

Typically, once trimming has been done, the weights of those observations with untrimmed weights are increased so that the sum of the new weights equals the sum of the weights before trimming.

The NSCH examined the distribution of the final weights to identify extreme weights. If the overall nonresponse adjustment factor exceeded 2.0, then it was trimmed to keep the maximum value of the factor at 2.0.

A decision was made to define a final weight as extreme if it exceeded the median plus five times the interquartile range to avoid undue trimming. Using the final, poststratified child interview weight as an example, a formal description of the trimming process applied is given below.

Let w_{khf}^c denote the final poststratified sampling weight for the responding child in the kth household in stratum h in the sample. Let the number of respondent children in the sample with a final sampling weight be n. Let w_m be the median of these n weights. Let the interquartile range be q_r. Any weight exceeding the value $w_m + 5q_r$ is truncated and set equal to $w_m + 5q_r$. Assume that we have trimmed k weights. The sum of the original weights is $\sum_{i=1}^{n} w_{ikhf}^c$ where w_{ikhf}^c is the weight for the ith responding child in the sample. The sum of the new weights is $\sum_{i=1}^{n-k} w_{ikhf}^c + k(w_m + 5q_r)$.

The two sums should be equal. Therefore, the untrimmed weights are adjusted by a factor equal to

$$\frac{\sum_{i=1}^{n} w_{ikhf}^c - k(w_m + 5q_r)}{\sum_{i=1}^{n-k} w_{ikhf}^c}$$

This adjustment is done as part of raking the weights such that the sum of the weights agrees with various control totals in the other margins. A final round of raking occurs after trimming is complete.

National Estimates

Descriptive statistics for the State sampling weights are provided in table II. The State sampling weights are used to obtain estimates for each State. To obtain national estimates of totals, State estimates should be aggregated. For computing national estimates of ratios (e.g., the proportion of children with health insurance coverage), the ratio of the estimated number of children with health care coverage in the Nation is produced by aggregating the State estimates and dividing this number by the total number of children in the United States, again by aggregating the State totals.

Standard Errors of Estimates

Because of the complex design of the NSCH, the interview records have unequal weights. Therefore, statistical software programs that assume simple random sampling will most often compute standard errors that are too low. Tests of statistical hypotheses may then suggest statistically significant differences or associations that are misleading. However, computer programs are available that provide the capability of variance estimation for complex sample designs (e.g., SUDAAN, STATA, WesVar). To provide the user with the capability of estimating the complex sample variances for the NSCH data, stratum identifiers and primary sampling unit (PSU) codes have been provided on the data files. These variables and the sample weights are necessary for calculating variances.

It should be noted that the stratum identifiers reported on the data set are not identical to the strata used for drawing the sample. In States with multiple Immunization Action Plan (IAP) areas, independent samples were selected from each IAP area in proportion to the total number of households with children in each IAP area. Therefore, these IAP areas should be considered strata for variance estimation. However, disclosure of the specific IAP area for each child (even if the code were scrambled) could increase the risk of disclosure of a respondent's identity. For example, the IAP area with

the lowest frequency of responses in New Jersey would be readily identifiable as Newark. In the absence of IAP-specific identifiers, data users should use the State identifier (STATE) as the stratum identifier. By using the State identifier rather than the suppressed IAP identifier, the standard errors for national and State estimates with key variables are affected only slightly and not in a consistent direction. The PSU for the NSCH is the household, represented on the data sets by the unique household identifier, IDNUMR.

Standard errors for the NSCH can be obtained using the Taylor-series approximation method, which is available in software such as SUDAAN, SAS, and STATA. The simplifying assumption that PSUs have been sampled with replacement allows most complex survey sample design computer programs to calculate Taylor-series standard errors in a straightforward way. This method requires no recoding of design variables, but is statistically less efficient (and therefore more conservative) than some other methods because the PSU unit is treated as being sampled with replacement within the stratum unit.

It should be noted that Taylor-series approximation methods assume that the weights are fixed. That is, in repeated samples of households and children, the weights attached to each child in an IAP area are assumed to be constant. But the final weights are obtained after various adjustments to the base sampling weight. These adjustments depend on the sample selected. Therefore, the variance estimates do not reflect the sampling variability of the weights. Thus, to a certain extent, there is underestimation of variance. In addition, there is a slight overestimation of variance because of the assumption of with-replacement sampling of households when households were actually selected without replacement. The extent of underestimation depends on the variability in weights in repeated samples.

The underestimation may not be severe as the weights have been raked to multiple control totals and, therefore,

Table II. Summary statistics for interview weights for children, by State

State	Unweighted sample size	Minimum weight	Maximum weight	Mean weight	Median weight	Sum of weights
Alabama.	2,167	55.4	2,156.0	509.5	404.2	1,104,146
Alaska	1,904	12.1	453.4	98.9	85.9	188,239
Arizona	1,919	123.6	3,163.8	788.3	671.8	1,512,819
Arkansas	1,878	26.6	1,610.9	361.5	319.7	678,939
California	2,223	650.7	17,611.3	4,218.7	3,166.8	9,378,237
Colorado	1,855	92.3	2,659.6	618.8	563.9	1,147,831
Connecticut.	2,146	42.6	1,469.8	387.7	346.9	832,105
Delaware	2,156	11.3	404.7	92.0	83.6	198,401
District of Columbia	2,049	4.3	233.1	52.5	37.0	107,485
Florida	2,116	196.5	6,954.8	1,846.7	1,464.0	3,907,632
Georgia	1,864	119.7	6,213.1	1,227.0	1,094.8	2,287,060
Hawaii	2,021	17.4	688.3	146.5	111.1	269,099
Idaho.	1,861	36.9	897.5	199.0	203.3	370,344
Illinois	2,158	162.9	6,955.1	1,492.5	1,366.7	3,220,883
Indiana.	1,874	131.1	4,002.7	852.1	753.8	1,596,856
Iowa	1,949	58.3	1,675.8	353.9	349.2	689,667
Kansas	1,849	48.5	1,663.6	374.7	338.8	692,847
Kentucky	1,953	52.3	2,218.3	506.9	434.2	990,015
Louisiana	2,241	59.1	2,246.1	523.3	423.7	1,172,697
Maine	1,920	22.4	735.6	148.7	140.7	285,571
Maryland	2,128	54.2	2,920.1	645.3	543.4	1,373,206
Massachusetts.	2,114	107.4	3,129.3	700.6	618.8	1,481,121
Michigan.	2,191	140.6	5,179.9	1,153.7	968.6	2,527,842
Minnesota.	1,864	108.1	3,275.2	667.6	584.7	1,244,377
Mississippi	2,035	42.1	1,673.9	372.1	294.0	757,175
Missouri	2,220	101.6	2,766.1	631.3	553.1	1,401,584
Montana.	1,941	16.1	471.0	110.4	103.3	214,360
Nebraska	1,874	32.7	1,087.0	233.9	208.3	438,253
Nevada	2,064	45.2	1,187.0	280.5	243.2	579,030
New Hampshire	1,925	26.3	679.5	158.6	157.8	305,278
New Jersey.	2,113	115.9	4,024.2	1,005.8	847.6	2,125,387
New Mexico	1,848	47.7	1,177.5	270.5	218.6	499,905
New York	2,021	298.7	10,318.9	2,228.2	1,842.0	4,503,196
North Carolina	2,084	112.1	4,197.4	998.4	893.7	2,080,668
North Dakota	1,955	11.4	348.2	74.8	71.6	146,143
Ohio	2,241	190.5	5,853.3	1,252.9	1,119.3	2,807,666
Oklahoma.	1,937	52.0	1,973.2	451.6	396.2	874,700
Oregon	1,969	65.7	1,765.0	429.4	434.5	845,439
Pennsylvania	2,200	182.8	5,909.3	1,279.8	1,063.9	2,815,445
Rhode Island	2,019	15.4	512.3	120.2	106.8	242,682
South Carolina	2,157	63.7	2,125.0	472.4	437.8	1,019,067
South Dakota.	1,868	13.5	530.6	103.1	90.5	192,623
Tennessee	1,922	83.4	2,948.8	722.5	573.2	1,388,714
Texas	2,179	332.0	10,960.5	2,853.3	2,447.1	6,217,276
Utah	1,483	84.3	2,186.9	498.8	413.6	739,705
Vermont	1,902	10.7	318.9	72.0	63.9	137,011
Virginia	2,179	94.7	3,634.4	822.6	736.5	1,792,362
Washington.	1,932	119.3	3,510.0	771.9	708.1	1,491,391
West Virginia	2,022	33.9	838.6	192.5	161.9	389,291
Wisconsin.	1,970	104.1	3,180.5	674.0	611.1	1,327,839
Wyoming	1,893	7.2	269.8	63.6	60.5	120,356

may not be highly variable in repeated samples. An alternative method of variance estimation would use a jackknife technique or a resampling procedure such as bootstrap estimation. For the NIS, jackknife variance estimates of vaccination coverage rates were computed, but were found to be very similar to the estimates obtained using Taylor-series approximation (35).

Appendix II

Description of the Incentive Effort

Introduction

During data collection for the SLAITS National Survey of Children's Health (NSCH), it became clear that response rates were lower than would be expected from the rates observed in the earlier SLAITS National Survey of Children with Special Health Care Needs, which also sampled children under the age of 18. A review of the NSCH rates made it clear that increasing the interview completion rate, the percentage of completed interviews among eligible respondents, would have the most impact on the overall response rate.

The methods considered for increasing the study's completion rate included paid incentives, which have increased response in such studies as the Medical Expenditure Panel Survey and the National Survey of America's Families. A pretest was implemented to examine the impact of a paid incentive on NSCH response in known households with children that had not completed an interview. Based on the results of the pretest, the use of incentives was substantially expanded. This appendix describes the methodology used for the NSCH incentive effort and its resulting impact on response rates.

Pretest

Known households with children that had not completed an interview were eligible for the incentive effort. The sample included both nonrespondents who had refused to participate and those who were not reached within the data collection period despite multiple attempts. Two types of households were excluded from the sample: those that gave a "hostile" refusal and those that asked to be removed from the calling list.

The pretest sample included households with children who were initially called in April, May, or June of 2003 (n = 10,904). These cases were divided into two groups. The first group could receive $15, and the second group could receive $25. The two groups were further divided so that half received an initial $5 of the payment enclosed with a letter sent prior to any new call attempts. The letter notified these nonrespondents of the additional $10 or $20 payment in appreciation for completing the interview. The other half of the sample in each group was mailed a letter without an initial payment. This letter notified nonrespondents of the full $15 or $25 payment in appreciation for completing the interview. In cases where an address could not be matched to a sampled telephone number, no letter could be mailed to the household. Instead, the household was called, and the full payment was offered at that time.

In summary, the varying payment amounts, payment schemes, and letter conditions produced a total of six treatment groups (table III). Copies of the letters used in the incentive effort appear in "Appendix VI." All payments after completion of an interview were mailed with a thank-you letter, which is also included in "Appendix VI."

All letters appeared on National Center for Health Statistics (NCHS) letterhead and were mailed using 3-day Federal Express service. A signature was required for delivery, but the delivery person's signature was accepted to minimize respondent burden. Calling rules were similar to those used for NSCH data collection in general (i.e., cases were finalized after two verbal refusals, three hang-ups during the introduction, or a combination of one verbal refusal and two hang-ups during the introduction). The sole exception to the usual rules was that a single refusal by the identified respondent for the sampled child resulted in the case being immediately finalized. Prior to each interview, informed consent information was again read to ensure that all respondents had received it.

The pretest was designed to address a number of issues related to the impact of incentives in general and the impact of the incentive amounts and payment methods, including:

a) Does either incentive amount produce a significant increase in the response rate?
b) Does the larger incentive amount ($25) produce a greater increase than the smaller amount ($15)?
c) Does sending an initial $5 payment with the advance letter have a significant effect on the response rate?
d) Does re-contacting eligible nonrespondents lead to a substantial number of complaints (e.g., to the NCHS Research Ethics Review Board)?

Data collection for the pretest began on November 21, 2003. After the first few weeks, preliminary results were reviewed to determine whether it was possible to refine procedures for the remainder of the test. Table IV shows preliminary response rates for each of the six treatments based on replicates (or subsamples) released at the beginning of the pretest. The completion rates shown are calculated by dividing the number of completed interviews by the total number of cases released for each treatment.

Table III. Characteristics of treatment groups for the National Survey of Children's Health incentive effort

Selected characteristic	$25 incentive			$15 incentive		
	Group A	Group B	Group C	Group D	Group E	Group F
Advance mailing	Yes	Yes	No	Yes	Yes	No
Amount of payment included with advance mailing	$ 5	$ 0	. . .	$ 5	$ 0	. . .
Amount of payment upon completion of interview	$ 20	$ 25	$ 25	$ 10	$ 15	$ 15

. . . Category not applicable.

Table IV. Preliminary response rates and sample sizes for the incentive pretest, by treatment group

Rate and size	$25 incentive			$15 incentive		
	Group A	Group B	Group C	Group D	Group E	Group F
Completion rate	47.9	37.5	18.5	43.9	36.5	16.3
Sample size	1,125	1,111	611	1,093	1,110	606

Analyses of these preliminary results showed a statistically significant difference between completion rates for the groups that received an initial $5 payment (A and D) and those that received only a letter with a promise of full payment upon interview completion (B and E). Thus, Group B ($0/$25) was merged with Group A ($5/20), and Group E ($0/$15) was merged with Group D ($5/10) in the last of the test mailings. Hence, all remaining address-matched cases received an initial mailing that included a $5 prepayment. Preliminary differences by incentive amount (Groups A–C vs. Groups D–F) were not statistically significant, so it was decided to continue pretest data collection using both amounts. Response rates in Groups C and F lagged behind the other groups as might be expected because they did not receive an advance mailing to alert them of the incentive for interview completion.

Pretest data collection ended on March 24, 2004, with 3,790 completed interviews. Final pretest results (table V) echoed those from the preliminary analyses, with no statistically significant difference by incentive amount.

Expanded Incentive Effort

The pretest results made it clear that incentives had a positive impact on survey response, but that the amount of the incentive produced no significant difference in response. Further,

re-contacting eligible nonrespondents resulted in very few complaints from contacted households. Therefore, the incentive effort was substantially expanded to include other cases from NSCH data collection (i.e., those initially called from January to March and July to December 2003). These nonresponding households with children were offered a total of $15, with an initial payment of $5 enclosed in a letter sent prior to any new call attempts if an address was known.

The number of remaining cases to be fielded was based on a reduced target of 1,850 completed interviews in most States, with incentive cases released selectively, as needed, to reach that target. However, in States that had an especially low response rate (i.e., an interview completion rate below 62.0%), all eligible incentive cases were fielded although the release of all such cases was likely to result in more than 2,000 interviews completed in those States. This plan took advantage of incentive use in the geographic areas where it would have the most impact on the overall weighted response rate for the study.

Data collection for the expanded incentive effort began on February 25, 2004 (prior to the end of the pretest) and ended on July 1, 2004. A total of 24,222 cases were fielded, resulting in 6,800 completed interviews. Combining these 6,800 interviews with the 3,790 completed during the pretest, a total of 10,590 interviews were completed as

part of the incentive effort. Of the 10,590 interviews, 1,697 (16.0%) were completed with respondents who called the project's toll-free telephone number in order to participate.

Impact of the Incentive Effort

The NSCH incentive effort increased the number of completed interviews from 91,763 to 102,353. The study's weighted interview completion rate increased from 60.7% to 68.8%, with a resulting increase in the overall weighted response rate from 48.8% to 55.3% (table VI).

Table VII shows overall weighted response rates by State prior to and after implementation of incentives. The increase in the overall response rate after incentives ranged from 1.6 percentage points in Maine to 10.0 percentage points in Ohio. The average increase was 5.5 percentage points, with 31 States having an increase of at least 5.0 percentage points.

Table V. Final incentive effort response rates by treatment group

Rate and size	$25 incentive			$15 incentive		
	Group A	Group B	Group C	Group D	Group E	Group F
Completion rate	44.9	37.5	18.3	39.8	36.5	16.7
Sample size	3,155	1,111	1,193	3,135	1,110	1,195

Table VI. Impact of the incentive effort on number of completed interviews and study response rates

Selected characteristic	Prior to incentive effort	After incentive effort
Number of completed interviews	91,763	102,353
Interview completion rate.	60.7	68.8
CASRO response rate[1].	48.8	55.3

[1]CASRO is Council of American Survey Research Organizations. The CASRO rate is the product of the resolution rate, the screener completion rate, and the interview completion rate.

Table VII. Weighted overall response rates by State prior to and after incentive effort

State	Rate prior to incentive effort	Rate after incentive effort
National	48.8	55.3
Alabama	48.3	56.5
Alaska	58.6	60.4
Arizona.	50.6	52.5
Arkansas	53.7	56.3
California	45.3	52.1
Colorado.	53.0	58.4
Connecticut	47.8	54.5
Delaware	46.7	53.5
District of Columbia	46.2	52.3
Florida	44.2	51.0
Georgia	50.1	52.1
Hawaii	45.3	50.5
Idaho	56.5	60.8
Illinois	47.5	54.8
Indiana	52.2	55.2
Iowa	53.7	56.5
Kansas.	54.7	59.1
Kentucky.	51.0	59.9
Louisiana	46.3	55.5
Maine.	53.7	55.3
Maryland.	46.0	53.0
Massachusetts	47.4	53.6
Michigan.	49.5	58.9
Minnesota	53.3	58.9
Mississippi.	45.1	53.6
Missouri	51.4	61.2
Montana	59.2	62.0
Nebraska	56.2	61.6
Nevada	47.4	53.7
New Hampshire	49.5	51.3
New Jersey	42.7	49.6
New Mexico.	55.4	58.8
New York	46.2	53.3
North Carolina	50.1	59.3
North Dakota	55.8	59.5
Ohio	50.4	60.4
Oklahoma	52.8	54.9
Oregon.	55.1	57.5
Pennsylvania	48.9	57.7
Rhode Island	48.8	57.1
South Carolina	47.8	55.5
South Dakota	59.2	64.4
Tennessee.	50.3	52.2
Texas.	49.1	56.7
Utah	55.4	64.0
Vermont	58.4	60.4
Virginia.	48.5	56.7
Washington	52.1	54.0
West Virginia	49.7	56.4
Wisconsin	53.2	55.3
Wyoming	57.3	60.0

NATIONAL SURVEY OF CHILDREN'S HEALTH, 2003

Health Resources and Services Administration
Maternal and Child Health Bureau

Centers for Disease Control and Prevention
National Center for Health Statistics
State and Local Area Integrated Telephone Survey

INTERVIEW SECTIONS 1-11

Screening and Sampling Section

NIS INTRODUCTION AND SCREENER

Hello, my name is [INTERVIEWER NAME]. 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 number has been selected at random to be included in the study.

Am I speaking to someone who lives in this household who is over 17 years old?

IF YES, PROCEED.

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

IF ONE OR MORE, CONDUCT NIS INTERVIEW AND THEN PROCEED TO S_UNDR18.

IF NONE, PROCEED TO S_UNDR18.

S_UNDR18   How many people less than 18 years old live in this household?

           00 PEOPLE
           01 PERSON
           02 PEOPLE
           03 PEOPLE
           04 PEOPLE
           05 PEOPLE
           06 PEOPLE
           07 PEOPLE
           08 PEOPLE
           09 PEOPLE

           (96) DON'T KNOW   **[TERMINATE]**
           (97) REFUSED   **[TERMINATE]**

           IF SUNDR18 $\geq$ 01   **[SKIP TO AGE GRID]**
           ELSE IF SUNDR18 =00   **[SKIP TO NOCHILD]**

NOCHILD   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've spent answering these questions.
           [TERMINATE]

AGE GRID   **<u>CATI INSTRUCTIONS (AGE GRID)</u>: APPLY THIS FILL INSTRUCTION TO EACH OF THE INTRODUCTIONS BELOW:** IF ONE CHILD UNDER 18 IN THE HOUSEHOLD, FILL "age" and "child."   IF MORE THAN ONE CHILD FILL "ages" AND "children."

INTRODUCTION #1 (DISPLAYED FOR NIS-INELIGIBLE HOUSEHOLDS):

Many of my questions are for children of certain ages. So, I'll know which questions to ask, please tell me the **[age/ages]** of the **[child/children]** less than 18 years old living in this household. **FOR ALL SUBSEQUENT ROWS OF AGE GRID, DISPLAY:** (Please tell me the age of the next child who lives in this household.)

INTRODUCTION #2: (DISPLAYED FOR NIS-ELIGIBLE HOUSEHOLDS):

Would you please tell me the **[age/ages]** of the other **[child/children]** living in this household? **FOR ALL SUBSEQUENT ROWS OF AGE GRID DISPLAY:** (Please tell me the age of the next child who lives in this household.)

YEARS		MONTHS	
SCQ03A1	__ __	SCQ03B1	__ __
SCQ03A2	__ __	SCQ03B2	__ __
SCQ03A3	__ __	SCQ03B3	__ __
SCQ03A4	__ __	SCQ03B4	__ __
SCQ03A5	__ __	SCQ03B5	__ __
SCQ03A6	__ __	SCQ03B6	__ __
SCQ03A7	__ __	SCQ03B7	__ __
SCQ03A8	__ __	SCQ03B8	__ __
SCQ03A9	__ __	SCQ03B9	__ __

HELP SCREEN (S1Q05): EACH CHILD IN THE HOUSEHOLD MUST BE A CURRENT RESIDENT OF THE HOUSEHOLD. A CURRENT RESIDENCE IS DEFINED AS A PLACE WHERE THE CHILD IS STAYING FOR MORE THAN TWO MONTHS AT THE TIME OF THE SURVEY CONTACT. IF A CHILD HAS NO PLACE WHERE HE OR SHE USUALLY STAYS, THE CHILD SHOULD BE CONSIDERED A CURRENT RESIDENT REGARDLESS OF THE LENGTH OF THE CURRENT STAY.

CHILDREN AWAY FROM THEIR RESIDENCE FOR TWO MONTHS OR LESS, WHETHER TRAVELING OR IN THE HOSPITAL, ARE CONSIDERED "IN RESIDENCE."

CHILDREN AWAY FROM THEIR RESIDENCE FOR MORE THAN TWO MONTHS ARE CONSIDERED "NOT IN RESIDENCE" UNLESS THE CHILD IS AWAY AT SCHOOL (I.E., BOARDING SCHOOL, MILITARY ACADEMY, OR PREP SCHOOL, ETC.).

CHILDREN WHO ONLY LIVE PART-TIME IN THE HOUSEHOLD BECAUSE OF CUSTODY ISSUES SHOULD BE INCLUDED IF THEY ARE STAYING THERE WHEN CONTACT WITH THE HOUSEHOLD IS MADE.

RANDOM SELECTION PROCESS:

A FOCAL CHILD MUST BE SELECTED FOR THE REST OF THE INTERVIEW FROM ALL CHILDREN ROSTERED.

<u>**ONE CHILD**</u>
IF ONLY ONE CHILD UNDER 18 YEARS OLD (AGE GRID HAS 1 CHILD LISTED) THAT CHILD IS THE FOCAL CHILD [CHILD] FROM THIS POINT.

<u>**MORE THAN ONE CHILD**</u>
IF THERE IS MORE THAN ONE CHILD UNDER THE AGE OF 18 (AGE GRID HAS > 1 CHILD LISTED) ONE OF THESE CHILDREN SHOULD BE RANDOMLY SAMPLED AND THAT CHILD IS THE FOCAL CHILD [CHILD] FROM THIS POINT.

SCQ05 The rest of the survey will be about the health and health care of [S.C.]. We need to talk to the parent or guardian who lives in this household who knows the most about the health and health care of [S.C.]. Who would that be?

    (1) MYSELF   **[SL_INTRO]**

    (2) SOME ONE ELSE   **[SKIP TO SCQ06]**

SCQ06 _____ **[MKP NAME]** **[SKIP TO SCQ07]**

SCQ07 May I speak with **[MKP NAME]** now?

    (1) YES **[SKIP TO NEW_RESP]**
    (2) NO **[SCHEDULE APPOINTMENT]**

NEW_RESP Hello, my name is **[interviewer name]**. I am calling on behalf of the Centers for Disease Control and Prevention. We are doing a survey about the health of children and teenagers in **[name of state]**, and I was told that you were the person to talk with about the health of [SC].

SL_INTRO **INFORMED CONSENT SCRIPT:**
      Before we get to questions about the health of [S.C.], I'd like you to know that your answers will be kept strictly private, as required by the U.S. Public Health Service Act. Your participation in this research is voluntary. You may choose not to answer any question you don't want to answer or stop at any time without penalty. The survey will take about 25 minutes. In order to evaluate my performance, my supervisor may record and listen as I ask the questions. I'd like to continue now unless you have any questions.

      HELP SCREEN: The Public Health Service Act is Volume 42 of the US Code, Section 242k. The collection of information in this survey is authorized by Section 306 of this Act. The confidentiality of your responses is assured by Section 308d of this Act.

Section 1: Initial Demographics

S1Q01   Is **[CHILD]** male or female?

(1) MALE
(2) FEMALE
(6) DON'T KNOW
(7) REFUSED

NOTE: ANSWER TO S1Q01 DETERMINES SUBSEQUENT GENDER PRONOUN FILLS.

S1Q02   What is your relationship to **[CHILD]**?

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

S1Q05   Please tell me how many people live in this household, including all children and anyone who normally lives here even if they are not here now, like someone who is away traveling or in a hospital.

              ____ ____   **[RANGE CHECK: 02-18]**

(96) DON'T KNOW
(97) REFUSED

HELP SCREEN (S1Q05): EACH CHILD IN THE HOUSEHOLD MUST BE A CURRENT RESIDENT OF THE HOUSEHOLD. A CURRENT RESIDENCE IS DEFINED AS A PLACE WHERE THE CHILD IS STAYING FOR MORE THAN TWO MONTHS AT THE TIME OF THE SURVEY CONTACT. IF A CHILD HAS NO PLACE WHERE HE OR SHE USUALLY STAYS, THE CHILD SHOULD BE CONSIDERED A CURRENT RESIDENT REGARDLESS OF THE LENGTH OF THE CURRENT STAY.

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CHILDREN WHO ONLY LIVE PART-TIME IN THE HOUSEHOLD BECAUSE OF CUSTODY ISSUES SHOULD BE INCLUDED IF THEY ARE STAYING THERE WHEN CONTACT WITH THE HOUSEHOLD IS MADE.

S1Q05A   What is the highest level of education attained by anyone in your household?
              __ __ ENTER NUMBER YEARS **[RANGE CHECK: 01-24]**

(41) NEVER ATTENDED
(51) ELEMENTARY
(61) HIGH SCHOOL
(71) COLLEGE
(81) GRADUATE SCHOOL
(96) DON'T KNOW
(97) REFUSED

HELP SCREEN (S1Q05A): THE HIGHEST LEVEL OF EDUCATION ATTAINED MEEANS THE NUMBER OF YEARS COMPLETED. YOU MAY NEED TO PROBE FOR MORE INFORMATION. FOR EXAMPLE, IF A RESPONDENT SAYS THAT SOMEONE IN THE HOUSEHOLD HAD "SOME COLLEGE," PROBE TO DETERMINE HOW MANY YEARS WERE COMPLETED.

S1Q06   What is the primary language spoken in your home?
              [READ RESPONSES ONLY IF NECESSARY]

(1) English
(2) Spanish
(3) Any other language
(6) DON'T KNOW
(7) REFUSED

Section 2: Health and Functional Status

S2Q01   In general, how would you describe **[CHILD]**'s health? Would you say **[his/her]** health is excellent, very good, good, fair, or poor?

       (1) Excellent
       (2) Very good
       (3) Good
       (4) Fair
       (5) Poor
       (6) DON'T KNOW
       (7) REFUSED

S2Q02

NOTE: HEIGHT CAN BE ENTERED IN FEET AND INCHES, OR IN CENTIMETERS.

How tall is **[CHILD]** now?

S2Q02   ___ ___ FEET   **[RANGE CHECK 00-08]**

       (96) DON'T KNOW
       (97) REFUSED

S2Q02A   ___ ___ INCHES   **[RANGE CHECK 00-72]**

       (96) DON'T KNOW
       (97) REFUSED

S2Q02B   ___ ___ ___CENTIMETERS   **[RANGE CHECK 015-250]**

       (996) DON'T KNOW
       (997) REFUSED

S2Q03

NOTE: WEIGHT CAN BE ENTERED IN POUNDS OR KILOGRAMS.

How much does **[CHILD]** weigh now?

S2Q03   ___ ___ ___ POUNDS   **[RANGE CHECK: 001-500]**

       (996) DON'T KNOW
       (997) REFUSED

S2Q03A   ___ ___ ___ KILOGRAMS   **[RANGE CHECK: 001-230]**

       (996) DON'T KNOW
       (997) REFUSED

INTRODUCTION

The next questions are about any kind of health problems, concerns, or conditions that may affect **[CHILD]**'s behavior, learning, growth, or physical development.

S2Q04   Does **[CHILD]** currently need or use <u>medicine prescribed by a doctor</u>, other than vitamins?

        (0) NO   **[SKIP TO S2Q07]**
        (1) YES
        (6) DON'T KNOW   **[SKIP TO S2Q07]**
        (7) REFUSED   **[SKIP TO S2Q07]**

        HELP SCREEN (S2Q04): This only applies to medications prescribed by a doctor. Over-the-counter medications such as cold or headache medication, or other vitamins, minerals, or supplements purchased without a prescription are not included.

S2Q05   Is **[his/her]** need for prescription medicine because of ANY medical, behavioral, or other health condition?

        (0) NO   **[SKIP TO S2Q07]**
        (1) YES
        (6) DON'T KNOW   **[SKIP TO S2Q07]**
        (7) REFUSED   **[SKIP TO S2Q07]**

S2Q06   Is this a condition that has lasted or is expected to last 12 months or longer?

        (0) NO
        (1) YES
        (6) DON'T KNOW
        (7) REFUSED

S2Q07   Does **[CHILD]** need or use more <u>medical care, mental health, or educational services</u> than is usual for most children of the same age?

        (0) NO   **[SKIP TO S2Q10]**
        (1) YES
        (6) DON'T KNOW   **[SKIP TO S2Q10]**
        (7) REFUSED   **[SKIP TO S2Q10]**

        HELP SCREEN (S2Q07): The child requires more medical care, the use of more mental health services, or the use of more educational services than most children the same age.

S2Q08   Is **[his/her]** need for medical care, mental health or educational services because of ANY medical, behavioral, or other health condition?

        (0) NO   **[SKIP TO S2Q10]**
        (1) YES
        (6) DON'T KNOW   **[SKIP TO S2Q10]**
        (7) REFUSED   **[SKIP TO S2Q10]**

S2Q09   Is this a condition that has lasted or is expected to last 12 months or longer?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S2Q10   Is **[CHILD]** <u>limited or prevented</u> in any way in **[his/her]** ability to do the things most children of the same age can do?

(0) NO   **[SKIP TO S2Q13]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S2Q13]**
(7) REFUSED   **[SKIP TO S2Q13]**

HELP SCREEN (S2Q10): A child is limited or prevented when there are things the child can't do as much or can't do at all that most children the same age can.

S2Q11   Is **[his/her]** limitation in abilities because of ANY medical, behavioral, or other health condition?

(0) NO   **[SKIP TO S2Q13]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S2Q13]**
(7) REFUSED   **[SKIP TO S2Q13]**

S2Q12   Is this a condition that has lasted or is expected to last 12 months or longer?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S2Q13   Does **[CHILD]** need or get <u>special therapy</u>, such as physical, occupational, or speech therapy? [SPECIAL THERAPY INCLUDES PHYSICAL, OCCUPATIONAL, OR SPEECH THERAPY. DO NOT INCLUDE PSYCHOLOGICAL THERAPY.]

(0) NO   **[SKIP TO S2Q16]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S2Q16]**
(7) REFUSED   **[SKIP TO S2Q16]**

S2Q14   Is **[his/her]** need for special therapy because of ANY medical, behavioral, or other health condition?

(0) NO   **[SKIP TO S2Q16]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S2Q16]**
(7) REFUSED   **[SKIP TO S2Q16]**

S2Q15   Is this a condition that has lasted or is expected to last 12 months or longer?

         (0) NO
         (1) YES
         (6) DON'T KNOW
         (7) REFUSED

S2Q16   Does **[CHILD]** have any kind of emotional, developmental, or behavioral problem for which **[he/she]** needs treatment or counseling?

         (0) NO   **[SKIP TO S2Q18]**
         (1) YES
         (6) DON'T KNOW   **[SKIP TO S2Q18]**
         (7) REFUSED   **[SKIP TO S2Q18]**

         HELP SCREEN (S2Q16): These are remedies, therapy, or guidance a child may receive for his/her emotional, developmental, or behavioral problem.

S2Q17   Has **[his/her]** emotional, developmental or behavioral problem lasted or is it expected to last 12 months or longer?

         (0) NO
         (1) YES
         (6) DON'T KNOW
         (7) REFUSED

S2Q18   **(IF AGE OF CHILD < 36 MONTHS, SKIP TO S2Q19)**

         Has a doctor, health professional, teacher, or school official ever told you **[CHILD]** has a learning disability?

         (0) NO
         (1) YES
         (6) DON'T KNOW
         (7) REFUSED

INTRODUCTION

[Has a doctor or health professional ever told you that **[CHILD]** has any of the following conditions]?

S2Q19 Asthma?
(0) NO (1) YES (6) DK (7) REFUSED

HELP SCREEN (S2Q19): IF THE RESPONDENT NEVER HEARD OF THE MEDICAL CONDITION OR DOES NOT KNOW WHAT THE CONDITION IS, THEN A DOCTOR OR HEALTH PROFESSIONAL PROBABLY HAS NOT TOLD THE RESPONDENT THAT THE CHILD HAS THE CONDITION. IF A DOCTOR OR HEALTH PROFESSIONAL HAS NOT TOLD THE RESPONDENT THAT THE CHILD HAS THE CONDITION, BUT THE RESPONDENT INSISTS THAT THE CHILD HAS THE CONDITION, WE STILL NEED TO CODE THE ANSWER AS "NO."

S2Q20 **(IF AGE OF CHILD < 24 MONTHS, SKIP TO S2Q24)**

Hearing problems or vision problems that cannot be corrected with glasses or contact lenses?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q21 Attention Deficit Disorder or Attention Deficit Hyperactive Disorder, that is, ADD or ADHD?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q22 Depression or anxiety problems?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q23 Behavioral or conduct problems?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q24 Bone, joint, or muscle problems?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q26 Diabetes?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q35 Autism?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q37 Any developmental delay or physical impairment?
(0) NO (1) YES (6) DK (7) REFUSED

INTRODUCTION

The next set of questions asks about conditions **[CHILD]** may have had over the past 12 months. **QUESTION STEM:** During the past 12 months, that is since **[FILL CURRENT MONTH, AND CURRENT YEAR - 1)]** have you been told by a doctor or other health care professional that **[he/she]** had any of the following conditions?

S2Q38   Hay fever or any kind of respiratory allergy?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q39   Any kind of food or digestive allergy?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q40   Eczema or any kind of skin allergy?
(0) NO (1) YES (6) DK (7) REFUSED

HELP SCREEN (S2Q40): Eczema is skin condition characterized by redness, itching and dry, flaky, scaly skin.

S2Q41   **(IF AGE OF CHILD < 36 MONTHS, SKIP TO S2Q47)**

Frequent or severe headaches, including migraines?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q42   Stuttering, stammering, or other speech problems?
(0) NO (1) YES (6) DK (7) REFUSED

HELP SCREEN (S2Q42): A speech problem is any condition that interferes with the formation of words.

S2Q44   Three or more ear infections?
(0) NO (1) YES (6) DK (7) REFUSED

S2Q47 **(IF SAMPLED CHILD HAS NO CONDITIONS OR LIMITATIONS—I.E., S2Q10, S2Q19-S2Q44 HAVE NO VALUES EQUAL TO 1— SKIP TO S2Q49)**

You said that **[CHILD]** **[has/had/has or has had]** **[NAMES OF CONDITIONS]**. Would you describe **[his/her]** health condition(s) as minor, moderate, or severe?

(1) MINOR
(2) MODERATE
(3) SEVERE
(6) DON'T KNOW
(7) REFUSED

HELP SCREEN: IF THE RESPONDENT ASKS WHICH HEALTH CONDITION TO CONSIDER IF THE CHILD HAS MULTIPLE CONDITIONS, INSTRUCT THE RESPONDENT TO CONSIDER [CHILD]'s MOST SEVERE CONDITION.

S2Q49 **(IF SAMPLED CHILD DOES NOT HAVE ASTHMA—I.E., S2Q19 IN (0, 6, 7)— SKIP TO S2Q54)**

Does **[CHILD]** still have asthma?

(0) NO   **[SKIP TO S2Q52]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S2Q52]**
(7) REFUSED   **[SKIP TO S2Q52]**

S2Q50 Would you describe the health difficulties caused by **[his/her]** asthma as minor, moderate, or severe?

(1) MINOR DIFFICULTIES
(2) MODERATE DIFFICULTIES
(3) SEVERE DIFFICULTIES
(6) DON'T KNOW
(7) REFUSED

S2Q51 Overall, would you say **[his/her]** asthma puts a burden on your family a great deal, a medium amount, a little, or not at all?

(1) A GREAT DEAL
(2) A MEDIUM AMOUNT
(3) A LITTLE
(4) NOT AT ALL
(6) DON'T KNOW
(7) REFUSED

S2Q52   How long has it been since **[he/she]** last took asthma medication?
[READ RESPONSES ONLY IF NECESSARY].

    (01) Less than one day ago
    (02) 1-6 days ago
    (03) 1 week to less than 3 months ago
    (04) 3 months to less than 1 year ago
    (05) 1 year to less than 3 years ago
    (06) 3 years to 5 years ago
    (07) More than 5 years ago
    (08) Has never used medication
    (96) DON'T KNOW
    (97) REFUSED

S2Q52A   During the past 12 months, has **[CHILD]** had an episode of asthma or an asthma attack?

    (0) NO
    (1) YES
    (6) DON'T KNOW
    (7) REFUSED

HELP SCREEN (S2Q52A): Asthma attacks, sometimes called episodes, refer to periods of worsening asthma symptoms that make the respondent limit his/her activity more than usual, or makes him/her seek medical care.

S2Q53   During the past 12 months, has **[CHILD]** stayed overnight in a hospital because of **[his/her]** asthma?

    (0) NO
    (1) YES
    (6) DON'T KNOW
    (7) REFUSED

HELP SCREEN (S2Q53): IF THE CHILD IS IN THE HOSPITAL FOR ASTHMA AND OTHER REASONS THE CORRECT ANSWER CHOICE IS YES.

S2Q54   **(IF AGE OF CHILD IS ≤ 12 MONTHS, SKIP TO S2Q62)**

The next questions are about dental health. How would you describe the condition of **[CHILD]**'s teeth: excellent, very good, good, fair, poor?

    (01) Excellent   **[SKIP TO S2Q56]**
    (02) Very good   **[SKIP TO S2Q56]**
    (03) Good   **[SKIP TO S2Q56]**
    (04) Fair
    (05) Poor
    (06) HAS NO NATURAL TEETH **[SKIP TO S2Q59]**
    (96) DON'T KNOW   **[SKIP TO S2Q56]**
    (97) REFUSED   **[SKIP TO S2Q56]**

S2Q55 INDEX [What specific problems does **[CHILD]** have with **[his/her]** teeth?]
[MARK ALL THAT APPLY. ONLY READ RESPONSES IF NECESSARY].

	N	Y	D	R
S2Q55X01 Pain	0	1	6	7
S2Q55X02 Cavities	0	1	6	7
S2Q55X03 Broken front tooth, or teeth that need repair	0	1	6	7
S2Q55X04 Crooked teeth, or teeth that need braces	0	1	6	7
S2Q55X05 Other	0	1	6	7
S2Q55X06 Hygiene (plaque/doesn't brush regularly/needs cleaning etc.)	0	1	6	7
S2Q55X07 Discoloration (staining/yellow teeth/blackened teeth etc.)	0	1	6	7
S2Q55X08 Enamel problems (poor enamel/no enamel etc.)	0	1	6	7
S2Q55X09 Gum problems (gingivitis/gum disease/bleeding gums etc.)	0	1	6	7
S2Q55X10 Teeth problems (grinding/soft teeth/teeth pulled/teeth falling out etc)	0	1	6	7
S2Q55X11 Nerves (Root Canal/nerve problems etc.)	0	1	6	7
S2Q55X12 No problems with teeth	0	1	6	7

*RESPONSE CATEGORIES
(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

HELP SCREEN (S2Q55): USE PRESET CATEGORIES AS MUCH AS POSSIBLE. THE "OTHER" CATEGORY SHOULD ONLY BE USED WHEN YOU ARE UNABLE TO CODE THE RESPONSE INTO ONE OF THE PRESENT CATEGORIES.

S2Q55_OS   READ IF NECESSARY: What kind of other problems?
[IF RESPONDENT WILL NOT GIVE A VERBATIM ANSWER ENTER: "NO ANSWER GIVEN"]

RECORD VERBATIM RESPONSE_____

S2Q56   About how long has it been since **[he/she]** last saw a dentist? Include all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists.

(01) NEVER
(02) 6 MONTHS OR LESS
(03) MORE THAN 6 MONTHS, BUT NOT MORE THAN 1 YEAR AGO
(04) MORE THAN 1 YEAR, BUT NOT MORE THAN 2 YEARS AGO
(05) MORE THAN 2 YEARS, BUT NOT MORE THAN 5 YEARS AGO
(06) MORE THAN 5 YEARS AGO
(96) DON'T KNOW
(97) REFUSED

S2Q59 **(IF AGE OF CHILD < 36 MONTHS SKIP TO S2Q62)**

Overall, do you think that **[CHILD]** has difficulties with one or more of the following areas: emotions, concentration, behavior, or being able to get along with other people?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S2Q60 **(IF CHILD HAS ADD/ADHD—S2Q21 = 1—AND S2Q59 IN (0,6,7), SKIP TO S2Q62)**
(IF ADD/ADHD NOT PRESENT—S2Q21 IN (0, 6, 7)—AND S2Q59 IN (0, 6, 7), SKIP TO S3Q01)

Would you describe these difficulties as minor, moderate, or severe?

(1) Minor
(2) Moderate
(3) Severe
(6) DON'T KNOW
(7) REFUSED

S2Q61 Overall, would you say **[CHILD]**'s mental and emotional health puts a burden on your family a great deal, a medium amount, a little, or not at all?

(1) A great deal
(2) A medium amount
(3) A little
(4) Not at all
(6) DON'T KNOW
(7) REFUSED

S2Q62 **(IF ADD/ADHD NOT PRESENT—I.E., S2Q21 IN (0, 6, 7)—SKIP TO S3Q01)**

Earlier, you said **[CHILD]** had Attention Deficit Disorder or Attention Deficit Hyperactive Disorder, that is, ADD or ADHD. Is **[CHILD]** currently taking medication for ADD or ADHD?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

Section 3: Health Insurance Coverage

INTRODUCTION

The next questions are about health insurance.

S3Q01   Does **[CHILD]** have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicaid?

(0) NO   **[SKIP TO S3Q05]**
(1) YES
(6) DON'T KNOW
(7) REFUSED

HELP SCREEN (S3Q01): Medicaid refers to a medical assistance program that provides health care coverage to low-income and disabled persons. The Medicaid program is a joint federal-state program that is administered by the states.

Private health insurance refers to any type of health insurance, including Health Maintenance Organizations (HMOs), other than public programs. These plans may be provided in part or fully by the person's employer or union, or purchased directly by the individual.

S3Q02   **CATI INSTRUCTION (S3Q02):** IF S3Q01 = 1 THEN FILL "Is that coverage." ELSE, fill "Is **[he/she]** insured by."

[Is that coverage,/Is [he/she] insured by] Medicaid or the State Children's Health Insurance Program, S-CHIP? In this state, the program is sometimes called **[FILL MEDICAID NAME, SCHIP NAME]**.

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

HELP SCREEN: S-CHIP is a type of state-sponsored health insurance coverage that a child may have. The name of the plan may vary from state-to-state.

S3Q04   **(IF S3Q01 IN (6, 7) AND S3Q02 IN (2, 6, 7), SKIP TO S3Q05)**

[During the past 12 months/Since **[his/her]** birth], was there any time when **[he/she]** was not covered by ANY health insurance?

(0) NO   **[SKIP TO S3Q03]**
(1) YES   **[SKIP TO S3Q03]**
(6) DON'T KNOW   **[SKIP TO S3Q03]**
(7) REFUSED   **[SKIP TO S3Q03]**

S3Q05   [During the past 12 months/Since **[his/her]** birth] has **[he/she]** had health coverage?

     (0) NO
     (1) YES
     (6) DON'T KNOW
     (7) REFUSED

S3Q03   Does **[CHILD]** have insurance that helps pay for any routine dental care including cleanings, x-rays and examinations?

     (0) NO
     (1) YES
     (6) DON'T KNOW
     (7) REFUSED

Section 4: Health Care Access And Utilization

S4Q01   [During the past 12 months/Since **[his/her]** birth], did **[CHILD]** see a doctor, nurse, or other health care professional for any kind of medical care, including sick-child care, well-child check-ups, physical exams, and hospitalizations?

(0) NO
(1) YES   **[SKIP TO S4Q03]**
(6) DON'T KNOW
(7) REFUSED

S4Q02   [During the past 12 months/Since **[his/her]** birth], was there any time when **[he/she]** needed any kind of medical care?

[INCLUDE SICK-CHILD CARE, WELL-CHILD CHECK-UPS, PHYSICAL EXAMS, AND HOSPITALIZATIONS]

(0) NO   **[SKIP TO S4Q09]**
(1) YES   **[SKIP TO S4Q08]**
(6) DON'T KNOW   **[SKIP TO S4Q09]**
(7) REFUSED   **[SKIP TO S4Q09]**

S4Q03   [During the past 12 months/Since **[his/her]** birth], how many times did **[CHILD]** see a doctor, nurse, or other health care professional for preventive medical care such as a physical exam or well-child check-up?

___ ___ ___ TIMES   **[RANGE CHECK: 000 – 995]**
(996) DON'T KNOW
(997) REFUSED

S4Q04   [During the past 12 months/Since **[his/her]** birth], how many times did **[CHILD]** go to a hospital emergency room about **[his/her]** health? This includes emergency room visits that resulted in a hospital admission.

___ ___ ___ TIMES   **[RANGE CHECK: 000 – 995]**
(996) DON'T KNOW
(997) REFUSED

IF S4Q04 = 000,   **[SKIP TO S4Q06]**
ELSE IF S4Q04=001,   **[SKIP TO S4Q04A]**
ELSE,   **[SKIP TO S4Q05]**

S4Q04A   Was this visit because of an accident, injury, or poisoning?

(0) NO   **[SKIP TO S4Q06]**
(1) YES   **[SKIP TO S4Q06]**
(6) DON'T KNOW   **[SKIP TO S4Q06]**
(7) REFUSED   **[SKIP TO S4Q06]**

S4Q05   How many emergency room visits were because of an accident, injury, or poisoning?

     ___ ___ ___ TIMES   **[RANGE CHECK: 000 – 995]**

     (996) DON'T KNOW
     (997) REFUSED

S4Q06   Excluding emergency room visits, hospitalizations, and well-child care, how many times [during the past 12 months/Since **[his/her]** birth], did **[he/she]** see a doctor, nurse, or other health care professional for sick-child care?

     ___ ___ ___ TIMES   **[RANGE CHECK: 000 – 995]**

     (996) DON'T KNOW
     (997) REFUSED

S4Q07   [During the past 12 months/Since **[his/her]** birth], did **[CHILD]** receive all the medical care **[he/she]** needed?

     (0) NO
     (1) YES   **[SKIP TO S4Q09]**
     (6) DON'T KNOW   **[SKIP TO S4Q09]**
     (7) REFUSED   **[SKIP TO S4Q09]**

S4Q08 INDEX   Why did **[CHILD]** not get all the medical care that **[he/she]** needed?
               [MARK ALL THAT APPLY. READ RESPONSES ONLY IF NECESSARY.]

	N Y D R
S4Q08X01 Cost too much	0 1 6 7
S4Q08X02 No insurance	0 1 6 7
S4Q08X03 Health plan problem	0 1 6 7
S4Q08X04 Can't find doctor who accepts child's insurance	0 1 6 7
S4Q08X05 Not available in area/transport problems	0 1 6 7
S4Q08X06 Not convenient times/could not get appointment	0 1 6 7
S4Q08X07 Doctor did not know how to treat or provide care	0 1 6 7
S4Q08X08 Dissatisfaction with doctor	0 1 6 7
S4Q08X09 Did not know where to go for treatment	0 1 6 7
S4Q08X10 Child refused to go	0 1 6 7
S4Q08X11 Treatment is ongoing	0 1 6 7
S4Q08X12 Vaccine shortage	0 1 6 7
S4Q08X13 Other	0 1 6 7
S4Q08X14 No referral	0 1 6 7
S4Q08X15 Lack of resources at school	0 1 6 7

     *RESPONSE CATEGORIES
     (0) NO
     (1) YES
     (6) DON'T KNOW
     (7) REFUSED

     IF S4Q08X13 = 1,   **[SKIP TO S4Q08_OS]**

S4Q08_OS   [FILL VERBATIM RESPONSE]_____

[IF RESPONDENT WILL NOT GIVE A VERBATIM ANSWER ENTER: "NO ANSWER GIVEN"]

S4Q09   **(IF AGE OF CHILD $\leq$ 12 MONTHS, SKIP TO S4Q15)**
(IF CHILD HAS NO NATURAL TEETH—S2Q54 = 06—SKIP TO S4Q13)
(IF CHILD HAS NOT SEEN DENTIST IN 1 YEAR OR MORE—I.E., S2Q56 IN (01, 04, 05, 06)—SKIP TO S4Q10)

During the past 12 months/Since **[his/her]** birth], did **[CHILD]** see a dentist for any routine preventive dental care, including check-ups, screenings, and sealants? Include all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists.

(0) NO
(1) YES   **[SKIP TO S4Q13]**
(6) DON'T KNOW
(7) REFUSED

S4Q10   [During the past 12 months/Since **[CHILD]**'s birth], was there any time when **[CHILD]** needed routine preventive dental care?

(0) NO   **[SKIP TO S4Q15]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S4Q15]**
(7) REFUSED   **[SKIP TO S4Q15]**

HELP SCREEN (S4Q10): Include check-ups, screenings, and sealants.

S4Q13   [During the past 12 months/Since **[his/her]** birth], did **[he/she]** receive all the routine preventive dental care **[he/she]** needed?

(0) NO
(1) YES   **[SKIP TO S4Q15]**
(6) DON'T KNOW   **[SKIP TO S4Q15]**
(7) REFUSED   **[SKIP TO S4Q15]**

S4Q14 INDEX Why did **[CHILD]** not get all the dental care that **[he/she]** needed?
[MARK ALL THAT APPLY. READ RESPONSES ONLY IF NECESSARY.]

	N Y D R
S4Q14X01 Cost too much	0 1 6 7
S4Q14X02 No insurance	0 1 6 7
S4Q14X03 Health plan problem	0 1 6 7
S4Q14X04 Can't find dentist who accepts child's insurance	0 1 6 7
S4Q14X05 Not available in area/transport problems	0 1 6 7
S4Q14X06 Not convenient times/could not get appointment	0 1 6 7
S4Q14X07 Dentist did not know how to treat or provide care	0 1 6 7
S4Q14X08 Dissatisfaction with dentist	0 1 6 7
S4Q14X09 Did not know where to go for treatment	0 1 6 7
S4Q14X10 Child refused to go	0 1 6 7
S4Q14X11 Treatment is ongoing	0 1 6 7
S4Q14X13 Other	0 1 6 7
S4Q14X14 No referral	0 1 6 7
S4Q14X15 Lack of resources at school	0 1 6 7

*RESPONSE CATEGORIES
(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S4Q14_OS [FILL VERBATIM RESPONSE]_____

[IF RESPONDENT WILL NOT GIVE A VERBATIM ANSWER ENTER: "NO ANSWER GIVEN"]

(99999996) DON'T KNOW
(99999997) REFUSED

S4Q15 **(IF CHILD CURRENTLY NEEDS/USES PRESCRIPTION MEDICATION—I.E., S2Q04 = 1—SKIP TO S4Q17)**

During the past 12 months/Since **[his/her]** birth], did **[CHILD]** use any prescription medication?

(0) NO
(1) YES **[SKIP TO S4Q17]**
(6) DON'T KNOW **[SKIP TO S4Q17]**
(7) REFUSED **[SKIP TO S4Q17]**

S4Q16 [During the past 12 months/Since **[his/her]** birth], was there any time when **[he/she]** needed prescription medication?

(0) NO **[SKIP TO S4Q23]**
(1) YES
(6) DK **[SKIP TO S4Q23]**
(7) REFUSED **[SKIP TO S4Q23]**

S4Q17 **CATI INSTRUCTION (S4Q17):** IF CHILD CURRENTLY NEEDS/USES PRESCRIPTION MEDICATION—I.E., S2Q04 = 1— FILL: "Earlier you told me your child currently uses or needs prescription medication."

[FILL] [During the past 12 months/Since **[his/her]** birth], did **[CHILD]** receive all the prescription medication **[he/she]** needed?

(0) NO
(1) YES   **[SKIP TO S4Q23]**
(6) DON'T KNOW   **[SKIP TO S4Q23]**
(7) REFUSED   **[SKIP TO S4Q23]**

S4Q18 INDEX Why did **[CHILD]** not get all the prescription medication that **[he/she]** needed?
      [MARK ALL THAT APPLY. READ RESPONSES ONLY IF NECESSARY]

	N	Y	D	R
S4Q18X01 Costs too much	0	1	6	7
S4Q18X02 No insurance	0	1	6	7
S4Q18X03 Health plan problem	0	1	6	7
S4Q18X04 Can't find doctor who accepts child's insurance	0	1	6	7
S4Q18X05 Not available in area/transport problems	0	1	6	7
S4Q18X06 Not convenient times/could not get appointment	0	1	6	7
S4Q18X07 Doctor did not know how to treat or provide care	0	1	6	7
S4Q18X08 Dissatisfaction with doctor	0	1	6	7
S4Q18X09 Did not know where to go for treatment	0	1	6	7
S4Q18X10 Child refused to go	0	1	6	7
S4Q18X11 Treatment is ongoing	0	1	6	7
S4Q18X13 Other	0	1	6	7
S4Q18X14 No referral	0	1	6	7
S4Q18X15 Lack of resources at school	0	1	6	7

*RESPONSE CATEGORIES
(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

   IF S4Q18X13 =1   **[SKIP TO S4Q18_OS]**

S4Q18_OS [FILL VERBATIM RESPONSE]_____

[IF RESPONDENT WILL NOT GIVE A VERBATIM ANSWER ENTER: "NO ANSWER GIVEN"]

(99999996) DON'T KNOW
(99999997) REFUSED

S4Q23   **(IF AGE OF CHILD $\leq$ 12 MONTHS, SKIP TO S4Q27).**

[During the past 12 months/Since **[his/her]** birth], did **[CHILD]** receive any mental health care or counseling?

(1) YES
(0) NO
(6) DON'T KNOW
(7) REFUSED

S4Q27   **(IF AGE OF CHILD <24 MONTHS, SKIP TO S5Q01)**
(S4Q27-S4Q30 IS ASKED IN THE FOLLOWING STATES: AK, AR, AZ, CA, CO, ID, MO, MT, NV, NM, OK, OR, SD, TX, UT, WA, WY.   IF STATE NOT LISTED, SKIP TO S5Q01)

The hepatitis <u>A</u> vaccine is a shot that can be given to children who are over 2 years of age. It is different from a hepatitis <u>B</u> shot and it has only been available since 1995. Has **[CHILD]** ever received any hepatitis A vaccine shots?

(0) NO   **[SKIP TO S4Q30]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S4Q30]**
(7) REFUSED   **[SKIP TO S4Q30]**

HELP SCREEN (S4Q27): IF RESPONDENT ASKS FOR THE NAME OF THE VACCINE: The vaccine for hepatitis A is called either Vaqta or Havrix. The vaccine for hepatitis B is called Recombivax or Engerix.

S4Q28   Please tell me how many hepatitis A vaccine shots **[CHILD]** has received.

(1) ONE
(2) TWO
(3) THREE OR MORE
(4) ALL THAT ARE RECOMMENDED
(6) DON'T KNOW
(7) REFUSED

S4Q29   Where did **[he/she]** get **[his/her]** first hepatitis A vaccine shot?
[READ RESPONSES IF NECESSARY]

(01) Doctor's office   **[SKIP TO S5Q01]**
(02) School clinic   **[SKIP TO S5Q01]**
(03) Community clinic   **[SKIP TO S5Q01]**
(04) Head Start program or daycare   **[SKIP TO S5Q01]**
(05) Health department   **[SKIP TO S5Q01]**
(06) Pharmacy   **[SKIP TO S5Q01]**
(07) Some other place
(08) Other hospital/medical center   **[SKIP TO S5Q01]**
(09) Military hospital/military base/military clinic   **[SKIP TO S5Q01]**
(10) WIC   **[SKIP TO S5Q01]**
(96) DON'T KNOW   **[SKIP TO S5Q01]**
(97) REFUSED   **[SKIP TO S5Q01]**

S4Q29_O   Where did **[CHILD]** get **[his/her]** first hepatitis A vaccine shot?

ENTER VERBATIM TEXT _____

[IF RESPONDENT WILL NOT GIVE A VERBATIM ANSWER ENTER: "NO ANSWER GIVEN"]

S4Q30   Has a doctor or other health care professional ever recommended that **[he/she]** be vaccinated for hepatitis A?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

Section 5: Medical Home

S5Q01　　　A personal doctor or nurse is a health professional who knows your child well and is familiar with your child's health history. This can be a general doctor, a pediatrician, a specialist doctor, a nurse practitioner, or a physician assistant. Do you have one or more persons you think of as **[CHILD]**'s personal doctor or nurse?

　　　　　(0) NO　　　　　　　　　**[SKIP TO S5Q13]**
　　　　　(1) YES
　　　　　(6) DON'T KNOW　　　　**[SKIP TO S5Q13]**
　　　　　(7) REFUSED　　　　　　**[SKIP TO S5Q13]**

S5Q02　　　How often does **[CHILD]**'s personal doctor or nurse spend enough time with **[him/her]**? Would you say never, sometimes, usually, or always?

　　　　　(1) Never
　　　　　(2) Sometimes
　　　　　(3) Usually
　　　　　(4) Always
　　　　　(6) DON'T KNOW
　　　　　(7) REFUSED

S5Q04　　　**CATI INSTRUCTION (S5Q04):** IF AGE OF CHILD > 36 MONTHS, FILL "and [CHILD]." ELSE, NO FILL.

　　　　　How often does **[CHILD]**'s personal doctor or nurse explain things in a way that you **[and [CHILD]]** can understand? Would you say never, sometimes, usually, or always?

　　　　　(1) Never
　　　　　(2) Sometimes
　　　　　(3) Usually
　　　　　(4) Always
　　　　　(6) DON'T KNOW
　　　　　(7) REFUSED

S5Q06　　　[During the past 12 months/Since **[CHILD]**'s birth], have you needed to call **[his/her]** personal doctor or nurse for help or advice over the phone?

　　　　　(0) NO　　　　　　　　　**[SKIP TO S5Q07]**
　　　　　(1) YES
　　　　　(6) DON'T KNOW　　　　**[SKIP TO S5Q07]**
　　　　　(7) REFUSED　　　　　　**[SKIP TO S5Q07]**

S5Q06A   When you have called **[CHILD]**'s personal doctor or nurse for help or advice over the phone, how often were you able to get the help or advice you needed for **[him/her]**? Would you say never, sometimes, usually, or always?

        (1) Never
        (2) Sometimes
        (3) Usually
        (4) Always
        (6) DON'T KNOW
        (7) REFUSED

S5Q07   [During the past 12 months/Since **[CHILD]**'s birth], has **[he/she]** needed care right away from **[his/her]** personal doctor or nurse for an illness or injury?

        (0) NO   **[SKIP TO S5Q08A]**
        (1) YES
        (6) DON'T KNOW   **[SKIP TO S5Q08A]**
        (7) REFUSED   **[SKIP TO S5Q08A]**

S5Q07A   When **[CHILD]** needed care right away for an illness or injury, how often did **[he/she]** get this care from **[his/her]** personal doctor or nurse as soon as you wanted? Would you say never, sometimes, usually, or always?

        (1) Never
        (2) Sometimes
        (3) Usually
        (4) Always
        (6) DON'T KNOW
        (7) REFUSED

S5Q08A   Preventive care visits include things like a well-child check-up, a routine physical exam, immunizations, or health screening tests. [During the past 12 months/Since **[CHILD]**'s birth], did **[he/she]** visit **[his/her]** personal doctor or nurse for preventive care?

        (0) NO
        (1) YES   **[SKIP TO S5Q09]**
        (6) DON'T KNOW   **[SKIP TO S5Q09]**
        (7) REFUSED   **[SKIP TO S5Q09]**

S5Q08B   **(IF AGE OF CHILD ≥ 24 MONTHS, SKIP TO S5Q08B)**

During the past 24 months, did **[he/she]** visit **[his/her]** personal doctor or nurse for preventive care?

        (0) NO
        (1) YES
        (6) DON'T KNOW
        (7) REFUSED

S5Q09   Specialists are doctors like surgeons, heart doctors, allergy doctors, psychiatrists, skin doctors, and others who specialize in one area of health care. [During the past 12 months/Since **[CHILD]**'s birth], did you or **[CHILD]**'s personal doctor or nurse think that **[he/she]** needed to see any specialist doctor or doctors?

        (0) NO   **[SKIP TO S5Q10]**
        (1) YES
        (6) DON'T KNOW   **[SKIP TO S5Q10]**
        (7) REFUSED   **[SKIP TO S5Q10]**

S5Q09A   How much of a problem, if any, was it to get the care from the specialist doctor or doctors? Would you say you had a big problem, moderate problem, small problem, or no problem at all?

        (1) A big problem
        (2) A moderate problem
        (3) A small problem
        (4) No problem at all
        (6) DON'T KNOW
        (7) REFUSED

S5Q09B   Did **[CHILD]**'s personal doctor or nurse or someone from their office or clinic do anything to help you get the care from the specialist doctor or doctors?

        (0) NO
        (1) YES
        (6) DON'T KNOW
        (7) REFUSED

S5Q09C   How often did **[CHILD]**'s personal doctor or nurse talk with you about what happens during **[his/her]** visits to a specialist doctor or doctors? Would you say never, sometimes, usually, or always?

        (1) Never
        (2) Sometimes
        (3) Usually
        (4) Always
        (5) NO VISITS TO THE SPECIALIST DOCTOR
        (6) DON'T KNOW
        (7) REFUSED

S5Q10   Children sometimes need other special types of services that they can't get from their personal doctor or nurse. For example, children may need special services like physical therapy, medical equipment like wheelchairs, special educational services, or counseling. [During the past 12 months/Since **[his/her]** birth], did **[CHILD]** need any type of special services, equipment, or other care for **[his/her]** health?

        (0) NO   **[SKIP TO S5Q13]**
        (1) YES
        (6) DON'T KNOW   **[SKIP TO S5Q13]**
        (7) REFUSED   **[SKIP TO S5Q13]**

S5Q10A   How much of a problem, if any, did you have getting the special services, equipment, or other care **[he/she]** needed? Would you say you had a big problem, moderate problem, small problem, or no problem at all?

(1) A big problem
(2) A moderate problem
(3) A small problem
(4) No problem at all
(6) DON'T KNOW
(7) REFUSED

S5Q10B   Did **[CHILD]**'s personal doctor or nurse or someone from their office or clinic do anything to help you get the special care or equipment that **[he/she]** needed?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S5Q10C   How often did **[CHILD]**'s personal doctor or nurse talk with you about the special care or equipment that **[he/she]** gets? Would you say never, sometimes, usually, or always?

(1) Never
(2) Sometimes
(3) Usually
(4) Always
(5) NO SPECIAL CARE OR EQUIPMENT RECEIVED
(6) DON'T KNOW
(7) REFUSED

S5Q13   **(IF PRIMARY LANGUAGE OF HOUSEHOLD IS UNKNOWN OR ENGLISH—I.E., S1Q06 IN (1, 6, 7)—SKIP TO S6Q08)**

CATI INSTRUCTION (S5Q13): IF AGE OF CHILD >36 MONTHS, FILL **[or[CHILD]]**.

An interpreter is someone who repeats what one person says in a language used by another person. [During the past 12 months/Since **[CHILD]**'s birth], did you **[or [CHILD]]** need an interpreter to help speak with his or her doctors or nurses?

(0) NO   **[SKIP TO S6Q08]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S6Q08]**
(7) REFUSED   **[SKIP TO S6Q08]**

S5Q13A   **<u>CATI INSTRUCTION (S5Q13):</u>** IF AGE OF CHILD >36 MONTHS, FILL **[or [CHILD]]**.

When you **[or [CHILD]]** needed an interpreter, how often were you able to get someone other than a family member to help you speak with the doctors or nurses? Would you say never, sometimes, usually, or always?

(1) Never
(2) Sometimes
(3) Usually
(4) Always
(6) DON'T KNOW
(7) REFUSED

Section 6: Early Childhood (0-5 Years)

NOTE: THIS SECTION ADMINISTERED IF AGE OF CHILD IS 00-71 MONTHS.

S6Q08　　　　Do you have any concerns about **[CHILD]**'s learning, development, or behavior?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

(IF AGE OF CHILD IS ≤ 3 MONTHS, SKIP TO S6Q28)

INTRODUCTION

The next section asks about specific concerns some parents may have. Please tell me if you are currently concerned a lot, a little, or not at all about the following.

QUESTION STEM FOR S6Q09-S6Q27: [Are you concerned a lot, a little, or not at all about]

(1) A lot
(2) A little
(3) Not at all
(6) DON'T KNOW
(7) REFUSED

(IF AGE OF CHILD 4 - 9 MONTHS, ASK VERSION I, S6Q09 - S6Q12)
(IF AGE OF CHILD 10 - 17 MONTHS, ASK VERSION II, S6Q13 - S6Q19)
(IF AGE OF CHILD 18 – 71 MONTHS, ASK VERSION III, S6Q20 - S6Q27)

Age-Specific Question Sequence

Version I		Version II		Version III	
4-9 Months Old		10-17 Months Old		18-71 Months	
S6Q09	How [CHILD] makes speech sounds?	S6Q13	How [CHILD] talks and makes speech sounds?	S6Q20	How [CHILD] talks and makes speech sounds?
S6Q10	How [he/she] understands what you say?	S6Q14	How [he/she] understands what you say?	S6Q21	How [he/she] understands what you say?
S6Q11	How [he/she] uses [his/her] hands and fingers to do things?	S6Q15	How [he/she] uses [his/her] hands and fingers to do things?	S6Q22	How [he/she] uses [his/her] hands and fingers to do things?
S6Q12	How [he/she] uses [his/her] arms and legs?	S6Q16	How [he/she] uses [his/her] arms and legs?	S6Q23	How [he/she] uses [his/her] arms and legs?
		S6Q17	How [he/she] behaves?	S6Q24	How [he/she] behaves?
		S6Q18	How [he/she] gets along with others?	S6Q25	How [he/she] gets along with others?
		S6Q19	How [he/she] is learning to do things for (himself/herself)?	S6Q26	How [he/she] is learning to do things for (himself/herself)?
				S6Q27	How [he/she] is learning pre-school or school skills?

S6Q28　　**(IF CHILD HAS NOT SEEN DOCTOR OR HEALTH PROFESSIONAL IN LAST 12 MONTHS—I.E., S4Q01 IN (0, 6, 7)—SKIP TO S6Q48)**

[During the past 12 months/Since **[CHILD]**'s birth], did **[CHILD]**'s doctors or other health care professionals ask if you have concerns about **[his/her]** learning, development, or behavior?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S6Q29　　**(S6Q29 ASKED IF ANY PARENT CONCERNS EXPRESSED IN S6Q08-S6Q27. IF NO VALUES PARENT CONCERNS EXPRESSED—I.E., S6Q08-S6Q27 NOT EQUAL TO 1, SKIP TO S6Q48)**

[During the past 12 months/Since **[CHILD]**'s birth], did **[his/her]** doctors or other health care professionals give you specific information to address your concerns about **[his/her]** learning, development, or behavior?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S6Q48　　**QUESTION STEM (S6Q48-S6Q52):** During the past month, did **[CHILD]** regularly attend:

S6Q48　A child care center?
[DO NOT INCLUDE FAMILY-BASED CHILD CARE OUTSIDE THE HOME]
(0) NO (1) YES (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S6Q48): By "regularly," I mean at least once a week during the past month.

S6Q49　Family-based child care outside of your home?
(0) NO (1) YES (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S6Q49): By "regularly," I mean at least once a week during the past month.

S6Q50　Child care in your home provided by a nanny or relative other than a parent or guardian
(0) NO (1) YES (6) DON'T KNOW (7) REFUSED

HELPSCREEN (S6Q50): By "regularly," I mean at least once a week during the past month.

THIS CAN INCLUDE CHILD-CARE IN THE HOME THAT IS PART OF A HOME DAY CARE CENTER RUN BY THE PARENTS."

S6Q51　**(IF AGE OF SCQ03 < 36 MONTHS, SKIP TO S6Q52)**

Nursery school, preschool, or kindergarten
(0) NO (1) YES (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S6Q51): By "regularly," I mean at least once a week during the past month.

S6Q52 Head Start or Early Start program?

(0) NO (1) YES (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S6Q52): By "regularly," I mean at least once a week during the past month.

Head Start or Early Start programs are usually school-based programs that sometimes provide care for the child either before or after the school day and are usually operated only during the school year.

S6Q53 During the past month, how many times have you had to make different arrangements for childcare at the last minute because your usual plans changed due to circumstances beyond your control?

___ ___ ___ NUMBER OF TIMES   **[RANGE CHECK: 000-995]**

(996)   DON'T KNOW
(997)   REFUSED

HELP SCREEN (S6Q53): EXAMPLES OF CIRCUMSTANCES BEYOND ONE'S CONTROL INCLUDE A CHILD BECOMING ILL, OR A CHILDCARE PROVIDER CHANGING HIS/HER PLANS OR SCHEDULE SUDDENLY.

S6Q54 [During the past 12 months/Since **[CHILD]**'s birth], did you or anyone in the family have to quit a job, not take a job, or greatly change your job because of problems with child care for **[CHILD]**?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S6Q55 [During the past 12 months/Since **[CHILD]'**s birth], has **[CHILD]** been injured and required medical attention?

(0) NO   **[SKIP TO S5Q57]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S5Q57]**
(7) REFUSED   **[SKIP TO S5Q57]**

HELP SCREEN (S6Q55): MEDICAL ATTENTION HERE IS NOT LIMITED TO EMERGENCY ROOM VISITS, OR ATTENTION THAT REQUIRES A DOCTOR. THIS INCLUDES SITUATIONS WHERE THE PARENT IS ABLE TO PROVIDE THE MEDICAL ATTENTION THEMSELVES, OR WHERE A CALL IS PLACED TO A DOCTOR, BUT THE CARE IS ADMINISTERED BY THE PARENT, ETC.

S6Q56-INDEX Did the injury occur at home, at child-care, or some other place? [MARK ALL THAT APPLY]

		N Y D R
S6Q56X01	Home	0 1 6 7
S6Q56X02	Child-care	0 1 6 7
S6Q56X03	Some other place	0 1 6 7

*RESPONSE CATEGORIES
(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S6Q57 [During the past 12 months/Since **[CHILD]**'s birth], has **[CHILD]** been poisoned by accident and required medical attention?

        (0) NO **[SKIP TO S6Q59]**
        (1) YES
        (6) DON'T KNOW **[SKIP TO S6Q59]**
        (7) REFUSED **[SKIP TO S6Q59]**

        HELP SCREEN (S6Q57): MEDICAL ATTENTION HERE IS NOT LIMITED TO EMERGENCY ROOM VISITS, OR ATTENTION THAT REQUIRES A DOCTOR. THIS INCLUDES SITUATIONS WHERE THE PARENT IS ABLE TO PROVIDE THE MEDICAL ATTENTION THEMSELVES, OR WHERE A CALL IS PLACED TO A POISON CONTROL CENTER, BUT THE CARE IS ADMINISTERED BY THE PARENT, ETC.

S6Q58-INDEX Did the poisoning occur at home, at child-care, or some other place? [MARK ALL THAT APPLY]

		N Y D R
S6Q58X01	Home	0 1 6 7
S6Q58X02	Child-care	0 1 6 7
S6Q58X03	Some other place	0 1 6 7

*RESPONSE CATEGORIES
(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S6Q59 Was **[CHILD]** ever breastfed or fed breast milk?

        (0) NO **[SKIP TO S6Q62]**
        (1) YES
        (6) DON'T KNOW **[SKIP TO S6Q62]**
        (7) REFUSED **[SKIP TO S6Q62]**

S6Q60   How old was **[he/she]** when **[he/she]** completely stopped breastfeeding or being fed breast milk?
___ ___ ___ [ENTER NUMBER]   **[RANGE CHECK: 000-994]**

(995) STILL BREASTFEEDING
(996) DON'T KNOW
(997) REFUSED

S6Q60A   **(IF S6Q60 IN (995, 996, 997), SKIP TO S6Q62)**

[MARK PERIOD]

(1) DAYS
(2) WEEKS
(3) MONTHS
(4) YEARS
(6) DON'T KNOW
(7) REFUSED

S6Q62   During the past week, how many days did you or other family members read stories to **[CHILD]**?

____NUMBER OF DAYS   **[RANGE CHECK: 00–07]**
(96) DON'T KNOW
(97) REFUSED

HELP SCREEN (S6Q62): STORIES INCLUDE BOOKS WITH WORDS OR PICTURES BUT NOT BOOKS READ BY OR WITH THE ASSISTANCE OF AN AUDIO TAPE, RECORD, CD, OR COMPUTER.

Section 7: Middle Childhood and Adolescence (6-17 Years)

NOTE: THIS SECTION ADMINISTERED IF AGE OF CHILD IS 72-215 MONTHS.

S7Q01   **USE THIS VERSION DURING SCHOOL MONTHS:** What kind of school is **[CHILD]** currently enrolled in? Is it a public school, private school, or home-school?

USE THIS VERSION DURING SUMMER MONTHS: During the last school year, what kind of school was **[CHILD]** enrolled in? Is it a public school, private school, or home-school?

(1) Public   **[SKIP TO S7Q02]**
(2) Private   **[SKIP TO S7Q02]**
(3) Home-schooled   **[SKIP TO S7Q02]**
(4) **[CHILD]** IS NOT ENROLLED IN SCHOOL.
(6) DON'T KNOW   **[SKIP TO S7Q02]**
(7) REFUSED   **[SKIP TO S7Q02]**

HELP SCREEN (S7Q01): IF THE CHILD WAS ENROLLED IN MORE THAN ONE TYPE OF SCHOOL DURING THE CURRENT OR LAST SCHOOL YEAR, LIST THE TYPE OF SCHOOL THAT THE CHILD HAS MOST RECENTLY ATTENDED.

S7Q01F   During the past 12 months, was **[CHILD]** enrolled in a public school, a private school, or home school?

(0) NO   **[SKIP TO S7Q09]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S7Q09]**
(7) REFUSED   **[SKIP TO S7Q09]**

S7Q02   During the past 12 months that is, since [**FILL: CURRENT MONTH, 1 YEAR AGO**] about how many days did **[CHILD]** miss school because of illness or injury?

___ ___ ___   DAYS   **[RANGE CHECK: 000-240]**
(000) NONE
(240) ENTIRE SCHOOL YEAR
(994) HOME SCHOOLED
(995) DID NOT GO TO SCHOOL
(996) DON'T KNOW
(997) REFUSED

S7Q04   **(IF NOT ENROLLED OR HOME SCHOOLED—I.E., [(S7Q01F IN (0, 6, 7) AND (S7Q01 = 4)] OR (S7Q02 = 994, 995) OR (S7Q01 = 3—SKIP TO S7Q09)**

During the past 12 months, how many times has **[CHILD]**'s school contacted you or another adult in your household about any problems **[he/she]** is having with school?

(0) Never
(1) Once
(2) More than once
(6) DON'T KNOW
(7) REFUSED

HELP SCREEN (S7Q04): [THIS INCLUDES SCHOOL-RELATED PROBLEMS, BUT NOT MINOR OR TYPICAL HEALTH-RELATED PROBLEMS SUCH AS A SCHOOL NURSE INFORMING AN ADULT THAT A STUDENT IS ILL]

S7Q09   Since starting kindergarten, has **[he/she]** repeated any grades?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S7Q10   During the past 12 months, was **[CHILD]** on a sports team or did **[he/she]** take sports lessons after school or on weekends?
[INCLUDE SCHOOL AND COMMUNITY SPORTS].

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S7Q11   During the past 12 months, did **[he/she]** participate in any clubs or organizations after school or on weekends, such as Scouts, a religious group, or **[Boy/Girl]**'s club?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S7Q11A   **(IF NO PARTICIPATION IN AFTER SCHOOL ACTIVITIES/ORGANIZATIONS INDICATED IN S7Q10 AND S7Q11—I.E., S7Q10 AND S7Q11 IN (0, 6, 7) SKIP TO S7Q11A)**

During the past 12 months, did **[he/she]** participate in any other organized events or activities?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S7Q12 **(IF NO PARTICIPATION IF AFTER SCHOOL ACTIVITIES/ORGANIZATIONS INDICATED IN S7Q10, S7Q11, S7Q11A—I.E., ALL VALUES IN (0, 6, 7)—SKIP TO S7Q14)**

During the past week, how many days did **[CHILD]** participate in clubs, organizations, or sports teams?

___ ___NUMBER OF DAYS   **[RANGE CHECK: 00-07]**
(96) DON'T KNOW
(97) REFUSED

HELP SCREEN (S7Q12): Include any teams run by your child's school or community groups.

S7Q13 During the past 12 months, how often did you attend events or activities that **[CHILD]** and **[his/her]** friends participated in? Would you say never, sometimes, usually or always?

(1) Never
(2) Sometimes
(3) Usually
(4) Always
(6) DON'T KNOW
(7) REFUSED

S7Q14 Regarding **[CHILD]**'s friends, would you say that you have met all of **[his/her]** friends, most of **[his/her]** friends, some of **[his/her]** friends, or none of **[his/her]** friends?

(1) All of **[his/her]** friends
(2) Most of **[his/her]** friends
(3) Some of **[his/her]** friends
(4) None of **[his/her]** friends
(5) CHILD HAS NO FRIENDS
(6) DON'T KNOW
(7) REFUSED

S7Q15 **(IF AGE OF CHILD > 143 MONTHS, SKIP TO S7Q17)**

Sometimes children spend time caring for themselves, either at home or somewhere else, without an adult or older child responsible for them. During the past week, did **[CHILD]** spend time caring for **[himself/herself]** for even a small amount of time?

(0) NO   **[SKIP TO S7Q20]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S7Q20]**
(7) REFUSED   **[SKIP TO S7Q20]**

HELP SCREEN (S7Q15): INCLUDE ALL TIMES WHEN A CHILD IS NOT IN THE DIRECT SUPERVISION OF AN ADULT OR OLDER CHILD. AN ADULT OR OLDER CHILD MAY OR MAY NOT BE AT HOME OR NEARBY.

S7Q16 During the past week, how many hours did **[S.C]** take care of **[himself/herself]**?

  __ __ __ NUMBER OF HOURS **[RANGE CHECK: 001-168]**

  (995) MORE THAN ZERO, LESS THAN 1 HOUR
  (996) DON'T KNOW
  (997) REFUSED

S7Q17 During the past 12 months, has **[CHILD]** been involved in any type of community service or volunteer work at school, church, or in the community?

  (0) NO
  (1) YES
  (6) DON'T KNOW
  (7) REFUSED

S7Q19 **(IF AGE OF CHILD ≤ 143 MONTHS, SKIP TO S7Q20)**

  During the past week, how many hours did **[CHILD]** work for pay?

  __ __ __ NUMBER OF HOURS **[RANGE CHECK: 000-168]**

  (995) MORE THAN ZERO, LESS THAN 1 HOUR
  (996) DON'T KNOW
  (997) REFUSED

  HELP SCREEN (S7Q19): WORK FOR PAY INCLUDES ONLY WORK OUTSIDE THE HOME.

S7Q20 During the past week, on how many nights did **[CHILD]** get enough sleep for a child **[his/her]** age?

  ____NUMBER OF DAYS **[RANGE CHECK: 00-07]**

  (96) DON'T KNOW
  (97) REFUSED

  HELP SCREEN (S7Q20): "Enough sleep" is whatever you define it as for this child.

S7Q21 During the past week, on how many days did **[CHILD]** exercise or participate in physical activity for at least 20 minutes that made **[him/her]** sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activities?

  ____NUMBER OF DAYS **[RANGE CHECK: 00-07]**

  (96) DON'T KNOW
  (97) REFUSED

  HELP SCREEN (S7Q21): Include active sports such as baseball, softball, basketball, swimming, soccer, tennis, or football; riding a bike or rollerskating; walking or jogging; jumping rope; gymnastics; and active dance such as ballet.

S7Q22   During the past 12 months, has **[CHILD]** ridden a bike, scooter, skateboard, roller skates, or rollerblades?

                (0) NO   **[SKIP TO S7Q26]**
                (1) YES
                (6) DON'T KNOW   **[SKIP TO S7Q26]**
                (7) REFUSED   **[SKIP TO S7Q26]**

S7Q23   How often does **[he/she]** wear a helmet when riding a bike, scooter, skateboard, roller skates, or rollerblades? Would you say never, sometimes, usually or always?

                (1) Never
                (2) Sometimes
                (3) Usually
                (4) Always
                (6) DON'T KNOW
                (7) REFUSED

S7Q26   **(IF NOT ENROLLED IN SCHOOL, OR HOME SCHOOLED—I.E., [(S7Q01F IN (0, 6, 7) AND (S7Q01 = 4)] OR (S7Q02 = 995)—SKIP TO S7Q29)**

On an average school day, about how much time does **[he/she]** usually spend reading for pleasure?

INCLUDE TIME WHEN THE CHILD READS TO THEMSELVES OR IS READ TO BY SOMEONE ELSE. DO NOT INCLUDE TIME SPENT LISTENING TO BOOKS ON AUDIO TAPES, RECORDS, CDS OR A COMPUTER.

___ ___ ___   HOURS **[RANGE CHECK 000-994]**

(995) CHILD CANT READ
(996) DON'T KNOW
(997) REFUSED

IF HOURS ARE THE CHOSEN TIME PERIOD, RANGE IS 001-012.
IF MINUTES ARE THE CHOSEN TIME PERIOD, RANGE IS 001-720.

HELP SCREEN (S7Q26): TIME SPENT READING INCLUDES THE TIME A CHILD SPENDS READING TO THEMSELVES OR BEING READ TO BY ANOTHER PERSON. IT DOES NOT INCLUDE TIME SPENT LISTENING TO BOOKS READ BY OR WITH THE ASSISTANCE OF AN AUDIO TAPE, RECORD, CD, OR COMPUTER.

S7Q26A   [MARK PERIOD]

                (1) HOURS
                (2) MINUTES
                (6) DON'T KNOW
                (7) REFUSED

S7Q27   On an average school day, about how many hours does **[CHILD]** use a computer for purposes other than schoolwork?

____NUMBER OF HOURS   **[RANGE CHECK: 00-24]**

(25) MORE THAN 0, LESS THAN 1 HOUR
(26) DON'T OWN COMPUTER
(96) DON'T KNOW
(97) REFUSED

S7Q28   On an average school day, about how many hours does **[CHILD]** usually watch TV, watch videos, or play video games?

____NUMBER OF HOURS   **[RANGE CHECK: 00-24]**

(25) MORE THAN 0, LESS THAN 1 HOUR
(26) DON'T OWN TELEVISION
(96) DON'T KNOW
(97) REFUSED

S7Q29   **(IF S7Q28 = 26, SKIP TO S7Q30)**

Are there family rules about what television programs **[he/she]** is allowed to watch?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

INTRODUCTION

The next section asks about specific concerns you may have about **[CHILD]**. Please tell me if you are currently concerned a lot, a little, or not at all about the following:

QUESTION STEM (S7Q30-S7Q40): Are you currently concerned a lot, a little, or not at all about:

S7Q30   **[CHILD]**'s Achievement
(1) A lot (2) A little (3) Not at all (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S7Q30): ACHIEVEMENT COULD BE EITHER ACADEMIC OR NON-ACADEMIC.

THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q31   Having enough time with **[CHILD]**
(1) A lot (2) A little (3) Not at all (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S7Q31): THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q32   Your relationship with **[him/her]**
(1) A lot (2) A little (3) Not at all (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S7Q32): THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q33   **[His/Her]** self-esteem
(1) A lot (2) A little (3) Not at all (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S7Q33): THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q34   How **[he/she]** copes with stressful things
(1) A lot (2) A little (3) Not at all (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S7Q34): THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q35   Learning difficulties
(1) A lot (2) A little (3) Not at all (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S7Q35): LEARNING DIFFICULTIES ARE NOT LIMITED TO THOSE THAT ARE OFFICIALLY DIAGNOSED.

THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q36   Depression or anxiety
(1) A lot   (2) A little   (3) Not at all   (6) DON'T KNOW   (7) REFUSED

HELP SCREEN (S7Q36): DEPRESSION AND ANXIETY ARE NOT LIMITED TO THOSE ILLNESSES THAT ARE CLINICALLY DIAGNOSED.

THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q37   Substance abuse
(1) A lot   (2) A little   (3) Not at all   (6) DON'T KNOW   (7) REFUSED

HELP SCREEN (S7Q37): THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q38   Eating disorders
(1) A lot   (2) A little   (3) Not at all   (6) DON'T KNOW   (7) REFUSED

HELP SCREEN (S7Q38): THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q39   Being 'bullied' by classmates
(1) A lot   (2) A little   (3) Not at all   (6) DON'T KNOW   (7) REFUSED

HELP SCREEN (S7Q39): THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

S7Q40   Violence in the home, school, or neighborhood
(1) A lot (2) A little (3) Not at all (6) DON'T KNOW (7) REFUSED

HELP SCREEN (S7Q40): THIS SERIES OF QUESTIONS ASKS ABOUT A NUMBER OF TOPICS THAT ARE OF CONCERN FOR MANY PARENTS. WHAT IS A CONCERN TO SOME PARENTS MAY NOT BE A CONCERN TO OTHERS. PLEASE IDENTIFY YOUR LEVEL OF CONCERN ABOUT THIS PARTICULAR TOPIC BASED ON HOW YOU WOULD DEFINE A 'CONCERN'.

THE RESPONDENT SHOULD INDICATE THE HIGHEST LEVEL OF CONCERN FOR ANY SINGLE LOCATION RATHER THAN TRYING TO AVERAGE THE LEVEL OF CONCERN ACROSS ALL LOCATIONS.

FOR RESPONDENTS LIVING IN REMOTE OR RURAL AREAS, 'NEIGHBORHOOD' SHOULD BE UNDERSTOOD AS ONE'S COMMUNITY, TOWN, VILLAGE, OR COUNTY.

INTRODUCTION

I am going to read a list of items that sometimes describe children. For each item, please tell me how often this is true for **[CHILD]** during the past month. Would you say never, sometimes, usually, or always?

S7Q56 **[He/She]** argues too much.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q45 **[He/She]** bullies, or is cruel or mean to others.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q53 **[He/She]** shows respect for teachers and neighbors.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q52 **[He/She]** gets along well with other children.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q44 **[He/She]** is disobedient.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q41 **[He/She]** is stubborn, sullen, or irritable.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q54 **[He/She]** tries to understand other people's feelings.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q59 **[He/She]** tries to resolve conflicts with classmates, family, or friends.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q48 **[He/She]** feels worthless or inferior.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q62 **[He/She]** is unhappy, sad, or depressed.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

S7Q63 **[He/She]** is withdrawn, and does not get involved with others.
(1) Never (2) Sometimes (3) Usually (4) Always (6) DON'T KNOW (7) REFUSED

Section 8: Family Functioning

S8Q01 **(IF AGE OF CHILD > 71 MONTHS, SKIP TO S8Q03)**

During the past week, how many times did you or any family member take **[CHILD]** on any kind of outing, such as to the park, library, zoo, shopping, church, restaurants, or family gatherings?

___ ___ NUMBER OF TIMES   **[RANGE CHECK: 00-95]**

(96) DON'T KNOW
(97) REFUSED

S8Q03 During the past week, on how many days did all the family members who live in the household eat a meal together?

__ __   **[RANGE CHECK: 00-07]**

(96) DON'T KNOW
(97) REFUSED

S8Q02 About how often does **[CHILD]** attend a religious service?

__ __ __   **[RANGE CHECK: 001-993]**

[ENTER NUMBER]

(994) NEVER
(996) DON'T KNOW
(997) REFUSED

S8Q02A [MARK PERIOD]

(1) PER DAY
(2) PER WEEK
(3) PER MONTH
(4) PER YEAR
(6) DON'T KNOW
(7) REFUSED

S8Q04 **(F CHILD <072 MONTHS, SKIP TO S8Q06)**

Is your relationship with **[CHILD]** very close, somewhat close, not very close, not close at all?

(1) Very close
(2) Somewhat close
(3) Not very close
(4) Not close at all
(6) DON'T KNOW
(7) REFUSED

S8Q05   How well can you and **[CHILD]** share ideas or talk about things that really matter? Would you say very well, somewhat well, not very well, or not well at all?

(1) Very well
(2) Somewhat well
(3) Not very well
(4) Not very well at all
(6) DON'T KNOW
(7) REFUSED

S8Q06   **CATI INSTRUCTION (S8Q06):** IF S1Q02 = (1) MOTHER, OR (2) FATHER, FILL "parenthood." ELSE FILL "raising children."

In general, how well do you feel you are coping with the day-to-day demands of **[parenthood/raising children]**? Would you say that you are coping very well, somewhat well, not very well, or not well at all?

(1) Very well
(2) Somewhat well
(3) Not very well
(4) Not well at all
(6) DON'T KNOW
(7) REFUSED

S8Q07   During the past month, how often have you felt **[CHILD]** is much harder to care for than most children **[his/her]** age? Would you say never, sometimes, usually, or always?

(1) Never
(2) Sometimes
(3) Usually
(4) Always
(6) DON'T KNOW
(7) REFUSED

S8Q08   During the past month, how often have you felt **[he/she]** does things that really bother you a lot? [READ RESPONSES AS NECESSARY] Would you say never, sometimes, usually, or always?

(1) NEVER
(2) SOMETIMES
(3) USUALLY
(4) ALWAYS
(6) DON'T KNOW
(7) REFUSED

S8Q09   During the past month, how often have you felt you are giving up more of your life to meet **[CHILD]**'s needs than you ever expected? Would you say never, sometimes, usually, or always?

(1) NEVER
(2) SOMETIMES
(3) USUALLY
(4) ALWAYS
(6) DON'T KNOW
(7) REFUSED

S8Q10   During the past month, how often have you felt angry with **[him/her]**? Would you say never, sometimes, usually, or always?

           (1) NEVER
           (2) SOMETIMES
           (3) USUALLY
           (4) ALWAYS
           (6) DON'T KNOW
           (7) REFUSED

S8Q11   **CATI INSTRUCTION (S8Q11):** IF RESPONDENT IS MOTHER OR FATHER—I.E., S1Q02 IN (01, 02)—FILL "parenthood." ELSE FILL "raising children."

           Is there someone that you can turn to for day-to-day emotional help with **[parenthood/raising children]**?

           (0) NO
           (1) YES
           (6) DON'T KNOW
           (7) REFUSED

           HELP SCREEN: THIS CAN BE ANY PERSON, INCLUDING THEIR SPOUSE.

INTRODUCTION

      There are various ways that families deal with serious disagreements. **QUESTION STEM:** [When you have a serious disagreement with your household members, how often do you **[FILL S8Q12-S8Q15]**. Would you say never, rarely, sometimes, usually or always?]

S8Q12   Just keep your opinions to yourself?
           [READ IF NECESSARY: Would you say never, rarely, sometimes, usually or always?]
           (1) Never   (2) Rarely   (3) Sometimes   (4) Usually (5) Always   (6) DON'T KNOW   (7) REFUSED

S8Q13   Discuss your disagreements calmly?
           [READ IF NECESSARY: Would you say never, rarely, sometimes, usually or always?]
           (1) Never   (2) Rarely   (3) Sometimes   (4) Usually (5) Always   (6) DON'T KNOW   (7) REFUSED

S8Q14   Argue heatedly or shout?
           [READ IF NECESSARY: Would you say never, rarely, sometimes, usually or always?]
           (1) Never   (2) Rarely   (3) Sometimes   (4) Usually (5) Always   (6) DON'T KNOW   (7) REFUSED

S8Q15   End up hitting or throwing things? Would you say?
           [READ IF NECESSARY: Would you say never, rarely, sometimes, usually or always?]
           (1) Never   (2) Rarely   (3) Sometimes   (4) Usually (5) Always   (6) DON'T KNOW   (7) REFUSED

Section 9: Parental Health

INTRODUCTION

The next few questions are about **[CHILD]**'s parents. Before I ask them, I need to know which parents live in this household with **[CHILD].**

S9Q00 **(IF RESPONDENT IS MOTHER OR FATHER—I.E., S1Q02 = 1 OR 2—CONTINUE WITH S9Q00)**

Earlier you told me you are **[CHILD]**'s **[mother/father]**. Are you **[CHILD]**'s biological, adoptive, step, or foster **[mother/father]**?

(01) BIOLOGICAL MOTHER
(02) STEPMOTHER
(03) FOSTER MOTHER
(04) ADOPTIVE MOTHER
(05) BIOLOGICAL FATHER
(06) STEPFATHER
(07) FOSTER FATHER
(08) ADOPTIVE FATHER
(09) OTHER
(96) DON'T KNOW
(97) REFUSED

S9Q01 **(IF ONLY ONE ADULT—I.E., TOTAL NUMBER IN HOUSEHOLD = NUMBER OF CHILDREN UNDER18 + 1, SKIP TO S9Q03)**

CATI INSTRUCTION (S9Q01): IF S1Q02 = (1) Mother OR (2) Father, FILL "other" and "Does". ELSE, FILL "Earlier you told me you are [CHILD]'s [RELATION FROM S1Q02]" AND "Other than yourself, does"

[FILL: Earlier you told me you are **[CHILD]**'s **[ANSWER TO S1Q02)]**. **[Other than yourself does/Does] [S.C].** have any (other) parents, or people who act as **[his/her]** parents, living here?

(0) NO   **[SKIP TO S9Q03]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S9Q03]**
(7) REFUSED   **[SKIP TO S9Q03]**

S9Q02 INDEX   What is their relationship to **[CHILD]**? [MARK ALL THAT APPLY]
IF R RESPONDS "Mother" or "Father" PROBE: 'Is that **[his/her]** biological, adoptive, step, or foster (FILL)?']

		N Y D R
S9Q02X01	BIOLOGICAL MOTHER	0 1 6 7
S9Q02X02	STEPMOTHER	0 1 6 7
S9Q02X03	FOSTER MOTHER	0 1 6 7
S9Q02X04	ADOPTIVE MOTHER	0 1 6 7
S9Q02X05	BIOLOGICAL FATHER	0 1 6 7
S9Q02X06	STEPFATHER	0 1 6 7
S9Q02X07	FOSTER FATHER	0 1 6 7
S9Q02X08	ADOPTIVE FATHER	0 1 6 7
S9Q02X09	SISTER OR BROTHER (STEP/FOSTER/HALF/ADOPTIVE)	0 1 6 7
S9Q02X10	IN-LAW OF ANY TYPE	0 1 6 7
S9Q02X11	AUNT/UNCLE	0 1 6 7
S9Q02X12	GRANDMOTHER	0 1 6 7
S9Q02X13	GRANDFATHER	0 1 6 7
S9Q02X14	OTHER FAMILY MEMBER	0 1 6 7
S9Q02X15	FEMALE GUARDIAN	0 1 6 7
S9Q02X16	MALE GUARDIAN	0 1 6 7
S9Q02X17	RESPONDENT'S PARTNER OR BOY/GIRLFRIEND	0 1 6 7
S9Q02X18	OTHER NON-RELATIVE	0 1 6 7
S9Q02X19	TWO OR MORE OF THE SAME RELATIONSHIP TYPE	0 1 6 7
S9Q02X20	MOTHER TYPE UNKNOWN	0 1 6 7
S9Q02X21	FATHER TYPE UNKNOWN	0 1 6 7
S9Q02X22	OTHER RELATIONSHIP UNKNOWN	0 1 6 7

*RESPONSE CATEGORIES
(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

IF S9Q02X19 = 1,   **[SKIP TO S9Q02_T]**

S9Q02_T   ENTER RELATIVE OR RELATIVES_____.

ENTER THE NUMBER AND TYPE OF PERSON REPORTED. FOR EXAMPLE: "2 BROTHERS". IF ONE OF THE RELATIVES IS ALREADY LISTED IN THE PICKLIST, DO NOT INCLUDE AGAIN HERE.

S9Q03   **(IF BIOLOGICAL MOTHER AND BIOLOGICAL FATHER LIVE IN THE HOUSEHOLD— I.E., (S9Q00 = 01 AND S9Q02X05 = 1) OR (S9Q00 = 05 AND S9Q02X01 = 1)—SKIP TO S9Q08)**

CATI INSTRUCTION (S9Q03): IF S1Q02 NE (01) Mother AND S9Q00 = (01) FILL "other."

Does **[CHILD]** have any (other) parents, or people who act as **[his/her]** parents, who do not live at this address?

(0) NO   **[SKIP TO S9Q08]**
(1) YES
(6) DON'T KNOW   **[SKIP TO S9Q08]**
(7) REFUSED   **[SKIP TO S9Q08]**

S9Q04 INDEX What is their relationship to **[CHILD]**? [MARK ALL THAT APPLY]

IF R RESPONDS "Mother" or "Father" PROBE: 'Is that **[his/her]** biological, adoptive, step, or foster (FILL)?']

		N Y D R
S9Q04X01	BIOLOGICAL MOTHER	0 1 6 7
S9Q04X02	STEPMOTHER	0 1 6 7
S9Q04X03	FOSTER MOTHER	0 1 6 7
S9Q04X04	ADOPTIVE MOTHER	0 1 6 7
S9Q04X05	BIOLOGICAL FATHER	0 1 6 7
S9Q04X06	STEPFATHER	0 1 6 7
S9Q04X07	FOSTER FATHER	0 1 6 7
S9Q04X08	ADOPTIVE FATHER	0 1 6 7
S9Q04X09	SISTER OR BROTHER (STEP/FOSTER/HALF/ADOPTIVE)	0 1 6 7
S9Q04X10	IN-LAW OF ANY TYPE	0 1 6 7
S9Q04X11	AUNT/UNCLE	0 1 6 7
S9Q04X12	GRANDMOTHER	0 1 6 7
S9Q04X13	GRANDFATHER	0 1 6 7
S9Q04X14	OTHER FAMILY MEMBER	0 1 6 7
S9Q04X15	FEMALE GUARDIAN	0 1 6 7
S9Q04X16	MALE GUARDIAN	0 1 6 7
S9Q04X17	RESPONDENT'S PARTNER OR BOY/GIRLFRIEND	0 1 6 7
S9Q04X18	OTHER NON-RELATIVE	0 1 6 7
S9Q04X19	TWO OR MORE OF THE SAME RELATIONSHIP TYPE	0 1 6 7
S9Q04X20	MOTHER TYPE UNKNOWN	0 1 6 7
S9Q04X21	FATHER TYPE UNKNOWN	0 1 6 7
S9Q04X22	OTHER RELATIONSHIP UNKNOWN	0 1 6 7

IF S9Q04X19 = 1, **[SKIP TO S9Q04_T]**

S9Q04_T ENTER RELATIVE OR RELATIVE(S)_____.

S9Q05 **(S9Q05 ASKED OF BIOLOGICAL MOTHER LIVING OUTSIDE THE HOUSEHOLD—I.E., S9Q04X01 = 1. IF NO BIOLOGICAL MOTHER OUTSIDE THE HOUSEHOLD, SKIP TO S9Q05A)**

During the past 12 months, how often has **[CHILD]** seen **[his/her]** biological mother.

(1) More than once a week
(2) About once a week
(3) 1 to 3 times a month
(4) 1 to 11 times a year
(5) Not at all
(6) DON'T KNOW
(7) REFUSED

S9Q05A   **(S9Q05 ASKED OF BIOLOGICAL FATHER LIVING OUTSIDE THE HOUSEHOLD—I.E., S9Q04X05 = 1. IF NO BIOLOGICAL FATHER OUTSIDE THE HOUSEHOLD, SKIP TO S9Q05B)**

During the past 12 months, how often has **[CHILD]** seen his/her biological father?

(1) More than once a week
(2) About once a week
(3) 1 to 3 times a month
(4) 1 to 11 times a year
(5) Not at all
(6) DON'T KNOW
(7) REFUSED

S9Q08   **(S9Q08 ASKED IF ANY MOTHER TYPE IS RESPONDENT, OR ANY MOTHER TYPE LIVES IN THE HOUSHOLD—I.E., S1Q02 = 01, OR ANY VALUE FOR S9Q02X01-S9Q02X04 = 1. IF NO MOTHER TYPE IN HOUSEHOLD, SKIP TO S9Q09)**

Would you say that in general **[[CHILD]'s MOTHER TYPE's/your]** health is excellent, very good, good, fair, or poor?

(1) Excellent
(2) Very good
(3) Good
(4) Fair
(5) Poor
(6) DON'T KNOW
(7) REFUSED

S9Q09   **(S9Q09 ASKED IF ANY FATHER TYPE IS RESPONDENT, OR ANY FATHER TYPE LIVES IN THE HOUSHOLD—I.E., S1Q02 = 02 OR ANY VALUE FOR S9Q02X05-S9Q02X08 = 1. IF NO FATHER TYPE IN THE HOUSEHOLD, SKIP TO S9Q10)**

Would you say that in general **[[CHILD]'s FATHER TYPE's/your]** health is excellent, very good, good, fair, or poor?
(1) Excellent
(2) Very good
(3) Good
(4) Fair
(5) Poor
(6) DON'T KNOW
(7) REFUSED

S9Q10   **(IF MOTHER TYPE OR FATHER TYPE IS RESPONDENT—I.E., S1Q02 IN (01, 02)—SKIP TO S9Q18)**

Would you say that in general your health is excellent, very good, good, fair, or poor?

(1) Excellent
(2) Very good
(3) Good
(4) Fair
(5) Poor
(6) DON'T KNOW
(7) REFUSED

S9Q18 **(S9Q18 ASKED IF ANY MOTHER TYPE IS RESPONDENT, OR ANY MOTHER TYPE LIVES IN THE HOUSHOLD—I.E., S1Q02 = 01 OR ANY VALUE FOR S9Q02X01-S9Q02X04 = 1. IF NO MOTHER TYPE IN THE HOUSEHOLD, SKIP TO S9Q19)**

Would you say that in general **[[CHILD]'s MOTHER TYPE's/your]** mental and emotional health is excellent, very good, good, fair, or poor?

(1) Excellent
(2) Very good
(3) Good
(4) Fair
(5) Poor
(6) DON'T KNOW
(7) REFUSED

S9Q19 **(S9Q19 ASKED IF ANY FATHER TYPE IS RESPONDENT, OR ANY FATHER TYPE LIVES IN THE HOUSHOLD—I.E., S1Q02 = 1 OR ANY VALUE FOR S9Q02X05-S9Q02X08 = 1. IF NO FATHER TYPE IN THE HOUSEHOLD, SKIP TO S9Q20)**

Would you say that in general **[[CHILD]'s FATHER TYPE's/your]** mental and emotional health is excellent, very good, good, fair, or poor?

(1) Excellent
(2) Very good
(3) Good
(4) Fair
(5) Poor
(6) DON'T KNOW
(7) REFUSED

S9Q20 **(IF MOTHER TYPE OR FATHER TYPE IS RESPONDENT—I.E., S1Q02 IN (01, 02)—SKIP TO S9Q15)**

Would you say that in general your mental and emotional health is excellent, very good, good, fair, or poor?

(1) Excellent
(2) Very good
(3) Good
(4) Fair
(5) Poor
(6) DON'T KNOW
(7) REFUSED

S9Q15 **(S9Q15 ASKED IF ANY MOTHER TYPE IS RESPONDENT, OR MOTHER TYPE LIVES IN THE HOUSHOLD—I.E., S1Q02 = 01 OR ANY VALUE FOR S9Q02X01-S9Q02X04 = 1. IF NO MOTHER TYPE IN THE HOUSEHOLD, SKIP TO S9Q15A)**

During the past month, did **[you/[CHILD]'s MOTHER TYPE]** regularly exercise or play sports hard enough to make **[you/her]** breathe hard, make **[your/her]** heart beat fast, or make **[you/her]** sweat for 20 minutes or more?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S9Q15A **(S9Q15A ASKED IF ANY FATHER TYPE IS RESPONDENT, OR ANY FATHER TYPE LIVES IN THE HOUSHOLD—I.E., S1Q02 = 02 OR ANY VALUE FOR S9Q02X05-S9Q02X08 = 1. IF NO FATHER TYPE IN THE HOUSEHOLD, SKIP TO S9Q15B)**

CATI INSTRUCTION (S9Q15A): IF S1Q02 = 02 USE FILL # 2 WITH THESE PRONOUN FILLS: (1) you (2) you (3) your (4) you. ELSE, FILL (1)[CHILD]'s FATHER TYPE (2) his (3) his (4) his**.** IF S9Q15 NOT SKIPPED, USE FILL #1 AND DISPLAY FILL #2 WITH BRACKETS AROUND IT. ELSE USE FILL #2 ONLY.

FILL #1: [And how about **[CHILD]**'s **[FATHER TYPE]/YOU?]**/ FILL #2: During the past month, did **[you/[CHILD]'s FATHER TYPE]** regularly exercise or play sports hard enough to make **[you/him]** breathe hard, make **[your/his]** heart beat fast, or make **[you/him]** sweat for 20 minutes or more?]

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S9Q15B **(IF MOTHER TYPE OR FATHER TYPE IS RESPONDENT—I.E., S1Q02 IN (01, 02)—SKIP TO S9Q15C)**

CATI INSTRUCTION (S9Q15B): IF S9Q20 ASKED, ASK S9Q15B. ELSE, SKIP TO S9Q15C. IF S9Q15 OR S9Q15 ANSWERED, USE FILL #1 AND DISPLAY FILL #2 WITH BRACKETS AROUND IT. ELSE, USE FILL #2.

[FILL #1: And how about you?/ FILL#2: During the past month, did you regularly exercise or play sports hard enough to make you breathe hard, make your heart beat fast, or make you sweat for 20 minutes or more]?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S9Q15C **(S9Q15C ASKED IF ANY MOTHER TYPE IS RESPONDENT, OR MOTHER TYPE LIVES IN THE HOUSHOLD—I.E., S1Q02 = 01 OR ANY VALUE FOR S9Q02X01-S9Q02X04 = 1. IF NO MOTHER TYPE IN THE HOUSEHOLD, SKIP TO S9Q15D)**

CATI INSTRUCTION (S9Q15C): IF S9Q18 ASKED, ASK S9Q15C. ELSE, SKIP TO S9Q15D. IF S1Q02 = 01, FILL "you." ELSE, FILL (1) **[CHILD]**'s **MOTHER TYPE.**

[Do you/Does [CHILD]'s MOTHER TYPE] have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S9Q15D **(S9Q15D ASKED IF ANY FATHER TYPE IS RESPONDENT, OR ANY FATHER TYPE LIVES IN THE HOUSHOLD—I.E., S1Q02 = 02 OR ANY VALUE FOR S9Q02X05-S9Q02X08 = 1. IF NO FATHER TYPE IN THE HOUSEHOLD, SKIP TO S9Q15E)**

CATI INSTRUCTION (S9Q15D): IF S9Q19 ASKED, SKIP TO S9Q15D. ELSE, SKIP TO S9Q15E. IF S1Q02 = (1) Father, THEN FILL: you.
ELSE DO:
        IF S9Q15 ANSWERED THEN FILL "Does (CHILD)'s father?" ONLY.
                ELSE IF S9Q15 NOT ANSWERED
                ELSE, FILL, "Does (CHILD)'s FATHER TYPE…

[Do you/Does [CHILD]'s FATHER TYPE] have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S9Q15E **(S9Q15E IS ASKED ONLY IF THERE ARE NO MOTHER TYPES OR FATHER TYPES IN THE HOUSEHOLD—I.E., IF S1Q02 NOT IN (01, 02) AND S9Q02X01-S9Q02X08 NE 1. IF ANY MOTHER TYPE OR FATHER TYPE IN THE HOUSEHOLD, SKIP TO S9Q11B)**

Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

S9Q11B Does anyone in the household use cigarettes, cigars, or pipe tobacco?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

Section 10: Neighborhood Characteristics

INTRODUCTION

Now, for the next five questions, I am going to ask how much you agree or disagree with each of these statements about your neighborhood or community.

S10Q01　　　"People in this neighborhood help each other out." Would you say that you definitely agree, somewhat agree, somewhat disagree, or definitely disagree with this statement?

(1) Definitely agree
(2) Somewhat agree
(3) Somewhat disagree
(4) Definitely disagree
(6) DON'T KNOW
(7) REFUSED

S10Q02　　　"We watch out for each other's children in this neighborhood." [READ ONLY WHEN NEEDED: Would you say that you definitely agree, somewhat agree, somewhat disagree, or definitely disagree with this statement?]

(1) Definitely agree
(2) Somewhat agree
(3) Somewhat disagree
(4) Definitely disagree
(6) DON'T KNOW
(7) REFUSED

S10Q03　　　"There are people I can count on in this neighborhood." [READ ONLY WHEN NEEDED: Would you say that you definitely agree, somewhat agree, somewhat disagree, or definitely disagree with this statement?]

(1) Definitely agree
(2) Somewhat agree
(3) Somewhat disagree
(4) Definitely disagree
(6) DON'T KNOW
(7) REFUSED

S10Q04　　　**CATI INSTRUCTION (S10Q04):** IF NUMBER OF CHILDREN IN HOUSEHOLD UNDER AGE 18 = 1, THEN FILL "child," ELSE FILL "children."

"There are people in this neighborhood who might be a bad influence on my [child/children]." [READ ONLY WHEN NEEDED: Would you say that you definitely agree, somewhat agree, somewhat disagree, or definitely disagree with this statement?]

(1) Definitely agree
(2) Somewhat agree
(3) Somewhat disagree
(4) Definitely disagree
(6) DON'T KNOW
(7) REFUSED

S10Q05   "If my child were outside playing and got hurt or scared, there are adults nearby who I trust to help my child." [READ ONLY WHEN NEEDED: Would you say that you definitely agree, somewhat agree, somewhat disagree, or definitely disagree with this statement?]

IF R SAYS THEIR CHILD IS TOO YOUNG TO PLAY OUTSIDE, SAY: "Please answer the question as IF your child were playing outside."

(1) Definitely agree
(2) Somewhat agree
(3) Somewhat disagree
(4) Definitely disagree
(6) DON'T KNOW
(7) REFUSED

S10Q06   How often do you feel **[CHILD]** is safe in your community or neighborhood? Would you say never, sometimes, usually, or always?

(1) Never
(2) Sometimes
(3) Usually
(4) Always
(6) DON'T KNOW
(7) REFUSED

S10Q07   **(IF AGE OF CHILD < 72 MONTHS, OR CHILD HOME-SCHOOLED/NOT ENROLLED—I.E., (S7Q01 =3) OR (S7Q01 = 4 AND S7Q01F IN (0, 6, 7)) OR (S7Q02 = 994, 995)—SKIP TO S10Q08)**

How often do you feel **[he/she]** is safe at school? Would you say never, sometimes, usually, or always?

(1) Never
(2) Sometimes
(3) Usually
(4) Always
(6) DON'T KNOW
(7) REFUSED

S10Q08   How often do you feel **[he/she]** is safe at home? Would you say never, sometimes, usually, or always?

(1) Never
(2) Sometimes
(3) Usually
(4) Always
(6) DON'T KNOW
(7) REFUSED

Section 11: Additional Demographics

INTRODUCTION

Now I have a few more general questions about **[CHILD]** and your household.

S11Q01   Is **[CHILD]** of Hispanic or Latino origin?

        (0) NO
        (1) YES
        (6) DON'T KNOW
        (7) REFUSED

S11Q02 INDEX Now, I'm going to read a list of categories. Please choose one or more of the following categories to describe **[CHILD]**'s race. Is **[CHILD]** White, Black or African American, American Indian, Alaska Native, Asian, or Native Hawaiian or other Pacific Islander? [MARK ALL THAT APPLY]

		N	Y	D	R
S11Q02X01	WHITE	0	1	6	7
S11Q02X02	BLACK/AFRICAN-AMERICAN	0	1	6	7
S11Q02X03	AMERICAN INDIAN	0	1	6	7
S11Q02X04	ALASKA NATIVE	0	1	6	7
S11Q02X05	ASIAN	0	1	6	7
S11Q02X06	NATIVE HAWAIIAN	0	1	6	7
S11Q02X07	PACIFIC ISLANDER	0	1	6	7

*RESPONSE CATEGORIES
(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

HELP SCREEN (S11Q02): BE SURE TO READ THE ENTIRE QUESTION AS WRITTEN (INCLUDING ALL RESPONSE CATEGORIES.

RACE INFORMATION IS COLLECTED BY SELF-IDENTIFICATION. IT IS "WHATEVER RACE YOU CONSIDER YOURSELF TO BE." DO NOT TRY TO EXPLAIN OR DEFINE ANY OF THE GROUPS. MULTIPLE RACES MAY BE SELECTED.

S11Q03   **(IF RESPONDENT IS NOT MOTHER—I.E., S1Q02 NOT EQUAL TO 01—AND NO MOTHER TYPE RESIDES IN THE HOUSEHOLD—I.E., NO VALUES FOR S9Q02X01-S9Q02X04 = 1— SKIP TO S11Q04)**

    CATI INSTRUCTION (S11Q03): IF MOTHER IS RESPONDENT—I.E., S1Q02 = 01—FILL "Were you born in the United States?" ELSE IF MOTHER NOT RESPONDENT BUT FOSTER, ADOPTIVE OR STEP MOTHER RESIDES IN HOUSEHOLD—I.E., ONE OR MORE VALUES IN S9Q02X02-S9Q02X04 = 1—THEN FILL FIRST AVAILABLE MOTHER TYPE FOR S9Q02INDEX.

    Was **[CHILD]**'s **[FILL FIRST MOTHER TYPE FROM S9Q02X01-S9Q02X04]**/Were you born in the United States?

    (0) No   (1) Yes   (6) DON'T KNOW   (7) REFUSED

S11Q04   **(IF RESPONDENT IS NOT FATHER—I.E., S1Q02 NOT EQUAL TO 02—AND NO FATHER TYPE RESIDES IN THE HOUSEHOLD—I.E., NO VALUES FOR S9Q02X05-S9Q02X08 = 1— SKIP TO S11Q05)**

    CATI INSTRUCTION S11Q04): IF FATHER IS NOT RESPONDENT—I.E., S1Q02 NOT EQUAL TO 02—AND S11Q03 ANSWERED, USE FILL #1. ELSE IF FATHER IS NOT RESPONDENT AND S11Q03 NOT ANSWERED, USE FILL #2. ELSE IF FATHER IS RESPONDENT—I.E., S1Q02 = 02, USE FILL #3.

    FILL #1: And how about **[you/[CHILD]**'s **[FILL FIRST FATHER TYPE FROM S9Q02X05-S9Q02X08]]**?
    FILL #2: Was **[CHILD]**'s **[FILL FIRST FATHER TYPE FROM S9Q02X05-S9Q02X08]** born in the United States?
    FILL #3: Were you born in the United States?

    (0) No   (1) Yes   (6) DON'T KNOW   (7) REFUSED

S11Q05   **CATI INSTRUCTION S11Q04):** IF S11Q03 ANSWERED, USE FILL #1, AND DISPLAY FILL #2 IN BRACKETS. ELSE USE FILL #2.

    FILL #1: And how about **[CHILD]**?
    FILL #2: Was **[CHILD]** born in the United States?

    (0) No   (1) Yes   (6) DON'T KNOW   (7) REFUSED

S11Q05A   **(S11Q05A IS ASKED OF MOTHER TYPE RESIDING IN THE HOUSHOLD THAT WERE BORN OUTSIDE OF THE UNITED STATES. IF MOTHER TYPE BORN IN THE UNITED STATES OR PLACE OF BIRTH UNKNOWN/REFUSED—I.E., S11Q03 NOT EQUAL TO 0— SKIP TO S11Q05C)**

    How long **[have you/has [CHILD's] MOTHER TYPE FROM S9Q02X01-S9Q02X04]** been in the United States?

    ___ ____ ___ **[RANGE CHECK: 001-993]**

    (994)   SHE HAS NEVER LIVED IN THE UNITED STATES
    (995)   SHE IS DECEASED
    (996)   DON'T KNOW
    (997)   REFUSED

S11Q05B [MARK PERIOD]
(01) DAY(S)
(02) WEEK(S)
(03) MONTH(S)
(04) YEAR(S)
(96) DON'T KNOW
(97) REFUSED

S11Q05C **(S11Q05C IS ASKED OF FATHER TYPE RESIDING IN HOUSHOLD WHO WAS BORN OUTSIDE OF THE UNITED STATES. IF FATHER TYPE BORN IN THE UNITED STATES OR PLACE OF BIRTH UNKNOWN/REFUSED—I.E., S11Q04 NOT EQUAL TO 0—SKIP TO S11Q05E)**

How long **[have you/has [CHILD]**'s **[FILL FIRST FATHER TYPE FROM S9Q02X05-S9Q02X08]]** been in the United States?

___ ____ ___ **[RANGE CHECK: 001-993]**

(994) HE HAS NEVER LIVED IN THE UNITED STATES
(995) HE IS DECEASED
(996) DON'T KNOW
(997) REFUSED

S11Q05D [MARK PERIOD]
(01) DAY(S)
(02) WEEK(S)
(03) MONTH(S)
(04) YEARS
(96) DON'T KNOW
(97) REFUSED

S11Q05E **(S11Q05E IS ASKED OF SAMPLED CHILDREN BORN OUTSIDE OF THE UNITED STATES. IF CHILD WAS BORN IN THE UNITED STATES OR PLACE OF BIRTH UNKNOWN/REFUSED—I.E., S11Q05 NOT EQUAL TO 2—SKIP TO S11Q056)**

"How long has **[CHILD]** been in the United States?

___ ____ ___ **[RANGE CHECK: 001-995]**

(996) DON'T KNOW
(997) REFUSED

S11Q05F [MARK PERIOD]
(01) DAY(S)
(02) WEEK(S)
(03) MONTH(S)
(04) YEARS
(96) DON'T KNOW
(97) REFUSED

S11Q06   How many times has **[CHILD]** ever moved to a new address?

                ___ ___ ___ MOVES   **[RANGE CHECK: 000-995]**

                (996) DON'T KNOW
                (997) REFUSED

                HELP SCREEN (S11Q06): PLEASE INCLUDE ANY AND ALL TIMES A CHILD HAS CHANGED THEIR PRIMARY RESIDENCE. DO NOT INCLUDE TEMPORARY CHANGES IN RESIDENCE SUCH AS A CHILD VISITING ANOTHER RESIDENCE DURING SUMMER VACATION OR OTHER BREAKS IN THE SCHOOL YEAR.

S11Q08   Was anyone in the household employed at least 50 weeks out of the past 52 weeks?

                (0) NO
                (1) YES
                (6) DON'T KNOW
                (7) REFUSED

C11Q01   Now I am going to ask you a few questions about your income. Please think about your total combined FAMILY income during (**CATI: FILL 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. Can you tell me that amount before taxes?

                RECORD INCOME $_____ **[SKIP TO C11Q11]**
                DON'T KNOW (999999996)   **[SKIP TO W9Q02]**
                REFUSED   (999999997)   **[SKIP TO W9Q02]**

                HELP SCREEN: RESPONDENT MAY GIVE A RANGE AS AN ANSWER TO THIS QUESTION. BE PREPARED TO PROBE FOR A MORE ACCURATE ANSWER.

W9Q02   You may not be able to give us an exact figure for your total combined family income, but was your total family income during (**CATI: LAST CALENDAR YEAR**) more or less than $20,000?

                (1) More than $20,000   **[SKIP TO W9Q06]**
                (2) $20,000   **[SKIP TO C11Q11]**
                (3) Less than $20,000   **[SKIP TO C11Q11]**
                (6) DON'T KNOW   **[SKIP TO C11Q11]**
                (7) REFUSED   **[SKIP TO C11Q11]**

W9Q03   Was the total combined FAMILY income more or less than $10,000?

                (1) More than $10,000   **[SKIP TO W9Q05]**
                (2) $10,000   **[SKIP TO C11Q11]**
                (3) Less than $10,000   **[SKIP TO C11Q11]**
                (6) DON'T KNOW   **[SKIP TO C11Q11]**
                (7) REFUSED   **[SKIP TO C11Q11]**

W9Q04   Was it more than $7,500?

                (0) No   **[SKIP TO W9Q12]**
                (1) Yes   **[SKIP TO W9Q12]**
                (6) DON'T KNOW   **[SKIP TO C11Q11]**
                (7) REFUSED   **[SKIP TO C11Q11]**

W9Q05   Was it more than $15,000?

                (0) No   **[SKIP TO W9Q05B]**
                (1) Yes   **[SKIP TO C11Q11]**
                (6) DON'T KNOW   **[SKIP TO C11Q11]**
                (7) REFUSED   **[SKIP TO C11Q11]**

W9Q05A   Was it more than $17,500?

                (0) No   **[SKIP TO W9Q12]**
                (1) Yes   **[SKIP TO W9Q12]**
                (6) DON'T KNOW   **[SKIP TO C11Q11]**
                (7) REFUSED   **[SKIP TO C11Q11]**

W9Q05B   Was it more than $12,500?

                (0) No   **[SKIP TO W9Q12]**
                (1) Yes   **[SKIP TO W9Q12]**
                (6) DON'T KNOW   **[SKIP TO C11Q11]**
                (7) REFUSED   **[SKIP TO C11Q11]**

W9Q06   Was the total combined FAMILY income more or less than $40,000?

                (1) More than $40,000
                (2) $40,000   **[SKIP TO C11Q11]**
                (3) Less than $40,000 **[SKIP TO W9Q07]**
                (6) DON'T KNOW   **[SKIP TO C11Q11]**
                (7) REFUSED   **[SKIP TO C11Q11]**

W9Q06A   Was the total combined FAMILY income more or less than $60,000?

                (1) More than $60,000 **[SKIP TO W9Q08]**
                (2) $60,000   **[SKIP TO C11Q11]**
                (3) Less than $60,000 **[SKIP TO C11Q11]**
                (6) DON'T KNOW   **[SKIP TO C11Q11]**
                (7) REFUSED   **[SKIP TO C11Q11]**

W9Q06B   Was the total combined FAMILY income more or less than $50,000?

                (1) More than $50,000 **[SKIP TO W9Q12]**
                (2) $50,000   **[SKIP TO C11Q11]**
                (3) Less than $50,00   **[SKIP TO C11Q11]**
                (6) DON'T KNOW   **[SKIP TO C11Q11]**
                (7) REFUSED   **[SKIP TO C11Q11]**

W9Q06C   Was the total combined FAMILY income more or less than $45,000?

              (1) More than $45,000   **[SKIP TO W9Q12]**
              (2) Less than $45,000   **[SKIP TO W9Q12]**
              (6) DON'T KNOW   **[SKIP TO C11Q11]**
              (7) REFUSED   **[SKIP TO C11Q11]**

W9Q07   Was the total combined FAMILY income more or less than $30,000?

              (1) More than $30,000
              (2) $30,000   **[SKIP TO C11Q11]**
              (3) Less than $30,000   **[SKIP TO W9Q07B]**
              (6) DON'T KNOW   **[SKIP TO C11Q11]**
              (7) REFUSED   **[SKIP TO C11Q11]**

W9Q07A   Was the total combined FAMILY income more or less then $35,000?

              (1) More than $35,000   **[SKIP TO W9Q12]**
              (2) Less than $35,000   **[SKIP TO W9Q12]**
              (6) DON'T KNOW   **[SKIP TO C11Q11]**
              (7) REFUSED   **[SKIP TO C11Q11]**

W9Q07B   Was the total combined FAMILY income more or less than $25,000?

              (1) More than $25,000   **[SKIP TO W9Q12]**
              (2) Less than $25,000   **[SKIP TO W9Q12]**
              (6) DON'T KNOW   **[SKIP TO C11Q11]**
              (7) REFUSED   **[SKIP TO C11Q11]**

W9Q08   Was the total combined FAMILY income more or less than $75,000?

              (1) More than $75,000
              (2) $75,000   **[SKIP TO C11Q11]**
              (3) Less than $75,000   **[SKIP TO C11Q11]**
              (6) DON'T KNOW   **[SKIP TO C11Q11]**
              (7) REFUSED   **[SKIP TO C11Q11]**

W9Q12   **CATI INSTRUCTION (W9Q12):** BASED ON THE RANGE ALREADY IDENTIFIED, THIS NEXT QUESTION WILL BE FILLED WITH A DOLLAR AMOUNT THAT FALLS WITHIN THE RANGE AND IS EQUIVALENT TO 50%, 100%, 133%, 150%, 185%, 200%, 300%, OR 400% OF THE FEDERAL POVERTY LEVEL BASED ON THE NUMBER OF FAMILY MEMBERS. IF THE RANGE IDENTIFIED IS NARROW ENOUGH THAT NONE OF THESE POVERTY LEVEL CUTOFFS FALL WITHIN THE RANGE, THEN SKIP TO W9Q12A. FOR A FEW RANGES, TWO ADDITIONAL QUESTIONS WILL BE NEEDED. REFER TO REFERENCE TABLES FOR CORRECT INCOME FILLS.

Would you say this income was above or below **[$REF]**?

     (1) MORE THAN [$REF]   (WHEN INDICATED, ASK W9Q12A)
     (2) EXACTLY [$REF]   **[SKIP TO C11Q11]**
     (3) LESS THAN [$REF]   **[SKIP TO C11Q11]**
     (6) DON'T KNOW   **[SKIP TO C11Q11]**
     (7) REFUSED   **[SKIP TO C11Q11]**

W9Q12A   Would you say this income was above or below **[$REF]**?

     (1) MORE THAN [$REF]   **[SKIP TO C11Q11]**
     (2) EXACTLY [$REF]   **[SKIP TO C11Q11]**
     (3) LESS THAN [$REF]   **[SKIP TO C11Q11]**
     (6) DON'T KNOW   **[SKIP TO C11Q11]**
     (7) REFUSED   **[SKIP TO C11Q11]**

C11Q11   **NOTE: IF HOUSEHOLD INCOME CANNOT BE DETERMINED, CATI HH POVERTY LEVEL IS ASSUMED TO BE GREATER THAN 300%.**
(IF HOUSEHOLD INCOME GREATER THAN OR EQUAL TO 300% POVERTY, SKIP TO C11Q14)

At any time during the past 12 months, even for one month, did anyone in this household receive any cash assistance from a state or county welfare program, such as **[state TANF name]?**

     (0) No
     (1) Yes
     (6) DON'T KNOW
     (7) REFUSED

C11Q11A   During the past 12 months, did **[[CHILD]/ any child in the household]** receive Food Stamps?

     (0) No
     (1) Yes
     (6) DON'T KNOW
     (7) REFUSED

C11Q11B   **(IF AGES OF ALL CHILDREN IN HOUSEHOLD ARE ≤ 36 MONTHS, SKIP TO S9Q34)**

During the past 12 months, [did any child in the household/[CHILD]] receive free or reduced-cost breakfasts or lunches at school?

     (0) NO
     (1) YES
     (6) DON'T KNOW
     (7) REFUSED

S9Q34   Does anyone who lives in the household currently receive benefits from the Women, Infants, and Children (WIC) Program?

(0) NO
(1) YES
(3) NEVER HEARD OF WIC
(6) DON'T KNOW
(7) REFUSED

C11Q14   The next few questions are about the telephone numbers in your household. Do you have any other home phone numbers in addition to **{area code and telephone number called}**? Please do not include cellular phones in your answer.

(0) NO   **[SKIP TO C11Q20]**
(1) YES
(6) DON'T KNOW   **[SKIP TO C11Q20]**
(7) REFUSED   **[SKIP TO C11Q20]**

C11Q15   Is this second number for home use only, for business use only, or for both home and business use?

(1) HOME ONLY
(2) BUSINESS ONLY   **[SKIP TO C11Q17]**
(3) BOTH HOME AND BUSINESS
(6) DON'T KNOW   **[SKIP TO C11Q17]**
(7) REFUSED   **[SKIP TO C11Q17]**

C11Q16   Is this second number used only for computer or fax communications?

(0) NO
(1) YES
(6) DON'T KNOW
(7) REFUSED

C11Q17   Do you have a third home phone number in addition to the two you have already told me about? Please do not include cellular phones in your answer.

(0) NO   **[SKIP TO C11Q20]**
(1) YES
(6) DON'T KNOW   **[SKIP TO C11Q20]**
(7) REFUSED   **[SKIP TO C11Q20]**

C11Q18   Is this third number for home use only, for business use only, or for both home and business use?

(1) HOME ONLY
(2) BUSINESS ONLY   **[SKIP TO C11Q20]**
(3) BOTH HOME AND BUSINESS
(6) DON'T KNOW   **[SKIP TO C11Q20]**
(7) REFUSED   **[SKIP TO C11Q20]**

C11Q19 Is this third number used only for computer or fax communications?

    (0) NO
    (1) YES
    (6) DON'T KNOW
    (7) REFUSED

C11Q20 During the past 12 months, has your household been without telephone service for 1 week or more? Please do not include cellular phones in your answer.

    (0) NO   **[SKIP TO C11Q22]**
    (1) YES
    (6) DON'T KNOW **[SKIP TO C11Q22]**
    (7) REFUSED   **[SKIP TO C11Q22]**

C11Q21_A For how long was your household without telephone service in the past 12 months?

    ENTER NUMBER ___ ___ ___

    (996) DON'T KNOW
    (997) REFUSED

    IF DAYS IS CHOSEN TIME PERIOD, RANGE IS 001-365.
    IF WEEKS IS CHOSEN TIME PERIOD, RANGE IS 001-052.
    IF MONTHS IS CHOSEN TIME PERIOD, RANGE IS 001-012.

C11Q21 ENTER PERIOD.
    ___ ___

    (1) DAYS
    (2) WEEK(S)
    (3) MONTH(S)
    (6) DON'T KNOW
    (7) REFUSED

C11Q22 Please tell me your zip code.

    ____ ____ ____ ____ ____ **[RANGE 00001-99997]**

    (00001-99995)
    (99996) DON'T KNOW
    (99997) REFUSED

CLOSING STATEMENT

    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've spent answering these questions. If you have any questions about this survey, you may call my supervisor toll-free at 1-800-290-1296. If you have questions about your rights as a survey participant, you may call the chairman of the Institutional Review Board at 1-800-223-8118. Thanks again.

Appendix IV

Summary of Questionnaire Changes

1. On April 15, 2003, on-screen help text was added to verbatim questions S2Q55_OS, S4Q08_OS, S4Q18_OS, and S4Q29_OS. This text directed interviewers to type the phrase ''NO ANSWER GIVEN'' when the respondent was not able to provide a specific answer.

2. Question S9Q01 is designed to identify parents or people who act as parents, other than the respondent. During the course of data collection for the National Survey of Children's Health, it became clear that some respondents had been unintentionally including themselves more than once in their reports. To avoid this problem, question S9Q01 was changed on May 12, 2003, from:

S9Q01 [FILL: Earlier you told me you are (S.C.)'s (ANSWER TO S1Q02)]. Does S.C. have any (other) parents, or people who act as (his/her) parents, living here?

to:

S9Q01 [Fill: Earlier you told me you are (S.C.)'s (ANSWER TO S1Q02)]. [Other than yourself, does/Does] S.C. have any (other) parents, or people who act as (his/her) parents, living here?

3. On May 27, 2003, a skip instruction for questions S4Q15 and S4Q16 was added to avoid redundancy with question S2Q04. Question S4Q15, which asks about the use of prescription medication by the sampled child in the past 12 months and question S4Q16 which asks about the sampled child's need for prescription medication in the past 12 months, did not need to be asked when the respondent provided a positive response to question S2Q04 (''Does your children currently need or use medicine prescribed by a doctor, other than vitamins?'').

4. On June 16, 2003, an enhancement was made to questions S11Q05A and S11Q05C, and their respective follow-up questions S11Q05B and S11Q05D. The enhancement allowed interviewers to indicate that a mother or father was ''deceased'' or ''never lived in the United States'' immediately, without having to first enter a value of ''00'' in S11Q05A or S11Q05C.

5. On July 14, 2003, an inappropriate age-related skip instruction for question S9Q11B was removed. Prior to July 14th, the question about smoking in the household was not asked when the age of the sampled child was less than 72 months. From July 14th forward, the question was asked in all households regardless of the sampled child's age.

6. On July 29, 2003, state-specific S-CHIP program names that appeared in question S3Q01 were updated to reflect current information.

7. On August 5, 2003, an age-related skip instruction was added for question C11Q11B, which asked whether any child in the household had received free or reduced-cost meals at school within the past year. The instruction stipulated that the question be skipped in households where all children were 36 months of age or younger. Previously the question had been asked in all households, regardless of the ages of the resident children.

Appendix V

Procedures for Assigning Household Poverty Status

The Department of Health and Human Services (DHHS) publishes Federal Poverty Guidelines for the determination of household poverty status. These guidelines are produced annually and developed separately for the 48 contiguous States (plus the District of Columbia), Alaska, and Hawaii. The National Survey of Children's Health (NSCH) used DHHS guidelines to assign household poverty status. Year 2002 guidelines for 2001 income were used in interviews conducted from January 29, 2003, through March 4, 2003 (tables VIII–X). On March 5, 2003, the newly released 2003 guidelines for 2002 income were implemented for the remainder of the data collection period (tables XI–XIII). The tables were used to group households into the following nine poverty status categories:

- Category AA — Below 50% of poverty
- Category A — 50% of poverty or greater, but less than 100% of poverty
- Category B — 100% of poverty or greater, but less than 133% of poverty
- Category C — 133% of poverty or greater, but less than 150% of poverty
- Category D — 150% of poverty or greater, but less than 185% of poverty
- Category E — 185% of poverty or greater, but less than 200% of poverty
- Category F — 200% of poverty or greater, but less than 300% of poverty
- Category G — 300% of poverty or greater, but less than 400% of poverty
- Category H — 400% of poverty or greater

Two variables were used to determine a household's poverty status: the number of people residing in a household and the household's income during the prior year. It was possible for income data to be gathered using one of three methods: a respondent could provide an exact income, provide an income range based on a closed-ended series of questions, or provide an income range using a set of cascading questions revised to allow exact determination of household poverty status in cases where that would not otherwise be possible. A brief description of each of these methods and the household poverty status assignment process for each appears below.

Respondent-reported exact income—When a respondent reported an exact income, poverty status was assigned by comparing the number of household members and the exact income reported with the appropriate guidelines table. For example, a respondent living in the 48 contiguous States reporting a household size of five persons and an income of $34,000 would be classified into category D (150% of poverty or greater, but less than 185% of poverty) based on the 2002 guidelines in table VIII. A respondent living in Hawaii reporting a household size of three persons and an income of $50,000 would be classified into category F (200% of poverty or greater, but less than 300% of poverty) based on the 2002 guidelines in table X.

Respondent Reported Income Range Based on a Closed-Ended Series of Questions—When respondents did not supply a specific dollar amount for household income, it was necessary to go through a series of questions asking respondents whether the household income was below, exactly at, or above threshold amounts. A matrix was then created to categorize responses to these income cascade questions. Each cell in the matrix was assigned to one of the following income categories:

- Less than $7,500
- $7,500–$9,999
- $10,000–$12,499
- $12,500–$14,499
- $15,000–$17,499
- $17,500–$19,999
- $20,000–$24,999
- $25,000–$29,999
- $30,000–$34,999
- $35,000–$39,999
- $40,000–$44,999
- $45,000–$49,999
- $50,000–$59,999
- $60,000–$74,999
- $75,000 or higher

Respondents who went through the cascade of income questions were assigned a household poverty status by comparing the number of household members and the assigned income category with the appropriate guidelines table. For example, a respondent living in Alaska reporting a household size of two persons and an income (based on the cascade) of $30,000–$34,999 would be classified into category F (200% of poverty or greater, but less than 300% of poverty) based on the 2002 guidelines in table IX. A respondent living in the 48 contiguous States reporting a household size of four persons and an income of $75,000 or higher would be classified into category H (400% of poverty or greater) based on the 2003 guidelines in table XI.

When respondents did not complete the income cascade, either because they refused or did not know the answer to one of the cascade questions, household poverty status could not be assigned. However, such households were assumed to be at or above 300% of poverty to skip questions asked only of those households that were known to be less than 300% of poverty.

Respondent-reported income range based on revised series of cascade questions—In some cases, the income categories described above encompassed one or more income breaks for determining household poverty status. In such cases, additional income cascade questions were asked to permit definitively assigning poverty status. For these questions, "customized" income "reference" values, based on household size and State of residence, were used to obtain a range that would fit into the poverty-level table. For example, the income break indicating that a two-person household in the contiguous 48 States was below 50% of poverty, using the 2003 guidelines, was $6,060. This income break is encompassed in the income category of "less than

Table VIII. Year 2002 guidelines for poverty ranges based on total family members for families in the 48 contiguous States and the District of Columbia

Family size	Percent of Federal poverty level							
	50	100	133	150	185	200	300	400
2	$ 5,970	$11,940	$15,880	$17,910	$ 22,089	$ 23,880	$ 35,820	$ 47,760
3	$ 7,510	$15,020	$19,976	$22,530	$ 27,787	$ 30,040	$ 45,060	$ 60,080
4	$ 9,050	$18,100	$24,073	$27,150	$ 33,485	$ 36,200	$ 54,300	$ 72,400
5	$10,590	$21,180	$28,169	$31,770	$ 39,183	$ 42,360	$ 63,540	$ 84,720
6	$12,130	$24,260	$32,265	$36,390	$ 44,881	$ 48,520	$ 72,780	$ 97,040
7	$13,670	$27,340	$36,362	$41,010	$ 50,579	$ 54,680	$ 82,020	$109,360
8	$15,210	$30,420	$40,458	$45,630	$ 56,277	$ 60,840	$ 91,260	$121,680
9	$16,750	$33,500	$44,555	$50,250	$ 61,975	$ 67,000	$100,500	$134,000
10.	$18,290	$36,580	$48,651	$54,870	$ 67,673	$ 73,160	$109,740	$146,320
11.	$19,830	$39,660	$52,747	$59,490	$ 73,371	$ 79,320	$118,980	$158,640
12.	$21,370	$42,740	$56,844	$64,110	$ 79,069	$ 85,480	$128,220	$170,960
13.	$22,910	$45,820	$60,940	$68,730	$ 84,767	$ 91,640	$137,460	$183,280
14.	$24,450	$48,900	$65,037	$73,350	$ 90,465	$ 97,800	$146,700	$195,600
15.	$25,990	$51,980	$69,133	$77,970	$ 96,163	$103,960	$155,940	$207,920
16.	$27,530	$55,060	$73,229	$82,590	$101,861	$110,120	$165,180	$220,240
17.	$29,070	$58,140	$77,326	$87,210	$107,559	$116,280	$174,420	$232,560
18.	$30,610	$61,220	$81,422	$91,830	$113,257	$122,440	$183,660	$244,880

Table IX. Year 2002 guidelines for poverty ranges based on total family members for families in Alaska

Family size	Percent of Federal poverty level							
	50	100	133	150	185	200	300	400
2	$ 7,465	$14,930	$ 19,856	$ 22,395	$ 27,621	$ 29,860	$ 44,790	$ 59,720
3	$ 9,390	$18,780	$ 24,977	$ 28,170	$ 34,743	$ 37,560	$ 56,340	$ 75,120
4	$11,315	$22,630	$ 30,097	$ 33,945	$ 41,866	$ 45,260	$ 67,890	$ 90,520
5	$13,240	$26,480	$ 35,218	$ 39,720	$ 48,988	$ 52,960	$ 79,440	$105,920
6	$15,165	$30,330	$ 40,338	$ 45,495	$ 56,111	$ 60,660	$ 90,990	$121,320
7	$17,090	$34,180	$ 45,459	$ 51,270	$ 63,233	$ 68,360	$102,540	$136,720
8	$19,015	$38,030	$ 50,579	$ 57,045	$ 70,356	$ 76,060	$114,090	$152,120
9	$20,940	$41,880	$ 55,700	$ 62,820	$ 77,478	$ 83,760	$125,640	$167,520
10.	$22,865	$45,730	$ 60,820	$ 68,595	$ 84,601	$ 91,460	$137,190	$182,920
11.	$24,790	$49,580	$ 65,941	$ 74,370	$ 91,723	$ 99,160	$148,740	$198,320
12.	$26,715	$53,430	$ 71,061	$ 80,145	$ 98,846	$106,860	$160,290	$213,720
13.	$28,640	$57,280	$ 76,182	$ 85,920	$105,968	$114,560	$171,840	$229,120
14.	$30,565	$61,130	$ 81,302	$ 91,695	$113,091	$122,260	$183,390	$244,520
15.	$32,490	$64,980	$ 86,423	$ 97,470	$120,213	$129,960	$194,940	$259,920
16.	$34,415	$68,830	$ 91,543	$103,245	$127,336	$137,660	$206,490	$275,320
17.	$36,340	$72,680	$ 96,664	$109,020	$134,458	$145,360	$218,040	$290,720
18.	$38,265	$76,530	$101,784	$114,795	$141,581	$153,060	$229,590	$306,120

$7,500." Therefore, for respondents who went through the cascade and reported income less than $7,500, an additional cascade question asked whether the household income was above, at, or below $6,100 (based on rounding rules described in the note at the bottom of table XIV). If the household reported an income below $6,100, the assigned household poverty status would be Category AA (below 50% of poverty). Another scenario is: a respondent living in the 48 contiguous States reporting a household size of five persons and an income (based on the cascade) of $20,000–$24,999 would be asked whether the household income was above, at, or below $21,500 (based on 2003 guidelines and based on rounding rules described in the note at the bottom on table XIX). If the respondent reported an income below $21,500, the assigned household poverty status would be category A (50% of poverty or greater, but less than 100% of poverty).

Using DHHS guidelines, tables were developed to provide reference values for the additional income cascade questions. Reference values using 2002 guidelines were used with 2001 income from January 29, 2003, through March 4, 2003 (tables XIV–XVI). Reference values using 2003 guidelines with 2002 income were implemented on March 5, 2003 (tables XVII–XIX).

Table X. Year 2002 guidelines for poverty ranges based on total family members for families in Hawaii

Family size	Percent of Federal poverty level							
	50	100	133	150	185	200	300	400
2	$ 6,870	$13,740	$18,274	$ 20,610	$ 25,419	$ 27,480	$ 41,220	$ 54,960
3	$ 8,640	$17,280	$22,982	$ 25,920	$ 31,968	$ 34,560	$ 51,840	$ 69,120
4	$10,410	$20,820	$27,690	$ 31,230	$ 38,517	$ 41,640	$ 62,460	$ 83,280
5	$12,180	$24,360	$32,398	$ 36,540	$ 45,066	$ 48,720	$ 73,080	$ 97,440
6	$13,950	$27,900	$37,107	$ 41,850	$ 51,615	$ 55,800	$ 83,700	$111,600
7	$15,720	$31,440	$41,815	$ 47,160	$ 58,164	$ 62,880	$ 94,320	$125,760
8	$17,490	$34,980	$46,523	$ 52,470	$ 64,713	$ 69,960	$104,940	$139,920
9	$19,260	$38,520	$51,231	$ 57,780	$ 71,262	$ 77,040	$115,560	$154,080
10.	$21,030	$42,060	$55,939	$ 63,090	$ 77,811	$ 84,120	$126,180	$168,240
11.	$22,800	$45,600	$60,648	$ 68,400	$ 84,360	$ 91,200	$136,800	$182,400
12.	$24,570	$49,140	$65,356	$ 73,710	$ 90,909	$ 98,280	$147,420	$196,560
13.	$26,340	$52,680	$70,064	$ 79,020	$ 97,458	$105,360	$158,040	$210,720
14.	$28,110	$56,220	$74,772	$ 84,330	$104,007	$112,440	$168,660	$224,880
15.	$29,880	$59,760	$79,480	$ 89,640	$110,556	$119,520	$179,280	$239,040
16.	$31,650	$63,300	$84,189	$ 94,950	$117,105	$126,600	$189,900	$253,200
17.	$33,420	$66,840	$88,897	$100,260	$123,654	$133,680	$200,520	$267,360
18.	$35,190	$70,380	$93,605	$105,570	$130,203	$140,760	$211,140	$281,520

Table XI. Year 2003 guidelines for poverty ranges based on total family members for families in the 48 contiguous States and the District of Columbia

Family size	Percent of Federal poverty level							
	50	100	133	150	185	200	300	400
2	$ 6,060	$12,120	$16,119	$18,180	$ 22,422	$ 24,240	$ 36,360	$ 48,480
3	$ 7,630	$15,260	$20,295	$22,890	$ 28,231	$ 30,520	$ 45,780	$ 61,040
4	$ 9,200	$18,400	$24,472	$27,600	$ 34,040	$ 36,800	$ 55,200	$ 73,600
5	$10,770	$21,540	$28,648	$32,310	$ 39,849	$ 43,080	$ 64,620	$ 86,160
6	$12,340	$24,680	$32,824	$37,020	$ 45,658	$ 49,360	$ 74,040	$ 98,720
7	$13,910	$27,820	$37,000	$41,730	$ 51,467	$ 55,640	$ 83,460	$111,280
8	$15,480	$30,960	$41,176	$46,440	$ 57,276	$ 61,920	$ 92,880	$123,840
9	$17,050	$34,100	$45,353	$51,150	$ 63,085	$ 68,200	$102,300	$136,400
10.	$18,620	$37,240	$49,529	$55,860	$ 68,894	$ 74,480	$111,720	$148,960
11.	$20,190	$40,380	$53,705	$60,570	$ 74,703	$ 80,760	$121,140	$161,520
12.	$21,760	$43,520	$57,881	$65,280	$ 80,512	$ 87,040	$130,560	$174,080
13.	$23,330	$46,660	$62,057	$69,990	$ 86,321	$ 93,320	$139,980	$186,640
14.	$24,900	$49,800	$66,234	$74,700	$ 92,130	$ 99,600	$149,400	$199,200
15.	$26,470	$52,940	$70,410	$79,410	$ 97,939	$105,880	$158,820	$211,760
16.	$28,040	$56,080	$74,586	$84,120	$103,748	$112,160	$168,240	$224,320
17.	$29,610	$59,220	$78,762	$88,830	$109,557	$118,440	$177,660	$236,880
18.	$31,180	$62,360	$82,938	$93,540	$115,366	$124,720	$187,080	$249,440

Table XII. Year 2003 guidelines for poverty ranges based on total family members for families in Alaska

Family size	Percent of Federal poverty level							
	50	100	133	150	185	200	300	400
2	$ 7,570	$15,140	$ 20,136	$ 22,710	$ 28,009	$ 30,280	$ 45,420	$ 60,560
3	$ 9,535	$19,070	$ 25,363	$ 28,605	$ 35,280	$ 38,140	$ 57,210	$ 76,280
4	$11,500	$23,000	$ 30,590	$ 34,500	$ 42,550	$ 46,000	$ 69,000	$ 92,000
5	$13,465	$26,930	$ 35,816	$ 40,395	$ 49,821	$ 53,860	$ 80,790	$107,720
6	$15,430	$30,860	$ 41,043	$ 46,290	$ 57,091	$ 61,720	$ 92,580	$123,440
7	$17,395	$34,790	$ 46,270	$ 52,185	$ 64,362	$ 69,580	$104,370	$139,160
8	$19,360	$38,720	$ 51,497	$ 58,080	$ 71,632	$ 77,440	$116,160	$154,880
9	$21,325	$42,650	$ 56,724	$ 63,975	$ 78,903	$ 85,300	$127,950	$170,600
10.	$23,290	$46,580	$ 61,951	$ 69,870	$ 86,173	$ 93,160	$139,740	$186,320
11.	$25,255	$50,510	$ 67,178	$ 75,765	$ 93,444	$101,020	$151,530	$202,040
12.	$27,220	$54,440	$ 72,405	$ 81,660	$100,714	$108,880	$163,320	$217,760
13.	$29,185	$58,370	$ 77,632	$ 87,555	$107,985	$116,740	$175,110	$233,480
14.	$31,150	$62,300	$ 82,859	$ 93,450	$115,255	$124,600	$186,900	$249,200
15.	$33,115	$66,230	$ 88,085	$ 99,345	$122,526	$132,460	$198,690	$264,920
16.	$35,080	$70,160	$ 93,312	$105,240	$129,796	$140,320	$210,480	$280,640
17.	$37,045	$74,090	$ 98,539	$111,135	$137,067	$148,180	$222,270	$296,360
18.	$39,010	$78,020	$103,766	$117,030	$144,337	$156,040	$234,060	$312,080

Table XIII. Year 2003 guidelines for poverty ranges based on total family members for families in Hawaii

Family size	Percent of Federal poverty level							
	50	100	133	150	185	200	300	400
2	$ 6,970	$13,940	$18,540	$ 20,910	$ 25,789	$ 27,880	$ 41,820	$ 55,760
3	$ 8,775	$17,550	$23,341	$ 26,325	$ 32,468	$ 35,100	$ 52,650	$ 70,200
4	$10,580	$21,160	$28,142	$ 31,740	$ 39,146	$ 42,320	$ 63,480	$ 84,640
5	$12,385	$24,770	$32,944	$ 37,155	$ 45,825	$ 49,540	$ 74,310	$ 99,080
6	$14,190	$28,380	$37,745	$ 42,570	$ 52,503	$ 56,760	$ 85,140	$113,520
7	$15,995	$31,990	$42,546	$ 47,985	$ 59,182	$ 63,980	$ 95,970	$127,960
8	$17,800	$35,600	$47,348	$ 53,400	$ 65,860	$ 71,200	$106,800	$142,400
9	$19,605	$39,210	$52,149	$ 58,815	$ 72,539	$ 78,420	$117,630	$156,840
10.	$21,410	$42,820	$56,950	$ 64,230	$ 79,217	$ 85,640	$128,460	$171,280
11.	$23,215	$46,430	$61,751	$ 69,645	$ 85,896	$ 92,860	$139,290	$185,720
12.	$25,020	$50,040	$66,553	$ 75,060	$ 92,574	$100,080	$150,120	$200,160
13.	$26,825	$53,650	$71,354	$ 80,475	$ 99,253	$107,300	$160,950	$214,600
14.	$28,630	$57,260	$76,155	$ 85,890	$105,931	$114,520	$171,780	$229,040
15.	$30,435	$60,870	$80,957	$ 91,305	$112,610	$121,740	$182,610	$243,480
16.	$32,240	$64,480	$85,758	$ 96,720	$119,288	$128,960	$193,440	$257,920
17.	$34,045	$68,090	$90,559	$102,135	$125,967	$136,180	$204,270	$272,360
18.	$35,850	$71,700	$95,361	$107,550	$132,645	$143,400	$215,100	$286,800

Table XIV. Year 2002 reference value table for additional income cascade questions for families in the 48 contiguous States and the District of Columbia

Household size	Less than $7,500	$7,500–$9,999	$10,000–$12,499	$12,500–$14,999	$15,000–$17,499	$17,500–$19,999	$20,000–$24,999	$25,000–$29,999	$30,000–$34,999	$35,000–$39,999	$40,000–$44,999	$45,000–$49,999	$50,000–$59,999	$60,000–$74,999	$75,000 and over
							Reported range of household income								
2	6,000 (AA/A)	A	11,900 (A/B)	B	15,900 (B/C)	D	22,100/23,900 (D/E/F)	F	F	G	G	47,800 (G/H)	H	H	H
3	AA	A	A	A	B	B	22,500 (C/D)	27,800 (D/E)	F	F	F	G	G	H	H
4	AA	9,100 (AA/A)	A	A	A	18,100 (A/B)	B	27,200 (C/D)	33,500 (D/E)	36,200 (E/F)	F	F	54,300 (F/G)	72,400 (G/H)	H
5	AA	AA	10,600 (AA/A)	A	A	A	21,200 (A/B)	28,200 (B/C)	31,800 (C/D)	D	42,400 (E/F)	F	F	63,500 (F/G)	85,000 (G/H)
6	AA	AA	AA	A	A	A	A	B	32,300 (B/C)	36,400 (C/D)	D	48,500 (E/F)	F	72,800 (F/G)	95,000 (G/H)
7	AA	AA	AA	13,700 (AA/A)	A	A	A	27,300 (A/B)	B	36,400 (B/C)	41,000 (C/D)	D	54,700 (E/F)	F	80,000/110,000 (F/G/H)
8	AA	AA	AA	AA	A	A	A	A	B	B	C	D	56,300 (D/E)	F	90,000/120,000 (F/G/H)
9	AA	AA	AA	AA	16,800 (AA/A)	A	A	A	33,500 (A/B)	B	B	C	D	62,000/67,000 (D/E/F)	100,000/135,000 (F/G/H)
10	AA	AA	AA	AA	AA	18,300 (AA/A)	A	A	A	36,600 (A/B)	B	48,700 (B/C)	54,900 (C/D)	67,700/73,200 (D/E/F)	110,000/145,000 (E/F/G)
11	AA	AA	AA	AA	AA	AA	A	A	A	A	B	B	52,700 (B/C)	73,400 (D/E)	80,000/120,000 (E/F/G)
12	AA	AA	AA	AA	AA	AA	21,400 (AA/A)	A	A	A	42,700 (A/B)	B	56,800 (B/C)	64,100 (C/D)	85,000/130,000 (E/F/G)
13	AA	AA	AA	AA	AA	AA	22,900 (AA/A)	A	A	A	A	B	B	68,700 (C/D)	90,000/135,000 (E/F/G)
14	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	48,900 (A/B)	B	65,000/73,400 (B/C/D)	100,000/145,000 (E/F/G)
15	AA	AA	AA	AA	AA	AA	AA	26,000 (AA/A)	A	A	A	A	52,000 (A/B)	69,100 (B/C)	105,000/155,000 (E/F/G)
16	AA	AA	AA	AA	AA	AA	AA	27,500 (AA/A)	A	A	A	A	55,100 (A/B)	73,200 (B/C)	110,000/165,000 (E/F/G)
17	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	58,100 (A/B)	B	115,000/175,000 (E/F/G)
18	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	61,200 (A/B)	120,000/185,000 (E/F/G)

NOTE: When the reported range of household income was included with two or more poverty ranges, additional questions (W9Q12 and W9Q12A) were asked to determine the poverty range for the household. Values within the body of this table represent the border between two poverty ranges. Additional income questions were asked with this value ("Would you say this income was above or below (value)?") to identify the proper poverty range for the household. Values were rounded to the nearest $100 if income was below $75,000 and to the nearest $5,000 if income was over $75,000. When income was less than $20,000, the additional income questions were not asked if the value (i.e., the range border) was less than $900 from either endpoint of the reported range of household income. Letters rather than values signify that the reported range of household income was entirely within one poverty range. The poverty range for each letter shown is listed in the first bulleted section under "Procedures for Assigning Household Poverty Status" of "Appendix V."

Table XV. Year 2002 reference value table for additional income cascade questions for families in Alaska

Household size	Less than $7,500	$7,500–$9,999	$10,000–$12,499	$12,500–$14,999	$15,000–$17,499	$17,500–$19,999	$20,000–$24,999	$25,000–$29,999	$30,000–$34,999	$35,000–$39,999	$40,000–$44,999	$45,000–$49,999	$50,000–$59,999	$60,000–$74,999	$75,000 and over
2	AA	A	A	A	B	B	22,400 (C/D)	27,600 (D/E)	F	F	F	G	G	H	H
3	AA	9,400 (AA/A)	A	A	A	18,800 (A/B)	B	28,200 (C/D)	D	37,600 (D/E)	F	F	56,300 (F/G)	G	H
4	AA	AA	11,300 (AA/A)	A	A	A	22,600 (A/B)	B	33,900 (C/D)	D	41,900 (D/E)	F	F	67,900 (F/G)	90,000 (G/H)
5	AA	AA	AA	13,200 (AA/A)	A	A	A	26,500 (A/B)	B	C	D	49,000 (D/E)	53,000 (E/F)	F	80,000/105,000 (F/G/H)
6	AA	AA	AA	AA	A	A	A	A	B	B	C	D	56,100 (D/E)	F	90,000/120,000 (F/G/H)
7	AA	AA	AA	AA	AA	A	A	A	A	B	B	C	51,300 (C/D)	63,200/68,400 (D/E/F)	105,000/135,000 (F/G/H)
8	AA	AA	AA	AA	AA	19,000 (AA/A)	A	A	A	38,000 (A/B)	B	B	57,000 (C/D)	70,400 (D/E)	115,000/150,000 (F/G/H)
9	AA	AA	AA	AA	AA	AA	A	A	A	A	41,900 (A/B)	B	55,700 (B/C)	62,800 (C/D)	85,000/125,000 (F/G/H)
10	AA	AA	AA	AA	AA	AA	22,900 (AA/A)	A	A	A	A	B	B	68,600 (C/D)	90,000/135,000 (E/F/G)
11	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	B	65,900 (B/C)	100,000/150,000 (E/F/G)
12	AA	AA	AA	AA	AA	AA	AA	26,700 (AA/A)	A	A	A	A	53,400 (A/B)	71,100 (B/C)	105,000/160,000 (E/F/G)
13	AA	AA	AA	AA	AA	AA	AA	28,600 (AA/A)	A	A	A	A	57,300 (A/B)	B	115,000/170,000 (E/F/G)
14	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	61,100 (A/B)	120,000/185,000 (E/F/G)
15	AA	AA	AA	AA	AA	AA	AA	AA	32,500 (AA/A)	A	A	A	A	65,000 (A/B)	130,000/195,000 (E/F/G)
16	AA	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	68,800 (A/B)	140,000/205,000 (E/F/G)
17	AA	AA	AA	AA	AA	AA	AA	AA	AA	36,300 (AA/A)	A	A	A	72,700 (A/B)	145,000/220,000 (E/F/G)
18	AA	AA	AA	AA	AA	AA	AA	AA	AA	38,300 (AA/A)	A	A	A	A	155,000/230,000 (E/F/G)

With column span header: Reported range of household income (spanning all income columns).

NOTE: When the reported range of household income was included with two or more poverty ranges, additional questions (W9Q12 and W9Q12A) were asked to determine the poverty range for the household. Values within the body of this table represent the border between two poverty ranges. Additional income questions were asked with this value ("Would you say this income was above or below (value)?") to identify the proper poverty range for the household. Values were rounded to the nearest $100 if income was below $75,000 and to the nearest $5,000 if income was over $75,000. When income was less than $20,000, the additional income questions were not asked if the value (i.e., the range border) was less than $900 from either endpoint of the reported range of household income. Letters rather than values signify that the reported range of household income was entirely within one poverty range. The poverty range for each letter shown is listed in the first bulleted section under "Procedures for Assigning Household Poverty Status" of "Appendix V."

Table XVI. Year 2002 reference value table for additional income cascade questions for families in Hawaii

Household size	Reported range of household income														
	Less than $7,500	$7,500–$9,999	$10,000–$12,499	$12,500–$14,999	$15,000–$17,499	$17,500–$19,999	$20,000–$24,999	$25,000–$29,999	$30,000–$34,999	$35,000–$39,999	$40,000–$44,999	$45,000–$49,999	$50,000–$59,999	$60,000–$74,999	$75,000 and over
2	6,900 (AA/A)	A	A	13,700 (A/B)	B	18,300 (B/C)	D	27,500 (E/F)	F	F	41,200 (F/G)	G	55,000 (G/H)	H	H
3	AA	8,600 (AA/A)	A	A	A	B	23,000 (B/C)	D	32,000 (D/E)	F	F	F	51,800 (F/G)	69,100 (G/H)	H
4	AA	AA	A	A	A	A	B	27,700 (B/C)	31,200 (C/D)	38,500 (D/E)	41,600 (E/F)	F	F	62,500 (F/G)	85,000 (G/H)
5	AA	AA	AA	A	A	A	A	B	32,400 (B/C)	36,500 (C/D)	D	48,700 (E/F)	F	73,100 (F/G)	95,000 (G/H)
6	AA	AA	AA	14,000 (AA/A)	A	A	A	27,900 (A/B)	B	37,100 (B/C)	41,900 (C/D)	D	51,600/ 55,800 (D/E/F)	F	85,000/ 110,000 (F/G/H)
7	AA	AA	AA	AA	15,700 (AA/A)	A	A	A	31,400 (A/B)	B	41,800 (B/C)	47,200 (C/D)	58,200 (D/E)	62,900 (E/F)	95,000/ 125,000 (F/G/H)
8	AA	AA	AA	AA	AA	A	A	A	A	B	B	46,500 (B/C)	52,500 (C/D)	64,700/ 70,000 (D/E/F)	105,000/ 140,000 (F/G/H)
9	AA	AA	AA	AA	AA	19,300 (AA/A)	A	A	A	38,500 (A/B)	B	B	51,200/ 57,800 (B/C/D)	71,300 (D/E)	115,000/ 155,000 (F/G/H)
10	AA	AA	AA	AA	AA	AA	21,000 (AA/A)	A	A	A	42,100 (A/B)	B	55,900 (B/C)	63,100 (C/D)	85,000/ 125,000 (E/F/G)
11	AA	AA	AA	AA	AA	AA	22,800 (AA/A)	A	A	A	A	B	B	68,400 (C/D)	90,000/ 135,000 (E/F/G)
12	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	B	65,400/ 73,700 (B/C/D)	100,000/ 145,000 (E/F/G)
13	AA	AA	AA	AA	AA	AA	AA	26,300 (AA/A)	A	A	A	A	52,700 (A/B)	70,100 (B/C)	105,000/ 160,000 (E/F/G)
14	AA	AA	AA	AA	AA	AA	AA	28,100 (AA/A)	A	A	A	A	56,200 (A/B)	B	110,000/ 170,000 (E/F/G)
15	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	B	120,000/ 180,000 (E/F/G)
16	AA	AA	AA	AA	AA	AA	AA	AA	31,700 (AA/A)	A	A	A	A	63,300 (A/B)	125,000/ 190,000 (E/F/G)
17	AA	AA	AA	AA	AA	AA	AA	AA	33,400 (AA/A)	A	A	A	A	66,800 (A/B)	135,000/ 200,000 (E/F/G)
18	AA	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	70,400 (A/B)	140,000/ 210,000 (E/F/G)

NOTE: When the reported range of household income was included with two or more poverty ranges, additional questions (W9Q12 and W9Q12A) were asked to determine the poverty range for the household. Values within the body of this table represent the border between two poverty ranges. Additional income questions were asked with this value ("Would you say this income was above or below (value)?") to identify the proper poverty range for the household. Values were rounded to the nearest $100 if income was below $75,000 and to the nearest $5,000 if income was over $75,000. When income was less than $20,000, the additional income questions were not asked if the value (i.e., the range border) was less than $900 from either endpoint of the reported range of household income. Letters rather than values signify that the reported range of household income was entirely within one poverty range. The poverty range for each letter shown is listed in the first bulleted section under "Procedures for Assigning Household Poverty Status" of "Appendix V."

Table XVII. Year 2003 reference value table for additional income cascade questions for families in the 48 contiguous States and the District of Columbia

Household size	Reported range of household income														
	Less than $7,500	$7,500–$9,999	$10,000–$12,499	$12,500–$14,999	$15,000–$17,499	$17,500–$19,999	$20,000–$24,999	$25,000–$29,999	$30,000–$34,999	$35,000–$39,999	$40,000–$44,999	$45,000–$49,999	$50,000–$59,999	$60,000–$74,999	$75,000 and over
2	6,100 (AA/A)	A	A	B	16,100 (B/C)	18,200 (C/D)	22,400 (D/E)	F	F	36,400 (F/G)	G	48,500 (G/H)	H	H	H
3	AA	A	A	A	B	B	22,900 (C/D)	28,200 (D/E)	F	F	F	G	G	61,000 (G/H)	H
4	AA	9,200 (AA/A)	A	A	A	18,400 (A/B)	B	27,600 (C/D)	34,000 (D/E)	36,800 (E/F)	F	F	55,200 (F/G)	73,600 (G/H)	H
5	AA	AA	10,800 (AA/A)	A	A	A	21,500 (A/B)	28,600 (B/C)	32,300 (C/D)	D	43,100 (E/F)	F	F	64,600 (F/G)	85,000 (G/H)
6	AA	AA	AA	A	A	A	A	B	32,800 (B/C)	37,000 (C/D)	D	E	F	74,000 (F/G)	100,000 (G/H)
7	AA	AA	AA	13,900 (AA/A)	A	A	A	27,800 (A/B)	B	37,000 (B/C)	41,700 (C/D)	D	51,500/ 55,600 (D/E/F)	F	85,000/ 110,000 (F/G/H)
8	AA	AA	AA	AA	A	A	A	A	31,000 (A/B)	B	41,200 (B/C)	46,400 (C/D)	57,300 (D/E)	61,900 (E/F)	95,000/ 125,000 (F/G/H)
9	AA	AA	AA	AA	AA	A	A	A	A	B	B	C	51,200 (C/D)	63,100/ 68,200 (D/E/F)	100,000/ 135,000 (F/G/H)
10	AA	AA	AA	AA	AA	18,600 (AA/A)	A	A	A	37,200 (A/B)	B	B	55,900 (C/D)	68,900 (D/E)	110,000/ 150,000 (F/G/H)
11	AA	AA	AA	AA	AA	AA	A	A	A	A	B	B	53,700 (B/C)	D	80,000/ 120,000 (E/F/G)
12	AA	AA	AA	AA	AA	AA	21,800 (AA/A)	A	A	A	43,500 (A/B)	B	57,900 (B/C)	65,300 (C/D)	85,000/ 130,000 (E/F/G)
13	AA	AA	AA	AA	AA	AA	23,300 (AA/A)	A	A	A	A	46,700 (A/B)	B	62,100/ 70,000 (B/C/D)	95,000/ 140,000 (E/F/G)
14	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	B	66,200 (B/C)	100,000/ 150,000 (E/F/G)
15	AA	AA	AA	AA	AA	AA	AA	26,500 (AA/A)	A	A	A	A	52,900 (A/B)	70,400 (B/C)	105,000/ 160,000 (E/F/G)
16	AA	AA	AA	AA	AA	AA	AA	28,000 (AA/A)	A	A	A	A	56,100 (A/B)	B	110,000/ 170,000 (E/F/G)
17	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	B	120,000/ 180,000 (E/F/G)
18	AA	AA	AA	AA	AA	AA	AA	AA	31,200 (AA/A)	A	A	A	A	62,400 (A/B)	125,000/ 185,000 (E/F/G)

NOTE: When the reported range of household income was included with two or more poverty ranges, additional questions (W9Q12 and W9Q12A) were asked to determine the poverty range for the household. Values within the body of this table represent the border between two poverty ranges. Additional income questions were asked with this value ("Would you say this income was above or below (value)?") to identify the proper poverty range for the household. Values were rounded to the nearest $100 if income was below $75,000 and to the nearest $5,000 if income was over $75,000. When income was less than $20,000, the additional income questions were not asked if the value (i.e., the range border) was less than $900 from either endpoint of the reported range of household income. Letters rather than values signify that the reported range of household income was entirely within one poverty range. The poverty range for each letter shown is listed in the first bulleted section under "Procedures for Assigning Household Poverty Status" of "Appendix V."

Table XVIII. Year 2003 reference value table for additional income cascade questions for families in Alaska

Household size	Less than $7,500	$7,500–$9,999	$10,000–$12,499	$12,500–$14,999	$15,000–$17,499	$17,500–$19,999	$20,000–$24,999	$25,000–$29,999	$30,000–$34,999	$35,000–$39,999	$40,000–$44,999	$45,000–$49,999	$50,000–$59,999	$60,000–$74,999	$75,000 and over
2	AA	A	A	A	B	B	22,700 (C/D)	28,000 (D/E)	F	F	F	G	57,200 G	H	H
3	AA	AA	A	A	A	19,100 (A/B)	B	28,600 (C/D)	D	38,100 (E/F)	F	F	57,200 (F/G)	G	H
4	AA	AA	11,500 (AA/A)	A	A	A	23,000 (A/B)	B	C	D	42,600 (D/E)	46,000 (E/F)	F	69,000 (F/G)	90,000 (G/H)
5	AA	AA	AA	13,500 (AA/A)	A	A	A	26,900 (A/B)	B	C	D	D	53,900 (E/F)	F	80,000/110,000 (F/G/H)
6	AA	AA	AA	AA	A	A	A	A	B	B	41,000 (B/C)	46,300 (C/D)	57,100 (D/E)	61,700 (E/F)	95,000/125,000 (F/G/H)
7	AA	AA	AA	AA	AA	A	A	A	A	B	B	46,300 (B/C)	52,200 (C/D)	64,400/69,600 (D/E/F)	105,000/140,000 (F/G/H)
8	AA	AA	AA	AA	AA	19,400 (AA/A)	A	A	A	38,700 (A/B)	B	B	51,500/58,100 (B/C/D)	71,600 (D/E)	115,000/155,000 (F/G/H)
9	AA	AA	AA	AA	AA	AA	21,300 (AA/A)	A	A	A	42,700 (A/B)	B	56,700/58,100 (B/C)	64,000 (C/D)	85,000/130,000 (E/F/G)
10	AA	AA	AA	AA	AA	AA	23,300 (AA/A)	A	A	A	A	46,600 (A/B)	B	62,000/69,900 (B/C/D)	95,000/140,000 (E/F/G)
11	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	B	67,200 (B/C)	100,000/150,000 (E/F/G)
12	AA	AA	AA	AA	AA	AA	AA	27,200 (AA/A)	A	A	A	A	54,400 (A/B)	72,400 (B/C)	110,000/165,000 (E/F/G)
13	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	58,400 (A/B)	B	115,000/175,000 (E/F/G)
14	AA	AA	AA	AA	AA	AA	AA	AA	31,200 (AA/A)	A	A	A	A	62,300 (A/B)	125,000/185,000 (E/F/G)
15	AA	AA	AA	AA	AA	AA	AA	AA	33,100 (AA/A)	A	A	A	A	66,200 (A/B)	140,000/210,000 (E/F/G)
16	AA	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	70,200 (A/B)	150,000/220,000 (E/F/G)
17	AA	AA	AA	AA	AA	AA	AA	AA	AA	37,000 (AA/A)	A	A	A	A	150,000/220,000 (E/F/G)
18	AA	AA	AA	AA	AA	AA	AA	AA	AA	39,000 (AA/A)	A	A	A	A	155,000/235,000 (E/F/G)

NOTE: When the reported range of household income was included with two or more poverty ranges, additional questions (W9Q12 and W9Q12A) were asked to determine the poverty range for the household. Values within the body of this table represent the border between two poverty ranges. Additional income questions were asked with this value ("Would you say this income was above or below (value)?") to identify the proper poverty range for the household. Values were rounded to the nearest $100 if income was below $75,000 and to the nearest $5,000 if income was over $75,000. When income was less than $20,000, the additional income questions were not asked if the value (i.e., the range border) was less than $900 from either endpoint of the reported range of household income. Letters rather than values signify that the reported range of household income was entirely within one poverty range. The poverty range for each letter shown is listed in the first bulleted section under "Procedures for Assigning Household Poverty Status" of "Appendix V."

Table XIX. Year 2003 reference value table for additional income cascade questions for families in Hawaii

Household size	Reported range of household income														
	Less than $7,500	$7,500–$9,999	$10,000–$12,499	$12,500–$14,999	$15,000–$17,499	$17,500–$19,999	$20,000–$24,999	$25,000–$29,999	$30,000–$34,999	$35,000–$39,999	$40,000–$44,999	$45,000–$49,999	$50,000–$59,999	$60,000–$74,999	$75,000 and over
2	A	A	A	13,900 (A/B)	B	18,500 (B/C)	D	27,900 (E/F)	F	F	41,800 (F/G)	G	55,800 (G/H)	H	H
3	AA	8,800 (AA/A)	A	A	A	B	23,300 (B/C)	26,300 (C/D)	32,500 (D/E)	F	F	F	52,700 (F/G)	70,200 (G/H)	H
4	AA	AA	10,600 (AA/A)	A	A	A	21,200 (A/B)	28,100 (B/C)	31,700 (C/D)	D	42,300 (E/F)	F	F	63,500 (F/G)	85,000 (G/H)
5	AA	AA	AA	A	A	A	A	B	32,900 (B/C)	37,200 (C/D)	D	E	F	F	100,000 (G/H)
6	AA	AA	AA	14,200 (AA/A)	A	A	A	28,400 (A/B)	B	37,700 (B/C)	42,600 (C/D)	D	52,500/ 56,800 (D/E/F)	F	85,000/ 115,000 (F/G/H)
7	AA	AA	AA	AA	16,000 (AA/A)	A	A	A	32,000 (A/B)	B	42,500 (B/C)	48,000 (C/D)	D	64,000 (E/F)	95,000/ 130,000 (F/G/H)
8	AA	AA	AA	AA	AA	A	A	A	A	B	B	47,300 (B/C)	53,400 (C/D)	65,900/ 71,200 (D/E/F)	105,000/ 140,000 (F/G/H)
9	AA	AA	AA	AA	AA	AA	A	A	A	A	B	B	52,100/ 58,800 (B/C/D)	72,500 (D/E)	80,000/ 120,000 (F/G/H)
10.	AA	AA	AA	AA	AA	AA	21,400 (AA/A)	A	A	A	42,800 (A/B)	B	57,000 (B/C)	64,200 (C/D)	85,000/ 130,000 (F/G/H)
11.	AA	AA	AA	AA	AA	AA	23,200 (AA/A)	A	A	A	A	46,400 (A/B)	B	61,800/ 69,600 (B/C/D)	95,000/ 140,000 (F/G/H)
12.	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	B	66,600 (B/C)	100,000/ 150,000 (F/G/H)
13.	AA	AA	AA	AA	AA	AA	AA	26,800 (AA/A)	A	A	A	A	53,700 (A/B)	71,400 (B/C)	105,000/ 160,000 (F/G/H)
14.	AA	AA	AA	AA	AA	AA	AA	28,600 (AA/A)	A	A	A	A	57,300 (A/B)	B	115,000/ 170,000 (F/G/H)
15.	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	A	B	120,000/ 185,000 (F/G/H)
16.	AA	AA	AA	AA	AA	AA	AA	AA	32,200 (AA/A)	A	A	A	A	64,500 (A/B)	130,000/ 195,000 (F/G/H)
17.	AA	AA	AA	AA	AA	AA	AA	AA	34,000 (AA/A)	A	A	A	A	68,100 (A/B)	135,000/ 205,000 (F/G/H)
18.	AA	AA	AA	AA	AA	AA	AA	AA	AA	A	A	A	A	71,700 (A/B)	145,000/ 215,000 (F/G/H)

NOTE: When the reported range of household income was included with two or more poverty ranges, additional questions (W9Q12 and W9Q12A) were asked to determine the poverty range for the household. Values within the body of this table represent the border between two poverty ranges. Additional income questions were asked with this value ("Would you say this income was above or below (value)?") to identify the proper poverty range for the household. Values were rounded to the nearest $100 if income was below $75,000 and to the nearest $5,000 if income was over $75,000. When income was less than $20,000, the additional income questions were not asked if the value (i.e., the range border) was less than $900 from either endpoint of the reported range of household income. Letters rather than values signify that the reported range of household income was entirely within one poverty range. The poverty range for each letter shown is listed in the first bulleted section under "Procedures for Assigning Household Poverty Status" of "Appendix V."

Appendix VI

Letters Sent To Sampled Households

Advance Letter for January–March 2003

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

FROM THE DIRECTOR
NATIONAL CENTER FOR HEALTH STATISTICS

Within the next few weeks, your household will be called to take part in an important national study being conducted by the **U.S. Department of Health and Human Services**. This study provides important information for measuring the progress of vaccination for young children for the country.

Childhood immunization rates are at an all-time high of 78%, but many children have not received all of their immunizations. The Department of Health and Human Services is committed to improving immunization services and reducing the costs of vaccines. Local, state, and federal health authorities depend on the results of this study to measure the progress of immunization for the country.

The results of this study also help local, state, and federal health authorities understand how to improve health care services for all children. Therefore, some households may be asked questions about the types of health and related services their children need or use.

You may call Jim Murphy at the study's toll-free telephone number (1-800-290-1296) to participate immediately or to obtain more information about the study's background and content. You may also visit the study's web site at http://www.cdc.gov/nis for more information. If you have a child between 18 and 35 months of age, please take a moment to locate the child's immunization records. They will help you during the interview.

We are relying on your help to make this study a success. Although participation is completely voluntary and there is no penalty for not answering any question, we hope you will agree to participate. The information we are gathering will help shape health care policy in the years ahead.

If you would like to learn more about your rights as a respondent, please call the office of the Institutional Review Board at the National Center for Health Statistics, toll-free, at 1-800-223-8118. Please leave a brief message with your name and phone number. Say that you are calling about Protocol #2000-17. Your call will be returned as soon as possible.

Your telephone number was selected at random using scientific methods, and your address was obtained through commercial listings. When the interviewer calls, you will be asked a few questions to determine whether or not your household is eligible for participation in this study.

We appreciate your taking the time to talk to us. Thank you for your assistance.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

If you prefer to contact us using a TTY, please call the AT&T Relay Service at 1-800-682-8786 and request that 1-800-290-1296 be called.

Advance Letter for April–December 2003

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

FROM THE DIRECTOR
NATIONAL CENTER FOR HEALTH STATISTICS

Within the next few weeks, your household will be called to take part in an important national study being conducted by the **U.S. Department of Health and Human Services**. This study provides important information for measuring the progress of vaccination for young children for the country.

Childhood immunization rates are at an all-time high of 78%, but many children have not received all of their immunizations. The Department of Health and Human Services is committed to improving immunization services and reducing the costs of vaccines. Local, state, and federal health authorities depend on the results of this study to measure the progress of immunization for the country.

The results of this study also help local, state, and federal health authorities understand how to improve health care services for all children. Therefore, some households may be asked questions about the types of health and related services their children need or use.

You may call Jim Murphy at the study's toll-free telephone number (1-800-290-1296) to participate immediately or to obtain more information about the study's background and content. You may also visit the study's web site at http://www.cdc.gov/nis for more information. If you have a child between 18 and 35 months of age, please take a moment to locate the child's immunization records. They will help you during the interview.

We are relying on your help to make this study a success. Although participation is completely voluntary and there is no penalty for not answering any question, we hope you will agree to participate. The information we are gathering will help shape health care policy in the years ahead.

If you would like to learn more about your rights as a respondent, please call the office of the Institutional Review Board at the National Center for Health Statistics, toll-free, at 1-800-223-8118. Please leave a brief message with your name and phone number. Say that you are calling about Protocol #2000-17. Your call will be returned as soon as possible.

Your telephone number was selected at random using scientific methods, and your address was obtained through commercial listings. When the interviewer calls, you will be asked a few questions to determine whether or not your household is eligible for participation in this study.

This study is authorized by the Public Health Service Act, and by law, information you provide during the interview will be kept strictly confidential. The information reported in this survey will be summarized for research purposes only.

We appreciate your taking the time to talk to us. Thank you for your assistance.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

If you prefer to contact us using a TTY, please call the AT&T Relay Service at 1-800-682-8786 and request that 1-800-290-1296 be called.

Advance Letter when Incentives were Offered (Group A)

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Dear Parent or Guardian,

The CDC needs your help!

Recently, your family was asked to participate in the National Survey of Children's Health. Information about your child and others will help the Centers for Disease Control and Prevention develop programs to promote the health of children in [FILL STATE] and throughout the United States.

We hope you will share this important information with us by telephone when an interviewer calls to ask you to participate in the study. If you would like to participate immediately, please call the toll-free telephone number 1-877-587-1354.

Your household is very important to the study because it has been scientifically selected and cannot be replaced. All information collected for this study is confidential and protected by federal law. The back of this letter provides answers to some questions you might have and ways to get additional information about the survey.

Thank you very much for your help with this important research.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

P.S. In appreciation for your time and effort, we have enclosed $5.00. When you complete the interview, we will send an additional $20.00.

Advance Letter when Incentives were Offered (Group B)

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Dear Parent or Guardian,

The CDC needs your help!

Recently, your family was asked to participate in the National Survey of Children's Health. Information about your child and others will help the Centers for Disease Control and Prevention develop programs to promote the health of children in [FILL STATE] and throughout the United States.

We hope you will share this important information with us by telephone when an interviewer calls to ask you to participate in the study. If you would like to participate immediately, please call the toll-free telephone number 1-877-587-1354.

Your household is very important to the study because it has been scientifically selected and cannot be replaced. All information collected for this study is confidential and protected by federal law. The back of this letter provides answers to some questions you might have and ways to get additional information about the survey.

Thank you very much for your help with this important research.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

P.S. When you complete the interview, we will send you $25.00 in appreciation for your participation.

Advance Letter when Incentives were Offered (Group D)

DEPARTMENT OF HEALTH & HUMAN SERVICES

**Public Health Service
Centers for Disease Control and Prevention**

**National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782**

Dear Parent or Guardian,

The CDC needs your help!

Recently, your family was asked to participate in the National Survey of Children's Health. Information about your child and others will help the Centers for Disease Control and Prevention develop programs to promote the health of children in [FILL STATE] and throughout the United States.

We hope you will share this important information with us by telephone when an interviewer calls to ask you to participate in the study. If you would like to participate immediately, please call the toll-free telephone number 1-877-587-1354.

Your household is very important to the study because it has been scientifically selected and cannot be replaced. All information collected for this study is confidential and protected by federal law. The back of this letter provides answers to some questions you might have and ways to get additional information about the survey.

Thank you very much for your help with this important research.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

P.S. In appreciation for your time and effort, we have enclosed $5.00. When you complete the interview, we will send an additional $10.00.

Advance Letter when Incentives were Offered (Group E)

DEPARTMENT OF HEALTH & HUMAN SERVICES   Public Health Service
                                             Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Dear Parent or Guardian,

The CDC needs your help!

Recently, your family was asked to participate in the National Survey of Children's Health. Information about your child and others will help the Centers for Disease Control and Prevention develop programs to promote the health of children in [FILL STATE] and throughout the United States.

We hope you will share this important information with us by telephone when an interviewer calls to ask you to participate in the study. If you would like to participate immediately, please call the toll-free telephone number 1-877-587-1354.

Your household is very important to the study because it has been scientifically selected and cannot be replaced. All information collected for this study is confidential and protected by federal law. The back of this letter provides answers to some questions you might have and ways to get additional information about the survey.

Thank you very much for your help with this important research.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

P.S. When you complete the interview, we will send you $15.00 in appreciation for your participation.

Thank You Letter (Group A)

DEPARTMENT OF HEALTH & HUMAN SERVICES   Public Health Service
                                                                              Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Dear Parent or Guardian,

Thank you for your participation in the National Survey of Children's Health. The information that you provided about your child will help the Centers for Disease Control and Prevention develop programs to promote the health of children in [FILL STATE] and throughout the United States.

In appreciation for the time and effort you spent answering our questions, we are enclosing $20.

If you would like more information about the National Survey of Children's Health, you can visit the study's web site at http://www.cdc.gov/nchs/about/major/slaits/nsch.htm or call the toll-free telephone number for the study at 1-800-877-587-1354.

Thank you again for your help with this important research.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

Thank You Letter (Groups B and C)

DEPARTMENT OF HEALTH & HUMAN SERVICES   Public Health Service
Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Dear Parent or Guardian,

Thank you for your participation in the National Survey of Children's Health. The information that you provided about your child will help the Centers for Disease Control and Prevention develop programs to promote the health of children in [FILL STATE] and throughout the United States.

In appreciation for the time and effort you spent answering our questions, we are enclosing $25.

If you would like more information about the National Survey of Children's Health, you can visit the study's web site at http://www.cdc.gov/nchs/about/major/slaits/nsch.htm or call the toll-free telephone number for the study at 1-800-877-587-1354.

Thank you again for your help with this important research.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

Thank You Letter (Group D)

DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Dear Parent or Guardian,

Thank you for your participation in the National Survey of Children's Health. The information that you provided about your child will help the Centers for Disease Control and Prevention develop programs to promote the health of children in [FILL STATE] and throughout the United States.

In appreciation for the time and effort you spent answering our questions, we are enclosing $10.

If you would like more information about the National Survey of Children's Health, you can visit the study's web site at http://www.cdc.gov/nchs/about/major/slaits/nsch.htm or call the toll-free telephone number for the study at 1-800-877-587-1354.

Thank you again for your help with this important research.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

Thank You Letter (Groups E and F)

DEPARTMENT OF HEALTH & HUMAN SERVICES   Public Health Service
                                              Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Dear Parent or Guardian,

Thank you for your participation in the National Survey of Children's Health. The information that you provided about your child will help the Centers for Disease Control and Prevention develop programs to promote the health of children in [FILL STATE] and throughout the United States.

In appreciation for the time and effort you spent answering our questions, we are enclosing $15.

If you would like more information about the National Survey of Children's Health, you can visit the study's web site at http://www.cdc.gov/nchs/about/major/slaits/nsch.htm or call the toll-free telephone number for the study at 1-800-877-587-1354.

Thank you again for your help with this important research.

Sincerely,

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics
Centers for Disease Control and Prevention

Appendix VII

Disposition Code Frequencies and Response Rate Calculations

Table XX. Frequencies of disposition codes for National Survey of Children's Health

Disposition code by name	Disposition category	Frequency	Percent of total
Total number of phone lines in sample		1,872,194	100.00
No contact	UH	147,257	7.87
3 or more fax/modem prior to any contact	Z	28,275	1.51
2 or more temporarily not in service	Z	32,791	1.75
Nonworking number	Z	111,916	5.98
Number changed	Z	8,290	0.44
Answering machine—known household	UO	2,916	0.16
Answering machine—nonresidential.	Z	13,504	0.72
Answering machine—residential status unknown	UH	42,620	2.28
Answering service—known household	UO	3	<0.005
Answering service—nonresidential	Z	172	0.01
Answering service—residential status unknown.	UH	97	0.01
Spanish case—residential status unknown	UH	188	0.01
Other language case—residential status unknown	UH	666	0.04
Physical/mental impairment case—residential status unknown	UH	1,148	0.06
Appointment at introduction—residential status unknown	UH	7,379	0.39
Callback at introduction—residential status unknown	UH	213	0.01
Broken appointment at introduction—residential status unknown	UH	1,738	0.09
Hang-up during introduction.	UH	32,633	1.74
Refusal at introduction	UH	60,261	3.22
Callback—known household	UO	9,860	0.53
Appointment—known household	UO	1,637	0.09
Broken appointment—known household	UO	1,632	0.09
Refusal—known household	UO	16,373	0.87
NIS-level callback	R	199	0.01
NIS-level appointment	R	85	<0.005
NIS-level broken appointment.	R	43	<0.005
NIS-level refusal.	R	2,591	0.14
Not residential	Z	58,324	3.12
Refusal prior to NSCH Item S_UNDR18	UO	4,542	0.24
Callback prior to NSCH Item S_UNDR18	UO	265	0.01
Appointment prior to NSCH Item S_UNDR18	UO	79	<0.005
Refusal at or prior to NSCH Item S8Q1	R	32,303	1.73
Callback at or prior to NSCH Item S8Q1.	R	5,406	0.29
Appointment at or prior to NSCH Item S8Q1	R	2,925	0.16
Refusal—partial interview	P	144	0.01
Callback—partial interview.	P	44	<0.005
Broken appointment—partial interview	P	17	<0.005
Appointment—partial interview	P	842	0.04
Other language case—known household, unknown age eligibility.	UO	213	0.01
Other language case—known age-eligible household	Y	2,446	0.13
Screened—emancipated minor household[1]	R	633	0.03
Screened—no age-eligible children	X	366,454	19.57
Completed household interview	I	91,799	4.90
Converted household interview	I	9,507	0.51
GENESYS ID*plus*-resolved numbers (nonworking, business, and modem numbers)	Z	771,764	41.22

[1]Interviews were not conducted in households in which no one over the age of 17 resided.

NOTE: NIS is National Immunization Survey. NSCH is National Survey of Children's Health.

Table XXI. Unweighted response rate calculations for National Survey of Children's Health

Disposition categories and response rates	Frequency or calculated rate	Code or formula
Summary of disposition categories		
Completed interviews at the household level	101,306	I
Partial interviews at the household level	1,047	P
Unknown residential status	294,200	UH
Known household, unknown age eligibility	37,520	UO
Refusal, screened and eligible household	44,185	R
Known household screened for age eligibility, no eligible child	366,454	X
Known age-eligible household, other language	2,446	Y
Out of scope (i.e., business, nonworking, fax/modem).	1,025,036	Z
Total	1,872,194	
Calculation of response rates		
Child-level interview completion rate (ICR).	68.7	(I+P) / (I+P+R+Y)
Screener completion rate (SCR)	93.2	(I+P+R+X+Y) / (I+P+R+X+Y+UO)
Resolution rate (RR)	84.3	(I+P+R+X+Y+UO+Z) / (I+P+R+X+Y+UO+Z+UH)
Overall response rate.	54.0	(ICR)(SCR)(RR)

Appendix VIII

Prevalence Estimates and Weighted Frequencies for Respondent-Assessed Health Status

Table XXII. Unweighted and weighted estimates of the frequency and prevalence of children with excellent or very good health as assessed by the survey respondent

State	Total unweighted number of children	Total weighted estimate of number of children	Unweighted number of children with excellent or very good health	Weighted estimate of number of children with excellent or very good health	Standard error of weighted estimate of number of children with excellent or very good health	Percent of children who have excellent or very good health[1]	Standard error of percent of children who have excellent or very good health
Total	102,353	72,736,965	89,155	61,141,289.0	238,338.283	84.06	0.223
Alabama	2,167	1,104,146	1,870	916,159.3	17,343.196	82.97	1.101
Alaska	1,904	188,239	1,707	165,845.4	2,935.371	88.10	0.960
Arizona	1,919	1,512,819	1,549	1,220,631.9	24,192.452	80.69	1.044
Arkansas	1,878	678,939	1,572	557,118.1	10,856.560	82.06	1.116
California	2,223	9,378,237	1,715	7,268,304.0	150,698.579	77.50	1.080
Colorado	1,855	1,147,831	1,624	994,202.3	17,718.060	86.62	0.934
Connecticut	2,146	832,105	1,918	726,341.2	11,772.268	87.29	0.927
Delaware	2,156	198,401	1,857	169,066.4	2,888.884	85.21	0.939
District of Columbia	2,049	107,485	1,744	88,740.8	2,011.263	82.56	1.124
Florida	2,116	3,907,632	1,835	3,365,485.4	63,721.009	86.13	0.951
Georgia	1,864	2,287,060	1,605	1,953,122.1	39,316.975	85.40	1.059
Hawaii	2,021	269,099	1,774	256,360.6	5,033.035	86.58	1.006
Idaho	1,861	370,344	1,641	322,512.3	5,067.459	87.09	0.909
Illinois	2,158	3,220,883	1,848	2,682,017.6	47,904.027	83.27	1.053
Indiana	1,874	1,596,856	1,652	1,398,016.4	24,459.503	87.55	0.984
Iowa	1,949	689,667	1,732	607,804.8	9,342.323	88.13	0.859
Kansas	1,849	692,847	1,620	597,733.6	10,541.863	86.27	1.007
Kentucky	1,953	990,015	1,718	860,028.9	15,412.071	86.87	0.961
Louisiana	2,241	1,172,697	1,900	963,576.9	18,432.587	82.17	1.084
Maine	1,920	285,571	1,759	259,116.1	4,061.794	90.74	0.804
Maryland	2,128	1,373,206	1,886	1,206,110.6	20,393.539	87.83	0.887
Massachusetts	2,114	1,481,121	1,905	1,313,987.5	21,122.101	88.72	0.889
Michigan	2,191	2,527,842	1,907	2,148,036.4	34,582.449	84.98	0.982
Minnesota	1,864	1,244,377	1,699	1,124,432.0	18,784.082	90.36	0.827
Mississippi	2,035	757,175	1,714	611,023.0	12,612.632	80.70	1.184
Missouri	2,220	1,401,584	1,977	1,231,625.7	19,430.346	87.87	0.870
Montana	1,941	214,360	1,757	193,141.3	3,039.925	90.10	0.832
Nebraska	1,874	438,253	1,643	378,828.4	6,587.097	86.44	1.001
Nevada	2,064	579,030	1,665	460,819.6	8,188.231	79.59	1.048
New Hampshire	1,925	305,278	1,778	279,701.3	3,997.239	91.62	0.729
New Jersey	2,113	2,125,387	1,815	1,793,562.2	31,149.604	84.39	1.002
New Mexico	1,848	499,905	1,535	409,326.1	8,770.659	81.88	1.123
New York	2,021	4,503,196	1,726	3,742,722.2	70,052.261	83.11	1.076
North Carolina	2,084	2,080,668	1,800	1,777,942.8	31,249.104	85.45	0.968
North Dakota	1,955	146,143	1,777	132,650.8	2,131.636	90.77	0.765
Ohio	2,241	2,807,666	2,003	2,497,255.1	38,182.740	88.94	0.814
Oklahoma	1,937	874,700	1,671	754,705.8	13,749.660	86.28	0.950
Oregon	1,969	845,439	1,709	732,704.9	11,998.504	86.67	0.893
Pennsylvania	2,200	2,815,445	1,954	2,460,764.9	39,996.986	87.40	0.909
Rhode Island	2,019	242,682	1,751	210,634.5	3,918.896	86.79	0.919
South Carolina	2,157	1,019,067	1,823	841,263.3	14,644.388	82.55	1.044
South Dakota	1,868	192,623	1,661	171,360.7	3,306.709	88.96	0.916

See footnotes at end of table.

Table XXII. Unweighted and weighted estimates of the frequency and prevalence of children with excellent or very good health as assessed by the survey respondent—Con.

State	Total unweighted number of children	Total weighted estimate of number of children	Unweighted number of children with excellent or very good health	Weighted estimate of number of children with excellent or very good health	Standard error of weighted estimate of number of children with excellent or very good health	Percent of children who have excellent or very good health[1]	Standard error of percent of children who have excellent or very good health
Tennessee	1,922	1,388,714	1,675	1,186,178.0	22,587.762	85.42	1.035
Texas	2,179	6,217,276	1,735	4,797,216.0	85,827.667	77.16	1.105
Utah	1,483	739,705	1,320	659,881.9	11,659.938	89.21	0.921
Vermont	1,902	137,011	1,781	127,581.1	2,098.580	93.12	0.710
Virginia	2,179	1,792,362	1,966	1,614,832.3	25,997.231	90.10	0.793
Washington	1,932	1,491,391	1,689	1,303,469.0	22,213.131	87.40	0.879
West Virginia	2,022	389,291	1,734	327,861.9	5,532.279	84.22	1.025
Wisconsin	1,970	1,327,839	1,759	1,172,186.3	20,148.526	88.28	0.910
Wyoming	1,893	120,356	1,700	107,299.7	1,489.658	89.15	0.844

[1]Denominator includes children for whom health status was not reported, because the respondent did not know or refused to answer the health status question or because the question was erroneously omitted from the interview.

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