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Program and Collection Procedures

Design and Operation of the National Survey of Adoptive Parents of Children with Special Health Care Needs, 2008

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Abstract

Objective

This report presents the development, plan, and operation of the National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN), a module of the State and Local Area Integrated Telephone Survey, conducted by the Centers for Disease Control and Prevention's National Center for Health Statistics. This survey was designed to produce national estimates of the characteristics, health, and well-being of adopted children with special health care needs (CSHCN) and their families, the pre-adoption experiences of the adoptive parents, and their access to and utilization of post-adoption supports and services. Funding for this survey was provided by the Office of the Assistant Secretary for Planning and Evaluation and the Administration for Children and Families, both of the U.S. Department of Health and Human Services.

Methods

The National Survey of Children with Special Health Care Needs, 2005-2006 (NS-CSHCN), a random-digit-dial telephone survey of households with children under age 18, included questions that identified whether the sampled child lived with at least one adoptive parent and if so, whether the adoption had been finalized. CSHCN who were thus identified as adopted, who did not live with a biological parent, who lived in households where English was spoken, and who had not yet reached age 18 by the time of NSAP-SN data collection, were eligible for the NSAP-SN follow-up interview. The NSAP-SN interview was a follow-back telephone call 1 to 3 years after the original NS-CSHCN interview. Sampled children included CSHCN adopted from other countries, CSHCN adopted from the U.S. foster care system, and CSHCN adopted from private domestic sources. Respondents were either the adoptive mother or the adoptive father.

Results

A total of 1,007 NSAP-SN interviews were completed from February to July 2008. The weighted interview completion rate (i.e., cooperation rate) for eligible NSAP-SN respondents was 67.3%. The weighted overall response rate, taking account of nonresponse to the NS-CSHCN, was 37.7%.

Keywords

Adoption; children with special health care needs; adopted children; adoptive parents; adoptive families; international adoption; adoption from foster care; preadoption experiences; postadoption supports and services; SLAITS

Introduction

Several agencies within the U.S. Department of Health and Human Services (HHS), including the Office of the Assistant Secretary of Planning and Evaluation (ASPE), the Administration for Children and Families (ACF), and the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) have collaborated to develop the National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN). Administered for the first time in 2008, the NSAP-SN focuses on the characteristics and needs of adopted children with special health care needs and their parents. The survey is tailored to collect data from three types of adoptive families:

- those who adopted through the U.S. foster care system;
- those who adopted internationally; and
- those who adopted through domestic private sources.

Due to the relatively low prevalence rate of adoptive families of children with special health care needs in the United States, surveying this population would typically represent a significant challenge in terms of identifying a sample large enough for analysis that is nationally representative of all adopted children with special health care needs (CSHCN). NSAP-SN cases, however, were screened via administration of a parent survey, the National Survey of Children with Special Health Care Needs (NS-CSHCN).

The 2005-06 NS-CSHCN provided a nationally representative sample of adopted children with special health care needs in the United States. Households containing these adopted children identified in the 2005-06 NS-CSHCN were subsequently called back to administer the NSAP-SN instrument if English was spoken in the household and the child had not yet reached age 18. As a result of its link with NS-CSHCN, the NSAP-SN sample has coverage that represents all adopted CSHCN who were ages 0-15 in 2005-2006 and living in English-speaking households in the United States, and is able to provide much needed data on:

- adopted child and family characteristics;
- parent and child well-being;
- adoption agreement and post-adoption financial services; and
- post-adoption non-financial supports.

These data, combined with those collected in the NS-CSHCN interview, will provide researchers with previously unavailable insights into the health and well-being of adopted CSHCN and their families. The content of the NS-CSHCN is broad, addressing a variety of physical, emotional, and behavioral health indicators and measures of children's health experiences with the health care system (1).

Both NS-CSHCN and NSAP-SN were administered as modules of the State and Local Area Integrated Telephone Survey (SLAITS), a telephone survey mechanism designed to benefit from the extensive Random Digit Dial (RDD) sampling investment made by the National Immunization Survey (NIS). The

synchronicity between NIS, NS-CSHCN, and NSAP-SN surveys enables NSAP-SN to take advantage of a singularly robust RDD sample design and field a new survey in a highly cost-effective manner. Furthermore, the association with NS-CSHCN enriches each NSAP-SN case with a wealth of additional information on the health, well-being, and health care system experiences of adopted children with special health care needs and their families.

The National Survey of Adoptive Parents (NSAP) instrument was also administered to a sample of adoptive parents identified through the 2007 National Survey of Children's Health (NSCH) in 2007 and early 2008. The selected children in NSAP represented all adopted children ages 0-17 in 2007, not just those with special health care needs. For more detail on the NSCH sample design, readers are encouraged to refer to the National Survey of Children's Health, 2007 Design and Operations report (2). Detail about the NSAP sample design is available in the National Survey of Adoptive Parents Design and Operations report (3).

The 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 survey system available at the national, state, and local levels for tracking and monitoring the health and well-being of children and adults. Surveys conducted as part of the SLAITS system use the same sampling frame as the CDC's National Immunization Survey (NIS), and immediately follow the NIS in selected households, using its sample for efficiency and economy. The NIS is a large-scale random-digit-dialed (RDD) telephone survey that screens households for the presence of young children and collects immunization history information for children 19 to 35 months of age. To achieve an adequate sample of households with children in this age range, the NIS contacts over one million households per year to determine if they contain age-eligible children. The process of identifying this large number of households – most of which are ineligible for the NIS – provides an economical opportunity to administer other surveys on a range of health- and welfare-related topics in an operationally seamless, cost-effective, and statistically sound manner.

Surveys conducted as part of the SLAITS system vary in content, duration, and sample size based on the research needs of their sponsors. Sponsors work with NCHS to establish parameters – including sample size, questionnaire design, and other survey requirements. Since 2005, NORC at the University of Chicago has implemented all aspects of the survey operations under contract with NCHS, including development and testing of the computer-assisted telephone interview (CATI) instrument, recruiting and training interviewers, completing the targeted number of interviews, and preparing data files and documentation. NCHS is responsible for all aspects of SLAITS administration.

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).

In 2000-2002, SLAITS fielded the first National Survey of Children with Special Health Care Needs (NS-CSHCN), designed to collect data on children with special health care needs (CSHCN), children's health insurance coverage, and uninsured children from low-income households (5). This was the first SLAITS module to take full advantage of the NIS sampling frame to produce state-level estimates. In 2003, SLAITS fielded the first iteration of the National Survey of Children's Health, which examined the physical and emotional health of children 0-17 years of age (6). In 2003, SLAITS also fielded the National Asthma Survey, which examined the health, socioeconomic, behavioral, and environmental factors that relate to better control of asthma for children and adults (7). In 2005-2006, SLAITS fielded the second iteration of the NS-CSHCN (1), and in 2007, SLAITS fielded the second iteration of the NSCH (2), concurrently with the NSAP (3).

2005-2006 National Survey of Children with Special Health Care Needs

The 2005-06 NS-CSHCN marked the second time that SLAITS has been used to conduct this survey. From April 2005 to February 2006, a total of 40,840 interviews were completed with parents of CSHCN, approximately evenly distributed among the 50 States and Washington, DC. In addition to English, interviews were conducted in Spanish, Cantonese, Mandarin, Korean, and Vietnamese.

The NS-CSHCN was funded by the Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration. MCHB defines CSHCN as:

... those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally. (8)

Of the 40,840 children who were the subjects of completed interviews in the 2005-2006 NS-CSHCN, 1,912 were identified as adopted children who did not live with a biological parent. Adopted CSHCN living with a biological parent were ineligible for NSAP-SN in order to exclude step-parent adoptions. Those children who had not yet reached age 18 by the time of the follow-back call and lived in English-speaking households were eligible for the NSAP-SN. Because most of the children aged 16 and 17 during the original data collection would have reached age 18 by the time of the follow-up interview, the few who had not yet reached age 18 were also excluded in order to yield a sample representative of adopted CSHCN ages 0-15 in 2005-2006. A total of 1,607 cases were thus eligible for NSAP-SN.

Background

The National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN) was jointly funded by the Office of the Assistant Secretary of Planning and Evaluation (ASPE) and the Administration for Children and Families (ACF), both of the U.S. Department of Health and Human Services (HHS).

The Assistant Secretary for Planning and Evaluation advises the Secretary of the Department of Health and Human Services across the many topical areas within the Department's areas of responsibility. ASPE leads special initiatives, coordinates the Department's evaluation, research, and demonstration activities, and manages cross-Department planning activities such as strategic planning, legislative planning, and review of regulations. Integral to this role, ASPE conducts research and evaluation studies, develops policy analyses, and estimates the cost and benefits of policy alternatives under consideration by the Department and the Congress. Within ASPE, the Office of Human Services Policy focuses on economic self sufficiency and human services delivery issues, as well as policies affecting children, youth, and families. The office works closely with the Administration for Children and Families and a variety of other agencies and Departments. ASPE has a long history of research in foster care and adoption issues, publishing over 40 research reports on the topic over the past two decades. All of ASPE's related publications may be found on ASPE's web site, <http://aspe.hhs.gov>, under the topical heading "child welfare."

The Administration for Children and Families is responsible for federal programs that promote the economic and social well-being of families, children, individuals, and communities. Within ACF, support for the NSAP came from the Children's Bureau, which works with State and local agencies to develop programs that focus on the prevention and protection of children from maltreatment, the provision of services to children and families to assist with reunification efforts, and finding permanent placements for those children who cannot safely be returned to their birth families. The Children's Bureau seeks to provide for the safety, permanency, and well-being of children through leadership, support for necessary services, and productive partnerships with States, Tribes, and communities. The Bureau administers over \$2 billion in funding for adoption programs under several legislative authorities. These programs are intended to support state and local efforts to recruit adoptive families for children in foster care and to support these families over time and include: the title IV-E Adoption Assistance Program, which provides adoption subsidies to many families that adopt children with special needs from the foster care system; the Adoption Opportunities Program, which funds demonstration grants to fuel innovation in foster care adoption practice; the Promoting Safe and Stable Families Program, which includes funding for adoption promotion and support services; and the Adoption Incentives Program, which provides incentive funds to states that increase the number of foster care adoptions they perform in several categories. The Children's Bureau also administers the Infant Adoption Awareness Training Program, authorized by the Children's Health Act, which trains staff of eligible health centers in providing adoption information and referrals to pregnant women. The Children's Bureau funds the national adoption recruitment campaign, in partnership with the Ad Council, as well as the AdoptUsKids project, which provides fulfillment activities to the campaign, operates the national photo-listing site of waiting children, and provides training and technical assistance to States on the recruitment and retention of foster and adoptive parents. In addition, the Bureau also funds the National Resource Center for Adoption, which provides training and technical assistance on a variety of other adoption issues to States.

The National Survey of Adoptive Parents was intended to gather information on the characteristics of adopted children and their families and to gain insights into their adoption-related experiences and post-

adoption service utilization and needs. Much of the social services literature uses adoption as an end point to the search for a family for the child and gives relatively little attention to children's needs and well-being after the adoption has been finalized, or to families' potential ongoing challenges. As the number of children adopted both from foster care and international sources has grown in recent years, there has been increased interest in understanding children's long-term well-being following adoption. However, for government agencies involved in adoption, contact with families is usually extremely limited following finalization. In addition, because children's names, social security numbers, and other potentially identifying information may change at the time of adoption, it is not usually possible to use administrative data to track children's use of government assistance or services from the pre-adoption to the post-adoption periods.

Most federal activity and funding related to adoption relates to adoptions from foster care. However, in recent years the negotiation and ratification of the Hague Convention on Intercountry Adoption has increased the role of the State Department with respect to children adopted internationally. This international treaty, which entered force in the U.S. in 2008, is intended to protect the rights of all parties involved in intercountry adoptions – the child, the birth parents, and the adoptive parents. The enhancement of a population-based survey made it possible to look across adoption types for a view of the full range of adoptive families as well as to provide the opportunity for comparisons among families adopting from different sources. While not a formal partner in the NSAP, staff at the State Department with expertise in intercountry adoption issues were consulted at several points during the survey's development to assure that issues specific to international adoptions were addressed as much as possible.

The number of children adopted from foster care increased dramatically in the late 1990s, in part as a result of the Adoption and Safe Families Act of 1997, which emphasized the need to find permanent alternatives for children in foster care who could not be reunified with their birth families. As a result, in many states the number of adopted children receiving adoption subsidies currently exceeds the number of children in foster care. Information on the experiences of families who have adopted can provide insights into the factors that facilitate or hinder the success of adoptions and the post-adoption supports that may be helpful to assure the continued well-being of adopted children and their families. In addition, with respect to children adopted from foster care, a better understanding of how families utilize adoption subsidy funds for their children's well-being may help demonstrate their utility in recruiting families for children in foster care.

The prevalence of special health care needs, as defined by MCHB and assessed by the NS-CSHCN, is higher among children adopted from foster care than among children adopted by other means: slightly more than half of children adopted from foster care have special health care needs, while fewer than one-third of children adopted internationally or through domestic private sources have special health care needs, based on analysis of the NSAP data. The NSAP-SN allows for a focus of analysis on a larger sample of adopted children of greatest interest to ASPE and ACF and with the highest policy relevance: children adopted from the U.S. foster care system who have special health care needs. The needs of these families and their use of and satisfaction with post-adoption supports and services are of great interest to

ASPE and ACF because these are the families most likely to need and request those supports and services, and the larger sample will permit more extensive analysis of this particular group.

The information obtained through the NSAP-SN will be used to develop ways to better identify and communicate with potential adoptive parents for children in the U.S. foster care system by describing the reasons why families adopt and the characteristics of adoptive families and the CSHCN they adopt. The information will also improve our understanding of the supports adoptive families find most helpful. In addition, the NSAP-SN will provide data on openness in adoptions, transracial and transcultural aspects of adoption, and adoption satisfaction across adoption types for children with special health care needs.

Development of the Survey Instrument

In August 2005, ASPE issued a task order to The Urban Institute and the National Opinion Research Center to develop the instrument for the National Survey of Adoptive Families. Instrument development began with an effort to locate as many previous adoption surveys as possible. Urban Institute staff conducted an extensive literature review of adoption research to identify past surveys and other related research regarding adoption. Survey instruments used in these research efforts were obtained and categorized according to the part of the adoption process they addressed and by the topics covered. Results were compiled into a comprehensive planning document identifying existing survey questions on each topic of importance. The planning document was used to construct the survey instrument, choosing the most relevant questions on desired topics from existing surveys and constructing new questions on several topics that were not adequately addressed in any of the pre-existing instruments. The ordering of questions was adjusted to flow in a way that made sense as a telephone interview, and transitional scripts were added to guide the respondent from one section of the survey to another.

ASPE and ACF staff reviewed draft questions, suggested new topics for inclusion and sources of questions, and provided overall supervision throughout the questionnaire and survey design process. Staff at the State Department's Office of Children's Issues concerned with intercountry adoptions were also consulted to ensure the survey adequately addressed issues regarding intercountry adoption and that questions were worded in ways that made sense for families adopting from international as well as domestic sources.

Before finalizing the instrument, both cognitive interviews and a small instrument pretest were conducted. The cognitive interviews were conducted with a convenience sample of participants. They consisted of five parents who adopted through foster care, one who adopted privately, and one who adopted internationally. The goal of the cognitive interviews was to learn how the survey questions sounded in the ear of an adoptive parent. Did the terminology make sense? Did the order of the questions flow well? Were parents able to answer the questions as they were asked? After each subsection of the questionnaire participants were asked about certain items that might have been confusing. Feedback from the cognitive interviews was used to inform a new draft of the instrument, which was used in the instrument pretest. The instrument pretest was also a convenience sample and consisted of three international adoptive parents, three parents who adopted through foster care, and two who adopted privately. The main goal of the instrument pretest was to learn about the timing and the flow of the instrument. However, participants

also provided feedback on the items themselves, and so this also served to inform the wording and content of the instrument.

Following the instrument pretest, decisions were made about the final inclusion of questions, with a number of items being dropped to ensure the survey fit within time constraints of an approximately 30 minute interview. The NSAP instrument was programmed as a Computer-Assisted Telephone Interviewing (CATI) instrument and pretested in December 2006. Following final revisions based on the CATI pretest results, the instrument was administered to the NSAP households identified in the NSCH from April 2007 to July 2008, and to the NSAP-SN households identified in the NS-CSHCN from February to July 2008. Details about the CATI pretest and revisions made to the instrument during the administration of NSCH and NSAP are available in the NSAP Design and Operations report (3).

By the time NSAP-SN interviewing began in February 2008, the instrument was in its final form and did not change during the NSAP-SN administration period. Minor changes were made to the NSAP instrument to modify it for the NSAP-SN, including revisions to the designation of variables from the base survey that drive certain skips in the questionnaire, revisions to accommodate the span of time between the original interview and the follow-up interview, and revisions to exclude sample children who were discovered to have aged to age 18 by the time of follow-up interviewing.

Sample design

Eligibility screening for NSAP-SN was conducted as part of the 2005-06 NS-CSHCN. Therefore the initial sample of telephone numbers for NSAP-SN was a subset of the sample of telephone numbers for the 2005-06 NS-CSHCN. To adequately describe the origin of the NSAP-SN sample, then, it is necessary to describe the NS-CSHCN sample.

The NS-CSHCN was designed to identify households with children, screen all children in the household for special needs, and conduct a detailed interview about one child with special health care needs in the household (randomly-selected if there were more than one child with special health care needs in the household). Like all SLAITS modules, NS-CSHCN took advantage of the large number of screening calls required for NIS.

To accomplish the goal of 750 completed special-needs interviews in each state, telephone numbers were initially selected from the telephone numbers randomly selected for the NIS screening effort. Therefore, the procedures for drawing the NIS sample were the first steps in the procedures for drawing the NS-CSHCN sample. However, because of the scope of NS-CSHCN, there were some states for which the NIS sample was not large enough to achieve the desired number of completed interviews. In these cases, additional sample (called “augmentation sample”) was drawn for the purpose of administering the NS-CSHCN interview, but without going through NIS first.

The next two sections describe the basic NIS sample design and serve as a non-technical description of the NS-CSHCN sample design and allocation procedures. Appendix I of this report includes a more technical description of NSAP-SN sample design and weighting procedures. For more detail on NIS sample design, readers are referred to the 2007 Methodology Report for NIS (9), which is available from

NCHS. Further information regarding NIS itself can be found in National Immunization Survey: The Methodology of a Vaccination Surveillance System (10). For more detail on NS-CSHCN sample design, readers are referred to the 2005-06 NS-CSHCN Design and Operations report (1).

The National Immunization Survey sampling plan

NIS was established to monitor vaccination levels of very young children within states and local areas. These “estimation areas,” consisting of one or more “sampling areas,” are non-overlapping, encompass the U.S., and are each enclosed within the borders of a single state. In effect, each quarter-year NIS conducts a separate survey in each estimation area, sharing a common sample design that employs list-assisted RDD (9,10). The target number of completed interviews in each sampling area reflects the goal of obtaining equally precise estimates in each estimation area. If necessary, the target for a sampling area in each quarter is adjusted to compensate for its total shortfall or excess in the previous quarters.

The target population for NIS is children aged 19 to 35 months, the primary targets of immunization programs. Because less than 5 percent of households in the United States contain children in this age range, NIS screens over 1 million households per year to identify a sufficient number of households with eligible children. SLAITS modules use this NIS screening sample.

NIS uses the list-assisted method of RDD (11). This method selects a random sample of telephone numbers from “banks” of 100 consecutive telephone numbers (e.g., 773-256-0000 to 773-256-0099) that contain at least one directory-listed residential telephone number. The sampling frame of telephone numbers is updated each quarter to reflect new telephone exchanges and area codes. Although the number of cellular telephone users in the U.S. has increased rapidly, most households with children continue to maintain land-line telephone service (12). Also, most cellular telephone users pay for incoming calls. Therefore, the NIS sampling frame excluded cellular telephone exchanges in 2005-06.

NS-CSHCN sample design and allocation

The goal of the NS-CSHCN sample design was to generate samples representative of the state populations of children and sufficiently large enough to permit analysis of the characteristics of children with special health care needs in each state. To achieve this goal, state samples were initially designed to obtain completed interviews with parents of 850 children with special health care needs. The number of children with special health care needs to be selected in each sampling area was determined by allocating the total of 850 children in the state to each sampling area within the state in proportion to the total estimated number of households with children with special health care needs in the sampling area. (During the sixth quarter of data collection, the targets were reduced by 100 to 750 per state.) Given this allocation, the number of households that needed to be screened in each sampling area was calculated using the expected proportion of households with children under 18 years of age in the sampling area. Then, the number of telephone lines that needed to be called was computed using the expected working residential number rate, accounting for expected nonresponse.

Drawing the NS-CSHCN sample

After the number of telephone lines necessary to achieve the target number of completed interviews in each sampling area had been estimated, the samples were drawn. The sample draw proceeded in three steps.

First, telephone lines were sampled in each sampling area as described above. Next, a portion of these telephone lines in each sampling area was flagged for NS-CSHCN. Finally, any remaining telephone lines that were not flagged were left for the sole use of NIS. Thus, after these three steps, every telephone line to be called for NIS screening fell into one of two categories 1) NIS and NS-CSHCN sample or 2) NIS-only sample.

In fourteen states (Alaska, Arkansas, Colorado, Delaware, Hawaii, Idaho, Iowa, Louisiana, Minnesota, Mississippi, North Carolina, Nevada, Oregon, and Utah), there was insufficient NIS sample available to obtain the desired number of NS-CSHCN completed interviews. Therefore, samples of additional telephone lines were drawn in these states. Table A shows the proportion of the total NS-CSHCN sample that was augmented for each state. That is, for each state in table A, the proportion listed is the proportion of the total sample called only for NS-CSHCN and not for the NIS.

<Table A here>

Conducting the NS-CSHCN interviews

Each telephone line selected for NS-CSHCN was called and screened for residential status and the presence of NIS age-eligible children. (The augmentation sample was the one exception to this rule, as it was selected and called solely for NS-CSHCN and not NIS. These households were not screened for 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.

Regardless of whether a NIS interview was conducted, if any children lived in the household, information about the sex and date of birth was gathered for each child. (If this information had been collected during the NIS interview, the questions were not asked again. An instrument change was made in late 2005 to eliminate the date of birth question and replace it with a simpler question asking each child's age.) The respondent was then asked the NS-CSHCN screener questions to determine the special health care needs status of each child in the household. If any children in the household were identified as having special health care needs, one was randomly selected to be the subject of a detailed interview.

Conducting the NSAP-SN interviews

CSHCN with a complete NS-CSHCN interview were identified as eligible for the NSAP-SN interview if they lived in English-speaking households, were 0-15 years old as of the 2005-06 interview and had not reached age 18 by the time of the follow-up interview, and had been identified as adopted (i.e., they lived with an adoptive parent and no biological parent lived in the household – to exclude step-parent adoptions). These households were then called between February and June 2008 to conduct an NSAP

interview about the child. In some cases, respondent households had moved or could not be reached at the number called for the NS-CSHCN interview. In anticipation, interviewers received special training on locating respondent households; that training is described below.

Questionnaire

Content

Introduction and consent

Upon determination that a household from NS-CSHCN had been found for the NSAP-SN, the interviewer asked to speak with the selected child's parent. After the parent came to the phone, or after the person who answered the telephone identified herself or himself as the parent, the respondent was asked screening questions to determine if he or she was eligible (i.e., the respondent was an adoptive parent and the child was under age 18). After eligibility was determined, the respondent was informed of her or his rights as a survey participant. Verbal consent for study participation was then obtained and documented in the CATI system. The informed consent statement informed respondents of the voluntary nature of the survey, assured them that their responses would be kept confidential, and indicated that there was no penalty for not answering questions. In addition, the informed consent statement provided information about the content of the survey and the expected duration. The respondent was also told that he or she would receive \$25 (or \$30 if the household had met certain refusal pattern benchmarks) in appreciation of his/her time. Finally, the respondent was also told that the interview might be recorded and monitored by a supervisor for quality purposes.

The NSAP-SN interview contained sections covering the six topics described below. A copy of the questionnaire appears in Appendix II.

1. Adoption-eligibility screening and demographic characteristics—This section asked about the country of origin (for international adoptions only), relationship of the respondent to the child, current marital status of the adoptive parent(s), adoption agencies involved in the adoption, whether the adoption was an interstate adoption, and questions regarding the foster parent(s) and length of stay if the adoptive parent was a foster parent to the child prior to adoption. Demographic data collected on the NSCH was not repeated on the NSAP interview.

2. Characteristics—The Characteristics section gathered information about the adopted child and his/her situation before adoption, including age at adoption finalization, age at first placement in home, whether the child ever lived with birth family or had birth siblings, whether the child had any of several behavioral disorders or developmental problems, whether the child had needed treatment from mental health professionals, had used alcohol or drugs (asked only for teens), had been arrested (asked only for teens), or had been pregnant (asked only for teens), and the child's native language and education experiences. In addition, this section gathered information about the adoptive parent(s), including whether the adoptive parent(s) had their own biological children, their reasons for adopting, what types of adoption they

considered, their reasons for choosing a specific type of adoption, and whether they chose activities or moved because of the child's race or culture. This section also collected data on information provided to the adoptive parent(s) before adoption, including whether it was an open adoption; whether there was any relationship with the birth family; the level of involvement of adoption attorneys or caseworkers; and whether any psychological report, medical history, or educational records were provided.

3. Parent and child well-being—The next section gathered data on the relationship of the respondent with the adopted child in terms of affection, understanding, distance, and trust; the child's relations with other members of the family; the child's feelings about being adopted; whether the respondent would recommend adoption to others based on their experience; whether the child had spent time away from home due to behavioral issues; and whether the respondent had thought about or taken action on ending the adoption and, if applicable, what their reasons were for wanting to end the adoption.

4. Adoption agreement and post-adoption financial services—This section inquired about the existence of an adoption agreement and a monthly subsidy; the total costs associated with adoption; the respondent's Medicaid experience; the mental health care needs of the child; mental health medications; dental care needs; medical care needs including vision and hearing; who paid for all of these services for the adopted child; and the federal tax credit for adoption.

5. Post-adoption non-financial supports—This section contained questions on post-adoption services, adoption support groups for the adopted child, adoption support groups for the respondent or his/her spouse/partner, mental health care or counseling for the adopted child, family counseling, crisis counseling, alcohol or drug evaluation/treatment for the adopted child, education and childcare services, respite care, residential treatment or psychiatric care, and information or education received about adoption.

6. Final demographics—This section collected other demographics not previously collected in the NS-CSHCN, including the year of the respondent's birth, the year of the respondent's spouse's/partner's birth, ethnicity and race of the respondent and of the spouse/partner, and the respondent's employment status.

Significant changes during data collection

No significant changes to the questionnaire occurred during the data collection period. Some minor protocol changes are described in Appendix III.

CATI programming

The NSAP-SN 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 the respondent's 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 and saves the responses in a survey data file. Online help screens and text are

available to aid interviewers. This data collection technology reduces the time required for transferring, processing, and releasing data, and ensures accurate questionnaire flow. Once initial programming was completed, the instrument underwent rigorous testing to ensure correct functioning of the CATI system.

Interviewer training

NORC conducted all interviews for the NSAP-SN. Interviewer training was conducted by NORC staff at the production center located in Chicago, IL. All the interviewers selected to attend the training were previously-certified staff. In all, 20 NSAP-SN interviewers were trained at the Chicago production center in February 2008, and all 20 passed the training.

Training sessions

The interviewer training sessions began with an introduction and project overview. Interviewers were informed about project goals, the purpose and history of the study, study sponsors, and the study design. A review of the screener and each section of the questionnaire were taught, with emphasis on quality data collection. The relationship between NS-CSHCN and NSAP-SN was also covered.

Several cooperation-gaining exercises were conducted throughout the training to ensure that interviewers were equipped to answer frequently asked questions (FAQs) and handle refusals. Part of the exercises included a review of the FAQs and other Job Aids provided for interviewers.

Mock interviews

The NSAP-SN training utilized two round robin mock interviews. During the mock interviews the interviewers were acclimated to the questionnaire, the CATI system, and methods of gaining cooperation. Each mock interview was designed to highlight various sections of the screener and the main questionnaire, and to provide different cooperation scenarios.

Locator training

A subset of seven of the NSAP-SN interviewers was then selected to attend the locator training. Locators were informed about locating goals and objectives and about how to utilize specific free Internet search engines and identify viable leads to locate the NS-CSHCN household. Locators also reviewed the locator scripts, job aids, and relevant FAQs.

Several mock locating cases were given to each locator to generate a new lead. The locators were required to demonstrate their proficiency at effectively using the recommended Internet search engines and identifying viable leads. The class then proceeded to a round robin mock locating case using the prompting script and FAQs to contact the lead and determine if they had located the 2006-06 NS-CSHCN household.

Data collection

Pretesting

The NSAP-SN survey administration preparations did not involve a pretest as the questionnaire contained minimal changes from the previously- and concurrently-fielded NSAP study. A detailed description of the NSAP pretest that occurred prior to the beginning of NSAP data collection is available in the NSAP Design and Operations report (3).

Advance letters

When a mailing address was available, an advance letter (shown in Appendix IV) describing the nature of the study was mailed to the household. Letters were mailed for 82.8% of eligible NSAP-SN sample cases. The letter reminded recipients that they had completed a prior survey about children's health care and indicated that additional information about their children's health, well-being, and use of services was desired. A toll-free number was provided for those who wished to participate immediately or learn more about the study, and for those who wished to learn more about their rights as a respondent.

Toll-free telephone number

A toll-free telephone line was established for NSAP-SN that offered respondents the flexibility to call at their convenience if they had questions about the survey, wanted to complete the interview, or wished to submit feedback on any aspect of the survey. Advance letters, incentive letters, answering machine scripts, and closing scripts referenced the toll-free number, and interviewers provided the number to respondents who requested it during the interview. The telephone line was answered by interviewers trained on NIS who subsequently connected respondents to an NSAP-SN-trained interviewer. During the course of the NSAP-SN data collection effort, 2 calls were made to the toll-free line for NSAP-SN, with both cases completing the survey during that toll-free call.

Selection of sampled child

In the 2005-06 NS-CSHCN sample, all households with children under 18 years of age living or staying in the household were screened for the presence of children with special health care needs. If a household only had one child with special needs, that child was selected as the focus of the interview by default. In households with multiple children with special needs, one child was randomly selected to be the focus of the detailed interview. During the 2005-06 NS-CSHCN interview, it was determined if any parent of the selected child was an adoptive parent. To be eligible for NSAP-SN, no biological parents of the child could be living in the household (to exclude step-parent adoptions). In addition, the NS-CSHCN interview had to have been completed in English. Nine cases were ineligible for NSAP-SN because the NS-CSHCN interview was not completed in English.

Households from 2005-06 NS-CSHCN that were identified to be NSAP-SN eligible (i.e., there was an adoptive parent but no biological parent in the household, the household was English-speaking, and the

child was under age 18 at re-interview) were recontacted to conduct the NSAP-SN on the same selected child.

Selection of respondent

Participation was limited to the adoptive mother or adoptive father of the selected child. Most often, the mother of the adopted child completed the NSAP-SN interview. The parent who completed NS-CSHCN was most likely to complete NSAP-SN (for 83.6% of NSAP-SN completed interviews), although this was not a requirement of NSAP-SN participation. Table B shows the frequency distribution of the relationship of study respondents to the sampled child.

<Table B here>

Informed consent

The NSAP-SN informed consent script informed respondents of the voluntary nature of the survey, assured them that their responses would be kept confidential, and indicated that there was no penalty for refusing to answer questions and that participation had no effect on any benefits the family might receive. In addition, the informed consent statement provided information about the expected interview duration. Respondents were also told that they would receive \$25 (or \$30 if the household had met certain refusal pattern benchmarks, described in Appendix V) in appreciation of their time. Finally, the respondent was told that the interview might be recorded and monitored by a supervisor for quality purposes.

In accordance with HHS regulations (45 CFR 46), these procedures were reviewed by the NCHS Research Ethics Review Board (ERB) and the NORC Institutional Review Board (IRB). Approval for data collection was received in August 2007 from the NCHS ERB and in November 2007 from the NORC IRB. The federal Office of Management and Budget (OMB) control number for this collection of information was 0920-0406.

Assurance of confidentiality

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

Before we continue, I'd like you to know that taking part in this research is voluntary. You may choose not to answer any question you don't wish to answer or stop at any time. Whether or not you take part in this survey has no effect on any benefits you may receive and there are no known risks. We are required by Federal law to develop and follow strict procedures to protect your information and use your answers only for statistical research. I can describe these laws if you wish. In appreciation for your time in taking the survey, we will send you \$25/\$30. The survey

will take about half an hour. In order to review my work, my supervisor may record and listen as I ask the questions. I'd like to continue now unless you have any questions.

If respondents requested to hear more about the Federal laws, they were read the following statements:

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 and by the Confidential Information Protection and Statistical Efficiency Act. Would you like me to read the Confidential Information Protection provisions to you?

If the respondent indicated that he or she would like to hear the Confidential Information Protection provisions, the interviewer read the following statement:

The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law, every employee of the National Center for Health Statistics, the National Center for Immunization and Respiratory Diseases, and its agent, the National Opinion Research Center, who works on this survey has taken an oath and is subject to a jail term of up to 5 years, a fine of up to \$250,000, or both, if he or she willingly discloses ANY identifiable information about you or your household members.

If respondents had any additional questions or concerns, they were directed to the project web site for more information: www.cdc.gov/nchs/slaitis.

When NCHS (including its contractors and agents) collects personally identifiable information under a pledge of confidentiality for exclusively statistical purposes, Section 308d of the Public Health Service Act and Section 512b of the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) require that confidentiality be maintained without exception. Violations of CIPSEA are a class E felony, punishable by imprisonment for not more than 5 years, a fine not more than \$250,000, or both. Strict procedures are used by NCHS, its data collection contractors, and other agents to prevent disclosure of confidential data in survey operations and data dissemination.

Interview length

The average NSAP-SN interview length was 35 minutes, 52 seconds, and the median time was 34 minutes, 36 seconds. Mean and median interview lengths appear in Table C.

<Table C here>

Interview breakoffs

When NSAP-SN interviews were terminated prior to completion, interviewers attempted to convert the incomplete interview into a completed interview using refusal conversion strategies developed for NS-

CSHCN and NSAP. By the end of data collection, 48 interviews were completed with households that had initially refused to participate (4.8 percent of completed interviews).

There were 113 households contacted from 2005-06 NS-CSHCN where the NSAP-SN was unable to be completed. It was determined that 49 of the households could not participate in NSAP-SN based on screening criteria (the child had to be less than 18 years old, adopted, and still living with the adoptive parent, and the adoptive parent needed to be able to complete the interview in English). Of the remaining 64 cases that broke off, 12 cases broke off before screening was completed, 13 cases broke off after screening but before giving informed consent, and 14 cases gave consent but continued no further. There was little commonality in the location of the questionnaire where the interview was terminated for the remaining 25 break-off cases.

Cases pending at close of data collection

Of the 1,607 cases in the NSAP-SN sample, 1,120 households were successfully contacted (69.7% of the sample). Of the 1,120 households, it was determined that 1,059 could participate in NSAP-SN based on screening criteria. Of these 1,059 households, 1,007 completed the NSAP-SN interview. A partial NSAP-SN complete was defined as a case that completed the interview up to and including question F20 in Section F entitled “Adoption Agreement and Post Adoption Services-Financial.” Only one case out of the 1,007 cases included on the final dataset was a partially completed interview. The final case dispositions are shown in Table D.

<Table D here>

Incentive effort

While all NSAP-SN-eligible households were offered an incentive payment of \$25 for participation, households that presented with a certain pattern of non-response were offered an additional incentive of \$5 (total incentive of \$30). The NSAP-SN incentive plan was in place shortly after data collection began in February 2008. Respondents who completed the survey on a cell phone were offered an additional \$10 to defray any costs associated with their cell phone usage. A more detailed discussion of the NSAP-SN incentive model, the processes by which incentive-eligible cases were identified and subsequently offered an incentive, and response rates for incentive-eligible cases are included in Appendix V.

Response rates

Table E provides the number of completed interviews and unweighted interview completion rates by adoption type. Table F provides the corresponding weighted interview completion rates. Overall, the project completed 1,007 interviews. Two interview completion rates have been calculated. Interview completion rate I is the ratio of the number of completed interviews to the total sample. Interview completion rate II is an alternative rate using released sample as opposed to total sample and where known out of scope cases have been excluded from the released sample count. The weighted interview

completion rate, or “cooperation rate,” indicating the response propensity of identified eligible adoptive parents (excluding out-of-scope cases) was 67.3%.

<Table E here>

<Table F here>

It is important to note the NSAP-SN interview completion rate is only one component of the overall response rate since the NSAP-SN sample originated from adopted children with a complete 2005-06 NS-CSHCN interview. To obtain the overall response rate, by taking account of nonresponse to the NS-CSHCN, the NSAP-SN interview completion rate must be multiplied by the response rate from the 2005-06 NS-CSHCN. Details on the derivation of the NS-CSHCN response rate, based on the Council of American Survey Research Organizations (CASRO) guidelines, are available in the NS-CSHCN Design and Operations report (1). Table G provides the unweighted and weighted overall response rates using both interview completion rate I and the alternative interview completion rate II. The weighted CASRO response rate for NSAP-SN, excluding out-of-scope cases, was 37.7%. Because of this low overall CASRO response rate, an examination of the potential for non-response bias is presented in Appendix VI.

<Table G here>

Efforts to maximize response rates

NSAP-SN worked to encourage respondent participation by informing respondents of the importance of the survey, offering incentives, and allowing respondents to call a toll-free number at their convenience. NCHS and NORC staff conducted ongoing assessments and modifications of the data collection instrument, data collection procedures, and calling rules. Integrated sample management teams focused on the NSCH, NSAP, and NSAP-SN met frequently to manage the sample in an effective and efficient manner.

The NSAP-SN production preparations did not involve a pretest as the survey contained minimal changes from the previously fielded NSAP study. After every quarter of data collection, a list of potential changes to the instrument were reviewed and implemented if necessary. These changes were based on analysis of questionnaire breakoffs and reports from interviewers of problem areas within the questionnaire.

NSAP-SN monitored response rates throughout the data collection period. In response to findings of certain non-response patterns in NSAP, the NSAP-SN incentive model targeted these non-responsive subpopulations. All NSAP-SN interviewers were trained refusal converters and attempted to convert non-respondents by targeting the case-specific source of the refusal based on the case history. More detailed descriptions of the incentive models, the process by which cases were offered an incentive, and important response rates are included in Appendix V.

NSAP-SN maintained a toll-free number and listed the number in all letters to respondents. The toll-free number allowed respondents to participate immediately, ask questions regarding the survey, or obtain additional survey-related information.

Locating respondents

Numerous locating tactics were explored as an essential part of data collection due to the unpredictable nature of the three year old sample. Locating efforts consisted of several stages: 1) identification of cases that qualified for locating, 2) generation of leads using Accurint and Internet databases, 3) dialing leads in order to identify the correct household, and 4) mailing “trying to reach you” letters to non-responsive households.

Identifying cases qualified for locating

NORC began locating activities approximately three weeks into the data collection effort. Initial call attempts yielded a number of cases for which NORC staff were unable to proceed with the original phone number for various reasons:

- permanent non-contact households;
- disconnected number;
- fast busy;
- fax/modem;
- business/government;
- no adult in household;
- no such person in household; and
- number changed.

The submission of cases to Accurint consisted of 217 cases identified as “Locating needed” in the early weeks of data collection and 698 persistent non-contact cases (i.e., cases that resulted in non-contact on repeated calls), for a total of 915 cases.

Accurint database searches

Accurint is a locating vendor that maintains a database of public records. Two types of Accurint database searches were conducted. The first was an “initial custom batch reverse search.” The locating effort on NSAP-SN was hampered by the fact that minimum information was available from the 2005-06 NS-CSHCN:

- RDD phone number from the 2005/2006 NS-CSHCN;
- respondent name only when an incentive had been paid in 2005/2006;
- adopted child’s age in months and years at the time of the 2005/2006 interview;
- 2005-06 adopted child’s name when provided; and
- adopted child’s gender.

Accurint was used to produce a custom batch reverse search that yielded names and addresses of individuals ever associated with the phone numbers in the sample. NORC submitted the 915 cases to be run through this batch reverse search. Out of the 915 cases submitted, 782 cases (85%) received reverse search results.

The second type of Accurint database used was a “current batch search.” The name and address information for 776 cases (782 minus 6 with an out-of-range date) retrieved from the custom batch search were then used in running a standard address batch search to find the current name, address and telephone information for the individuals listed.

Of the 217 cases identified for locating, 69 cases (31.8%) received current batch search results containing a new phone number. All 69 cases were updated in the CATI system to be worked by the telephone interviewers and 28 of these cases completed the NSAP-SN interview. For the remaining 698 cases submitted, current batch search results with a new phone number were received for 69 cases (9.9%). Thirty-one of these cases resulted in a completed interview.

“Trying to reach you” letters

A “trying to reach you” letter (shown in Appendix IV) was mailed to households when Accurint produced a mailing address, but no new telephone number after unsuccessful contact using the 2005-06 NS-CSHCN sampled telephone number. This letter explained that attempts had been made to contact the household via telephone to complete the NSAP-SN interview. It also briefly described NSAP-SN and included an FAQ section on the survey. In this way, the letter served as an additional method of locating the household. Of 84 cases mailed a “trying to reach you” letter, 2 respondents contacted the 1-800 line and completed the survey. An additional 14 completes were achieved among these 84 cases through Internet locating.

Locating protocol

Cases being located were updated based on phone number information returned from the locating batch searches. Those cases were then delivered to the telephone interviewers and dialed. Appropriate status codes were assigned to each case as it was dialed.

A separate group of cases were identified for Internet locating. A special team of seven locators were specially trained to work through these cases methodically and find the respondent’s most recent information.

Locators followed a protocol that allowed them to work through the cases efficiently and focus their efforts on cases that were more attainable. Locators used a combination of web searches and vendor batch searches. If this information did not lead to the 2005-06 respondent, the case were designated “unlocatable.”

While dialing leads, locators used one of the following introductions:

“Hello. My name is _____, and I’m calling from the National Opinion Research Center at the University of Chicago. I’m trying to locate <2005-06 parent>. Does (he/she) live here?”

OR

“Hello. My name is _____, and I’m calling from the National Opinion Research Center at the University of Chicago. In 2005, we may have conducted a survey with an adult in this household about the health care of a child who was approximately <AGE> years old. The child would now be about <AGE PLUS 2 to AGE PLUS 3 years>. If possible, I’d like to speak with that child’s <MOTHER/FATHER> now. Is <he/she> AVAILABLE?”

After the introduction, locators followed a script that guided them through the different scenarios encountered during locating:

- If the respondent was confirmed and available, the locator immediately attempted to complete the interview.
- Appointments were scheduled to call back households that were confirmed to be the target household but the respondent was unavailable.
- If the respondent did not live in the household but the informant knew the respondent, locators probed to obtain new address and phone information.

If the informant refused to give out the information, the locator left the project’s toll-free number and asked that it be passed along to the respondent. Throughout the locating effort, locators were careful not to mention adoption or that the child was adopted until the respondent was confirmed as the adoptive parent of the child in order to prevent the accidental disclosure of adoptive status to any person in the household unaware of the child’s adoptive status.

Quality control

Quality control of interviewing

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 monitor interviewers informally. In addition, supervisory staff used remote telephone- and computer-monitoring technology to evaluate whether interviewers performed according to project specifications. This formal monitoring was conducted to ensure that introductory materials were properly read, that item wording and sequence of the questionnaire were followed correctly, that respondent questions were answered properly, and that any vague responses were properly probed. Computer monitoring also allowed supervisors to ascertain whether answers were entered accurately into the CATI system.

All supervisors attended an 8-hour training session that introduced them to the Monitoring Evaluation Form, the Monitoring Database where forms are filled out electronically, and the Monitoring Selection Database where telephone interviewers are prioritized and selected for monitoring. In addition to learning these basics of how to monitor, supervisors participated in an exercise to learn the basics of giving effective feedback and coaching interviewers. After this training session, each new supervisor was scheduled for one week to conduct dual-monitoring sessions with experienced staff. In these sessions, the

new monitors observed live monitoring side by side with an experienced monitor, and each completed a Monitoring Evaluation Form. At the end of each session, they compared notes and discussed proper scoring guidelines and strategies for giving feedback. All of these strategies served to ensure that all supervisors were monitoring interviewers using the same criteria for evaluation.

To avoid bias in selecting whom to monitor, the CATI monitoring system automatically selected which interviewers to monitor and gave newly trained interviewers, those with the fewest monitoring sessions or those with the weakest performance reviews, the highest priority for selection. 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; however, some interviewers were monitored more often.

Throughout data collection interviews were recorded (after gaining agreement from respondents). These recordings were valuable tools for trainings, as well as for providing feedback to interviewers on specific case-related performance. The recordings were kept for four quarters of data collection and then deleted.

Data quality control

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 data collection, interview data were reviewed for consistency between fields, appropriate response-value ranges, skip logic patterns, and missing information.

Weighting and estimation procedures

This section provides a non-technical overview of the weighting procedures for the NSAP-SN sample. A more detailed and technical description can be found in Appendix I.

Base weight

Since the sample for the NSAP-SN was obtained by including all English speaking, adopted children 0-15 years old as of the 2005-06 NS-CSHCN, the base weights for the NSAP-SN are the final weights for the 2005-06 NS-CSHCN. The final NS-CSHCN weights were derived by applying adjustments to account for nonresponse, for households with multiple telephone numbers, and for noncoverage of children in households without landline telephones, as well as adjustments to known population control estimates. For a detailed description of the derivation of the NS-CSHCN final weights, readers are referred to the 2005-2006 NS-CSHCN Design and Operations Report (1).

Adjustment for incomplete interviews

To compensate for interview non-response, an adjustment is made to the base weights of the interview completed cases. The adjustment factors are computed by forming adjustment cells using the following variables listed in order of priority:

- census region;
- type of adoption;
- age group (at the time of the 2005-2006 NS-CSHCN interview); and
- race/ethnicity.

Within each adjustment cell, the adjustment factor is computed as the ratio of the sum of base weights for all cases in the adjustment cell to the sum of base weights for all interview completed cases in the adjustment cell. For interview completed cases, the interview weight is obtained by multiplying the base weight and the adjustment factor.

Raking adjustment to external control totals

There are no external control totals available for NSAP-SN target children. As the only source available is the 2005-06 NS-CSHCN, the control totals for the NSAP-SN are obtained from 2005-06 NS-CSHCN estimates.

The raking adjustment of the weights is such that at the national level, for the following margins, the sum of the weights agrees with the control totals for:

- census region;
- number of male and female children within each of four age groups;
- number of children in age group by type of adoption;
- race/ethnicity;
- number of children in the household by grouped highest reported education in the household; and
- number of children in the household by grouped household income.

For each interview completed case, the raking adjusted weight is the final NSAP-SN weight.

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. An independent check was performed on the programmer's implementation of the statistician's weighting specifications.

Imputation of relevant variables

Since NSAP-SN cases are a subset of 2005-06 NS-CSHCN cases, for variables that need to be imputed in the weighting process, imputed values from 2005-06 NS-CSHCN were used. Hence, no new imputation was necessary.

Public use data file

One public use data file was created using SAS version 9.1. The file included data from complete interviews (complete through Section F: Adoption Agreement and Post Adoption Services - Financial) that were conducted in 2008. In order to maintain confidentiality, certain variables that could be used to identify respondents were excluded from the file.

This file contains data on adopted child and family characteristics, parent and child well-being, adoption agreement and post-adoption financial services, and post-adoption non-financial supports. There is one record for each child. Of the 1,007 records, 1,006 cases completed the full interview, and 1 case is a partially completed interview. Four of the records represented CSHCN whose parents were interviewed in Louisiana prior to Hurricane Katrina in August 2005 and were subsequently dropped from the NS-CSHCN data so that the Louisiana data for 2005-2006 would reflect the post-Katrina population of CSHCN in the state (for more information, see the 2005-2006 NS-CSHCN Design and operations report (1)). Because these cases have a NS-CSHCN final weight value of zero and all weighting adjustments are multiplicative, the final NSAP-SN weight value for these cases is also zero. With these four cases dropped from the file, the final NSAP-SN data file contains 1,003 records.

Editing

As discussed in the Data quality control section, the CATI system was designed to perform edits as an interviewer entered data into the computer system. To prevent interviewer error, the CATI system was developed to include range checks and consistency checks. If an interviewer entered a value that was out of range, a warning screen would appear, instructing the interviewer that the data would not be accepted and that they would have to re-enter the response to the question. For example, the acceptable range for C1A, "How old was [S.C.] when [his/her] adoption was finalized?", is from 0 to 17 years, 0 to 12 months, and 0 to 52 weeks. If an interviewer entered a value outside these ranges, such as 13 months or greater, a warning screen would appear saying "Please, enter value between 0 and 12." Another consistency check also had to do with the child's age at adoption finalization. For example, a respondent might mistakenly report or the interviewer might mistakenly enter the child's age at adoption as older than the child's current age. In that event, a consistency check would appear indicating the discrepancy: "[S.C.]'s age when [his/her] adoption was finalized must be less than or equal to child's age." Even with many built-in CATI checks, data cleaning was still necessary. Invalid values were deleted and missing values were investigated. On rare occasions, certain data were not collected correctly, but based on related questions, the missing data could be determined. An important part of data cleaning was ensuring that the child identified for the interview was the selected child from the 2005-06 NS-CSHCN interview and that the child's type of adoption was correct. Finally, missing data had to be determined to be the result of a legitimate skip, a partially completed interview, or data that actually were missing in error. Questionnaire variables in the public use file that have been altered in any way after data collection, either due to cleaning or other editing steps described below, have had the letter "R" appended to the variable name to denote "recode."

Missing data

Missing data are not desirable when doing analyses and are often ignored completely by data analysts. However, it is very helpful to know why data are missing. The following codes have been used in the interview file to give analysts as much information as possible on why certain data are missing.

(.A) Added question

Variable is missing because this question was added after the start of data collection and the interview was conducted before the question was added.

(.D) Deleted question

Variable is missing because this question was removed after the start of data collection and the interview was conducted after the question was deleted.

(.L) Legitimate skip

Variable is missing due to valid questionnaire paths based on a previous answer to a root question.

(.M) Missing in error

Variable is missing due to interviewer or system errors. In cases of interviewer error, the interviewer may have deleted the data by accident or simply may have not answered the question. In cases of system error, the data may not have been collected or saved properly after they were entered by the interviewer in the CATI system.

(.P) Partially completed interview

Variable is missing because the respondent hung up after completing Section F but before completing the full interview.

Derived variables do not include the detailed coding of missing data. Missing values for derived variables received an “.M” code regardless of the reason for the missing data.

Coding of verbatim answers into question responses

For many questions in the NSAP-SN interview, respondents provided a response that did not match any pre-existing category. If this occurred, the interviewer chose “other” and typed in the response provided by the respondent. At the end of the data collection period verbatim responses were recoded into existing response categories where appropriate.

There were three ways in which verbatim responses were used to recode or back-code data:

- Some verbatim responses were back-coded to existing response categories on the preceding question;
- Some verbatim responses were used to create new response categories for the preceding question, which are indicated by new dummy variables;

- Some verbatim responses were used to create new variables to capture the data because no root question existed for which to create new categories or back-code verbatim responses into preexisting categories.

More detail about coding of verbatim responses is provided in Appendix VII.

Edits to protect confidentiality

NCHS takes extraordinary measures to assure that the identities 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 sizable 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.

The NSAP-SN data face a special challenge in assuring the confidentiality of respondents. The base survey data, from the NS-CSHCN, include state identifiers on the public use file. The NSAP-SN's national sample size of 1,003 is too small to release state identifiers, as the risk of disclosure would be increased. This also means that the public use NSAP-SN data cannot be linkable to the public use NS-CSHCN data, as such linkage would allow the state identifiers to be attached to the NSAP-SN data file.

To prevent the linkage of the public use files for the NSAP-SN and NS-CSHCN, the following steps were taken: for all NS-CSHCN variables that were included on the NSAP-SN public use file (n), and all common data elements that exist on both public use files (m), $(n+m)$ -way cross-tabulations were examined to identify any NSAP-SN case with a particular combination of characteristics that could be uniquely matched to an NS-CSHCN case with the same combination of characteristics. Whenever five or fewer NS-CSHCN cases existed as potential matches to a single NSAP-SN case, the NS-CSHCN and NSAP-SN sampling weights were examined to determine if differences in the order of magnitude in sampling weights could be used to conclusively identify which of the 5 or fewer cases was the exact match to the NSAP-SN case (although the NSAP-SN sampling weight does not equal the NS-CSHCN sampling weight, a hypothetical single NSAP-SN case with an NSAP-SN weight of 65 that had two potential matching NS-CSHCN cases, with NS-CSHCN sampling weights of 60 and 2,500, respectively, could be deduced to match to the first of those two NS-CSHCN cases).

To mask three cases in which the child had not yet reached age 3 by re-interview, the age of the child at NSAP-SN interview was collapsed such that 2-year-old children were grouped with 3-year-old children. To reduce the number of $(n+m)$ common data elements that could be used to match records between the two public use files, household income relative to the federal poverty level (FPL) was collapsed to five categories (0-100% of FPL; >100-200%; >200-300%; >300-400%; >400%) in the NSAP-SN file.

NSAP-SN variables C8A, C8C, C9A, C9C, and C9E (which indicate the exact number of children of various types in the household) and variables indicating the specific race and ethnicity of both the respondent and the respondent's spouse/partner (N24, N24A, N25, and N25A) were dropped from the

NSAP-SN public use file to prevent them being used to specifically identify a household based on detailed family structure. Variables indicating whether the sample child had had any biological children (C52) and the age of the child when action to end the adoption was taken (W20B) were dropped from the NSAP-SN public use file because they were extremely rare, and potentially observable. Additionally, a few records were perturbed as described below. These edits ensure that no NSAP-SN case in the public use file can be matched to its respective NS-CSHCN record in the NS-CSHCN public use file with certainty.

Geography

The NSAP-SN public use data contains no geographic identifiers of any kind. Although State is identified on the NS-CSHCN public use file, it is not possible to match NSAP-SN respondents to their respective NS-CSHCN records using only the NSAP-SN and NS-CSHCN public use files.

Race

NS-CSHCN Question CW10Q02 asked about the sample 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 six categories: White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and multiple race. "Multiple race" was reserved for those cases where more than one of the other five categories applied. If the respondent did not know or refused to provide the race, then race was coded as missing. Cases where a verbatim response could not be conclusively backcoded (e.g., American, Indian, Jewish) and no other race was reported were also coded as missing.

To reduce the number of common data elements and prevent the matching of NSAP-SN records to their respective NS-CSHCN records, race was combined with Hispanic ethnicity for the NSAP-SN public use file, as described below for derived variable HISPRACE.

Top-coded and collapsed variables

Several other variables have been top-coded to conceal the values of outliers at the high end of the distribution of responses or collapsed to coarsen the detail of the measurement. Due to their unusual characteristics, records including this detail might have been more readily identifiable.

- Age at NSAP interview (AGEYRNSAP) has 3 cases with age = 2 collapsed with three-year-olds.
- The country of origin (S1_NR) has been collapsed such that countries other than China, Russia, Guatemala and South Korea are grouped by continent: Other: Asia; Other: Europe; and Other.
- The time between when the child was placed in the home and when adoption became the case goal (S11_MONTHS) is measured in months, and 60 months or more is the maximum reported.

- The child’s age when the adoption was finalized (C1AR) is collapsed into the following categories: 0 years; 1 year; 2 years; 3 years; 4-5 years; 6-7 years; 8-10 years; 11 years and older.
- The child’s age when first placed in the home (C1BR) is collapsed into the following categories: 0 years; 1 year; 2-3 years; 4-5 years; 6-8 years; 9 years and older.
- Responses of “another adoptive family” and “a residential treatment facility” for the place where the child lived prior to placement (C2_NR) have been collapsed with “other.”
- For respondents who were themselves adopted as children, the respondent’s age at adoption (C15A_MONTHS) is measured in months, and 120 months or more is the maximum reported.
- For respondents’ spouses/partners who were themselves adopted as children, the respondent’s spouse’s/partner’s age at adoption (C15C_MONTHS) is measured in months, and 48 months or more is the maximum reported.
- For the number of post-adoption reports filed (C25AAR), 20 or more is the maximum reported.
- For the first language the child spoke (C53R), Korean and Ukrainian have been collapsed into “other.”
- For the number of times the child has lived outside the home for two weeks or more (W17AR), 10 or more is the maximum reported.
- The adoption subsidy monthly dollar amount (F4R) has been collapsed into the following categories: \$0-300; \$301-400; \$401-500; \$501-600; \$601-750; \$751-1,000; and >\$1000.
- Respondent’s (N23R) and respondent’s spouse/partner’s (N23AAR) years of birth have been collapsed into the following categories: <1950; 1950-54; 1955-59; 1960-64; 1965-69; and >1969.
- The calculated year of adoption (YR_ADOPT) has been collapsed into 8 categories: 1990-1992; 1993-1995; 1996-1997; 1998-2000; 2001-2002; 2003-2004; 2005-2006; and 2007-2008.

Data perturbations

Because there were no cases where a single NSAP-SN case had five or fewer potential NS-CSHCN matches based on common data elements such that it was possible to discern which of the five was the correct match based on examination of the sampling weights, it was not necessary for additional data perturbation to prevent the matching of records.

Analysts interested in working with data that were suppressed, coarsened, or otherwise perturbed to protect confidentiality may apply to access unmodified data files through the NCHS Research Data Centers (RDC). These facilities are located at NCHS headquarters in Hyattsville, Maryland, a Washington, DC suburb, and in Atlanta, Georgia, CDC’s home base. Data files housed in an RDC may also be accessed remotely via e-mail or through affiliated Census RDCs, but the initial proposal to access NSAP-SN data must be submitted to the NCHS RDC. Analysts should visit their web site at <http://www.cdc.gov/nchs/r&d/rdc.htm> for more information.

Derived variables

A number of derived variables appear on the public use data file. The definitions of these variables are provided below. Derived variables from the NS-CSHCN interview that were appended to the NSAP-SN public use file are also included.

ADOPT_TYPE – This variable, based on NS-CSHCN variables C10Q04 and C10Q05, indicates the selected child’s type of adoption (international, foster care, or private domestic). While this information was collected during the 2005-06 NS-CSHCN interview, this variable reflects any updates as of the NSAP-SN interview (24 cases were affected as described below).

AGEYRNSAP – This variable, based on NSAP-SN variable AGE, is a collapsed version of child’s age at NSAP-SN interview in categories of whole years of age: 2-3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17.

ANYSIBS – This variable is based on NS-CSHCN variable TOTKIDSR, which gives the total number of children under 18 years old in the household. ANYSIBS indicates if there are any other children in the household (1) or not (0).

C15A_MONTHS – This variable is based on NSAP-SN variables C15A_YEAR and C15A_MONTH, which give the respondent’s age at adoption, for cases in which the adult respondent was also adopted as a child. C15A_MONTHS is measured in months, and top-coded at 120 months or more.

C15C_MONTHS – This variable is based on NSAP-SN variables C15C_YEAR and C15C_MONTH, which give the respondent’s spouse’s/partner’s age at adoption, for cases in which the respondent’s spouse/partner was also adopted as a child. C15C_MONTHS is measured in months, and top-coded at 48 months or more.

HISPRACE – This variable (based on CW10Q01 and C1002X01 through C1002X08 from the NS-CSHCN, including responses back coded from the verbatim variable CW10Q02A) indicates whether or not the child is of Hispanic or Latino origin, and if not, indicates the race of the child. If the child is of Hispanic or Latino origin, then HISPRACE = 1. If the child is not of Hispanic or Latino origin, then HISPRACE specifies the race of the selected child as of one of 4 categories: non-Hispanic white only (2), non-Hispanic black only (3), non-Hispanic Asian only (4), and non-Hispanic other (5), including American Indian only, Alaska Native only, Native Hawaiian only, Pacific Islander only, other unknown or multiple races. Twenty cases of “don’t know” or “refused” responses have been replaced with imputed values for the NSAP-SN public use file.

POVLEVEL5 – This variable is a collapsed version of NS-CSHCN derived variable POVLEVEL, which is based on total household members (C11Q01_A) and the household income value. If data for either of these two components are missing, refused, or had a “don’t know” response, this variable is assigned a missing value. Once an income-to-household-size measure is computed, it is compared with DHHS Federal Poverty Guidelines. Appendix VII of the NS-CSHCN Design and Operations Report details the derivation of POVLEVEL (1). POVLEVEL5, released on the NSAP-SN public file, collapses POVLEVEL into the following five categories: 0-100% of the federal poverty level (FPL); >100-200% FPL; >200-300% FPL; >300-400% FPL; and >400% FPL.

S11_MONTHS – This variable is based on NSAP-SN variables S11_Y and S11_M, which give the span between the time the child was placed in the home and when adoption became the case goal.

S11_MONTHS is measured in months and top-coded at 60 months or more.

SEX – This variable is based on NS-CSHCN variable C2Q03 and specifies the gender of the child. Three cases of “don’t know” or “refused” responses have been replaced with imputed values for the NSAP-SN public use file.

TRANSRACE – This variable is based on NSAP-SN variables C17_N and C17_A and indicates whether or not the child’s race/ethnicity differs from the race/ethnicity of both parents, or differs from the race/ethnicity of the single parent.

YR_ADOPT– This variable is derived from the date of NSAP-SN interview and the child’s reported age at adoption and age in months at interview. The number of months between the date of adoption and the date of interview were obtained by comparison of the child’s age in months at adoption and age in months at interview, and was subtracted from the century-month code (CMC) of the date of interview to derive the CMC of the date of adoption. This variable has been collapsed as 8 categories: 1990-1992; 1993-1995; 1996-1997; 1998-2000; 2001-2002; 2003-2004; 2005-2006; and 2007-2008.

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” was reported for each of the dummy variables.

- C10_N is represented by C10_NX01 to C10_NX03;
- W20A is represented by W20AX01 to W20AX03;
- N1D is represented by N1DX01 to N1DX06;
- N2BA is represented by N2BAX01 to N2BAX08;
- N2D is represented by N2DX01 to N2DX05;
- N3B is represented by N3BX01 to N3BX07;
- N3D is represented by N3DX01 to N3DX05;
- N5D is represented by N5DX01 to N5DX09;
- N5F is represented by N5FX01 to N5FX05;
- N6B is represented by N6BX01 to N6BX09;
- N6D is represented by N6DX01 to N6DX07;
- N7B is represented by N7BX01 to N7BX07;

- N7D is represented by N7DX01 to N7DX07;
- N8B is represented by N8BX01 to N8BX08;
- N8D is represented by N8DX01 to N8DX07;
- N9B is represented by N9BX01 to N9BX08;
- N9D is represented by N9DX01 to N9DX06;
- N10BB is represented by N10BBX01 to N10BBX08;
- N10D is represented by N10DX01 to N10DX07;
- N11B is represented by N11BX01 to N11BX07;
- N11D is represented by N11DX01 to N11DX07;
- N12B is represented by N12BX01 to N12BX07;
- N12D is represented by N12DX01 to N12DX07;
- N14BB is represented by N14BBX01 to N14BBX08;
- N14D is represented by N14DX01 to N14DX07;
- N18B is represented by N18BX01 to N18BX07;
- N18D is represented by N18DX01 to N18DX05;
- N24A is represented by N24AX01 to N24AX08; and
- N25A is represented by N25AX01 to N25AX08.

Additional data notes

There were 24 cases for which a change was made to the case's original ADOPT_TYPE assignment because information regarding the type of adoption provided by the respondent during the NSAP-SN interview conflicted with similar information provided during the NS-CSHCN interview. Derived variable ADOPT_TYPE reflects the later value for these cases.

Values of the child's age at the time of NSAP-SN were updated for two cases during data cleaning. Variables were set to "missing in error" as needed when updated age no longer corresponded with age-based skip patterns.

As the result of a system error, 8 cases have C9E set to "missing in error."

During NSAP-SN data collection it was discovered that the mental health medication questions (F16A_A - F16A_EA) were being asked if the child had ever taken mental health medications. However, the questions should only have been asked if the child had taken such medication in the previous 12 months. Variable F16_A_FLAG identifies cases where the respondent indicated that the child had not taken mental health medications in the previous 12 months. There are 11 such cases.

Quality control

A team of programmers and project staff were responsible for cleaning data at the end of data collection. The cleaned data were also thoroughly checked by other project staff. Below is a brief description of the steps involved in producing the final data file.

Using the questionnaire specifications, project staff produced several computer programs to review the data and identify data items that required cleaning. These programs were also used during data collection to monitor production. The programming team developed cleaning programs so that the resulting cleaned data file could be replicated and reviewed by others. These programs applied any final data corrections based on data recovery, checked that skip patterns were followed, created derived variables from questionnaire variables, and assigned special codes to reflect various missing data.

Project staff then ran several quality control checks on the cleaned data file. The project staff cross-checked the cleaned file against an independently prepared data file. Variable frequencies were reviewed to confirm skip patterns, missing code assignments, and expected distributions. Derived variable specifications and computations were carefully reviewed. Variable labels were compared against the questionnaire to confirm accurate label assignments.

The cleaning programs were run on each new version of the data file until no problems were identified in the quality control checks. The reviewer then signed off on the data file. Finally, senior project management reviewed the data file and supporting documents.

Estimation and hypothesis testing

The NSAP-SN data were obtained through a complex sample design involving the selection of a single child with special health care needs per household and stratification of households within states. To produce estimates that are nationally representative of adopted CSHCN, sampling weights must be used. These sampling weights account for the unequal probabilities of selection for households and children, and they include adjustments for multiple-telephone households, unit nonresponse, and noncoverage of nontelephone households and households without landline telephones, as well as adjustments to known population control estimates. As described earlier, the sampling weights for NSAP-SN respondents have further been adjusted for nonresponse to the NSAP-SN and re-adjusted to population control estimates for adopted CSHCN derived from the 2005-2006 NS-CSHCN. Estimates based on the sampling weights generalize to the U.S. population of adopted CSHCN who were 0-15 years of age in 2005-2006 and living in households where English is spoken. These estimates do not generalize to the population of adoptive parents, or the population of adoptive mothers, or the population of adopted children's health care providers.

Variables used for variance estimation

The sample design of the NSAP-SN is complex, and the interview records have unequal weights, so statistical software that assumes 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. 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 to estimate the complex sample variances for the NSAP-SN data, stratum and primary sampling unit (PSU) identifiers have been provided on the data file. These variables and the sample weights are necessary to properly calculate variances.

The stratum identifiers reported on the data set are not identical to the strata used to draw the main sample. In states with multiple estimation areas, independent samples were drawn from each estimation area in proportion to the total number of households with children in each estimation area. Therefore, these estimation areas should be considered strata for variance estimation. However, disclosure of the specific estimation area for each child could increase the risk of disclosure of a respondent's or child's identity. In the absence of estimation-area specific identifiers, the NS-CSHCN collapsed stratum identifier is the state identifier. By using the state identifier rather than the suppressed estimation area identifier, the standard errors for national and state estimates with key variables are affected only slightly and not in a consistent direction.

The NSAP-SN sample size of 1,003 is considerably smaller than the NS-CSHCN sample size of 40,723, and the former is too small to allow for the release of state identifier, as the risk of disclosure of a respondent's or child's identity would be increased. Therefore, the NSAP-SN collapsed stratum identifier (called PSUID) collapses the 51 strata for the 50 states plus Washington, DC into ten categories. The categories were determined by rank-ordering the 51 strata by average sampling weight, and dividing the 51 strata into 10 strata by whole state. Nine categories contain 5 strata and one category contains 6 strata. By using this collapsed stratum identifier rather than the suppressed state identifier, the standard errors for national estimates and for estimates by adoption type with key variables are affected only slightly and not in a consistent direction. Households were sampled within strata, and the unique household identifier is called NSAPSNID.

The overall number of persons in this survey is sufficient for many statistical inference purposes. However, analyses of some rare responses and analyses of subclasses can lead to estimates 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 variability of estimates of means, proportions, and totals.

Variance estimation using SUDAAN or Stata

Standard errors of estimates from the NSAP-SN can be obtained using the Taylor Series approximation method, available in software such as SUDAAN, SAS, and Stata. The stratum should be identified by the variable PSUID, and the household should be identified by the variable NSAPSNID.

The simplifying assumption that households have been sampled with replacement allows most complex survey sample design computer programs to calculate standard errors in a straightforward way. This method requires no recoding of design variables, but it is statistically less efficient (and therefore more conservative) than some other methods. For SUDAAN, the data file needs to be sorted by stratum

(PSUID) and household (NSAPSNID). The following SUDAAN design statements are then used for analyses:

- PROC ... DESIGN = WR;
- NEST PSUID NSAPSNID;
- WEIGHT NSAPSNWT;

For Stata, the following design statements are used:

- svyset strata PSUID
- svyset psu NSAPSNID
- svyset pweight NSAPSNWT
- svyset

Other variance estimation procedures are also applicable to the NSAP-SN. 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

Many analyses of the NSAP-SN data will focus on specific population subgroups, such as CSHCN adopted internationally or adopted CSHCN living with a single parent. Some analysts will therefore be tempted to delete all records outside of the domain of interest in order to work with smaller data files and run computer jobs more quickly. This procedure of keeping only selected records and list-wise deleting other records 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). 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 in fact exist). SUDAAN has a SUBPOPN option that allows the user to target specific subpopulations for analysis while retaining the full unsubsetted data set that includes the full sample design information. Analysts interested in specific subpopulations must use SUBPOPN with the full sample data rather than subsetting the data set.

Weighted frequencies, prevalence estimates, and standard errors

Weighted frequencies of adopted CSHCN by adoption type, with standard errors calculated using the Taylor Series approximation method in SUDAAN, appear in Appendix VIII. Analysts may wish to replicate this table to determine if they are using the weights and sample design variables correctly.

Guidelines for data use

With the goal of mutual benefit, NCHS requests that users 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, National Survey of Adoptive Parents of Children with Special Health Care Needs, 2008” should appear at the bottom of all tables. Published material derived from the data should also include a disclaimer that credits any analyses, interpretations, or conclusions reached to the author 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.

CIPSEA and the Public Health Service Act (section 308d) provide that these data collected by NCHS may be used only for the purpose of statistical reporting and analysis. Any effort to determine the identity of any reported case is prohibited by these laws. NCHS takes extraordinary measures to assure that the identity of survey subjects cannot be disclosed. All direct identifiers, as well as any characteristics that might lead to identification, have been omitted from the data set. Any intentional identification or disclosure of a person or establishment violates the assurances of confidentiality given to providers of the information. Therefore, users must:

- Use the data in this data set 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 set with individually identifiable data from any NCHS or non-NCHS data sources.

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

Further Information

Data users can obtain the latest information about SLAITS by periodically checking the SLAITS web site at <http://www.cdc.gov/nchs/slaits.htm>. This site features downloadable data files and documentation for SLAITS modules, as well as important information about any modifications and updates to data and/or documentation. Data users will also find current contact information if there are any additional questions. Data users with questions may also send e-mail to slaits@cdc.gov.

Researchers may also wish to join the SLAITS electronic mail listserv. To subscribe or unsubscribe, visit <http://www.cdc.gov/nchs/about/major/slaits/slaitlistserv.htm> and follow the directions listed. The listserv has approximately 1,000 subscribers around the world who use SLAITS data or are interested in SLAITS. Subscribers periodically receive e-mail containing news about SLAITS surveys (e.g., new

releases or modifications to existing data), publications, or related conferences. The listserv is moderated and listserv membership is private.

For more information on CDC, you may contact CDC's Information Contact Center (CDC-INFO) in English or Spanish by calling (800) CDC-INFO [800-232-4636] or e-mailing cdcinfo@cdc.gov. Persons with hearing impairment may contact CDC-INFO with a TTY machine at (888) 232-6348. The CDC-INFO fax machine line is (770) 488-4760. Please note, however, that CDC-INFO cannot respond to questions about individual medical cases, provide second opinions, or make specific recommendations regarding therapy. These issues should be addressed directly with personal health care providers.

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Appendix I: Weighting technical summary

NSAP-SN weighting procedures

This appendix summarizes the methodology used for weighting the NSAP-SN sample. The weighting scheme is a simplified version of the weighting scheme for National Immunization Survey. The weighting procedures for the NSAP-SN sample involve the following steps:

- Obtain base weights from 2005-06 NS-CSHCN final weights,
- Adjustment for nonresponse to the NSAP-SN interview,
- Raking adjustment to available control totals.

a. Base Weight

The sample for NSAP-SN is obtained by including all adopted children in English-speaking households in the target age range identified in the 2005-06 NS-CSHCN sample. For these identified cases, the weighting process starts with the final weight from 2005-06 NS-CSHCN. However, four out of 140 cases with CSHCN_AGE =14 (age as of 2005-06 NS-CSHCN) and 27 out of 150 cases with CSHCN_AGE=15 were excluded from the sample based on updated age, i.e., NSAP-SN age, being 18 years or older.

The final NS-CSHCN weights were derived by applying adjustments to account for nonresponse, for households with multiple telephone numbers, and for noncoverage of children in households without landline telephones, as well as adjustments to known population control estimates. For a detailed description of the derivation of the NS-CSHCN final weights, readers are referred to the 2005-2006 NS-CSHCN Design and Operations Report (1).

The NSAP-SN base weight for each child was defined as the 2005-06 NS-CSHCN final weight for that child, adjusted for children 14 years and 15 years old (as of 2005-06 NS-CSHCN interview) who were excluded from the sample based on updated age by proportionally increasing the weights of the remaining children ages 14 and 15 in 2005-2006 to account for those excluded. The proportional adjustments were $140/(140-4)$ and $150/(150-27)$, respectively.

b. Adjustment for incomplete interviews

Not all identified cases in the NSAP-SN sample completed the interview. To compensate for interview nonresponse, the weights of the children with complete interviews were adjusted. The adjustment was made by forming nonresponse adjustment cells. The nonresponse adjusted weight was derived by dividing the base weight for each child by the weighted NSAP-SN interview completion rate for the adjustment cell containing the child. The interview nonresponse adjustment was made separately within each census region. The adjustment cells were formed using the following variables listed in order of priority:

- census region;
- type of adoption (as of 2005-06 NS-CSHCN);

- 2005-06 NS-CSHCN age group; and
- race/ethnicity.

Any cell where the number of responding cases was less than 20 was collapsed with a neighboring cell.

c. Raking adjustment to external control totals

The interview nonresponse-adjusted weight was further adjusted such that the sum of the weights agreed with the control totals. Since there are no external control totals available on the NSAP-SN target children, data from the 2005-06 NS-CSHCN were used to derive the control totals. That is, the NS-CSHCN final weight was summed for all English speaking, adopted 0-15-year-old children (age as of 2005-06 NS-CSHCN), with the sums to the appropriate levels serving as the control totals. The raking adjustment was done using various categories of the following margins at the national level:

- census Region;
- number of male and female children within each of four 2005-06 NS-CSHCN age groups;
- number of children in age group by Type of Adoption as assessed in 2005-06 NS-CSHCN;
- race/ethnicity;
- number of children in households by highest reported education in household; and
- number of children in households by household income.

Categories of these raking dimensions with less than 20 cases were collapsed with a neighboring category.

Raking took each variable in turn and applied a proportional adjustment to the interview nonresponse-adjusted weights of the children who belonged to the same category of the variables. After a number of iterations over all raking dimensions, the raked weights have totals that match all the desired control totals. The raked weight can be expressed as the nonresponse-adjusted weight for the child multiplied by the raking adjustment factor for the child derived through the iteration process.

At this point, the weights were checked for extreme values. Similar to the process for the NIS, the weights that exceeded the median weight plus six times the inter-quartile range of the weights were truncated to this cutoff. The raking step was applied again after the truncation of the weights, and the weights were rechecked for extreme weights and truncated as before. The process was iterated until there was no extreme weight after raking.

The raking and truncation process produced a final weight for each child with a completed NSAP-SN interview.

National estimates & summary statistics of weights

Descriptive statistics for the final NSAP-SN weight are provided in Table I. The final NSAP-SN weight is used to obtain estimates at the national-level.

<Table I here>

Appendix II: Questionnaire

This appendix contains the NSAP-SN questionnaire. The NS-CSHCN questionnaire can be found in the 2005-2006 NS-CSHCN Design and Operations Report (1) and online at the SLAITS web site (<http://www.cdc.gov/nchs/slaits.htm>).

When this report is edited, typeset, and printed, the NSAP-SN questionnaire will be added. Until such time, this questionnaire may be found online at the SLAITS web site (<http://www.cdc.gov/nchs/slaits.htm>)

Appendix III: Summary of questionnaire changes during data collection

There were no questionnaire changes during NSAP-SN data collection. However, NSAP-SN staff did release additional interviewer job aid text that provided respondents with information pertaining to post-adoption services.

During data collection, interviewers reported some confusion with questions F14A_A and F16_A because the questionnaire did not contain an intermediate screening question between these two questions.

Respondents who reported that they had used Medicaid to obtain mental health medications for the SC in F14A_A were then asked in F16_A what portion of the SC's mental health medications were paid for by that source. The wording of question F16_A assumed that the child had used medications in the past 12 months when the interviewers had not asked if the child had used medications during that time frame.

The following procedure was developed to work around this problem: If the parent spontaneously indicated at F16_A that the child has not used mental health medications in the past 12 months, the interviewer entered "don't know" to questions F16A_A through F16A_D without reading the text that was presented on the screen. At F16A_E ("is there any other source helping pay for mental health medications?") the interviewer entered "yes" and then typed "CHILD HAS NOT USED MEDS IN LAST 12 MOS" when prompted for the verbatim entry at F16A_EA. When NORC cleaned the final data file, the answers to F16A_A through F16A_EA were blanked out as legitimate skips. There are 11 such cases.

Changes that were made to the NSAP questionnaire during the administration of NSAP, but prior to the beginning of NSAP-SN data collection, are described in detail in the NSAP Design and Operations report (3).

Appendix IV: Letters sent to sampled households

This appendix contains the NSAP-SN-specific complement of letters sent to households during the data collection period in 2008. The full complement of advance letters, follow-up letters, and thank you letters used over the course of data collection for the National Immunization Survey and NS-CSHCN in 2005-2006 can be found in the 2005-2006 NS-CSHCN Design and Operations Report (1).

The following 6 NSAP-SN letters are included in this appendix:

- 1) Advance letter sent prior to calling;
- 2) Follow-up letter when incentives were offered to households that had refused twice or passively refused;
- 3) Follow-up letter for households with no telephone contact asking respondents to call the toll-free number;
- 4) Thank you letter when incentive was mailed (\$25). Cases receiving this thank you letter were either (a) eligible for \$25, or (b) eligible for \$30 and already received a \$5 prepaid incentive;
- 5) Thank you letter when incentive was mailed (\$30). Cases receiving this thank you letter were eligible for \$30 and did not receive a \$5 prepaid incentive;
- 6) Thank you letter when incentive was mailed (\$35). Cases receiving this thank you letter were either (a) eligible for \$25 and received a \$10 compensation for participating by cellular telephone, or (b) eligible for \$30, already received a \$5 prepaid incentive, and received a \$10 compensation for participating by cellular telephone.

When this report is edited, typeset, and printed, the letters will be added.

Appendix V: Incentive effort

The National Survey of Adoptive Parents (NSAP) was the last of up to three concurrent surveys (National Immunization Survey (NIS), National Survey of Children's Health, and NSAP) and non-response was a concern in regards to respondent burden. NSAP-SN, however, was a stand-alone follow-back conducted years after the original NIS and NS-CSHCN interviews. Non-response was a key issue since NSAP-SN was a follow-back survey and had the added challenge of finding 2005-06 NS-CSHCN households. It had been approximately one to three years since households identified for NSAP-SN were contacted as part of the 2005-06 NS-CSHCN. While the reasons for the likelihood of non-response on NSAP-SN differed, it was recognized that NSAP-SN would benefit from a similar incentive model as used on NSAP to address non-response.

Eligible cases

All households that completed the NSAP-SN screener and screened as in-scope for the interview were offered \$25 for completion of the survey. Households became eligible for an additional \$5 incentive (total \$30 incentive payment) based on their interview status and calling history characteristics.

Cases could become eligible for the additional \$5 incentive in one of two ways. First, a case could qualify after having refused participation verbally (i.e., active refusal). After two refusals in an NSAP-SN-eligible case's call history, the case became eligible for an additional \$5 incentive (\$30 total incentive payment). Second, a case could qualify as a passive refusal based on patterns of continued non-response.

Two groups of passive refusal cases qualified for the additional \$5 incentive: (1) NSAP-SN-eligible households that had never verbally refused in their call history, but had multiple calls placed to the household over a period of time without successful contact, and (2) NSAP-SN-eligible households that had verbally refused once during their call history, but since this refusal had had multiple calls placed to the household over a period of time without successful contact.

Procedures

Once NSAP-SN-eligible cases became eligible for the additional \$5 incentive (\$30 total incentive), they were offered the incentive either by mail or on call back in the following manner. After a second verbal refusal or qualifying for a passive refusal incentive, cases were temporarily finalized, or removed from calling, within the CATI system. For households with an available address, a letter (Appendix IV) was mailed with \$5 enclosed. The letter explained that attempts had been made to contact the household via phone to complete the NSAP-SN interview. It also briefly described NSAP-SN, included an FAQ section about the survey, and mentioned that \$25 would be mailed upon continued participation in NSAP-SN. In this way, the letter served as a supplementary mode of refusal conversion. After approximately one to two weeks from the time the case finalized, the active refusal and passive refusal incentive cases were reactivated and offered \$25 by phone. The incentive offer was introduced in various interview scripts (i.e., consent script, callback script, answering machine script) based on case progress within the interview. For active refusal or passive refusal incentive-eligible households without an address, \$30 was introduced at similar points in the survey, again based on the point at which the refusal occurred.

After the incentive offer, cases would be permanently finalized and not called again based on refusal counts. Active refusal cases (with two previous refusals) and passive refusal cases (with one previous refusal) were finalized after one subsequent refusal. Passive refusals with no previous refusals finalized after the second refusal post-incentive offer. In addition, if any case refused in a hostile manner or requested to be removed from the calling list, the case was finalized and not called again.

If any passive refusal or active refusal incentive-eligible household completed NSAP-SN, or if a respondent requested the incentive without completing the interview, address information for the household was either confirmed or collected. The appropriate \$25 or \$30 payment was mailed to the household, along with a letter expressing appreciation for the respondent's time and effort spent participating in the interview. If a household completed NSAP-SN without becoming eligible for the \$5 incentive, \$25 was mailed to the household enclosed in a letter expressing appreciation for their participation. Households that completed the NSAP-SN interview, but declined to confirm or provide address information (36 cases), were not mailed the incentive payment.

Results

The \$5 additional incentive effort, both for active and passive refusals, helped achieve 15 additional NSAP-SN interviews, as shown in Table II. Of the active refusal incentive cases, 6 (26.1%) completed the interview. Of the passive incentive cases, 9 (45.0%) completed the interview.

<Table II here>

The \$5 additional incentive increased the number of completed interviews from 992 to 1,007 cases. These additional completes increased the unweighted interview complete rate 1 (ratio of completes to total sample) from 61.7% to 62.7% and the unweighted interview complete rate 2 (ratio of completes to released sample excluding out-of-scope cases) from 65.0% to 65.9%.

Appendix VI: Nonresponse bias analysis

As previously described, the overall response rate for the National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN) was 37.7%. Nonresponse to the NSAP-SN occurred in two stages: nonresponse to the 2005-2006 National Survey of Children with Special Health Care Needs (NS-CSHCN), and nonresponse to the follow-up interview for the NSAP-SN. What is unusual in this case is that all of the nonrespondents in the second stage had already completed the NS-CSHCN, and as a result, a great deal of information was known about these nonrespondents, information that is usually not available for nonrespondents. This had two main implications: first, it was possible to conduct a more extensive and accurate analysis of the potential for nonresponse bias resulting from the second stage of nonresponse than would normally be possible; and second, it was possible to adjust the weights very precisely to correct for nonresponse bias (as described in Appendix I). As a result of the weighting adjustments, the overall response rate for the NS-CSHCN itself, i.e., the overall response rate for the first stage of nonresponse, could be considered the more accurate indicator of potential nonresponse bias in NSAP-SN.

Tables III, IV and V present a comparison of NSAP-SN respondents and nonrespondents on selected NS-CSHCN data elements. All cases completed the NS-CSHCN; they are differentiated by whether they responded or not in the second stage (i.e., whether they responded to the NSAP-SN or not). Table III shows child-level demographic and health characteristics, table IV shows household-level socioeconomic and demographic characteristics, and table V shows NS-CSHCN data elements that are topically similar to the sorts of data collected in NSAP-SN. These tables demonstrate that there are significant differences between respondents and nonrespondents on many dimensions. Nonrespondents were significantly less likely to represent international adoptions, non-Hispanic white CSHCN, privately-insured CSHCN, and CSHCH with no insurance coverage gaps, and significantly more likely to represent older CSHCN, non-Hispanic black CSHCN, publically-insured CSHCN and those with insurance coverage gaps (table III); significantly less likely to represent households in the highest income or education categories, households with 2 adults or 2 children, and households in the Midwest, and significantly more likely to represent households in the South (table IV); and significantly less likely to represent households with 2 adoptive parents, CSHCN adopted at age 1, and CSHCN not covered by Medicaid, and significantly more likely to represent households with 1 adoptive parent and CSCHN covered by Medicaid (table V). In addition to these statistically significant differences, many other characteristics showed differences between respondents and nonrespondents that are not statistically significant, but are large enough to prompt the question as to the magnitude of the effect of second-stage nonresponse on survey estimates.

<Table III here>

<Table IV here>

<Table V here>

Tables VI, VII and VIII present estimates for the final NSAP-SN sample, weighted by the nonresponse-adjusted sampling weights, compared with estimates for the full pool of NS-CSHCN cases that were eligible for the NSAP-SN (i.e., the NSAP-SN respondents and nonrespondents combined, the final NSAP-SN sample that would have been attained if there were no second-stage nonresponse at all). After the weighting adjustments described in Appendix I, estimates for the NSAP-SN respondents are much closer to the estimates for the full pool of NSAP-SN eligible cases, and in many comparisons are so close that the remaining difference is negligible. Although this is to be expected for the characteristics that were used to adjust the weights, such as age, it is also the case for characteristics that were not directly controlled in the adjustment of the sampling weights, presumably because they are related to the variables that were controlled for in the weighting adjustment.

<Table VI here>

<Table VII here>

<Table VIII here>

The only characteristic that shows a significant difference in tables VI – VIII is the percent of households with 3 or more children (the final NSAP-SN sample underestimates the proportion of adoptive households with 3 or more children by 4 percentage points). Other than the significant difference found for 3 or more children, only 2 other characteristics in tables VI – VIII showed a difference between the final NSAP-SN sample and the full pool of NSAP-SN eligible cases that was as high as three percentage points: two children in the household (3.6 percentage points, overestimated in the final NSAP-SN file, table VI); and CSHCN adopted at age 0 (3 percentage points, underestimated in the final NSAP-SN file, table VIII).

Of all the characteristics examined, there is a second-stage nonresponse bias of at least 3 percentage points for categories of only two variables: the number of children in the household, and the age at adoption. Although this analysis does not necessarily demonstrate that no nonresponse bias derives from second-stage nonresponse at all, it strongly suggests that the overall first-stage response rate (56.1%) is very likely a better indicator of the potential nonresponse bias in NSAP-SN than the final overall response rate of 37.7%.

Appendix VII: Coding of verbatim answers into question responses

For many questions in the NSAP-SN interview, respondents provided a response that did not match any pre-existing category. If this occurred, the interviewer chose “other” and typed in the response provided by the respondent. After the end of the data collection period verbatim responses were recoded into existing response categories where appropriate.

There were three ways in which verbatim responses were used to recode or backcode data:

- Some verbatim responses were back-coded to existing response categories on preceding questions;
- Some verbatim responses were used to create new response categories for preceding questions, which are indicated by new dummy variables;
- Some verbatim responses were used to create new variables to capture the data because no root question existed for which to create new categories or back-code verbatim responses into preexisting categories.

Any questionnaire variable that was recoded or back-coded based on verbatim responses had the letter ‘R’ appended to the variable name to denote “recoded version” of the variable.

Verbatim responses were used to back-code “other” into pre-existing categories for the following variables:

- C2_N asked where the child lived prior to placement with the family, and “other” responses were recorded verbatim in C2A. Verbatim responses were used to change a few cases of “other” to one of the pre-existing codes on C2_NR.
- C12A through C12F asked if a list of items were reasons why the respondent chose to adopt; C12G asked if there were any other reasons and C12GA recorded the verbatim reason. Verbatim responses were used to change “no” to “yes” for a few cases each on C12AR, C12BR, C12CR, C12ER, and C12FR.
- C22A through C22H asked if a list of items were reasons why the respondent chose to adopt via a private domestic adoption; C22I asked if there were any other reasons and C22IA recorded the verbatim reason. C22A through C22H and C22IA were each followed by a question that asked if the reason was very important, somewhat important, or not important. Verbatim responses were used to change “no” to “yes” for a few cases each on C22AR, C22ER, and C22HR, and in each case, the value for the importance follow-up C22IA was assigned as appropriate to C22AAR, C22EAR, and C22HAR.
- C23A_N through C23K asked if a list of items were reasons why the respondent chose to adopt via an international adoption; C23L asked if there were any other reasons and C23LA recorded the verbatim reason. C23A_N through C23K and C23LA were each followed by a question that

- F6A through F6C asked if a list of items were reasons why the respondent requested a subsidy; F6D asked if there were any other reasons and F6DA recorded the verbatim reason. Verbatim responses were used to change “no” to “yes” for a few cases on F6AR.
- N1D, N2D, N3D, N5F, N6D, N7D, N9D, N10D, N11D, N12D, N14D, and N18D are items that asked why the respondent or respondent’s child did not receive a particular post-adoption support or service; multiple answers were possible and the answers were recorded in dummy variables. Verbatim responses were used to change “other” to one of the pre-existing codes for a few cases on each the following dummy variables: N1DX01R, N1DX02R, N1DX04R, N2DX01R, N2DX02R, N3DX03R, N3DX04R, N5FX01R, N5FX02R, N6DX02R, N7DX02R, N9DX01R, N9DX02R, N9DX03R, N10DX01R, N10DX02R, N10DX04R, N10DX05R, N10DX06R, N11DX02R, N11DX04R, N11DX05R, N12DX01R, N12DX02R, N12DX04R, N12DX05R, N14DX04R, and N18DX03R.
- N3B, N5D, N6B, N10BB, N11B, and N12B are items that asked how the respondent heard about particular post-adoption supports and services; multiple answers were possible and the answers were recorded in dummy variables. Verbatim responses were used to change “other” to one of the pre-existing codes for a few cases on each the following dummy variables: N3BX02R, N5DX01R, N5DX02R, N6BX03R, N10BBX01R, N10BBX02R, N11BX01R, and N12BX01R.
- N21A and N22A asked the respondent who helped them assist or recruit other adoptive families. Verbatim responses were used to change “other” to one of the pre-existing codes for a few cases on N21AR and N22AR.
- N26 and N27 are items that asked the respondent’s and respondent’s spouse’s/partner’s employment status the previous week. Verbatim responses were used to change “other” to one of the pre-existing codes for a few cases on N26R and N27R.

Verbatim responses were used to create new response categories for the following variables:

- F10A asked for other reasons why the family didn’t receive an adoption subsidy. Some “other” responses are put into a new category on F10R indicating the subsidy was not available.
- N1DA, N2DA, N3DA, N5FA, N6DA, N7DA, N9DA, N10DA, N11DA, N12DA, N14DA, and N18DA are items that asked for other reasons why the respondent or respondent’s child did not receive a particular post-adoption support or service. For each, some “other: verbatim” responses have been back-coded into new categories: one that combines responses such as “distance” and “transportation issues,” another that combines responses such as “time” and “scheduling difficulties,” another that combines responses that indicate the child’s condition or behavior prevented the family from receiving the service, and another that combined responses such as “it wasn’t needed,” “a family member refused,” and “we didn’t follow through with it.” All these

- N2BAA, N3BA, N5DA, N6BA, N7BA, N8BA, N9BA, N10BA, N11BA, N12BA, N14BBA, and N18BA are items that asked for other sources from whom the respondent heard about particular post-adoption supports and services. For each, some “other: verbatim” responses have been back-coded into two new categories: one that combines responses such as “friends,” “acquaintances,” “church” and “word of mouth,” and another that combines responses such as “clinic,” “hospital,” and others as “other service providers.” The new response categories are captured by the dummy variables N2BAA_1, N2BAA_2, N3BA_1, N3BA_2, N5DA_1, N5DA_2, N6BA_1, N6BA_2, N7BA_1, N7BA_2, N8BA_1, N9BA_1, N9BA_2, N10BA_1, N10BA_2, N11BA_2, N12BA_1, N12BA_2, N14BBA_1, N14BBA_2, N18BA_1, and N18BA_2.
- N21AA and N22AA asked the respondent for other sources that helped them assist or recruit other adoptive families. A new category has been created for these variables that groups together responses such as “social services,” “other public agency,” and “non-governmental organization.” The new response categories are captured by the dummy variables N21AA_1 and N22AA_1.

Verbatim responses were used to create new variables for the following situations:

- C12GA asked for other reasons why the respondent chose to adopt. New variable C12GA_1 indicates that the respondent had formed a bond or already loved the child prior to adoption; C12GA_2 indicates that the child was a relative’s or friend’s child prior to the adoption; C12GA_3 indicates a general statement such as “I love children;” C12GA_4 indicates that the respondent wanted to help the child avoid going to foster care.
- C22IA, C23LA and C24FA asked for other reasons why the respondent chose the specific type of adoption they did (private domestic, international, or foster care). New variable C22IA_1 indicates responses such as convenience or a desire to help American children; C22IA_2 indicates responses such as lower cost or less risk; C22IA_3 indicates responses such as wanting an open adoption or knowing the child prior to adoption; and C22IA_4 indicates responses such as familiarity with that agency. C23LA_1 indicates responses such as wanting a Chinese girl; C23LA_2 indicates responses such as wanting to bring a child to the US; C23LA_3 indicates responses such as seeing a great need in that country; C23LA_4 indicates responses such as not qualifying for a US adoption because of single parent status; C23LA_5 indicates responses such as having friends that adopted that way; and C23LA_6 indicates responses such as the child having the same race/ethnicity or national origin as the family. C24FA_1 indicates responses such as wanting to give a home to a child who really needed one.

- C23IAA asked why the respondent felt that a U.S. adoption would not be the best option. New variable C23IAAR has three categories created from the verbatim responses: “legal issues/fear of birth parents changing their minds,” “race or age considerations,” and “drug abuse/special needs considerations.”
- F6DA asked the respondent for other reasons why s/he requested an adoption subsidy. New variable F6DA_1 indicates one category created from the verbatim responses: because they could always use extra income, or because it was available.
- F16EA, F17EA and F18EA asked if there were any other source helping to pay for services. New variables F16EA_1 and F16EA_2 indicate answers of “insurance (other than Medicaid)” and “school,” F17EA_1 and F17EA_2 indicate answers of “insurance” and “Medicaid,” and F18EA_1 and F18EA_2 indicate answers of “insurance” and “Medicaid.”

Appendix VIII: Prevalence estimates and weighted frequencies

This appendix consists of table IX.

<Table IX here>

Table A: Percent of main sample called only for NS-CSHCN (augmentation sample), by state

State	Percent
Alaska	4.1
Arkansas	0.4
Colorado	14.0
Delaware	2.4
Hawaii	4.5
Iowa	20.7
Idaho	34.2
Louisiana	0.6
Minnesota	6.7
Mississippi	3.7
North Carolina	3.5
Nevada	16.6
Oregon	16.8
Utah	35.5

When this report is typeset and edited, tables A-G will be embedded in the text as text tables, while tables I-IX will appear in appendices. Their current page numbering and placement in the table of contents is temporary.

Table B: Number and percent of respondents, by relationship to sampled child

Relationship of respondent to sampled child	Number	Percent
Total	1,007	100.0
Adoptive mother	786	78.1
Adoptive father	221	21.9
Don't know/refused/missing	0	0.0

Table C: Mean and median length of the National Survey of Adoptive Parents of Children with Special Health Care Needs interview (in minutes and seconds)

Section of interview	Interview length	
	Mean	Median
Overall length	35:52	34:36
Section S: Screener	03:26	03:06
Section C: Characteristics	12:41	12:10
Section W: Parent and child well-being	05:28	05:06
Section F: Adoption agreement and post-adoption services - financial	04:39	04:12
Section N: Post-adoption supports - non-financial	09:32	08:52

Table D: Final disposition of the NSAP-SN sample

Final disposition	Number of selected households	Percent of total selected households
Total	1,607	100.0
Not released	31	1.9
Nonresidential	18	1.1
Disconnect	81	5.0
Noncontact	36	2.2
Answering machine	40	2.5
Contact unsuccessful	150	9.3
Internet locating unsuccessful	131	8.2
Household found, screening pending	12	0.7
Household found, not adoptive	13	0.8
Household found, parent(s) deceased	3	0.2
Household found, language ineligible	1	0.1
Household found, child 18 years or older	3	0.2
Household found, child lives elsewhere	29	1.8
Household found, incomplete interview	52	3.2
Household found, partial interview	1	0.1
Household found, full interview	1,006	62.6

Table E: Number of completed interviews and unweighted interview completion rates, by type of adoption as of 2005-06 NS-CSHCN

	International	Foster Care	Private	Overall
Total sample size	318	717	572	1,607
Sample released ¹	312	705	559	1,576
Out of scope for interview ²	3	25	21	49
Completed interviews	229	438	340	1,007
Interview completion rate I ³	72.0%	61.1%	59.4%	62.7%
Interview completion rate II ⁴	74.1%	64.4%	63.2%	65.9%

¹ 31 cases were not released because it was known that the selected child would have been 18 years of age or older at the time of the NSAP-SN interview. The NSAP-SN interview was only completed when the selected child was less than 18 years old at the time of NSAP-SN screening.

² Cases determined to be out of scope for interview during NSAP-SN screening

³ Interview completion rate I= Completed interviews / Total sample size

⁴ Interview completion rate II= Completed interviews / (Sample released - Out of scope)

Table F: Weighted interview completion rates, by type of adoption as of 2005-06 NS-CSHCN

	International	Foster Care	Private	Overall
Weighted interview completion rate I ¹	72.5%	60.7%	62.4%	63.6%
Weighted interview completion rate II ²	76.7%	63.6%	67.0%	67.3%

¹ Weighted Interview completion rate I= Weighted count of completed interviews / Weighted count of total sample size

² Weighted Interview completion rate II= Weighted count of completed interviews / Weighted count of (Sample released - Out of scope)

Table G: Unweighted and weighted NSAP-SN overall response rates

	Unweighted	Weighted
NS-CSHCN CASRO response rate	54.2%	56.1%
NSAP-SN interview completion rate I ¹	62.7%	63.6%
NSAP-SN interview completion rate II ²	65.9%	67.3%
NSAP-SN CASRO response rate ³	34.0%	35.7%
Alternative NSAP-SN CASRO response rate ⁴	35.7%	37.7%

¹ Interview completion rate I= Completed interviews / Total sample size

² Interview completion rate II= Completed interviews / (Sample released - Out of scope)

³ NSAP-SN CASRO response rate= (NS-CSHCN CASRO response rate)*(NSAP-SN interview completion rate I)

⁴ Alternative NSAP-SN CASRO response rate= (NS-CSHCN CASRO response rate)*(NSAP-SN interview completion rate II)

Table I: Summary statistics for NSAP-SN final weight

Unweighted sample size	Minimum weight	Maximum weight	Mean weight	Median weight	Sum of weights
1,007	0.00	2,758.60	401.45	219.70	404,261.85

Table II: Completion rates, by NSAP-SN incentive type

	NSAP-SN-eligible	Completed interview	Interview completion rate
\$25 initial incentive, qualified for additional \$5 active refusal incentive	23	6	26.1
\$25 initial incentive, qualified for additional \$5 passive refusal incentive	20	9	45.0

Table III: Percent of children by demographic and health characteristics for respondents and nonrespondents in the National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN)

<i>Child-level characteristic</i>	<i>Weighted Percent (SE)</i>	
	<i>NSAP-SN-eligible, Nonrespondents</i>	<i>NSAP-SN-eligible, Respondents</i>
Adoption type		
International	14.7 (2.60)*	22.2 (2.01)*
Foster care	50.1 (3.38)	44.3 (2.66)
Private domestic	35.2 (3.08)	33.5 (2.74)
Age		
0-2 years	18.7 (2.96)	17.8 (1.94)
3-5 years	42.4 (3.33)	50.5 (2.73)
6-11 years	16.1 (2.25)	18.6 (2.60)
12-17 years	22.9 (2.88)*	13.1 (1.62)*
Sex		
Male	55.0 (3.30)	57.0 (2.62)
Female	45.0 (3.30)	43.0 (2.62)
Race/ethnicity		
Hispanic	10.0 (1.95)	11.1 (1.69)
Non-Hispanic white	44.8 (3.18)*	53.9 (2.68)*
Non-Hispanic black	28.4 (3.23)*	16.8 (1.94)*
Non-Hispanic Asian	7.9 (2.27)	12.4 (1.65)
Non-Hispanic other	8.9 (2.23)	5.9 (0.93)
CSHCN Screener criteria endorsed		
Prescription medications	75.4 (2.99)	77.3 (2.11)
Elevated service usage/need	52.7 (3.39)	53.7 (2.71)
Limitation in activity	28.8 (3.15)	27.9 (2.57)
Physical/occupational/speech therapy	24.3 (2.90)	26.8 (2.21)
Behavioral/emotional/developmental problem	48.8 (3.39)	50.6 (2.73)
Type of health insurance		
Private/employment-based only	43.2 (3.29)*	53.8 (2.71)*
Public only	38.2 (3.42)*	29.2 (2.56)*
Private & public	14.6 (2.52)	14.0 (1.54)
Other comprehensive insurance	1.6 (0.71)	1.7 (0.47)
Uninsured	2.4 (0.77)	1.3 (0.50)
Ever uninsured previous 12 months		
Yes	7.4 (1.50)*	3.8 (0.90)*
No	92.7 (1.50)*	96.2 (0.90)*
Sample size		
Weight		
	598	1,003
	NS-CSHCN	NS-CSHCN

Source: National Survey of Children with Special Health Care Needs, 2005-2006 (NS-CSHCN)

*Estimates for respondents and nonrespondents differ at the 0.05 level

Table IV: Percent of children by household socioeconomic and demographic characteristics for respondents and nonrespondents in the National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN)

<i>Household-level characteristic</i>	<i>Weighted Percent (SE)</i>	
	<i>NSAP-SN-eligible, Nonrespondents</i>	<i>NSAP-SN-eligible, Respondents</i>
Total household income		
Less than \$10,000	6.5 (1.69)	2.7 (0.98)
\$10,000 - \$19,999	8.8 (1.73)	5.7 (1.25)
\$20,000 - \$39,999	19.6 (2.82)	14.0 (1.75)
\$40,000 - \$59,000	17.8 (2.63)	18.3 (1.93)
\$60,000 or more	47.3 (3.37)*	59.2 (2.62)*
Highest educational attainment		
Less than high school	5.5 (1.43)	3.2 (0.89)
High school/equivalent	17.7 (2.60)	12.5 (1.92)
More than high school	76.8 (2.82)*	84.4 (2.06)*
Number of adults		
1	16.9 (2.49)	12.2 (1.65)
2	61.4 (3.25)*	69.9 (2.37)*
3 or more	21.7 (2.63)	17.9 (1.96)
Number of children		
1	40.7 (3.25)	38.6 (2.60)
2	24.7 (2.74)*	33.6 (2.47)*
3 or more	34.6 (3.47)	27.8 (2.69)
Primary language in the household		
English	99.3 (0.34)	99.5 (0.36)
Not English	0.7 (0.34)	0.5 (0.36)
Census region		
Northeast	17.1 (2.25)	15.6 (1.33)
Midwest	20.5 (2.14)*	29.5 (1.66)*
South	44.3 (2.87)*	34.5 (1.96)*
West	18.1 (2.29)	20.5 (2.13)
Metropolitan Statistical Area status		
In Metropolitan Statistical Area (MSA)	85.9 (1.97)	85.5 (1.55)
Not in MSA	14.1 (1.97)	14.5 (1.55)
Sample size		
	598	1,003
Weight		
	NS-CSHCN	NS-CSHCN

Source: National Survey of Children with Special Health Care Needs, 2005-2006 (NS-CSHCN)

*Estimates for respondents and nonrespondents differ at the 0.05 level

Table V: Percent of children by NS-CSHCN characteristics similar to NSAP-SN data elements for respondents and nonrespondents in the National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN)

<i>Characteristic</i>	<i>Weighted Percent (SE)</i>	
	<i>NSAP-SN-eligible, Nonrespondents</i>	<i>NSAP-SN-eligible, Respondents</i>
Number of adoptive parents in household		
1	51.9 (3.37)*	40.5 (2.65)*
2	48.2 (3.37)*	59.5 (2.65)*
Age at adoption finalization		
0 years	34.1 (3.22)	29.0 (2.48)
1 year	11.5 (1.90)*	19.2 (2.46)*
2-5 years	37.9 (3.33)	31.2 (2.33)
6 or more years	16.4 (2.26)	20.6 (2.29)
Child has difficulty with behavior problems		
Yes	42.7 (3.38)	43.7 (2.66)
No	57.3 (3.38)	56.3 (2.66)
Child has received mental health treatment		
Yes	39.1 (3.33)	45.1 (2.74)
No	60.9 (3.33)	54.9 (2.74)
Child has received substance abuse treatment		
Yes	2.6 (0.91)	2.6 (0.90)
No	97.4 (0.91)	97.4 (0.90)
Child has Individualized Family Service Plan/Individualized Education Plan		
Yes	43.2 (3.35)	43.6 (2.61)
No	56.8 (3.35)	56.4 (2.61)
Child is covered by Medicaid/S-CHIP		
Yes	52.8 (3.36)*	43.1 (2.70)*
No	47.3 (3.36)*	56.9 (2.70)*
Any difficulty using health care services		
Yes	12.6 (2.12)	14.5 (1.73)
No	87.4 (2.12)	85.5 (1.73)
Reasons for difficulty using services		
Lack of information	6.4 (1.60)	8.0 (1.25)
Cost	4.3 (1.10)	5.3 (1.23)
Transportation	2.0 (0.81)	2.4 (0.81)
Services not available when needed	8.4 (1.89)	10.2 (1.52)
Language/communication/culture problems	1.3 (0.60)	2.3 (0.89)
Not available in area	8.5 (1.92)	6.3 (1.26)
Child not eligible for services	4.2 (1.01)	6.1 (1.13)
Sample size	598	1,003
Weight	NS-CSHCN	NS-CSHCN

Source: National Survey of Children with Special Health Care Needs, 2005-2006 (NS-CSHCN)

*Estimates for respondents and nonrespondents differ at the 0.05 level

Table VI: Percent of children by demographic and health characteristics in the final National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN) and for all NSAP-SN-eligible cases

<i>Child-level characteristic</i>	<i>Weighted Percent (95% CI)</i>	
	<i>All NSAP-SN-eligible Cases</i>	<i>Final NSAP-SN Data File</i>
Adoption type		
International	19.5 (16.5-22.8)	18.5 (15.4-22.1)
Foster care	46.4 (42.3-50.6)	48.5 (43.5-53.5)
Private domestic	34.1 (30.1-38.3)	33.0 (28.5-37.9)
Age		
0-2 years	18.1 (15.1-21.6)	18.1 (14.7-22.1)
3-5 years	47.6 (43.5-51.7)	47.6 (42.7-52.5)
6-11 years	17.7 (14.3-21.7)	17.7 (14.2-21.9)
12-17 years	16.7 (13.9-19.8)	16.7 (13.2-20.8)
Sex		
Male	56.3 (52.2-60.3)	56.3 (51.3-61.1)
Female	43.7 (39.7-47.8)	43.7 (38.9-48.7)
Race/ethnicity		
Hispanic	10.7 (8.4-13.4)	10.7 (8.0-14.1)
Non-Hispanic white	50.6 (46.5-54.7)	51.6 (46.6-56.5)
Non-Hispanic black	21.0 (17.8-24.6)	21.0 (16.9-25.8)
Non-Hispanic Asian	10.8 (8.4-13.7)	10.8 (8.2-14.0)
Non-Hispanic other	7.0 (5.2-9.3)	6.0 (4.4-8.2)
CSHCN Screener criteria endorsed		
Prescription medications	76.6 (73.1-79.9)	76.9 (72.5-80.8)
Elevated service usage/need	53.4 (49.2-57.5)	53.1 (48.2-58.0)
Limitation in activity	28.2 (24.4-32.3)	28.0 (23.7-32.8)
Physical/occupational/speech therapy	25.9 (22.6-29.4)	27.4 (23.2-32.0)
Behavioral/emotional/developmental problem	50.0 (45.8-54.1)	50.9 (45.9-55.9)
Type of health insurance		
Private/employment-based only	49.9 (45.8-54.1)	49.1 (44.1-54.1)
Public only	32.5 (28.5-36.6)	32.7 (27.8-38.0)
Private & public	14.2 (11.8-17.0)	14.4 (11.5-17.9)
Other comprehensive insurance	1.7 (1.1-2.7)	1.9 (1.1-3.3)
Uninsured	1.7 (1.1-2.8)	2.0 (0.9-4.3)
Ever uninsured previous 12 months		
Yes	5.1 (3.8-6.9)	4.6 (2.8-7.2)
No	94.9 (93.1-96.2)	95.5 (92.8-97.2)
Sample size		
Weight		
	1,601 NS-CSHCN	1,003 NSAP-SN

Source: National Survey of Children with Special Health Care Needs, 2005-2006 (NS-CSHCN) & National Survey of Adoptive Parents of Children with Special Health Care Needs, 2008 (NSAP-SN)

Table VII: Percent of children by household socioeconomic and demographic characteristics in the final National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN) and for all NSAP-SN-eligible cases

<i>Household-level characteristic</i>	<i>Weighted Percent (95% CI)</i>	
	<i>All NSAP-SN-eligible Cases</i>	<i>Final NSAP-SN Data File</i>
Total household income		
Less than \$10,000	4.1 (2.7-6.2)	3.7 (1.9-7.1)
\$10,000 - \$19,999	6.9 (5.1-9.1)	7.2 (4.8-10.6)
\$20,000 - \$39,999	16.1 (13.3-19.2)	16.1 (12.6-20.2)
\$40,000 - \$59,000	18.1 (15.3-21.4)	18.1 (14.8-22.0)
\$60,000 or more	54.9 (50.8-58.9)	54.9 (49.8-59.8)
Highest educational attainment		
Less than high school	4.0 (2.7-5.8)	4.3 (2.4-7.4)
High school/equivalent	14.4 (11.6-17.7)	14.1 (10.5-18.8)
More than high school	81.6 (78.2-84.7)	81.6 (76.7-85.7)
Number of adults		
1	13.9 (11.4-16.9)	14.0 (10.7-18.0)
2	66.8 (62.9-70.5)	67.0 (62.1-71.6)
3 or more	19.3 (16.4-22.5)	19.0 (15.3-23.4)
Number of children		
1	39.4 (35.5-43.4)	39.8 (35.1-44.7)
2	30.4 (26.9-34.1)	34.0 (29.3-38.9)
3 or more	30.3 (26.3-34.6)*	26.3 (21.9-31.1)*
Primary language in the household		
English	99.4 (98.6-99.8)	99.5 (98.3-99.8)
Not English	0.6 (0.2-1.4)	0.5 (0.2-1.8)
Census region		
Northeast	16.2 (14.6-17.9)	16.2 (14.2-18.4)
Midwest	26.2 (24.4-28.0)	26.2 (24.0-28.5)
South	38.1 (35.8-40.3)	38.1 (35.3-40.8)
West	19.6 (17.2-22.3)	19.6 (17.6-21.8)
Metropolitan Statistical Area status		
In Metropolitan Statistical Area (MSA)	85.7 (83.2-87.9)	84.9 (81.4-87.9)
Not in MSA	14.3 (12.1-16.8)	15.1 (12.1-18.6)
Sample size		
Weight	1,601 NS-CSHCN	1,003 NSAP-SN

Source: National Survey of Children with Special Health Care Needs, 2005-2006 (NS-CSHCN) & National Survey of Adoptive Parents of Children with Special Health Care Needs, 2008 (NSAP-SN)

*Estimates for NSAP-SN final data and NSAP-SN-eligible cases differ at the 0.05 level

Table VIII: Percent of children by NS-CSHCN characteristics similar to NSAP-SN data elements in the final National Survey of Adoptive Parents of Children with Special Health Care Needs (NSAP-SN) and for all NSAP-SN-eligible cases

<i>Characteristic</i>	<i>Weighted Percent (95% CI)</i>	
	<i>All NSAP-SN-eligible Cases</i>	<i>Final NSAP-SN Data File</i>
Number of adoptive parents in household		
1	44.6 (40.6-48.8)	44.4 (39.4-49.5)
2	55.4 (51.2-59.4)	55.6 (50.5-60.6)
Age at adoption finalization		
0 years	30.9 (27.1-34.8)	27.9 (23.8-32.5)
1 year	16.5 (13.3-20.1)	18.3 (14.6-22.5)
2-5 years	33.6 (29.9-37.5)	31.9 (27.6-36.5)
6 or more years	19.1 (16.0-22.6)	22.0 (17.7-27.0)
Child has difficulty with behavior problems		
Yes	43.3 (39.3-47.5)	45.6 (40.6-50.7)
No	56.7 (52.5-60.7)	54.4 (49.3-59.4)
Child has received mental health treatment		
Yes	42.9 (38.8-47.1)	45.3 (40.4-50.4)
No	57.1 (52.9-61.2)	54.7 (49.6-59.7)
Child has received substance abuse treatment		
Yes	2.6 (1.6-4.3)	3.4 (1.7-6.8)
No	97.4 (95.7-98.4)	96.6 (93.2-98.4)
Child has Individualized Family Service Plan/Individualized Education Plan		
Yes	43.4 (39.5-47.5)	44.1 (39.2-49.1)
No	56.6 (52.6-60.5)	55.9 (51.0-60.8)
Child is covered by Medicaid/S-CHIP		
Yes	46.6 (42.5-50.8)	47.0 (42.0-52.1)
No	53.4 (49.2-57.5)	53.0 (47.9-58.1)
Any difficulty using health care services		
Yes	13.8 (11.4-16.7)	15.4 (12.0-19.5)
No	86.2 (83.4-88.6)	84.6 (80.5-88.0)
Reasons for difficulty using services		
Lack of information	7.4 (5.7-9.6)	8.7 (6.2-12.0)
Cost	4.9 (3.4-6.9)	6.2 (3.9-9.9)
Transportation	2.3 (1.4-3.8)	2.8 (1.4-5.6)
Services not available when needed	9.6 (7.5-12.1)	11.2 (8.3-15.1)
Language/communication/culture problems	1.9 (1.0-3.5)	2.8 (1.3-5.9)
Not available in area	7.1 (5.3-9.5)	7.1 (4.7-10.4)
Child not eligible for services	5.4 (4.0-7.2)	6.7 (4.6-9.9)
Sample size	1,601	1,003
Weight	NS-CSHCN	NSAP-SN

Source: National Survey of Children with Special Health Care Needs, 2005-2006 (NS-CSHCN) & National Survey of Adoptive Parents of Children with Special Health Care Needs, 2008 (NSAP-SN)

Table IX: Unweighted and weighted estimates of the frequency and prevalence of type of adoption for adopted children with special health care needs

Type of Adoption	Total unweighted number of children	Total weighted estimate of number of children	Standard error of weighted estimate of number of children	Percent of children	Standard error of percent of children
Total	1,003	404,262	11,612.7	100.0	
International	225	74,855	6,822.4	18.5	1.74
Foster Care	457	196,027	12,339.7	48.5	2.53
Private	321	133,379	10,627.4	33.0	2.42