

REVISED

Section B.

Collection of Information Employing Statistical Methods

State and Local Area Integrated Telephone Survey
OMB # 0920-0406

1. Respondent Universe and Sampling Methods

SLAITS

The target population for the State and Local Area Integrated Telephone Survey (SLAITS) reflects the particular module being conducted but is typically households with children under age 18. The universe from which a sample is drawn is all households with telephones. SLAITS uses the National Immunization Survey (NIS) sampling frame. The size of the NIS sample provides an economical opportunity for SLAITS projects to survey other populations in addition to the rare population that eventually screens into the NIS itself.

For more information on the NIS or NIS sampling methods, please refer to the website of the NIS sponsor, CDC's National Center for Immunization and Respiratory Diseases (NCIRD) www.cdc.gov/vaccines, or NCIRD's webpage entitled 'Statistics and Surveillance: Immunization Coverage in the US' at <http://www.cdc.gov/vaccines/stats-surv/imz-coverage.htm#nis>.

Sample design. The sample of households selected for SLAITS will be a subsample of the large NIS sample. Unless a module is developed that requires a very rare population subgroup or the NIS is used for multiple immunization surveys simultaneously, there is no need to develop an independent sampling process. We expect the design effects to be comparable to those of previous SLAITS studies.

Oversampling subpopulations. Depending on a module's design, oversampling may be required to identify adequate numbers of households with particular characteristics such as low income, children of a specific age, race or ethnicity, or a chronic condition. The technique employed by SLAITS has been to screen for the characteristic of interest at the beginning of the interview. No modules under consideration at this time require the use of this technique.

Estimation procedures. All data are weighted to national and state estimates to produce population-based estimates of totals, means, and proportions. A sampling weight is calculated for each respondent or individual. The final weight assigned to each sample person is comprised of five components: (1) the basic sampling weight to reflect the

probability of selection of the household's telephone number; (2) an adjusted basic weight to account for households with multiple telephone numbers; (3) a nonresponse-adjustment weight; (4) a nonresponse adjusted weight to compensate for nontelephone households, and (5) a post-stratification adjustment to a set of known population totals. Post-stratification calculations are made at the person-level through marginal adjustments to compensate for any imbalance in the age, sex, and race/ethnicity groupings in the sample. State-level population estimates by age, sex, and race/ethnicity published by the U.S. Bureau of the Census are almost always used as population control totals for the adjustment. Data from CDC's National Health Interview Survey (NHIS) are also regularly assessed to determine whether additional adjustments are necessary for the characteristics of households without fixed telephone lines. The standard error for key estimates is calculated using a Taylor linearization approach as applied in SUDAAN software, although other programs such as Stata or WesVar can be used, as they can accommodate a complex sample design to accurately calculate standard errors.

Additional technical details concerning sample design and survey execution can be found in the design and operation reports for past modules. This documentation, listed by module, is available at www.cdc.gov/nchs/slaits.htm under 'Publications and selected presentations using SLAITS data'.

Degree of Accuracy. For each module, the primary analytic variable determines the sample size. To determine the sample size necessary for reasonable levels of precision, the baseline prevalence of a key statistic is estimated. A specific example is provided below under the discussion of the NS-CSHCN.

Unusual Problems Requiring Specialized Sampling Procedure. No special sampling procedures other than the procedure to oversample subpopulations (when indicated) are required.

NS-CSHCN – developmental work

Sample Design. For the developmental work for the proposed National Survey of Children with Special Health Care Needs (NS-CSHCN) module, the NIS sampling frame will be used to screen approximately 10,000 households to identify 2,000 households with a child or children with special health care needs (CSHCN) nationally. All children will be screened for special health care needs status. In households with one or more special needs children, one such child will be randomly sampled for a detailed interview. We anticipate 100 subscribers to the SLAITS listserv will respond to a query at 3 minutes for each response.

2. Procedures for the collection of information

SLAITS

In consultation with NCHS the contractor draws the sample, designs and conducts interviewer and supervisor trainings, plans interviewing operations, and performs the

necessary survey interviewing procedures. Specifications for all operations are provided by SLAITS staff at NCHS, and are tailored to each module. SLAITS staff members provide specifications for the sample design, specific content of the questionnaire, detailed interview administration instructions, and procedures to measure quality control; monitor interviews through direct observation; and maintain continuous communication with the contractor.

The SLAITS questionnaire is designed to immediately follow the NIS interview or screener for eligible children. In most modules, the respondent will be a parent or guardian who lives in the household and is knowledgeable about the health and health care of the child/children.

Data collection, entry, and file preparation.

One pretest will be conducted to test instrument and procedure revisions. The NIS advance letter (Attachment 4), which briefly mentions SLAITS modules (although not by name) will be sent prior to the telephone call to sample for which randomly-generated telephone numbers can be matched to addresses.

The questionnaire will be programmed to integrate the NIS and SLAITS module instruments seamlessly. It will make full use of the computer-assisted telephone interviewing (CATI) system's ability to check whether a response was within a legitimate range, follow skip patterns, fill state-specific information in questions as applicable (for example, names of state Medicaid and S-CHIP programs), and employ pick lists for response categories. The CATI system will undergo rigorous testing to ensure it functions properly.

Certain household and demographic questions are identical in the NIS and SLAITS portions of the interview. The system is programmed so these questions are not repeated in both surveys.

Data files using NCHS conventions will be prepared after data cleaning is completed. Data release may contain a series of linked household-level, child screening-level, and child interview-level data files with all information necessary for analysis. The data files contain demographic information on the focal child, respondent, and household, as well as substantive health and health-related data. A final sampling weight will be assigned to each child-level observation to permit users to generate national and state estimates for the variables of interest. The methodology will be described thoroughly in a report that accompanies the data file release.

NS-CSHCN – developmental work

The SLAITS NS-CSHCN screener and survey questionnaire (**Attachments 3A and 3B**) are designed to immediately follow the NIS interview or screener for eligible children. The respondent will be the parent or guardian who lives in the household and is knowledgeable about the health and health care of the child/children.

3. Methods to maximize response rates and deal with nonresponse

Response rates have long been considered a measure of data quality. The gradual decline in response rates, especially for telephone surveys, is cause for concern. Nonetheless, the telephone as a mode of data collection is still one of the most useful and economical means of obtaining population-based data. Successful conduct of a SLAITS module depends on a combination of techniques to maximize response rates and to understand the impact of nonresponse on data quality. Standard proven survey procedures have been refined through deliberate testing and experience over time. Among those techniques routinely implemented are the:

- use of a carefully constructed advance letter for those households where a name and address are available (approximately 56% of the sample¹),
- clear and unambiguous introduction,
- instrument designed to maximize semantic and cognitive clarity, and minimize respondent burden,
- effective interviewer recruitment and training,
- thorough review of confidentiality, privacy, and security requirements,
- maintenance of a toll-free number and website to facilitate participation,
- flexible scheduling of interviewing to maximize convenience to the respondent,
- carefully scripted answering machine and voice mail messages,
- high-quality instrument translation for other language interviews,
- quality control and interviewer monitoring, and
- refusal aversion/conversion training with experienced interviewers.

Even these measures do not assure high response rates. NCHS evaluates the extent to which nonsampling error impacts data quality for each SLAITS module during and after data collection. These evaluations might compare estimates to other surveys and related data, examine expected versus actual distributions for demographic variables, assess the rate and location of interview break-offs, and other qualitative and quantitative measures. These measures are reviewed and assessed continually during data collection. Should changes to the survey design be warranted due to low response rates, OMB and ERB will be consulted.

Response rates will be calculated using the Council of American Survey Research Organizations (CASRO) formulae in accordance with the American Association for Public Opinion Research's Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys.² Although we wish to achieve a minimum weighted CASRO response rate of at least 80% (defined as the product of the resolution rate {determines household status}, age-screener completion rate, and interview completion

¹ Draft (as of June 15, 2007) internal document presented by the National Opinion Research Center (NORC) at the University of Chicago. 2005 – 2006 Methodology Report: National Survey of Children with Special Health Care Needs. Presented to NCHS, Contract number 200-2005-10460, page 50.

² The American Association for Public Opinion Research. 2006. *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*. 4th edition. Lenexa, Kansas: AAPOR.

rate), this may not occur. This does not reflect lax SLAITS procedures but rather a societal trend that adversely impacts many surveys regardless of mode. New telephony equipment and technologies are continually being introduced that make it easier for persons living in a household to identify and reject ‘uninvited’ or ‘unexpected’ telephone calls. Since response rates have continually declined over time, we have employed the targeted use of monetary incentives (described further in Section A9) and incorporate scientifically demonstrated survey techniques to attempt to counterbalance this trend. As an example, Table 4 below presents weighted CASRO response rates achieved at the conclusion of the 2005-2006 NS-CSHCN for the national main sample³:

Table 4. 2005 – 2006 NS-CSHCN main sample weighted response rates, national sample.

	Household-level resolution rate	Household-level completion rates		Child-level completion rates		Overall CASRO response rates	
		Age screener	Special-needs screener	Special-needs screener	Special-needs interview	Special-needs screener	Special-needs interview
National sample	82.7%	88.5%	79.7%	79.1%	96.3%	57.9%	56.2%

Other Languages. In most cases, the questionnaire will be translated into Spanish (as described below), and procedures used in previous modules will be employed (respondent help screens, question-specific probes) to accommodate Spanish-speaking households. An interviewer will be able to immediately switch from English to Spanish (or vice-versa) by using one of the keyboard's function keys. Other Spanish language job aids will be developed, including question and answer materials, and revised function key guides. All person used to interview Spanish-speaking households are bilingual in English and Spanish. A decision has not been made for other languages besides English and Spanish.

Translation of English-language questionnaires into Spanish is coordinated by a translation specialist. This specialist has demonstrated skills to accurately translate survey instruments suitable for the full range of ethnic origins found among Spanish-speakers living in the United States (US). A collaborative translation approach is used to ensure concepts and words are translated accurately. A small group of translators each evaluate and translate the questionnaire. Once they have completed their translations, a series of meetings are held in which the translators and coordinator review the translations item-by-item to refine the instrument. Based on these discussions, the coordinator produces a Spanish-language version of the questionnaire for additional testing. The questionnaire is then reviewed by a team of experienced Spanish-language telephone interviewers and supervisors, who evaluate it for accuracy and cultural appropriateness. Issues raised during the final review are resolved in consultation with

³ Draft (as of June 15, 2007) internal document presented by the National Opinion Research Center (NORC) at the University of Chicago. 2005 – 2006 Methodology Report: National Survey of Children with Special Health Care Needs. Presented to NCHS, Contract number 200-2005-10460. Table J, page 27.

the translation coordinator, and the instrument is finalized. After the survey has been in the field for a few weeks, a debriefing is held to identify problematic questions.

NS-CSHCN

Because prior iterations of the NS-CSHCN were translated into the most prevalent Asian languages in addition to Spanish, this will likely occur for this iteration as well to maintain trend data (pending adequate funding). If this occurs, the contractor will work with a subcontractor to translate the instrument and administer the interviews. Only professional bilingual native-speaking translators will administer the interviews. The NIS will identify the non-English/non-Spanish language spoken in the household.

4. Tests of procedures or methods to be undertaken

Most SLAITS modules have pretests conducted to test procedures and methods prior to their main implementation.

In addition to these pretests, the SLAITS team wishes to field limited inquiries targeted to our listserv subscribers and data users. We are often asked who uses our data, how it is used, and how it has affected policy, health, and programs. Such information is helpful for our internal continuous improvement program, and to others (such as the NCHS Board of Scientific Counselors (BSC)) to evaluate the utility of NCHS services. At the present time we have no way of collecting this information systematically other than polling listserv subscribers and website visitors; however, we cannot perform these tasks without OMB approval since we would ask identical questions to a large group of people. We have been able to glean some information by performing SLAITS-specific literature searches and through personal contacts. However, we recognize that we may not capture or describe the true utility and impact of SLAITS data.

Therefore, we propose to revise (as needed) and field a short survey approved by OMB that was sent via email to our listserv subscribers in preparation for a survey. At that time less than 2% of the SLAITS listserv subscribers responded to the email inquiry.

The draft email text can be seen in Attachment 8:

5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

The following person was consulted on the statistical aspects of the design and data collection for SLAITS:

Stephen Blumberg, Ph.D.
Senior Health Scientist
National Center for Health Statistics
301-458-4107
swb5@cdc.gov

The following person is responsible for the collection and analysis of SLAITS data:

Marcie Cynamon, M.A.
Director, State and Local Area Integrated Telephone Survey
National Center for Health Statistics
301-458-4174
mcynamon@cdc.gov

ATTACHMENTS TO THE SUPPORTING STATEMENT

- 1. Copy of applicable sections of laws or regulations (42 USC242k)**
- 2. Federal Register Notice announcing the 60-day public comment period**
- 3. Data collection instruments**
 - A. Developmental Work – Household Screener**
 - B. Developmental Work – Household Screener and Survey**
- 4. Advance letter to respondents**
- 5. Additional backup material necessary to explain the purposes, approach, procedures, and methodology of data collection**
- 6. Response to 60-day Federal Register Notice**
- 7. ERB/IRB Letter**
- 8. Draft E-mail**