

SUPPORTING STATEMENT B
U.S. Department of Commerce
U.S. Census Bureau
National Survey of Children's Health – Longitudinal Cohort (NSCH-LC)
OMB Control No. 0607-XXXX

B. Collections of Information Employing Statistical Methods

1. Universe and Respondent Selection

Sponsored by the U.S. Department of Health and Human Services' Health Resources Services Administration's Maternal and Child Health Bureau (HRSA MCHB), the National Survey of Children's Health – Longitudinal Cohort (NSCH-LC) will produce unique data on the physical and emotional health of children and young adults 3- to 24-year-olds in the United States with a focus on the COVID-19 pandemic. The NSCH-LC will collect information related to the health and well-being of children, young adults, and their families, including access to and use of health care, family interactions, mental health, school, after-school experiences, and family economic circumstances.

The NSCH-LC sample will consist of approximately 60,000 households that responded previously to the National Survey of Children's Health (NSCH) on behalf of one child in the household prior to the COVID-19 pandemic. The NSCH samples addresses from the 50 states and the District of Columbia and is designed to produce a roughly equal number of interviews from each state. The NSCH-LC sample reflects this design. Forty-nine of the 50 states plus DC have between 1,000 and 1,300 households in the NSCH-LC sample (based on their state of residence when they responded to the NSCH); one state, Arkansas, has more than 1,400. These distributions do not necessarily represent state of residence in 2023. NSCH-LC sampled households had at least one child between 0 and 17 years old at the time of their previous response; these children (now young adults in some cases) will be between 3- and 24-years-old at the start of data collection in December 2023.

The NSCH-LC will be conducted from December 2023 through June 2024. The NSCH-LC mailed correspondence will be addressed to the current resident(s). The first part of the survey will ask the respondent to list all children and young adults under the age of 24 that currently (or formerly) lived with anyone at their address at some point in the last six years. The second part of the survey will ask a parent or caregiver to answer additional questions about one child or young adult selected from that list if the parent or caregiver is currently familiar with the focal child's/young adult's health. Most sampled addresses will receive an initial web invitation letter to complete the NSCH-LC followed by a pressure-sealed reminder postcard one week later. All non-responding households may receive up to three additional nonresponse screener follow-up mailings and one additional pressure-sealed reminder postcard. In subsequent mailings, households may receive a paper questionnaire. One exception to the mailing strategy outlined above is for households that previously responded in Spanish. Those households will receive a

Spanish paper questionnaire in the initial mailing as well as each of the nonresponse follow-up mailings since a prior language preference has already been identified. Both modes are accompanied by Telephone Questionnaire Assistance (TQA) and Email Questionnaire Assistance (EQA). If funding allows, an interviewer administered nonresponse follow-up (NRFU) operation may be incorporated into the NSCH-LC data collection methodology. In the NRFU operation, interviewers will deliver the survey invitation materials to households that did not respond during the self-response operation and encourage self-response.

1.1 Sampling Household Addresses

The NSCH-LC sample consists of approximately 60,000 households that responded previously to the National Survey of Children's Health (NSCH) annual survey. These households were selected from multiple cycles of data collection. Efforts to locate each household for data collection in 2023 begins with their address when they responded initially to the NSCH. Administrative records and the National Change of Address (NCOA) database from USPS are used to update the addresses for households that have moved since that initial data collection.

Potential current addresses, including the initial address and any addresses identified in administrative records, are prioritized based on the reliability of the address indicator. The initial contact effort will target the highest priority address. If that address proves incorrect (e.g., the current resident does not list the sampled child or young adult as a current or former member of their household within the past six years) or fails to respond after multiple contact attempts, the next available address will be used for subsequent contact attempts. Modified contact materials and a field follow-up effort (the latter funded by the National Institute of Child Health and Human Development) will be used to expeditiously validate addresses when the available information is deemed relatively unreliable.

The Census Bureau's Center for Economic Studies (CES) division is leading the effort to update household addresses using administrative records. As background, CES is an interdisciplinary group in the Research and Methodology Directorate, charged with the strategic re-use of administrative data from federal, state, and commercial providers. Information is combined from multiple sources to create new data products that are not possible to produce using single data sets. In this case, previous respondents to the NSCH are assigned a Protected Identity Key (PIK) which can be used to locate households across a range of administrative records. These records are used to construct a residential history for NSCH-LC households.

There is a time lag between the creation and integration of administrative records to constructing residential histories, so the administrative record address location effort will be supplemented by a check against the most recent NCOA database. Priority will be given to moves that are recorded after the latest update from the available administrative records.

The data collection strategy for the NSCH-LC can be adapted household-by-household based on the self-response approach to the original NSCH, specifically by response mode (web or paper),

language (English or Spanish), and the reliability of address information. Close to 80% of NSCH-LC eligible households responded to the NSCH using the web instrument, and 99% responded using an English language instrument.

Table B.1.1.A: Self-Response Mode for NSCH-LC Eligible Households to the Prior Annual NSCH

	English	Spanish	Total
Web	46,900	500	47,400
Paper/Mail	12,900	<10	12,900
Total	59,800	500	60,300

Table B.1.1.A NOTE: All figures are rounded to the nearest 100.

All NSCH-LC sampled households will receive a \$5 unconditional cash incentive with the initial contact. A similar incentive strategy with the NSCH samples that included the NSCH-LC eligible households increased screener response by about 8 percentage points.¹ Also, an unconditional cash incentive in the initial contact accelerates response. This will allow us to reduce the number of nonresponse follow-up mailings that are required and allow us to more quickly adapt contact strategies to a household (e.g., shift to a second address when it is determined that the primary address does not contain the target household).

1.2 Expected Yield

The universe for the NSCH annual survey is households with children ages 17 or younger who live in the U.S. and have a valid household address. A screener is used to identify households with children and roster all children in the household. One child from each screened household is selected for the topical questionnaire. Households that completed the topical questionnaire in selected years prior to the start of the COVID-19 pandemic are eligible for an additional follow-up with the NSCH-LC. Information from the NSCH annual survey is used to help identify the household, the original selected child and the original respondent (a parent or caregiver that is familiar with the child’s health and health care needs).

The NSCH-LC sample will include approximately 60,000 households (representing approximately 60,000 selected children or young adults). Participation in the NSCH-LC depends on two conditions: 1) the household can be located at a valid mailing address and 2) the household completes the interview.

Locating households depends on 1) identifying households that have moved since they completed the NSCH and 2) updating the current address for those mover households. Initial audits of NSCH-LC eligible households indicate that approximately 25% of these households

¹ See the Incentive Effort sections of the NSCH annual methodology reports <https://www.census.gov/programs-surveys/nsch/technical-documentation/complete-technical-documentation.html>

have moved as of 2022. From these indications, we are projecting that 30% of NSCH-LC households will have moved by the start of data collection. Further, we anticipate that we can locate 70% of mover households using administrative records, the NCOA database, and the field follow-up effort, and that just under 90% of these addresses will be current at the start of NSCH-LC data collection. All together, we anticipate that we will identify a current address for 88% of sampled households.

Of those households that are located with a current address, we project that approximately 65% will respond. Roughly 50% of households that receive the \$5 incentive respond to the NSCH, and the NSCH-LC sample selects on NSCH response. This rate of response will produce approximately 34,000 interviews nationally and at least 500 interviews in each of the 50 states and the District of Columbia. Given the uncertainty in our estimates of address accuracy and response rates, we have used more optimistic inputs to estimate potential burden to respondents. Using the upper bound estimates on each input, we estimate a maximum of 45,000 cases will produce a response.

Table B.1.2.A: Expected Yield from NSCH-LC Data Collection

Sample			
60,000			
Not Moved	Moved		
42000	18000		
	Address Updated	Not Updated	
	12600	5400	
	Current	Not Current	
	11088	1512	
Respondents			
34507			

1.3 Estimation Procedures

There will be written specifications for weighting the data that will have been collected in the NSCH-LC for individuals that would have been children at the time of their previous response, residing in households, in the United States. Instructions for computing adjustments (e.g., under coverage and nonresponse) for a person-level weight will be provided.

1.4 Nonresponse Bias Analysis

Standard 1.3 of the OMB Standards and Guidelines for Statistical Surveys (2006) states that “Agencies must design the survey to achieve the highest practical rates of response, commensurate with the importance of survey uses, respondent burden, and data collection costs, to ensure that survey results are representative of the target population so that they can be used

with confidence to inform decisions.” Implicit in this standard is the assumption that the frame variables used at the design stage are sufficiently predictive of the collection variables for this to be feasible. Under this assumption, standard nonresponse bias analyses techniques can and will be applied to frame data variables to study potential areas of nonresponse bias (both item and unit) in the survey estimates.

2. Survey Collection Procedures

This section describes the data collection procedures that will be used in the NSCH-LC. The Census Bureau will request survey participation from approximately 60,000 households via one of two modes: Web survey or paper questionnaire. The primary mode for the majority of respondents is a letter invitation with the Web URL and a unique Login ID included in the letter. The secondary mode will be a mailed paper questionnaire with the Web URL and Login ID included in the package. If there is a low level of confidence that the prioritized address represents the current residence of the target household, the address will be mailed an initial invitation letter with a perforated card that will allow the residents to quickly report if they are not the target household. Should an address return this card or call the TQA line to indicate the package arrived at the incorrect household, Census can utilize alternative address information for the target household in the next scheduled mailing, if available. Households that have not responded after the initial contact and first nonresponse attempt will receive the package including the paper questionnaire. See **Appendix B** for the draft letters for cognitive testing.

The first part of the production survey instrument is a screener. The household will be screened to determine if there are any children under the age of 24 who currently live at the address or previously resided with a member of the household at some point during the past six years. Those households that meet the eligibility criteria will be selected for the second part of the production survey that will collect additional detailed information about a single child or young adult that the respondent identified on the screener. This information is only collected if the respondent (or someone else in the household) indicates they are familiar with the selected child’s or young adult’s health. The second part of the survey, the topical questionnaire, retrospectively covers topics associated with the COVID-19 pandemic and concurrently (through the last 12 months or up to and including the date of response) topics from the annual NSCH, including physical and emotional health, health insurance coverage, health care access, community, childcare, and school engagement, development, learning, and school readiness, and family resources. See **Appendix A** for the NSCH-LC draft paper instruments.

The NSCH-LC mailing strategy employs multiple contacts with households to maximize response. These include up to four screener web invitation letters, pressure sealed reminder postcards, and two screener (or four for the Spanish language preference group) paper questionnaires. Up to four topical paper questionnaires will be sent to households that return a paper screener questionnaire. Additionally, a thank you letter will be sent to all responding households with information about where to find the results of the survey.

The U.S. Census Bureau conducts the NSCH-LC on the behalf of the HRSA MCHB under Title 13, United States Code (U.S.C.), Section 8(b) (13 U.S.C. § 8(b)), which allows the Census Bureau to conduct surveys on behalf of other agencies. Section 501(a)(2) of the Social Security Act (42 U.S.C. § 701) allows HRSA MCHB to collect information for the purpose of understanding the health and well-being of children in the United States.

There are two separate partner agreements. The first partner agreement is with the United States Department of Health and Human Services' Center for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities (CDC/NCBDDD). See **Section A.1** of the supporting statement for more information on this partner agreement. An anticipated second partner agreement is with the United States Department of Health and Human Services' National Institutes of Health, National Institute of Child Health and Human Development (NICHD) that will support a field follow-up effort during data collection to improve the survey's overall response rate and reduce the potential for bias.

The data collected under these agreements are confidential under 13 U.S.C. Section 9. All access to Title 13 data from this survey is restricted to Census Bureau employees and those holding Census Bureau Special Sworn Status pursuant to 13 U.S.C. Section 23(c).

3. Methods to Maximize Participation Rates and Deal with Nonresponse

In designing the various modes of the NSCH-LC questionnaires, attention is placed on the following design elements to help increase cooperation by prospective respondents.

- In developing and refining specific questions, the goal is to create logical, clear questionnaires with concrete question wording and simple grammar.
- The Web and paper versions of the questionnaires will be attractive with clear and simple instructions on how to complete specific questions.
- Questions will be grouped according to subject areas.
- Questionnaire formatting will maximize readability, including appropriate question spacing, font type and size, along with easy-to-follow skip instructions.
- Respondent contact strategies and letters have been carefully designed to grab the attention of the respondent and pique interest in the subject matter.
- Respondents will receive a \$5 bill as an incentive to participate in the survey. See **Section A.9** of the supporting statement for more information on incentives.

Data collection for the NSCH-LC will involve a series of mailings and nonresponse follow-up activities, encouraging questionnaire completion. Our proposed approach to data collection and nonresponse follow-up is based on two rounds of cognitive testing (see **Appendix B** for the draft letters for cognitive testing), previous project experience and recommendations made by Dillman and colleagues (2009)².

² Dillman, D.A.; Smyth, J.D.; Christian, L.M. (2009). *Internet, mail and mixed-mode surveys: The tailored design method*, 3rd edition. Hoboken, NJ: John Wiley & Sons.

Invitation Letter. An initial invitation letter will be mailed to all potential respondents providing details about the study, a Web URL with a unique Login ID for accessing the English Web version of the questionnaire, and a toll-free number and email address for the individual to utilize if there are questions or comments. In addition to the invitation letter, households will also receive a token of appreciation (\$5 bill).

Additional mailings. Subsequent to the first invitation mailing, the Census Bureau will send all sample addresses a reminder pressure-sealed postcard containing the NSCH-LC questionnaire Web URL with a unique Login ID. All addresses will then receive three additional mailings with an invitation letter, the last two with a paper questionnaire, and one additional pressure-sealed postcard, conditional on nonresponse. One exception to this is for the Spanish language response preference group that will receive a Spanish language paper questionnaire with every mailing.

Hardcopy topical questionnaire mailing. The paper topical questionnaire and accompanying cover letter will be personalized to fill in the selected child's/young adult's name and other identifying information. This level of personalization in the questionnaire improves data quality by ensuring that the survey is completed for the correct child/young adult.

Interviewer Nonresponse Follow-Up Operation. An interviewer administered nonresponse follow-up (NRFU) operation will be incorporated into the NSCH-LC data collection methodology. In the targeted NRFU operation, interviewers will deliver the survey invitation materials to hard-to-reach households that did not respond during the self-response operation in an attempt to minimize bias in the data.

4. Procedures or Methods Testing

No additional procedural or methods testing other than what was outlined above in **Section B.1** is planned for the NSCH-LC.

5. Individuals Responsible for Study Design and Performance

The Census Bureau will collect the information on behalf of HRSA MCHB. Contact information for the Census Bureau's principal staff on the project are listed below:

Survey Operations, Data Collection, and Tabulation

Carolyn Pickering

Survey Director
U.S. Census Bureau, ADDP
4600 Silver Hill Road
Washington, DC 20233-0001
Phone: (301) 763-3873
Email: carolyn.m.pickering@census.gov

Leah Meyer

Assistant Survey Director
U.S. Census Bureau, ADDP
4600 Silver Hill Road
Washington, DC 20233-0001
Phone: (301) 763-7174
Email: leah.meyer@census.gov

Scott Albrecht

Assistant Survey Director
U.S. Census Bureau, ADDP
4600 Silver Hill Road
Washington, DC 20233-0001
Phone: (301) 763-5790
Email: scott.albrecht@census.gov

Sample Design

Tracy Mattingly

Lead Scientist
U.S. Census Bureau, DSMD
4600 Silver Hill Road
Washington, DC 20233-0001
Phone: (301) 763-6445
Email: tracy.l.mattingly@census.gov

List of Attachments:

Appendix A – NSCH-LC Questionnaire Drafts
Appendix B – NSCH-LC Contact Materials Drafts
Appendix C – NSCH-LC Table of State Sample Sizes
Appendix D – NSCH-LC Public Comment