

**2016 National Survey of Children's Health:
Request for OMB Review
Supporting Statement A
OMB Control No. 0607-XXXX**

Terms of Clearance: None

A. Justification

1. Circumstances Making the Collection of Information Necessary

Sponsored by the U.S. Department of Health and Human Services' (HHS') Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB), the National Survey of Children's Health (NSCH) is designed to produce data on the physical and emotional health of American children under 18 years of age. The NSCH collects information on factors related to the well-being of children, including access to and quality of health care, family interactions, parental health, school and after-school experiences, and neighborhood characteristics.

The Health Resources and Services Administration's and Maternal and Child Health Bureau (HRSA MCHB) is redesigning the NSCH (Blumberg, Foster, Frasier, et al., 2012)¹ and its companion survey, the National Survey of Children with Special Health Care Needs ((NS-CSHCN) Bramlett, Blumberg, Ormson, et al., 2014)² into a single combined survey that will utilize an Address-Based Sampling (ABS) frame. This newly consolidated survey, which will incorporate questions from both of these surveys, will retain the name National Survey of Children's Health.

The former NSCH (OMB 0920-0406) and the NS-CSHCN (OMB 0920-0406) utilized the State and Local Area Integrated Telephone Survey (SLAITS) mechanism. Managed by the National Center for Health Statistics (NCHS), SLAITS conducts surveys using the same sampling frame as the National Immunization Survey (NIS). This sampling frame consists primarily of telephone landline numbers, with some cell telephone supplementation, and utilizes Random Digit Dialing (RDD) sampling techniques. SLAITS surveys are conducted subsequent to the NIS interview, using Computer-Assisted Telephone Interview (CATI) software to collect data from households: once households complete the NIS interview, they are screened to determine eligibility for the SLAITS surveys. Interviews are administered for eligible households.

The telephone interview methodology utilized for these surveys allowed for a complex questionnaire as it ensured that skip patterns were properly followed. Furthermore, it protected against data entry error through preprogrammed range and logic checks on responses.

1 Blumberg, S.J.; Foster, E.B.; Frasier, A.M. et al. (2012). Design and operation of the National Survey of Children's Health, 2007. National Center for Health Statistics. *Vital Health Stat 1*(55), 1-159.

http://www.cdc.gov/nchs/data/series/sr_01/sr01_055.pdf

2 Bramlett, M.D.; Blumberg, S.J.; Ormson, A.E. et al. (2014). Design and operation of the National Survey of Children with Special Health Care Needs, 2009–2010. National Center for Health Statistics. *Vital Health Stat 1*(57), 1-282. http://www.cdc.gov/nchs/data/series/sr_01/sr01_057.pdf

Interviewers were able to address respondent questions and concerns as they arose, helping reduce response error. However, in recent years declining willingness of the public to participate in surveys and changes in household telephone use has resulted in lower response rates for CATI surveys. Of particular concern is the increasing prevalence of households that have substituted wireless service for their landline telephone (Blumberg & Luke, 2015)³. Efforts to include these non-landline households within the telephone sampling frames for the former NSCH and NS-CSHCN have resulted in both an increase in costs and a substantial decline in response rates. Furthermore, because the former NSCH and NS-CSHCN were administered using the NIS sampling frame and followed behind the NIS interview, they experienced additional impacts in response rates when cases failed to move through the NIS itself.

This decline in response rates and the increase in costs are no longer sustainable. Considerable work has been done to determine how to address these concerns, and a decision has been reached to utilize a two-phase multimode data collection design for a combined NSCH/NS-CSHCN survey, henceforth known as the NSCH. The NSCH will consist of two questionnaires: (1) an initial household screener to assess the presence of children in the home and facilitate the selection of a target child within the household (with oversampling of children with special health care needs), and (2) a substantive topical questionnaire that combines selected content from the former NSCH and NS-CSHCN questionnaires along with some newly relevant content.

In 2015, a revised NSCH was pretested (administered from June – December 2015, OMB 0607-0984) using separate procedures for an internet based web mode and mailed paper instrument collection modes. In the pretest ‘mail only’ mode of data collection, sample households were mailed an advance letter, then a paper questionnaire to screen households with children into the survey, and finally a follow-up topical paper questionnaire to collect detailed information for only one of the children in the household. The second mode tested in the pretest was a self-administered internet/web instrument. In this mode of data collection, the sample households were mailed an advance letter and then a letter inviting them to go to the internet data collection portal for the Census Bureau and complete both the screener and topical sections through a single web instrument. In the pretest, we observed a web response rate of over 54% (19% of the web push group eventually responded by paper). While there are some characteristics of the sample used in the pretest that may have improved the response rate, even a conservative interpretation of the results and methodological success strongly suggested pursuing a web first data collection methodology⁴. There are significant cost savings for web data collection over paper data collection, and based on the pretest results, the decision was made to move to a data collection plan where web is the primary data collection mode (Web push), and is followed by a mailing of paper screener and topical surveys (mail) for non-responding households. This “Web

3 Blumberg, S.J. & Luke, J.V. (2015). Wireless substitution: Early release of estimates from the National Health Interview Survey, January–June 2015. National Center for Health Statistics. Available from: <http://www.cdc.gov/nchs/nhis.htm>.

4 The 2015 NSCH Pretest acquired a sample from the Center for Administrative Record Research and Applications Division within the Census Bureau containing addresses, phone numbers, and flags indicating the presence of children in the household. The decision to utilize this sample was based on cost efficiencies and testing the utility of child-present flags to reduce screener costs for identifying households with children present. A characteristic of these flags and the data collected from responding households, was that it represented more affluent and more educated households than a general population sample. As a result of the differences in the pretest sample, our expectations for response and cost are being conservatively adjusted for production.

push + mail” data collection plan will be applied to the full sample. The Web push + mail treatment is structured so that all households will first have the chance to complete the NSCH online, and only non-respondents or those who call in to request a questionnaire will be mailed one. Initially, all sampled households will receive a letter inviting them to complete the Web-based survey instrument.

The U.S. Census Bureau is conducting the NSCH on the behalf of the HHS under Title 13, United States Code, Section 8(b), which allows the Census Bureau to conduct surveys on behalf of other agencies. Title 42 U.S.C. Section 701(a)(2) allows HHS to collect information for the purpose of understanding the health and well-being of children in the United States. The data collected under this agreement 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).

2. Purpose and Use of Information Collection

Data from the NSCH are used to measure progress on national performance and outcome measures under Title V Maternal and Child Health Services Block Grant. It is therefore critical that the U.S. Census Bureau conducts this survey to collect information on factors related to the well-being of children, including access to and quality of health care, family interactions, parental health, school and after-school experiences, and neighborhood characteristics.

Information quality is an integral part of the pre-dissemination review of the information disseminated by the Census Bureau (fully described in the Census Bureau’s Information Quality Guidelines). Information quality is also integral to the information collections conducted by the Census Bureau and is incorporated into the clearance process required by the Paperwork Reduction Act.

3. Use of Improved Information Technology and Burden Reduction

The 2016 NSCH will be conducted for HRSA MCHB by the Census Bureau in Web Push + Mail multi-mode format. The primary mode, a Centurion Web instrument, allowing online reporting will improve the efficiency and accuracy of the data collection process by providing respondents the opportunity to complete both the screener and topical survey instruments at one time, and minimize burden and material costs. Following the initial opportunities to respond electronically, data collection will augment online data collection with a paper data collection mode. The paper data collection will rely on three complementary survey systems to efficiently administer this mode of data collection: (1) Amgraf One Form Plus, (2) Docuprint, and (3) integrated Computer-Assisted Data Entry (iCADE).

- **Online Reporting.** The 2016 NSCH will utilize online data collection with follow-up paper data collection as the primary collection modes. The online data collection mode allows for features that reduce respondent burden as well as report results more quickly and at considerably less cost. In general, respondents find it less taxing to provide sensitive information about their children in self-administered surveys; however, because of the significant number of filter questions, paper-and-pencil versions of the

survey appear quite lengthy. The Web-based survey allows for the programming of skip patterns similar to the original telephone interview version of the survey. Thus, the Web-based format allows for the comfort of self-administration with the ease of seeing and subsequently answering only questions relevant to a particular respondent.

- **Forms Design.** Questionnaires will be created using Amgraf One Form Plus. Completed hardcopy forms can be processed by iCADE to capture responses through optical mark recognition (OMR) and keying from image (KFI). Questionnaires will be printed, trimmed, and stitched through an in-house print on-demand process using a Docuprint system which allows personalization and the ability to tailor items to each specific respondent. The data from the questionnaires will be captured by the iCADE technology/software, which automatically extracts all check box entries (OMR), captures, and displays an image of all other entries to an operator for KFI.
- **Image Preprocessing.** The iCADE software performs a registration process for each individual questionnaire page to match to the appropriate page template. This also allows for corrections due to any skewing during scanning.
- **Data Capture.** iCADE reads the form image files, checks the presence of data, processes all check box fields through OMR and presents an image of the handwritten fields to an operator for KFI.
- **Verification.** Extracted KFI data are subject to 100% field validation according to project specifications. If a data value violates validation rules, the data is flagged for review by verifiers who interactively review the images and the corresponding extracted data, and resolve validation errors.
- **Archiving.** Images will be scanned and archived to magnetic storage located on a secured server in case they are needed later. This eliminates the need to save paper copies of the completed questionnaires.

4. Efforts to Identify Duplication and Use of Similar Information

The NSCH has been conducted since 2003 under the auspices of the National Center for Health Statistics on behalf of the Maternal and Child Health Bureau. In companion with the National Survey of Children with Special Health Care Needs, the NSCH is considered the most robust data source available at national and state levels on children's health and well-being. These data are cited broadly in research literature (http://www.cdc.gov/nchs/slait/slait_products.htm).

Perhaps the most significant source of duplication was between the NSCH and the NS-CSHCN. A key objective in developing this "new" NSCH instrument is to consolidate the "old" NSCH and the NS-CSHCN into one survey, reducing redundancy in the collection of data and the burden on households that accompanied the administration of two separate surveys. The NSCH 2015 pretest demonstrated the feasibility of conducting the new condensed NSCH using web and mail as new modes of administration.

In the process of redesigning these two surveys into one survey and eliminating redundancies in questionnaire items, the new NSCH will also include new content (see Appendix D, List of new survey items) on the following topics based on pretest results, to support programs and policies related to children's health and children with special health care needs:

- One item on child care or preschool expulsion inquiring if a child has been kept home due to behavior (hitting, kicking, biting, tantrums or disobeying)
- Four items in the school readiness section related to social/emotional development.

5. Impact on Small Businesses or Other Small Entities

Not applicable.

6. Consequences of Collecting the Information Less Frequently

The 2016 NSCH is an initial production survey in what is expected to become an annual or biennial data collection system to produce data on the physical and emotional health of American children under 18 years of age. The NSCH collects information on factors related to the well-being of children, including access to and quality of health care, family interactions, parental health, school and after-school experiences, and neighborhood characteristics. NSCH data are used to measure progress on national performance and outcome measures under the Title 5 Maternal and Child Health Services Block Grant Program in HHS.

7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

This data collection will be consistent with the general information collection guidelines of 5 CFR 1320.5. No special circumstances apply.

8. Comments in Response to the Federal Register Notice/Outside Consultation

The 60-day Federal Register Notice was published in the *Federal Register* on November 30, 2015 (80 FR, No. 229; p. 74752-74754). No substantive comments were received.

9. Explanation of any Payment/Gift to Respondents

The NSCH Pretest tested the effectiveness of providing an unconditional incentive to boost respondent cooperation and reduce non-response bias. The pretest included both \$5 and \$10 treatment groups as incentives to complete the survey. From the NSCH pretest, the results showed that there was no statistically significant difference in the response rates when respondents were provided \$5 or \$10 (72.5% vs. 73.2%, respectively). Without any differential evidence of a benefit in response associated with \$10, that treatment has been dropped from consideration.

With the results from the pretest failing to show a substantial benefit for the larger \$10 incentive, smaller amounts will be evaluated during the 2016 NSCH. In the 2016 NSCH, sampled addresses will receive either a \$2 or a \$5 cash incentive or they will be part of the control group

that does not receive a cash incentive. Survey methods research strongly support the use of unconditional incentives to reduce nonresponse bias in self-administered survey data collection⁵. The 2016 NSCH project plan addresses two gaps in knowledge related to the payment of unconditional incentives in an address-based administration of the NSCH. The first is the determination of the baseline response for the NSCH from a general sample of addresses, and the second is the relative response benefit associated with the \$2 and \$5 token of appreciation. In the initial enrollment invitation to respond by internet, the household will be sent one of the three different incentive amounts. The sample will be roughly divided into thirds, with each third randomly assigned to one of the three incentive amount groups. The sample distribution is presented in table 9A below (the additional experiments listed in the table will be discussed in Part B). The cost of incentives are balanced against the reduction in follow-up effort and cost required to collect the required data.

Table 9A. Treatment Group by Enrollment Incentive Amount and Internet Likelihood

Incentive Treatment Group	Initial Cases	Mailing Treatment	Maximum Cases for Mailing Comparison	Low Internet Likelihood Treatment	Med/High Internet Likelihood Treatment
Control	121,385	Census	60,693	18,208	42,485
		MCHB-HHS	60,692	18,208	42,484
\$2	121,384	Census	60,692	18,208	42,484
		MCHB-HHS	60,692	18,208	42,484
\$5	121,384	Census	60,692	18,208	42,484
		MCHB-HHS	60,692	18,208	42,484

Incentives are commonly used in other HHS-sponsored surveys including the National Health Interview Survey, the National Survey of Family Growth, the National Health and Nutrition Examination Survey, the National Survey on Drug Use and Health, and the Health Center Patient Survey. Recent experimentation within a general population mixed mode (Web and Mail) survey found that the use of a prepaid incentive more than doubled the response rate within that population from 25% (no incentive) to 56% (with incentive) (Messer & Dillman, 2011)⁶.

10. Assurance of Confidentiality Provided to Respondents

Data will be kept private in accordance with applicable law. The data collected under this agreement 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

⁵Alexander, G.L. et al. (2008). Effect of Incentives and Mailing Features on Online Health Program Enrollment. *American Journal of Preventive Medicine*, 34(5), 382-388.

⁶Messer, B.L. & Dillman, D.A. (2011). Surveying the general public over the internet using address-based sampling and mail contact procedures. *Public Opinion Quarterly*, 75(3):429 -57.

Sworn Status pursuant to 13 U.S.C. Section 23(c).

11. Justification for Sensitive Questions

Sensitive questions are generally not included on the NSCH. However, it is possible that respondents may find some questions related to their children's health or disease status to be sensitive in nature. Respondents are made aware of the voluntary nature of this survey in the cover letter that accompanies the invitation to complete the questionnaire and on the material distributed with the paper questionnaire. Individuals are free to refrain from answering any question that they do not feel comfortable responding to. The U.S. Department of Health and Human Services requires that race and ethnicity be asked on all HHS data collection instruments and questions on both race and Hispanic origin appear on the NSCH. There is, however, no requirement that respondents answer these questions.

12. Estimates of Annualized Hour and Cost Burden

Estimates of annualized hour burden and annualized cost to respondents are listed in Tables 12A and 12B, respectively. The total number of estimated respondents is 266,906 annually. The total number of annual burden hours is 54,117. The estimated total annual respondent cost is \$1,371,865.95. Please note that the estimated number of respondents and the estimated total annual burden hours are lower here than those in the Federal Register Prenotice. The figures here are the correct figures and are the result of improved estimates of (1) the response rates for the screener and topical modules and (2) the average time to complete the survey instruments⁷.

⁷ For the NSCH, 190,406 respondents are expected to complete the screener and 76,500 respondents are expected to complete one of the three age-based topical questionnaires. The frequency of response is the same across data collection activities – each instrument requires one response per respondent. The average burden per response was determined by timing instruments administration with 9 or fewer respondents. Estimates of the total annual respondent cost for the collection of information use the appropriate wage rate categories. For individuals, the wage rate is \$25.35 per hour. This is based on the average hourly earnings for employees as reported by the Bureau of Labor Statistics (<http://www.bls.gov/news.release/realer.t01.htm>).

12A. Estimated Annualized Burden Hours

Type of Respondent	Questionnaire Name	Expected Number of Respondents ⁸	Number of Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours
NSCH Production					
Adult Parent or Caregiver	Screener	190,406	1	.083	15,867
Adult Parent or Caregiver	0-5 Topical Instrument	25,500	1	.5	12,750
Adult Parent or Caregiver	6-11 Topical Instrument	25,500	1	.5	12,750
Adult Parent or Caregiver	12-17 Topical Instrument	25,500	1	.5	12,750
Total		266,906			54,117

Table 12A NOTE: Details may not sum to totals due to rounding of partial hours.

12B. Estimated Annualized Burden Costs

Type of Respondent	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
NSCH Production			
Adult Parent or Caregiver (Screener)	15,867	\$25.35	\$402,228.45
Adult Parent or Caregiver (0-5 Topical Instrument)	12,750	\$25.35	\$323,212.50
Adult Parent or Caregiver (6-11 Topical Instrument)	12,750	\$25.35	\$323,212.50
Adult Parent or Caregiver (12-17 Topical Instrument)	12,750	\$25.35	\$323,212.50
Total	54,117		\$1,371,865.95

13. Estimates of Other Total Annual Cost Burden to Respondents

There are no direct costs to respondents other than their time to participate in the study.

14. Annualized Cost to the Federal Government

Costs for this survey are estimated at \$7,000,000. This includes all direct and indirect costs of the design, data collection, analysis, and reporting phases of the survey, as well as delivery of the

⁸ The expected number of respondents is an estimate of the expected number of completed screener and topical questionnaires, discussed in section B.1.3. This is different from the number of respondents that were mailed a screener or topical questionnaire.

data sets to HRSA MCHB.

15. Explanation for Program Changes or Adjustments

This is a new information collection.

16. Plans for Tabulation, Publication, and Project Time Schedule

The NSCH will generate datasets, statistics, and reports. Below are the planned deliverables that the Census Bureau will provide HRSA MCHB:

Datasets, Statistics, and Reports.

- A fully documented public use data set including three different files:
 - Household level file – This file will contain all of the data collected on the screener and any other variables (derived, flag, admin, etc.) requested by HRSA MCHB.
 - Child level file – This file will contain all of the child data collected on the topical modules along with any other variables (derived, flag, admin, etc.) requested by HRSA MCHB.
 - Operational level file – This file will contain all of the operational and administrative variables that indicate the status, resolution, and history of each case.
- A codebook with weighted and unweighted frequencies of all variables for each of the different files mentioned above
- A user’s manual and methodology report created by the Demographic Statistical Methods Division (DSMD) staff

17. Reason(s) Display of OMB Expiration Date is Inappropriate

Not applicable. No exception requested.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

Not applicable. No exception requested.