

**2017 National Survey of Children's Health:
Request for OMB Review
Supporting Statement A
OMB Control No. 0607-0990**

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 children under 18 years of age in the United States. 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 Maternal and Child Health Bureau (HRSA MCHB) redesigned 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 for the first time in 2016. This newly consolidated survey, which incorporates questions from both of these surveys, utilized an Address-Based Sampling (ABS) frame and retained the name National Survey of Children's Health.

In recent years, the declining willingness of the public to participate in surveys and changes in household telephone use has resulted in lower response rates for Computer-Assisted Telephone Interviewing (CATI) surveys, the prior mode for NSCH and NS-CSHCN data collection. Of particular concern is the increasing prevalence of households that have substituted wireless service for their landline telephone (Blumberg & Luke, 2015)³. The decline in response rates and difficulties in providing a representative sample at reasonable costs continue to be significant parts of our planning considerations as the 2016 NSCH procedures are revised for 2017. The 2017 NSCH will continue to follow the redesign recommendations that led to the design in 2016, and utilize a two-phase multimode (Web or paper) data collection design for a combined NSCH/NS-CSHCN survey. The NSCH consists of two questionnaires: (1) an initial household

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

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>.

screeners 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 updated content.

In 2015, the 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 2015 NSCH pretest, we observed a web response rate of over 54% (19% of the web push group eventually responded by paper). However, the sample composition for the pretest included more addresses with a higher income and a higher education level than the general U.S. population. The source of the sample and the sampling methodology were updated for the 2016 NSCH cycle. The 2016 NSCH was shifted to the Census Bureau's Master Address File (MAF), combined with auxiliary information to sample households with children more efficiently. A byproduct of the more accurate sample composition in 2016 was a realized response rate that was lower than the 2015 pretest. The sample composition and response characteristics from the 2016 NSCH cycle continue to be researched in order to improve the 2017 NSCH cycle.

Observed response rates were lower than the pretest as were our conservative adjustments to the expectations from the pretest. While weighting is still being developed and sample composition is being evaluated, the 2016 NSCH has enabled us to develop refinements in the production use of flags identifying the presence of children in the household, as well as flags indicating the likelihood of responding by Internet. The Internet likelihood flag is being revised for 2017 to increase its ability to identify households most likely to respond by a particular mode of data collection. The indicator that we developed for differentiating households likely to respond by Internet versus paper was more successful at indicating the likelihood of overall survey response than the preference for Internet over paper (medium/high Internet group were more likely to respond in general than the low Internet group). Since there continues to be a significant potential for cost savings for web data collection over paper data collection, we are working to refine and retest an Internet response indicator for the 2017 NSCH based on the results from the 2016 data collection.

The U.S. Census Bureau is required by law to protect your information. The Census Bureau is not permitted to publicly release your responses in a way that could identify you or your household. 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. Section 501(a)(2) of the Social Security Act (42 USC §701) allows HHS to collect information for the purpose of understanding the health and well-being of children in the United States. Federal law protects your privacy and keeps your answers confidential (Title 13, United States Code, Section 9). Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

There are also three separate partner agreements with the Centers for Disease Control and Prevention's National Center on Birth Defects and Developmental Disabilities (CDC/NCBDDD), Environmental Protection Agency (EPA), and the United States Department

of Agriculture (USDA) in support of particular content on the topical questionnaires. The CDC/NCBDDD supports content on the receipt of training or interventions around the behavioral treatment of attention-deficit disorder and attention-deficit/hyperactivity disorder under the Public Health Service Act, Section 301, 42 U.S.C. § 241. The EPA supports content on the household exposure to pesticides and mold in children's households under the FIFRA: Section 20(a); Toxic Substances Control Act: Section 10; 15 U.S.C. § 2609. Finally, the USDA supports content on food sufficiency under the Healthy, Hunger-Free Kids Act of 2010, Pub. L. 111-296. In particular, 42 U.S.C. 1769d(a) authorizes USDA to conduct research on the causes and consequences of childhood hunger included in 1769d(a)(4)(B), the geographic dispersion of childhood hunger and food insecurity.

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 2017 NSCH will be conducted for HRSA MCHB by the Census Bureau in Web Push + Mail or mixed-mode format. For a majority of households (70%), the initial opportunities to respond electronically via the Centurion Web instrument will be followed by a data collection strategy that will augment online data collection with a paper data collection mode. A smaller percentage of households (30%) will be placed in the mixed-mode group and will receive both a Centurion Web instrument invite as well as a paper data collection mode with the initial mailing. The Centurion Web instrument allows online reporting, improving 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. 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 2017 NSCH will utilize a Web-based survey with follow-up paper data collection as one of the primary collection modes. The Web-based survey 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), optical character recognition (OCR), 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) and preselected numeric answer fields (OCR), then 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 for the presence of data, processes all check box fields through OMR, processes all preselected numeric answer fields through OCR, then presents an image of all other 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 point 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 Centers for Disease Control and Prevention's National Center for Health Statistics on behalf of the HRSA MCHB. In companion with the NS-CSHCN, 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/slaits_products.htm).

Previously, there was significant duplication between the NSCH and the NS-CSHCN. A key objective in developing this 2016 NSCH instrument was 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 2015 NSCH pretest and 2016 NSCH iterations demonstrated the feasibility of conducting the new condensed NSCH using web and mail as new modes of administration.

In the process of redesigning and eliminating redundancies in questionnaire items, the 2017 NSCH will also include new content (see Appendix D, List of new, modified, and removed survey items) on the following topics, to support programs and policies related to children's health and children with special health care needs:

- Two items from the Environmental Protection Agency (EPA) on household exposures to pesticides and mold
- Two questions on military and deployment status of each parent or caregiver
- One question (for children aged 0-5) on identifying colors by name

5. Impact on Small Businesses or Other Small Entities

Not applicable.

6. Consequences of Collecting the Information Less Frequently

The 2017 NSCH is the second year 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 children under 18 years of age living in the United States. 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 V Maternal and Child Health Services Block Grant Program in HHS. Without the annual collection of this data, the HRSA MCHB would not be able to produce these timely national performance and outcome measures.

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 December 28, 2016 (81 FR, No. 249; p. 95562-95565). No substantive comments were received.

9. Explanation of any Payment/Gift to Respondents

Incentive experiments for the 2016 NSCH included both \$2 and \$5 treatment groups along with a control group that did not receive a cash incentive. The evaluation of results from the 2016 NSCH showed that there was a statistically significant difference in the response rates among

respondents who were provided an incentive compared to those who did not receive an incentive. In addition, there was a slightly larger increase in response rates among households mailed a \$5 incentive compared to those mailed a \$2 incentive with their initial survey invite. Response rates were 33.7% for respondents with no incentives, compared with 36.5% for those with a \$2 incentive and 38.4% for those with a \$5 incentive. The cost of incentives is balanced against the reduction in follow-up effort and the cost required to collect the data. Due to budget limitations, a \$5 incentive is not being considered for the 2017 NSCH.

In the 2017 NSCH, sampled addresses will receive a \$2 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 collection⁴. The 2017 NSCH project plan allows us to continue to monitor the effectiveness of the \$2 incentive in the initial mailing. The sample will be divided so that the control group makes up a small percentage (10% or less). The sample distribution is presented in table 9A (the additional experiments listed in the table will be discussed in Part B).

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

Incentive Treatment Group	Initial Cases	Mailing Treatment	Maximum Cases for Mailing Comparison	High Paper-Treatment	Low Paper-Treatment
Control	15,604	Info-graphic	7,803	2,341	5,462
		No Info-graphic	7,803	2,341	5,462
\$2	140,450	Info-graphic	70,224	21,067	49,157
		No Info-graphic	70,224	21,067	49,157

Table 9A NOTE: The Info-graphic, high paper, and low paper treatment groups are described in more detail in Supporting Statement B.

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)⁵.

10. Assurance of Confidentiality Provided to Respondents

The following confidentiality statement will be presented to respondents within the Centurion

⁴Alexander, 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.

⁵Messer, 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.

Web instrument and paper questionnaires:

The U.S. Census Bureau is required by law to protect your information. The Census Bureau is not permitted to publicly release your responses in a way that could identify you or your household. We are conducting this survey under the authority of Title 13, United States Code, Section 8(b). Federal law protects your privacy and keeps your answers confidential under 13 U.S.C. Section 9. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

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 81,805 annually. The total number of annual burden hours is 16,573. The estimated total annual respondent cost is \$430,898.00. 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 instruments⁶.

⁶ For the 2017 NSCH, 58,345 respondents are expected to complete the screener and 23,460 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 \$26.00 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 ⁷	Number of Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours
NSCH Production					
Adult Parent or Caregiver	Screener	58,345	1	.083	4,843
Adult Parent or Caregiver	0-5 Topical Instrument	7,820	1	.5	3,910
Adult Parent or Caregiver	6-11 Topical Instrument	7,820	1	.5	3,910
Adult Parent or Caregiver	12-17 Topical Instrument	7,820	1	.5	3,910
Total		81,805			16,573

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)	4,843	\$26.00	\$125,918.00
Adult Parent or Caregiver (0-5 Topical Instrument)	3,910	\$26.00	\$101,660.00
Adult Parent or Caregiver (6-11 Topical Instrument)	3,910	\$26.00	\$101,660.00
Adult Parent or Caregiver (12-17 Topical Instrument)	3,910	\$26.00	\$101,660.00
Total	16,573		\$430,898.00

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 \$4,925,000. 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

⁷The 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 revision to a prior information collection. The main difference between the 2016 NSCH and the 2017 NSCH is the decrease in sample size due to a reduction in the allotted budget for this survey collection. There are minimal changes to the content of the questionnaires, so the individual household burden hours remain the same, but total burden hours for the survey administration are reduced because of the decreased number of household addresses in the sample.

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

The following is a project time schedule for the 2017 NSCH:

2017 NSCH Project Time Schedule and Deliverables	
07/19/17	Initial mailout of all treatment group survey invites (High & Low Paper)
07/24/17	Pressure-sealed postcard reminder (containing Web login information)
08/23/17	Low paper first follow-up mailing (Web invite only)
08/30/17	High paper first follow-up mailing (Web invite & paper questionnaire)
09/20/17	Low paper second follow-up mailing (Web invite & paper questionnaire)
10/04/17	High paper second follow-up mailing (Web invite & paper questionnaire)
10/25/17	Low paper third follow-up mailing (Web invite & paper questionnaire)
11/08/17	High paper third follow-up mailing (Web invite & paper questionnaire)
09/01/17 – 01/04/18	Paper topical questionnaire mailings (only applicable to households who responded by mail with an eligible paper screener)
01/26/18	Survey closeout – data collection ends
Late Spring – Early Summer 2018	Delivery of fully documented public use data sets (topical and screener level files) and any other preliminary data files requested by HRSA MCHB
Summer – Fall 2018	Delivery of codebook, user’s manual, and methodology report

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 two different files:
 - Topical level file – This file will contain all of the data collected on the topical instruments and any other variables (derived, flag, admin, etc.) requested by HRSA MCHB.
 - Screener level file – This file will contain all of the child data collected on the screener instruments along with any other variables (derived, flag, admin, etc.) requested by HRSA MCHB.
- 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.