

Supporting Statement for Request for Clearance:
NATIONAL HEALTH INTERVIEW SURVEY

OMB No. 0920-0214

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Supporting Statement

NCHS National Health Interview Survey (NHIS)

This request is to extend data collection for the core NHIS (Basic Module) and to modify selected sections of the NHIS for the next three years (OMB 0920-0214). The National Health Interview Survey (NHIS) is a major ongoing source of information on the health of the civilian, noninstitutionalized population of the United States. In addition to the annual statistics normally collected in the Family, Sample Adult and Sample Child core components, a key focus of the 2007 NHIS will be to collect additional data 1) on the use of complementary and alternative medicine by U.S. adults, and 2) on hearing problems in persons of all ages.

A. Justification

1. Circumstance Making the Collection of Information Necessary

Background of the NHIS

The NHIS is conducted by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC) to comply with the NCHS mandate under 42 USC 242k (Attachment 1) to collect, on an annual basis, statistically valid data on the amount, distribution, and effects of illness and disability in the population and on the utilization of health care services for such conditions. NHIS data are used widely throughout the Department of Health and Human Services (DHHS) to monitor trends in illness and disability and to track progress toward achieving many of the Year 2010 Health Objectives for the Nation. The data are also used by the public health research community for epidemiologic and policy analysis of such timely issues as characterizing those with various health problems, determining barriers to accessing and using appropriate health care, and evaluating the impact of changes in federal health programs.

In accordance with the 1995 initiative to increase the integration of surveys within DHHS, respondents to the NHIS serve as the sampling frame for the Medical Expenditure Panel Survey (MEPS). This survey (OMB# 0935-0018) is conducted by the Agency for Healthcare Research and Quality. MEPS uses completed interviews from the NHIS to identify and select the desired

sample, contacts that sample to collect additional data, and combines their survey data with the original NHIS data. These procedures reduce survey costs, reduce overall respondent burden, and increase the amount of data available for analysis.

The NHIS has been conducted every year since 1957. The current design of the NHIS was fully implemented in 1997, and consists of a standard Basic Module, covering basic health topics and demographic characteristics, that is repeated every year. In addition to the Basic Module, each year supplementary questions or modules may be included. For example, the 2007 NHIS will include supplementary questions or Topical Modules on complementary and alternative medicine and on hearing problems.

The NHIS serves a critical role in providing information for monitoring and evaluating the performance of public health programs. The NHIS meets this need in several ways. First, the NHIS provides information on the overall health status of the U.S. population and its health needs, which serves as a background of "contextual" data against which program goals and performance measures are formulated and evaluated. Secondly, data from the NHIS serve as the national benchmark against which individual state monitoring efforts are compared.

Under the terms of an interagency agreement, the Bureau of the Census will collect the data for the 2007 NHIS. The NHIS will be administered using a Computer Assisted Personal Interview (CAPI) system developed by the Bureau of the Census using Blaise software.

Questionnaire Design Features of the NHIS

This clearance request is for continuing the Basic Module of the NHIS, and, for 2007, Topical Modules on complementary and alternative medicine and on hearing problems. To put this request in context, a brief description of the overall questionnaire design is given here.

Four broad content domains and associated sub domains are covered by the Basic Module: health status, health care services, health behavior, and sociodemographic characteristics. The sub domains are listed as follows:

- Health status
 - Conditions
 - Injuries

- Activity limitations

Health care services

- Access to care
- Health insurance
- Utilization

Health Behaviors

- Smoking
- Physical Activity
- Alcohol Consumption
- Obesity
- Sleep

Sociodemographics

Responsibility for developing questions and monitoring field work in each of these areas is assigned to NCHS staff. Input to the design of these questions was solicited from experts in a variety of organizations within the federal government, and from outside researchers and public health professionals.

The Basic Module is repeated every year with little change; this allows for trend analysis and for data from more than one year to be pooled to increase sample size for analytic purposes. The Basic Module contains three major parts: the Family Core, the Adult Core, and the Child Core. The Family Core component collects information on everyone in the family. This allows the NHIS to serve as a sampling frame for additional integrated surveys as needed. Information collected on the Family Core for all family members includes: household composition and sociodemographic characteristics; tracking information; information for matches to administrative data bases; and basic indicators of health status, health behavior, and health care services.

The Family Core component is administered to any available adult respondent to obtain information about all household and family members. The Adult Core component is administered to a randomly selected adult family member who must respond for him or herself. If there are children in the family, one is randomly selected and the Child Core component is administered to an adult family member who is knowledgeable about that child's health. Finally, recontact information is collected from an adult family member to obtain names, addresses, and telephone numbers of persons who might know their whereabouts if they move.

The principal questionnaires covered in this request are the Basic Modules for Family, Adult, Child, and the Topical Modules on complementary and alternative medicine and on hearing problems (Attachment 2a). Flashcards used in the administration of the questionnaire are included in Attachment 2c.

Questions for Topical Modules may be embedded within or attached to one of the principal sections (Family, Adult, and Child). Questions for the hearing Topical Module are listed both as part of the full questionnaire (Attachment 2a) and separately in Attachment 2e. Questions for the complementary and alternative medicine Topical Module are listed both as part of the full questionnaire (Attachment 2a) and separately in Attachment 2d. In addition to the principal questionnaires, a questionnaire that is used to reinterview a small sample of respondents as a quality control measure is also included (Attachment 2b).

Summary of the Need for Topics in the Basic Module:

A summary of the need for each of the previously approved topic areas of the NHIS Basic Module is provided in Attachment 8. Several new questions or revisions of questions for the basic module are planned for 2007.

As a follow-up to the 2006 topical module on diabetes (funded by the National Institute of Diabetes and Digestive and Kidney Diseases), a question has been added to improve the ability of the NHIS to estimate the increasing number of people with prediabetes.

There are also three new questions that address the evolving importance of consumer-centric health care plans such as Health Savings Accounts and Flexible Spending Accounts. Because of the critical need to monitor change in the health insurance environment, these new questions on health care plans received funding support by the Office of the Assistant Secretary for Planning and Evaluation in the Department of Health and Human Services.

Questions related to the use of telephones and cell phones have been restructured and streamlined. The total number of questions has been reduced, even with the addition of two new questions. The new questions address areas of cell phone usage that are critical for assessment of coverage in RDD telephone surveys.

Finally, the questions about total family income in the last calendar year are being modified. Specifically, the question

which asks respondents to provide the total amount of family income in the last calendar year has a slight wording change. In addition, there are two income questions which are asked of respondents who initially do not provide an answer to the total income amount question. These questions use hand cards with income intervals and are being replaced with a new set of questions which use unfolding brackets. Also, the introductory question at the beginning of the Family Income and Assets section of the basic module has a revised wording.

The new or revised questions for the basic module are included in Attachment 2f.

Summary of the Need for the new 2007 Topical Modules:

- Complementary and Alternative medicine (CAM)

The supplement is sponsored by the National Center on Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health (NIH). CAM therapies can range from vitamin supplements, mind-body practices such as yoga, meditation or qi gong, to practitioner based modalities such as acupuncture and chelation therapy. Recent studies have revealed an increasing trend over time in the use of Complementary and Alternative Medicine in the United States and other countries. Because most CAM practices and therapies have not been scientifically proven to be safe and effective, there is an urgent call for scientific research of specific CAM practices and therapies. Examining the patterns of CAM utilization among the general population and the factors predictive of its use can help guide health education and determine research priorities.

Based on previous studies, the estimated percentages of CAM utilization differ remarkably, ranging from 8.3 % to 42.0% of the population. The inconsistency may be caused by disparities in study population, sample size, and types of CAM therapies included. As use of CAM therapies relates to one's cultural background and traditional beliefs, a large national survey such as the National Health Interview Survey with a representative sample of general populations is needed to understand the spectrum of CAM use and to clarify the magnitude of utilization among the culturally diverse U.S. population. The National Health Interview Survey fielded a CAM supplement in 2002, but the 2007 CAM Supplement will provide more recent data for trend analysis plus new data relating to the use of a wide range of CAM therapies in the United States. All sample adults will be asked

about their use of 24 self-administered or practitioner-based alternative therapies, treatments, or services. Variables include age of first use, usage in the past 12 months, reasons for use, effectiveness and adverse reactions to use, and disclosure to conventional providers. Respondents are also asked about future use and effect of their use on conventional medicine.

Attachment 2a contains the CAM supplement questions in the context of the full questionnaire. Attachment 2d contains a separate listing of the CAM questions. At the beginning of Attachment 2d is a listing of conditions that are embedded into appropriate sections of the basic module. These condition questions were embedded to make their administration better fit within the general flow of the instrument. The remaining CAM questions are administered as a separate section.

- Hearing problems

This supplement on hearing is sponsored by the National Institute on Deafness and Other Communication Disorders, part of the National Institutes of Health (NIH). The questions are similar to previously approved questions that were fielded in quarter 1 of the 2001 NHIS. The questions will be located in the Sample Adult module and include items on hearing ability, the use of assistive listening devices, hearing conditions such as tinnitus, and exposure to noise in the workplace and during leisure activities. The questions are designed to meet specific goals for the Healthy People 2010 Objectives (shown in parentheses):

- Increase access by persons who have hearing impairments to hearing rehabilitation services and adaptive devices, including hearing aids, cochlear implants, or tactile or other assistive or augmentative devices (28-13)
- Increase the proportion of persons who have had a hearing examination on schedule (28-14)
- Increase the number of persons who are referred by their primary care physician for hearing evaluation and treatment (28-15)
- Reduce adult hearing loss in the noise-exposed public (28-18)

- Increase the use of appropriate ear protection devices, equipment, and practices (28-16).

It has been estimated that among older adults (70 years and older), only about 20% of people who might benefit from using hearing aids wear them. The questions on the 2007 NHIS ask about the use of hearing aids, duration and frequency of use, as well as reasons why respondents who may need hearing aids do not use them.

The 2007 NHIS hearing supplement questions are intended to be repeated in approximately 5 years, to monitor progress of the Healthy People 2020 Objectives.

Attachment 2a contains the hearing supplement questions in the context of the full questionnaire. Attachment 2e contains a separate listing of the hearing questions.

2. Purpose and Use of Information Collection

The purposes of the NHIS are (1) to provide national data on an annual basis on the incidence of acute illness and accidental injuries, the prevalence of chronic conditions and impairments, the extent of disability, the utilization of health care services, and other health-related topics; (2) to provide more detailed information on selected topics periodically and on a one time basis; and (3) to provide a sampling frame for the Medical Expenditure Panel Survey. It is also a main provider of data for the Congressionally mandated Health U.S. report and provides the majority of indicators used in monitoring progress toward the Healthy People 2010 goals.

A major strength of the NHIS is its ability to display health characteristics by selected demographic and socioeconomic characteristics of the U.S. civilian, noninstitutionalized population. The uses of NHIS data are generally in the areas of program planning and evaluation, public health education and health promotion and epidemiological research. A discussion of some other uses of the data was included in the previous section.

3. Use of Improved Information Technology and Burden Reduction

The survey will be conducted by Computer Assisted Personal Interview (CAPI), using Blaise software, which reduces the time required for transferring data, processing data, and releasing data. CAPI usually reduces the average duration of interviews, compared to a paper questionnaire with identical content.

4. Efforts to Identify Duplication and Use of Similar Information

During the course of development of the redesigned NHIS, numerous individuals were consulted, both formally and informally. The names and organizations of the most directly involved individuals are cited in Attachment 7b. Consultation included not only issues of design and content but also knowledge of existing surveys or data. In addition, a search was made of the literature to ascertain the uniqueness of the items.

The end-users consulted are primarily from the agencies and offices in the Federal government which use NHIS data for policy planning and evaluation, such as Dale Hitchcock, Director, Division of Data Policy, Office of Science and Data Policy, Office of the Assistant Secretary Planning and Evaluation, DHHS.

Consultation took place in face-to-face meetings, telephone conferences, electronic mail, and postal mail, and there were multiple contacts with many of the individual consultants.

Consultations were also held for both of the 2007 Topical Modules (See Attachment 7c and the A.1. Description of the Topical Modules.)

Other surveys were reviewed to determine possible duplication. Because the NHIS is the principle health survey conducted by the Department of Health and Human Services, the Basic Module items are not duplicated in their entirety in any other national data system. In fact other surveys borrow questions from the NHIS for new surveys. To the extent that there is some overlap in content of the Basic Module with other surveys, it is because it is necessary to insure that the full range of relevant variables are included for complex analyses of data on the NHIS sample.

5. Impact on Small Businesses or Other Small Entities

Information collection for the NHIS does not involve small businesses or other small entities.

6. Consequences of Collecting the Information Less Frequently

The continuous nature of the NHIS is necessary for several reasons. First, many of the data items collected in the NHIS are used for annual tracking of health events and circumstances, including tracking of the National Objectives for Health Promotion and Disease Prevention and the prevalence of HIV/AIDS testing. Second, the continuous design makes it possible to aggregate data over longer periods of time to include enough cases to study rare events and small populations, such as minority groups. Third, the Medical Expenditures Panel Surveys (Household Component and Medical Providers Component, OMB No. 0935-0118) now depends on the NHIS for their sample, and failure of the NHIS to collect data annually may cause this survey to be postponed or canceled. Fourth, a continuous survey is more cost effective because it makes possible a stable interviewing staff, which increases the quality of the data and avoids start-up and shut down costs. Reducing the frequency of data collection would undermine all of these desirable features of the NHIS.

There are no legal obstacles to reducing the burden.

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

N/A. None of the special circumstances listed apply to this survey.

8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A. Public Comment

In compliance with 5 CFR 1320.8(d), an agency 60-day notice soliciting comments on this data collection was published in the Federal Register on June 23, 2006 (Vol. 71, No. 121, pages 36096-36097). See Attachment 3. Summary of comments received: None received.

Actions taken by the agency in response: Not applicable.

Comments and actions on cost and hour burden: Not applicable.

B. Other consultations outside the agency

Major consultations took place in 1995 and 1996 when the Basic Module content was being developed. In summary, the consultation

was very broad and included survey design experts, experts on the substantive health topics covered in the questionnaires, and end users of the data (see Attachment 7b).

The survey design experts included several paid consultants who reviewed draft documents and attended monthly redesign staff meetings; they were Thomas Jabine, a Washington DC consultant; James Lepkowski of the University of Michigan; and Floyd Fowler of the University of Massachusetts.

The substantive experts included many scientists on the staffs of NIH and CDC, and university-based researchers; to name just a few of those who reviewed documents and provided written comments: Barbara Starfield of the Johns Hopkins University; Paul Newacheck of the University of California, San Francisco; and Thomas Achenbach of the University of Vermont.

The end-users consulted are primarily from the agencies and offices in the Federal government which use NHIS data for policy planning and evaluation, such as Dale Hitchcock, Director, Division of Data Policy, Office of Science and Data Policy, Office of the Assistant Secretary Planning and Evaluation, DHHS.

Consultation took place in face-to-face meetings, telephone conferences, electronic mail, and postal mail, and there were multiple contacts with many of the individual consultants. While not all recommendations by consultants could be accommodated, the content of Basic Module of the NHIS questionnaire was almost entirely selected on the advice of outside consultants. No major problems remained unresolved following the consultations.

Consultations were also held for both of the 2007 Topical Modules (See Attachment 7c and the A.1. Description of the Topical Modules.)

9. Explanation of Any Payments or Gifts to Respondents

N/A. No payments will be made to respondents.

10. Assurance of Confidentiality Provided to Respondents

Confidentiality provided to respondents is assured by adherence to Section 308(d) of the Public Health Service Act (42 USC 242m) as follows (see also Attachment 7a):

"No information, if an establishment or person supplying the information or described in it is identifiable, obtained in the course of activities undertaken or supported under section... 306 (NCHS legislation), ... may be used for any purpose other than the purpose for which it was supplied unless such establishment or person has consented (as determined under regulations of the Secretary) to its use for such other purpose and (1) in the case of information obtained in the course of health statistical or epidemiological activities under section 304 or 306, such information may not be published or released in other form if the particular establishment or person supplying the information or described in it is identifiable unless such establishment or person has consented (as determined under regulations of the Secretary) to its publication or release in other form,..."

During the NHIS, all respondents will be assured of the confidentiality of their responses and the voluntary nature of the survey in writing when they receive an advance letter (Attachment 5a) and verbally when telephone callbacks are made (Attachment 5c). Also, the following statement will appear on a computer screen at the beginning of each CAPI interview.

Notice - Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or establishment in accordance with section 308(d) of the Public Health Service Act (42 USC 242m). Public reporting burden of this collection of information is estimated to average 57 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person

is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Reports Clearance Officer; 1600 Clifton Road, MS D-74, Atlanta, GA 30333. ATTN: PRA (0920-0214).

In addition, legislation covering confidentiality is provided according to section 513 of the Confidential Information Protection and Statistical Efficiency Act (PL 107-347) which states:

"Whoever, being an officer, employee, or agent of an agency acquiring information for exclusively statistical purposes, having taken and subscribed the oath of office, or having sworn to observe the limitations imposed by section 512, comes into possession of such information by reason of his or her being an officer, employee, or agent and, knowing that the disclosure of the specific information is prohibited under the provisions of this title, willfully discloses the information in any manner to a person or agency not entitled to receive it, shall be guilty of a class E felony and imprisoned for not more than 5 years, or fined not more than \$250,000, or both."

In this survey, as in others, NHIS will include a routine set of measures to safeguard confidentiality, including the following: all staff who have access to confidential information are given instruction by NCHS staff on the requirement to protect confidentiality, and are required to sign a pledge to maintain confidentiality; only such authorized personnel are allowed access to confidential records, and only when their work requires it; when confidential materials are moved between locations, records are maintained to insure that there is no loss in transit; and when confidential information is not in use, it is stored in secure conditions.

It is NCHS policy to make NHIS data available via public use data files to the scientific community. Confidential data will never be released to the public. For example, all personal identifiers are removed from the public release files; this includes participant name, address, survey location number, sample person number, and so forth. A concerted effort is made to avoid any disclosures, such as detailed geographic information that may allow a researcher to go back and find individuals in the general population.

The NCHS Privacy Act Coordinator has reviewed this request and has determined that the Privacy Act is applicable. The System of Records name is Health and Demographic Surveys Conducted in Probability Samples of the U.S. Population.

The Privacy Act System of Records number for the NHIS is 09-20-0164.

11. Justification for Sensitive Questions

Some of the NHIS research topics include potentially sensitive questions. In the informed consent procedure, all sample persons are advised of the voluntary nature of their participation in the survey or any of its components. Sample persons are informed that they can choose not to answer any individual questions and may stop the interview at any time.

All questions and procedures are reviewed by the NCHS Research Ethics Review Board for issues of sensitivity (see attachment 6). The potential sensitivity of questions was an evaluation criterion in determining content of the survey. The multipurpose nature of the NHIS makes it necessary to exclude topics so sensitive that they may interfere with participation.

Questions asked about the following are thought to be of a sensitive nature:

- Social Security and Health Insurance Claim Number
- Citizenship Status
- Intentional Injuries
- Street Living
- Sexually Transmitted Diseases

Most of these are questions that are commonly presented in health care settings, or are asked in other national surveys. Except for Social Security and Health Insurance Claim Number questions, there have been no changes in these questions. The justification for questions other than for Social Security and Health Insurance Claim Number questions is found in Attachment 4.

The Social Security Number(SSN)is asked on the NHIS questionnaire to allow linkage with administrative and vital records in the Department, such as the National Death Index (NDI). The NDI is a computerized central file of death record information. It is compiled from tapes obtained by NCHS from the State vital statistics offices. The tapes contain a

standard set of identifying information on decedents from 1979 to the present. Records are matched using Social Security Number and other variables such as name, father's surname, date of birth, sex, state of residence, and marital status. Of these, Social Security Number is the most important identifier for successful matching.

Medicare beneficiaries are given a health insurance claim (HIC) number that is their (or their spouse's) SSN with an alphabetic prefix. The NHIS also asks for that number so that the NHIS data can be linked to Medicare claims information for purposes of statistical research.

Before the questions on SSN and HIC are asked, respondents are informed of their purpose and given an assurance of confidentiality. Finally, if the respondent asks for more information about the purpose and confidentiality of these questions, the interviewer can display a standard help screen on her computer and read it to the respondent.

Currently the item response rate for the Social Security number is less than 50%. Studies with telephone surveys have shown a higher response rate when asking only for the last four digits of the Social Security number compared to the response rate when asking for the full nine digits. Having the last four digits is about as effective for linking purposes as the full nine digits.

The National Health Interview Survey (NHIS) undertook a field test in the second quarter of 2006 to assess the utility of an alternative set of family income questions, a set of family wealth items, and a four-digit social security number (SSN) question. The field test was administered to "screened-out" households--households that are designated for inclusion as part of the oversampling of Hispanic, black, and Asian households, but are found to have no Hispanic, black, or Asian members. Under normal procedures, once this determination is made the interview terminates and the household is coded as "screened-out" (out of scope and not included in response rate calculations). For the field test, however, interviews of these "screened-out" households continued with the family core component of the survey.

The four-digit alternative was asked of all screened-out cases in the field test and compared to participants with similar characteristics in the basic survey who were asked the nine-digit SSN. Only 40.2% of respondents provided the nine-digit SSN or indicated they did not have an SSN. Nearly 59% refused to provide the information. Conversely, 53.7% of respondents

provided the last four digits of the SSN or indicated they did not have an SSN. About 45% refused to provide the requested information. In sum, a roughly 13 percentage point increase in reporting was achieved with the four-digit alternative.

While there was a marked improvement when asking for only the last four digits of the SSN, the level of refusals was still high at 45%. Respondents who refuse to give all or part of the SSN are not eligible for matching even though matching might be possible if other information such as name and date of birth are given. A refusal to give SSN is treated as a refusal to allow linkage. In an effort to increase the yield of respondents for whom linkage would be permitted, a specific question asking for permission to link NHIS data with vital statistics and other government records is proposed. Only sample adults or sample children who provide the last four digits of the SSN or Medicare numbers, or who give permission to link with other information (such as name and date of birth) would be eligible for linkage.

A split sample is proposed for Quarter 1 to test two different approaches. Half the sample will be asked the linkage permission question first. Only if they say yes to linkage would they be asked for the last four digits of the SSN or Medicare numbers. The other half of the sample would be asked for the last four digits of the SSN or Medicare numbers first. If the respondent refuses to give these numbers, they would be asked for permission to link with other information. Results from the split sample will be evaluated to determine which approach will yield the most respondents eligible for linking.

The advance letter was revised to reflect the new restriction of linking to people who give the last four digits of the SSN or HIC, or who directly give permission to link with other information. The indirect statement about linkage that was in the letter is no longer needed.

12. Estimates of Annualized Burden Hours and Costs

A. Time Estimates

This submission requests OMB approval for three years of data collection beginning with the 2007 NHIS. These data collections will occur within the context of ongoing data collection activities (OMB 0920-0214). The burden for each survey component of one complete survey cycle is shown in the table below.

As shown below, the estimated total burden for the 2007 survey, including the screening and reinterview components is 38,271 hours. The number of respondents is 54,000; 39,000 NHIS respondents plus 15,000 who responded to a brief screener and are screened out of the survey.

The screening component involves asking a short set of questions contained in the NHIS Coverage (COV) and Household (HHC) components of the Core NHIS used to determine whether the household includes a black, Hispanic or Asian person (More detail on the screening component is contained below in section B.1). Approximately 15,000 of the 22,000 screener designated households are not selected into the full NHIS survey. These households spend about 5 minutes to complete the screening components. The total burden for screener households who are not selected into the full survey is 1,250 hours.

The total average questionnaire burden for those who elect to participate in the NHIS (as shown in the burden notice) is about 57 minutes. The distribution of the total burden by questionnaire section is as follows:

- Family Core: The burden for completing the family core (39,000) is 22 minutes. All households included in the final sample complete this component.
- On average, an additional 36 minutes will be required for the 82% of the households (32,000) where a sample adult is selected and agrees to complete the Sample Adult Core and Topical Modules.
- On average, an additional 15 minutes will be required for the 33% of the households where a Sample Child (13,000) is selected and an adult agrees to complete the Child Core and Topical Module.
- On average, an additional 5 minutes will be required for the 8% of the households that complete the reinterview survey (3,250).

The total average burden for the participating households of the NHIS is calculated as 38,271 hours/39,000 households, or 57 minutes.

All segments are contained within one CAPI household questionnaire, plus the reinterview questionnaire.

Average Annual Burden

Questionnaire (respondent)	Number ¹ of respondents	Number of Responses per Respondent	Average burden per respondent in hours	Total burden In hours
Screener Questionnaire	15,000 ²	1	5/60	1,250
Family Core (adult family member)	39,000	1	22/60	14,300
Adult Core (sample adult)	32,000	1	18/60	9,600
Adult Topical Module (sample adult)	32,000	1	18/60	9,600
Child Core (adult family member)	13,000	1	9/60	1,950
Child Topical Module (adult Family member)	13,000	1	6/60	1,300
Reinterview Survey	3,250	1	5/60	271
Total Burden Hours				38,271

¹The "number of responses" for the purposes of this year's survey is 147,250. The fluctuation in the estimate of the number of responses over the years is due to using different methods to count the number of responses. However, neither the structure of the survey nor the overall burden have changed significantly over the past few years.

² This is the number of respondents who screen out of the NHIS. Burden hours for those who are selected to participate in the full survey are included in subsequent estimates.

Not all questions apply to each person, and the questionnaire instrument automatically skips over questions that do not apply, based on earlier information given by the respondent. Thus, no respondent is ever asked all of the questions in the questionnaire.

The estimate of response burden above is based on an average length of interview per household. Variations occur in individual household interview times primarily because of differing numbers of persons in the household and variations in the number of health conditions reported in the household.

The burden on any single member of a sample family also varies according to who is designated respondent for each module. In some sample families the same adult could be the respondent for all of the major components: Family, Adult, and Child; in other families there could be a different respondent for each of the Basic Modules. In the first case, the total average burden on the single respondent would be about one hour; in all other cases the burden on a single respondent would be less.

B. Cost to Respondents

At an average wage rate of \$16.62 per hour and an average length of interview of 42.5 minutes for the 54,000 respondents (including those who screen out of the survey), the average cost per respondent is about \$11.77 (Employment Situation, May 2006, Bureau of Labor Statistics, United States Department of Labor). This estimated cost does not represent an out of pocket expense, but represents a monetary value attributed to the time spent doing the interview.

Number of respondents	Estimated cost per respondent	Total estimated costs
54,000	\$11.77	\$635,580

13. Estimates of Other Total Annual Cost Burden to Respondents or Record keepers

None.

14. Annualized Cost to the Government

As shown in the table below, the total cost of the 2007 NHIS is estimated to be about \$28 million, which includes costs to NCHS directly and to its fieldwork contractor, the Bureau of the Census. For NCHS, the estimated cost for the 2007 data collection is about \$7 million. This cost includes work on survey design, evaluation,

analysis, comparability studies, coding, processing, questionnaire design laboratory testing, field pretests, weighting, and estimation, printing of survey materials, and staff observation costs (travel and per diem). It is estimated that Census Bureau costs for survey planning, design, and data collection for the 2007 NHIS will be about \$21 million.

Total 2007 Survey Costs	28 million
U.S. Bureau of the Census	21 million
Sampling	3.0 million
Survey Management	.5 million
Field Operations	16.0 million
Data Editing	.5 million
Programming and IT	1.0 million
National Center for Health Statistics	7 million

15. Explanation for Program Changes or Adjustments

The current NHIS burden is 36,587 hours. For the 2007 NHIS survey the total burden is estimated to be about 38,271 hours, an increase of 1,684 hours. The total burden is higher because the supplements are longer in 2007.

16. Plans for Tabulation and Publication and Project Time Schedule

The following are key activities and projected completion dates for the 2007 NHIS:

<u>Activity</u>	<u>Projected Completion Date</u>
o Interviewer training in all Census Regional Offices	January 2007
o 2007 data collection	January - December 2007
o Early release of selected estimates	September 2007
o 2007 data tape available	June 2008
o Publication of summary statistics	January - March 2009

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

N/A. Not requesting exemption.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

N/A. No exceptions requested.

B. Collection of Information Employing Statistical Methods

1. Respondent Universe and Sampling Methods

The NHIS is a cross-sectional household interview survey. The sampling plan follows a multistage probability design which permits the continuous sampling of households. Every ten years, the NHIS sampling plan is revised following the decennial census of the population. The latest sampling plan started with the 2006 NHIS and is based on the 2000 decennial census.

As in 2006, the 2007 NHIS sample will contain 428 primary sampling units (PSUs), usually a county, a small group of counties, or a metropolitan statistical area, drawn from 1,838 PSUs that cover the 50 States and the District of Columbia. Within PSUs, second-stage sampling units called segments contain an expected 4, 8, 12 or 16 housing units. A major feature of the sample design is to increase the reliability of estimates on the minority domains of black, Hispanic and Asian persons. To permit such over sampling, the household sample was selected from minority density substrata within each PSU. Each substratum except those for building permits are defined by the concentrations of minority households at the block level. Depending on total expected sample size within each PSU, the blocks are stratified into 1 to 8 density strata. Sixteen robust definitions for black, Hispanic, Asian concentrations are used to reduce classification degradation over time and to allow efficient sampling structures for future data analysis. Segments are sampled at higher rates within those substrata having higher concentrations of minorities compared to those substrata with low concentrations of minorities. Within an individual segment not selected from the building permit frame, households with a black, Hispanic or Asian person are sampled at rates 25 to 67 percent higher than the other households with the rate varying by substratum.

The oversampling of the black, Hispanic and Asian households is accomplished by having two sampling designations for households within a segment, a traditional interview designation and a screening designation. In a typical data collection year about 22,000 households will be designated to be screened through the collection of the NHIS core household roster to determine whether the household includes a black, Hispanic or Asian person (See the Coverage (COV) and Household Composition (HHC) sections of Attachment 2a). The households designated for such screening will be retained in the NHIS sample only if the household contains those minorities. Approximately 15,000 of designated screener households are not selected for full survey participation.

Those households selected for traditional interview will be surveyed

regardless of household composition. This strategy represents a cost-effective sampling approach for producing reliable estimates for the black, Hispanic and Asian populations. The sample assigned to each week is representative of the target population and the weekly samples are additive.

In a typical data collection year the final NHIS sample will contain almost 40,000 households and 100,000 persons. Of these households about 20% will have been selected by the screening process.

2. Procedures for the Collection of Information

The U.S. Bureau of the Census is responsible for drawing the final sample and for performing the necessary field procedures related to the survey. Specifications for the field operations are provided by the Division of Health Interview Statistics (DHIS) staff at NCHS.

DHIS staff provides specifications for the sample design, specific content of the questionnaire, detailed instructions for the administration of the interview and procedures to measure quality control in the information collection for the reinterview phase. The Census Bureau, in addition to drawing the sample, performs supervisor and interviewer training and conducts the field operations. These operations include first contacting all households via an advance letter, followed by a personal visit. Making contact via telephone is also sometimes used to follow up on respondents who were unable to complete the interview during a personal visit. (see B.3 for more detail). DHIS staff monitors the field activities through observation and communication with Census during all phases of data collection.

All data are weighted to national estimates using the following four components: 1) The reciprocal of the probability of selection; 2) a household nonresponse adjustment within segment; 3) a first-stage ratio adjustment; and 4) a second stage ratio (or post stratification) adjustment to the U.S. population by age, sex, and race-ethnicity.

Standard errors are calculated using a Taylor linearization approach as applied in SUDAAN variance software.

A small sample of respondents is reinterviewed by the Census Bureau to insure that interviewers are not submitting falsified interviews. NHIS reinterviews are usually conducted by a Census field supervisor over the telephone. The reinterview is very brief and verifies that the original interview was completed. Typically the NHIS reinterview is conducted within two to three weeks after the main

survey. It is conducted with the same respondent who originally participated in the NHIS. After a brief introduction, the reinterviewer determines if the original interview was done, and asks a few standard questions about the interview, such as its length. The questionnaire is administered by telephone using a Computer Assisted Personal Interview. A copy of the CAPI Reference Questionnaire (CRQ) for the reinterview is shown as Attachment 2b.

Additional technical details concerning sample design and survey execution can be found in the National Center for Health Statistics (2006) Survey Description Document available at <http://www.cdc.gov/nchs/nhis.htm>

3. Methods to Maximize Response Rates and Deal with Nonresponse

It is expected that the household response rate for the 2007 data collection will be approximately 87 percent. This rate is calculated by dividing the number of completed household interviews by the number of assigned, in-scope households. Of those not responding, about half are expected to be refusals to participate, and about half are expected to be households where no one was ever found at home after repeated tries. The sample child component is completed in about 90 percent of participating households for an overall response rate of 78 percent. The sample adult component is completed in about 80 percent of participating households for an overall response rate of 69 percent.

In order to maximize response rates a letter is sent to all sample households prior to the interviewer's arrival (Attachment 5a). The letter contains a reference to the authorizing legislation of the survey, a statement of confidentiality and an explanation of how the data will be used as well as the voluntary nature of the survey. The letter explains the purpose and need for the survey and tells the respondent that there is some chance that they may be contacted more than once. If at the time of the initial contact the interviewer is told that the letter was not received, another letter is provided prior to the interview and time is allowed for the person to read it before proceeding. The letter legitimizes and justifies the survey, increasing the probability that the respondent will cooperate.

If the time of contact is inconvenient for an interview, interviewers offer to schedule an appointment for a more convenient time. If the respondent refuses to cooperate with one interviewer, the field work supervisor often reassigns the case to a more experienced interviewer with experience and skill at converting reluctant respondents. Although face-to-face interviewers are

preferred, interviewers are allowed to substitute telephone interviews if attempts to get a face-to-face interview are not successful.

At the end of the interview, respondents are given a letter thanking them for their participation (Attachment 5b). In addition to being an appropriate gesture, the thank you letter is intended and expected to create and maintain good will that may improve response to future contacts with the respondent as part of follow-up or linked surveys.

4. Tests of Procedures or Methods to be Undertaken

The NHIS Basic Module is the result of testing and evaluation in 1996 during redesign, and of ongoing testing and evaluation studies conducted from 1997 through 2006.

Tests of the Basic Module

The developmental work related to the NCHS Questionnaire Design Research Laboratory (QDRL) testing is described in detail in the OMB clearance submission entitled "NCHS Laboratory-Based Questionnaire Research" (OMB No. 0920-0222).

Tests of the 2007 Topical Modules

Many of the questions related to complementary and alternative medicine were QDRL tested in 2001 for fielding in the 2002 NHIS. Since there were many changes and new questions, the supplement for 2007 went through two rounds of QDRL testing in 2006.

Many of the questions related to hearing problems were fielded in 2001. Additionally, the QDRL provided a technical review of the questions.

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

The following person was consulted in the statistical aspects of the design and collection of the 2007 NHIS:

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The following person is responsible for analysis of the 2007 NHIS data:

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List of Attachments

- Attachment 1. Applicable Laws and Regulations: NHIS Legislative Mandate (42 USC 242K)
- Attachment 2a. NHIS 2007 Basic and Topical Modules (Questionnaires)
- Attachment 2b. Reinterview Questionnaire
- Attachment 2c. NHIS 2007 Flashcard Booklet
- Attachment 2d. Topical Module on Complementary and Alternative Medicine (Questions)
- Attachment 2e. Topical Module on Hearing Problems (Questions)
- Attachment 2f. New or Revised Questions in the Basic Module
- Attachment 3. Federal Register Notice of 60-day Public Comment Period
- Attachment 4. Justification for Questions Thought to be Sensitive
- Attachment 5a. Advance Letter
- Attachment 5b. Thank You Letter
- Attachment 5c. Telephone Callback Introduction
- Attachment 6. Research Ethics Review Board Approval (Form CDC 0.684)
- Attachment 7a. Assurance of Confidentiality for Volunteer Respondents
- Attachment 7b. List of Consultants
- Attachment 7c. List of Topical Module Consultants
- Attachment 8. Justification for Basic Content Areas of the NHIS