Supporting Statement B for Request for Clearance:

NATIONAL AMBULATORY MEDICAL CARE SURVEY

OMB No. 0920-0234

Contact Information:

David A. Woodwell, M.P.H..
Lead Statistician, Ambulatory and Hospital Care Statistics Branch
Division of Health Care Statistics
National Center for Health Statistics/CDC
3311 Toledo Road, Room 3329
Hyattsville, MD 20782
301-458-4592
301-458-4032 (fax)
dwoodwell@cdc.gov

January 21, 2011

B. Collections of Information Employing Statistical Methods

1. Respondent Universe and Sampling Methods

Core NAMCS

The basic statistical design and data collection methods for the 2011-2013 NAMCS will be the same as those of the 2010 NAMCS. There are two major components of the targeted NAMCS universe. First, the NAMCS universe consists of nonFederally employed physicians (excluding those in the specialties of anesthesiology, radiology, and pathology) practicing in the United States who were classified by the American Medical Association (AMA) and the American Osteopathic Association (AOA) as "office-based, patient care." There are about 750,000 physicians in this first component of the NAMCS universe. Second, physicians (MDs and DOs) and mid-level providers (i.e., nurse practitioners, physician assistants, and nurse mid-wives) practicing at CHCs represent the second NAMCS target universe. Unlike physicians in the office-based NAMCS, physicians and mid-level providers working at CHCs are not individually selected because a complete sample frame is unavailable. We will include three different types of CHCs in the sample: (1) CHCs that receive grant funds from the Federal government through section 330 of the Public Health Service Act; (2) look-alike CHCs who meet all the requirements to receive 330 grant funding, but do not actually receive a grant; and (3) Tribal or Urban Indian Federally Qualified Health Centers. The list of Federally funded CHCs (330 grant) and look-alike CHCs will be provided by the National Association of Community Health Centers, and the list of Indian Federally Qualified Health Centers will be provided by the Indian Health Service (IHS).

For the core NAMCS office-based physician universe, a multistage probability design is utilized with the elementary sampling unit being a physician-patient encounter or "visit." The first stage of selection is a probability sample of 112 primary sampling units (PSUs), a subset of the 1985-94 National Health Interview Survey sample for PSUs. PSUs are counties, groups of counties, county equivalents (such as parishes or independent cities), or towns and townships for some PSUs in New England. The sampling of office-based physicians from the AMA and AOA masterfiles is defined by primary addresses within the sampled PSU. The physicians in the sample PSUs are grouped into 16 strata defined by physician specialty, including a stratum of oncologists first used in the 2006 sample. Within each specialty stratum, a systematic random sample of physicians is selected. The total physician sample is divided into 52 sub-samples that are randomly assigned to the 52 weeks of the year. During the assigned week for each sample physician, a systematic random sample of approximately 30 patient visits is taken from the physician's practice. This provides for continuous data collection throughout the year to account for seasonal variation in disease and patient visit patterns. Data collection within a physician's practice, as well as CHCs, begins on Monday morning of the assigned reporting week and continues through the following Sunday (substitution of reporting week is not permitted). Data collection during the reporting week is coordinated by a patient list created by the physician/provider.

As mentioned earlier, the sampling of CHCs is somewhat different from the office-based NAMCS. A multistage probability design is also utilized with the elementary sampling unit being a physician/provider-patient encounter or "visit." The first stage of selection is the same probability sample of 112 geographic area PSUs as in the office-based NAMCS. Next, 104 CHCs will be selected from the sample PSUs and randomly assigned to the 52 weeks of the year (two CHCs per week) for data collection to account for seasonality in disease and patient volume patterns. At each sampled CHC, a systematic random sample of three providers (MDs, DOs, and mid-level providers) will be sampled from those scheduled to see patients during the CHCs assigned sample week. Those three will be selected with probability proportional to the numbers of visits the providers are expected to see during the sample week. As done with office-based physicians, a systematic random sample of approximately 30 patient visits to each sampled provider will be selected during the assigned week.

All data are weighted to national estimates using the inverses of selection probabilities with non-response adjustments done within specialty, and when feasible, within PSU. Calibration adjustment factors are used to adjust estimated total physicians to known totals within specialty strata. Sampling errors are computed using the linearized Taylor series method of approximation as applied in the SUDAAN software package. Additional details of the statistical design are provided in 2008 NAMCs Micro-Data File Documentation (ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NAMCS/doc08.pdf)

The 2008 NAMCS ended with an unweighted response rate of 59.1 percent, and a weighted response rate of 59.6 percent. Efforts to raise the response rate of future surveys are currently ongoing.

A motivational insert that was introduced in 2001 will continue to be included with the introductory letter that addresses physicians' concerns about participation. The insert covers confidentiality issues, including requirements pertaining to the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule. Approximately four years ago we initiated a windowed, multi-colored envelope to send the introductory letter and insert to sampled physicians. Using this type of envelope increases visibility and exposure to office gatekeepers who, in many cases, decide which mail a physician receives. We are continually in contact with those administering the survey, assisting with any problems that arise while in the field. We provide our Field Representatives (FRs) with the most current data so they can encourage participation in the survey as well as promotional material that gives physicians examples of how the survey is used and how important it is for research. In the summer of 2008, we held a training conference for the FRs, and during this training they had an opportunity to learn from each other how to convert physicians that initially refuse to participate.

No matter how well we train and equip our FRs, the atmosphere of the physician office makes it very difficult to obtain response rates higher than 70 percent. Because the physician and office staff are already very busy with patients and their associated

paperwork, some may view such a survey as additional, volunteer work that they do not have the time or desire to complete. In addition, because of the many Medicaid and Medicare regulations from the government, numerous physicians may view this survey as a further intrusion into their private practice. Our efforts are many times overshadowed by private industry, which may pay the physician and office staff for their time.

Each year we publish weighted response rates by a variety of physician characteristics available from the sampling frame and the physicians themselves. Additional information concerning 2008 nonresponse is described in section B.3.

Electronic Medical Records Supplement

The target universe of the NAMCS EMR supplemental mail survey is exactly the same as the in-person core NAMCS; that is, nonFederally employed physicians (excluding those in the specialties of anesthesiology, radiology, and pathology) practicing in the United States who were classified by the American Medical Association (AMA) and the American Osteopathic Association (AOA) as "office-based, patient care." In an effort to make state-based estimates, a total of 10,302 physicians will once again be sampled annually for the mail survey for the 2011-2013 sample periods. This increase is consistent with the current 2010 protocol. This sample is selected separately from the core NAMCS sample (nonfederal office-based physicians and providers in CHCs).

Additional Office-Based Physicians

As previously mentioned in section A.1, the NAMCS sample will be supplemented with an additional 1,700 office-based physicians annually for 2011-2013. The proposed sample will include 3,000 physicians for the historical sample size, a continued supplement from 2010 of 200 oncologists, and an additional 1,500 office-based physicians. Five-hundred of the proposed 1,500 additional physicians will be funded by the Patient Protection and Affordable Care Act of 2010 (ACA), and the other 1,000 from appropriated funds in the 2011 President's budget. If additional funding is not obtained, this increase will not be fielded. Once the President's budget is passed, the additional 1,500 physicians will be included in the 3rd and 4th quarters of 2011 data collection year and beyond; however, depending on when the budget is passed, the additional 1,000 physicians may not be added until 2012 because of processing deadlines.

Asthma Supplement

Although the means to control asthma have been widely disseminated from the National Heart, Lung, and Blood Institute (NHLBI) Guidelines for the Diagnosis and Management of Asthma (the Guidelines), uptake of effective management strategies remains suboptimal. The proposed asthma supplement will be administered to a sample of primary care health providers and specialists likely to see asthma patients to assess implementation of the Guidelines, which have been available since 1991 and most recently updated in 2007. Specifically, a 2-year asthma supplement is proposed for 2012-2013 to obtain a robust sample physician responses to construct an accurate picture of

uptake and implementation of asthma management as specified in the Guidelines. This supplement will be part of the pretest in the middle of 2011 (described beforehand in B.4). This supplement does not impact the core respondent universe and overall sampling method as physicians selected to receive these questions will be identified via a screening question on the NAMCS-1 Physician Induction Interview (NAMCS-1) form. All sampled NAMCS physicians will have the opportunity to receive the asthma supplement.

Computerization of Data Collection/New Items/Supplement Pretest

The sampling method for 2011 will include 300 physicians selected separately from the core NAMCS sample to pretest several topics. The pretest will investigate the new asthma supplement, CAM items on the NAMCS-1, retrospective health care data collection on the PRF (lookback module), and the new computerized NAMCS-1 and associated PRFs. The pretest may indicate flaws in the data collection instrument or methods. If the pretest is successful, we anticipate adding the supplement and the various new items to the 2012-2013 PRF and NAMCS-1. The sampling frames for the pretest will be the same as ones currently used for the core NAMCS, the masterfiles of the American Medical Association (AMA) and the American Osteopathic Association (AOA).

Physician Workflow Supplement

The target universe of the NAMCS Physician Workflow supplemental mail survey, like the NAMCS EMR supplemental mail survey, is exactly the same as the in-person core NAMCS; that is, nonFederally employed physicians (excluding those in the specialties of anesthesiology, radiology, and pathology) practicing in the United States who were classified by the American Medical Association (AMA) and the American Osteopathic Association (AOA) as "office-based, patient care." The workflow supplement sample is directly drawn from those eligible 10,302 office based physicians that received the EMR/EHR mail survey. The physicians initially participating in the 2011 workflow supplement will define a cohort that will be followed for three successive years from 2011 through 2013. Questions 2, 7 and 8 of the EMR/EHR mail survey (**Attachment D**) define initial eligibility for the workflow supplement by ensuring that the physician sees ambulatory patients. Furthermore, physicians will be given one of two versions of the survey based on an algorithm that uses inclusion criteria from questions 2, 7, 8, 17, and 19 of the 2011 EMR/EHR supplement. Depending on specific responses to questions 19b through 19m, and question 17, physicians will receive different versions of the workflow survey. One version will be for those without an EHR system and one version will be for those with at least a basic EHR system. The remainder of the methods are similar to the 2011 Electronic Medical Records/Electronic Health Records Supplementary Mail Survey with the mail out/mail back format with phone follow up.

2. Procedures for the Collection of Information

A. Core NAMCS

Training

Primary training in data collection procedures is conducted at different times with three types of staff. First, Census Bureau Headquarters staff are responsible for training the Regional Office staff. Second, Regional Office staff have the primary responsibility for training the FRs and for supervising physician/provider data collection activities. FR training covers the following topics: inducting the physician/provider, confidentiality, HIPAA, determination of the "take every" and "start with" numbers, instructing physicians'/providers' staff, supervising patient visit sampling, editing completed forms, retrieving missing data, and medical record abstraction. Finally, FRs induct the physicians/providers and train their staffs on visit sampling and completion of the PRFs. If the physician or physician's staff prefer, FRs can abstract the data. In preparation for each survey year, NCHS staff provide initial training to FRs and RO staff on changes related to the forms, items, and procedures.

Census Bureau Headquarters staff are also responsible for writing the field manual. The field manual contains topics that cover the following: purposes of the survey; interviewing techniques; a description of NAMCS-1 questionnaire and related forms; and procedures that cover inducting office-based physicians/providers, conducting physician visits, determining the take every and random start numbers, instructing the physician's staff, supervising patient visit sampling, editing completed forms, and retrieving missing data.

Throughout the year, conference calls are held among Ambulatory and Hospital Care Statistics Branch (AHCSB) staff, Census Bureau Headquarters staff, Census Field Division staff, and NAMCS supervisory staff from all of the Regional Offices to discuss issues relevant to the ongoing NAMCS data collection.

Initial Contact

Depending on the setting, initial contact is made at varying times prior to the beginning of NAMCS assigned reporting week for the sampled physician/CHC. Six weeks prior to the CHCs assigned data collection week, notification is sent to each CHC director that his/her particular center has been randomly selected to participate in NAMCS. CHC physicians/providers also receive an introductory letter, patterned after the letter sent to office-based physicians 5 weeks before their assigned reporting period. Finally, office-based physicians who have been selected to participate in the survey receive an introductory letter approximately 4 weeks before their 1-week reporting periods are to begin. All three types of letters are similar, signed by the Director of NCHS, and explain the basics of the survey. Specifically, the letters (1) highlight the voluntary nature of participation, (2) describe the planned contact with a representative from the Bureau of the Census who will act as NCHS's data collection agent, and (3) provide additional instructions and support. See **Attachment M** for copies of all three types of letters. The first letter in the attachment is given to CHC executives, the second is intended for CHC providers, and the final letter is for office-based physicians. As mentioned earlier, we

include a motivational insert with the introductory letter. This short brochure contains reasons for participation, and questions and answers on confidentiality issues, including the HIPAA Privacy Rule. In addition, the package sent to sampled NAMCS participants contains endorsing letters from specialty medical colleges and/or associations corresponding to the physician's particular specialty (**Attachment N**).

During the initial interview with the CHC director, a Census FR completes a NAMCS-201, which is the Community Health Center Induction Interview (**Attachment H**). This form allows for the collection of general CHC contact information, along with the type of center and sources of revenue. The major purpose of the NAMCS-201 is to list all eligible providers at all in-scope locations, including those that will not be subjected to sampling because they are not scheduled to see patients during the CHCs sample week. This list of providers will include those that work at satellite locations of the CHC as well as mobile units. School-based locations of the CHC are not eligible, as institutional and occupational settings are not within the scope of NAMCS. When the list of providers has been supplied, the FR will select three providers to be sampled. This selection will be proportional to visit volume. The FR will then obtain the locations and telephone numbers of the selected providers so they can be contacted and inducted.

Physician/Provider Induction

The introductory letter (**Attachment M**) to the office-based physician is followed by a telephone call from a Census Bureau FR to schedule an appointment so that the physician can be inducted into NAMCS by personal interview (**Attachment F**). Each CHC physician/provider is also inducted with a letter followed by appointment scheduling and personal interview (**Attachment H**). During the induction visit, the interviewer provides the physician/provider and staff with verbal and written instructions on the completion of patient records. At this time the interviewer also instructs the physician/provider and staff on the sampling procedures, which vary according to how many visits the physician/provider expects to see during the sample week. Sampling only a fraction of the visits is intended to reduce the burden to busy physicians/providers. Printed on the folder containing PRFs are general instructions and definitions for easy reference by the physician/provider. More detailed definitions and instructions for selected PRF items are provided on a printed card placed in a pocket of the folder.

Data Collection

A NAMCS-1 is completed for each sampled physician and CHC provider during the induction visit (**Attachment F**). As mentioned above, the questions in the first-half of the NAMCS-1 are used to guide the FRs through the induction process and verify the physician/provider's eligibility. The second half of the form is dedicated to obtaining information concerning selected practice characteristics. The NAMCS-1 will basically contain the same items as the current 2010 from. However, we plan to make the following changes: (1) add items to evaluate a physician's use of complementary and alternative medicine (CAM) (**Attachment C**), and (2) remove all items related to the 2010 cervical cancer screening supplement. The other major modification to the

NAMCS-1 data collection protocol is to convert to a computer assisted interviewing instrument. The computer assisted interviewing instrument will be evaluated during a April 2011 pretest and will become fully implemented in 2012. It is further anticipated that only Census field representatives (FRs) will use a computer assisted interviewing instrument during the induction interview with the NAMCS-1.

In order to safeguard participant confidentiality, all personally identifiable data that once were recorded on the NAMCS-1 will be collected on a supplemental form, the NAMCS-1 Control Card (**Attachment O**). The Control Card was implemented in 2008, and the plan is to continue using this card for the 2011-2013 survey period. To further guarantee respondent protection, Census FRs and RO staff always ship the Control Card and NAMCS-1 separately.

The bulk of data collection occurs with the completion of Patient Record forms (PRFs) (**Attachment G**) by the sampled physician/provider and/or office staff. Based on a "start with" and "take every" number, the physician/provider records each patient visit in sequence during the reporting week and completes PRFs for the designated sample visits. This record of patient visits may be completed whichever way works best for the physician. Patient sampling rates, based on the "start with" and "take every" number, are assigned to physicians/providers according to practice size so that the physician/provider will complete about 30 PRFs during his/her reporting week. A random start is provided for each physician/provider after, which every nth patient is sampled throughout the 1-week reporting period. The patient name is retained by the physician for confidentiality reasons.

A PRF is completed for each sampled patient visit. Questions on the 2011-2013 PRF will basically be the same as the ones currently used in 2010, except that we plan to add additional items to the back of the form in 2012-2013 to measure and evaluate the quality of clinical care in preventing heart disease and stroke (12 month lookback module). Testing of the lookback module will also be included in the pretest scheduled for April 2011. The NAMCS PRF collects data on patient characteristics, such as age, sex, race, and ethnicity, and visit characteristics, such as date, expected source of payment, reason for visit in patient's own words, physician diagnoses, and medications provided or prescribed. Similar to the NAMCS-1 automation, we also plan on converting data collection for the PRF to a computerized approach. Census FRs will use the a computer assisted interviewing instrument when abstracting data for PRFs. Physicians will have the option to either enter the data on an electronic device, or follow the original protocol and use paper forms.

A pretest is scheduled for April 2011. This pretest will evaluate (1) the new asthma supplement (discussed in more detail below), (2) the new CAM and diagnostic test items planned for the NAMCS-1, (3) retrospective health care data collection on the PRF (lookback module), and (4) the new computerized NAMCS-1 and associated PRFs. If the pretest is successful, we will add the new items to their respective forms. In addition, instructions for both the lookback module and the asthma supplement will be added to the

2012 Instruction Booklet, which is given to sampled physicians/providers as a guide when completing PRFs. If only minor changes are required, we will submit a nonsubstantive change package for OMB review.

Monitoring Data Collection and Quality Control

Census Bureau Headquarters staff, Demographic Surveys Division, Housing Surveys Branch, is responsible for overseeing the data collection for the core NAMCS, proposed pretest, and asthma supplement in 2012. Census Bureau Headquarters staff, Field Division, is responsible for the supervision of staff in the Bureau's 12 Regional Offices, who in turn supervise the field representatives (FRs).

The FR calls the physician's office or CHC 3 times during the sampled week. Calls are intended to answer any questions the office may have and to make sure sampling is being carried out as instructed. Specifically, the first phone call at the beginning of the week is to remind the office to start sampling; mid-week contact is to handle any problems the office may be having; and the final contact, on the last day of the physician's reporting week, is to answer questions and arrange for pick-up or delivery of the forms. An essential part of this effort is quality control, which focuses on the completeness of the patient sampling frame, adherence to the sampling procedures, and assurance that a PRF is completed for every sample visit.

During the week after the physician's/provider's reporting period, the FR will return to the office to retrieve all completed survey materials and to do a brief edit of the Patient Record forms (PRFs). Attempts are made while in the office to retrieve missing data, correct inconsistencies, and clarify unclear entries directly with the physician/provider and his or her staff. In addition, after the reporting period, the FR reviews the log or another record used for visit sampling to determine if any cases are missing, and also edits completed forms for missing data. When excessive travel or other expense is involved in the return visit, the physician/provider is instructed to mail the materials to the FR (at no cost to the respondent).

Completed survey materials are sent on a weekly basis from the Census Bureau Regional Offices to the Census Bureau's National Processing Center in Jeffersonville, Indiana. The Center is responsible for completing a quality control edit before packaging and shipping work to the NCHS data processing contractor, where further editing, coding and data entry are done. All medical and drug coding as well as all data entry operations are subject to quality control procedures by both NCHS and our contractors. Computer edits for code ranges and inconsistencies are also performed. Missing and incorrect data are imputed using data from randomly selected patient visits with similar characteristics. Beginning with the 2009 estimates, missing and incorrect race and ethnicity data are imputed by fitting regression models.

As in any survey, results are subject to both sampling and nonsampling errors. Nonsampling errors include reporting and processing errors, as well as biases due to nonresponse and incomplete response. To eliminate ambiguities and encourage uniform

reporting, attention has been given to the phrasing of items, terms, and definitions. To help eliminate nonsampling errors, pretesting of proposed PRF changes, and the CHC induction form was completed in August 2005 with subsequent modifications to the forms made before the 2006 survey year. These changes were implemented and included in the current survey, and will remain for the 2011-2013 study period. As mentioned earlier in this document, we plan to conduct a pretest in the middle of 2011, and it is anticipated that the results of this pretest will confirm the adequacy of the items and protocol; therefore, it is expected that the proposed 2011 PRF and NAMCS-1 both will be used with the proposed modifications specified in this document throughout the actual 2011-2013 survey period.

Quality control procedures and consistency and edit checks reduce errors in data coding and processing. During processing, our data processing contractor takes a 10 percent systematic random sample of PRFs, which is independently rekeyed and recoded. If 5 percent of selected PRF items in the resample fail, the original batch must be again coded and keyed by two new, independent coders. PRF item coding error rates made during original keying, as determined from the 10 percent resample, ranged from 0.0 to 3.3 percent for the 2008 data year.

Missing values for a few items on the survey are imputed by randomly assigning a value from a PRF with similar characteristics. These imputations are based on physician identity, physician specialty, geographic region, and the 3-digit ICD-9-CM code for primary diagnosis. In 2008 (most recent data), imputations were performed for the following variables: birth year (4.1 percent), sex (1.1 percent), ethnicity (35.0 percent), race (32.8 percent), patient seen before in practice (1.3 percent), number of visits patient made to that physician/provider in the last 12 months (11.0 percent), and time spent with physician (26.4 percent).

Estimation Procedures

National visit estimates will be produced based on two fundamental sources of data: (1) private nonFederal office-based physicians, and (2) physicians at CHCs designated as 330 grant-supported Federally funded qualified health centers, Federally qualified look-alikes, and Tribal or Urban Indian Federally Qualified Health Centers. The estimation procedure has four basic components: (1) inflation by reciprocals of the sampling selection probabilities, (2) adjustments for nonresponse, (3) calibration ratio adjustment, and (4) weight smoothing. Starting in 2003, the non-response adjustment factor utilized information provided by refusal physicians about the number of patient visits they see during a typical week in their practice and the number of weeks they work during the year. In addition, starting in 2004, the estimation process was modified to (1) take into account season of reporting weeks, and (2) produce unbiased quarterly estimates.

NAMCS data can also be used to make national estimates of office-based physicians and associated medical practices. These estimates are unbiased and based on a complex sampling design with multistage estimation. Physician weights are used to estimate national numbers and characteristics of office-based physicians (e.g., sex, age, and

specialty) and their practices (e.g., numbers of physicians in the practice, single-specialty compared with multispecialty practices, and types and numbers of patient encounters in last full week of practice). The NAMCS physician sampling weight can also be modified to produce a national medical practice estimator (e.g., practice size, breadth of specialization, and selected diagnostic and therapeutic services available onsite).

The lowest reliable NAMCS estimate for all nonFederal, office-based physicians in 2008 is 937,000 patient visits. The relative standard error is one criterion that NCHS uses to determine reliability, and this estimate has an approximate relative standard error (standard error/estimate) of about 30 percent. This relative standard error is the maximum that is allowable for an estimate to be considered reliable. Such precision is adequate for the analyses planned, but any improvement that can be attained is highly desirable.

Sampling Errors

Standard errors are calculated using a first-order Taylor series approximation method as applied in SUDAAN software.

B. Electronic Medical Records Supplement

As mentioned previously, NCHS will continue to field the Electronic Medical Records Supplement (EMRS) with a supplementary sample of 10,302 physicians.

In order to keep costs as low as possible, the supplemental sample will continue to be conducted using a mail-out/mail back format. The initial main mail survey will include an introductory letter **(see Attachment P)**, along with the survey questionnaire. The questions that will be asked of the additional physicians will be similar to those in the NAMCS-1. Slight changes were made to account for the different collection method, as the mail version is self-administered, whereas the core NAMCS questions are asked via a personal interview. Only a subset of the questions from the NAMCS-1 that relate to the characteristics of the physician's practice will be used. Please see **Attachment D** for a copy of the approved 2011 EMR/EHR mail survey questionnaire.

As mentioned in section A.1, the EMR/EHR items will help guide the policymaking process surrounding Stage II meaningful use. The meaningful use rule is part of a coordinated set of regulations to help create a private and secure 21st century electronic health information system. Criteria for meaningful use, as defined by The Office of the National Coordinator for Health Information Technology (ONC), will be implemented in three stages. Specifically, Stage 1 will begin in 2011; Stage 2 will begin in 2013, and will add more requirements and new reports; and Stage 3 will begin in 2015 and is expected to add more requirements. The information obtained from the EMR/EHR questions (checking insurance eligibility electronically, questions related to information exchange, and the new EHR functionality questions) will provide great value to ONC and NCHS.

Approximately 7 days after the initial survey is sent to physicians, a postcard will be mailed thanking them for their participation or reminding them that their cooperation is still needed. Please see **Attachment P** for a copy of the text that will be used for the mail thank-you/reminder card. This postcard also allows sampled physicians to request additional information or request the survey instrument. For physicians who have not participated by that time, a second mailing will be sent approximately 3 weeks after release of the initial mail survey. This mailing will consist of a modified introductory letter (see **Attachment P**) and a second copy of the questionnaire, which will be identical to the one sent at the start of the survey. A third mailing will again include the survey instrument and a new introductory letter (see **Attachment P**), and be conducted approximately 5 weeks after the date the first letter and questionnaire were sent. This will be the final wave that includes both a questionnaire and letter. Approximately 7 weeks into the survey, telephone calls will be made to all non-responding physicians in a final attempt to obtain survey data. If the physician is contacted and agrees to participate, the information will be obtained via telephone.

C. Asthma Supplement

We plan to test an asthma supplement during the April 2011 pretest, and plan to continue its use in 2012-2013. See **Attachment R** for a copy of the proposed asthma questions. Although the means to control asthma have been widely disseminated from the National Heart, Lung, and Blood Institute (NHLBI) Guidelines for the Diagnosis and Management of Asthma (the Guidelines), uptake of effective management strategies remains suboptimal. Although other national data sources have reported data on patient health visit outcomes related to asthma, the following relevant points are still uncertain:

(1) Where do major barriers to implementation of asthma management strategies occur on the pathway from health care delivery to acceptance and practice by patients
(2) What is the overall acceptance of the Guidelines by health care practitioners
(3) To what extent can identification of implementation and barriers to use of specific asthma management strategies by health care providers inform ongoing strategies in the hopes of increasing uptake of the Guidelines

The asthma supplement will be administered to a sample of primary care health providers and specialists likely to see asthma patients to assess implementation of the Guidelines, which have been available since 1991 and most recently updated in 2007 (see http://www.nhlbi.nih.gov/guidelines/asthma/index.htm). Specifically, the 2-year asthma supplement will allow NAMCS to obtain a robust sample of asthma visits and physician responses to construct an accurate picture of uptake and implementation of asthma management as specified in the Guidelines. This supplement is sponsored by NHLBI.

D. Physician Workflow Supplement

As mentioned previously, NCHS will field the Physician Workflow Survey (PWS), an extension of the Electronic Medical Records Supplement (EMRS) with the initial cohort of those physicians that respond to the 2011 EMRS.

In order to keep costs as low as possible, the survey of the initial sample will be conducted using a mail-out/mail back format with phone follow up similar to that of the EMRS. Like the EMRS, the collection method for the PWS is similar, since both mail versions are self-administered. The main mail survey will include an introductory letter **(Attachment Q)** along with one of two versions of survey questionnaires based on an algorithm to the 2011 EMRS question 17. The two versions of the Physician Workflow Surveys are for physicians without an EHR system and for physicians with at least some basic EHR attributes. The questions that will be asked of respondents will be more specific to their physician workflow and perceptions of and experiences with EHR systems. The specific content for each survey is based on various levels of EHR adoption. See **Attachments E1 and E2** for a copies of the 2 versions which will be used in the 2011 PWS mail survey.

The items on the Physician Workflow Survey for those physicians at locations without an EHR system will provide insight about perceived barriers, benefits and attitudes that physicians have towards EHR systems, technology and risk, and their current workflow conditions. Items on the Physician Workflow Survey for those with at least some basic EHR attributes would ask targeted questions about experienced barriers, benefits, and attitudes, as well as any experienced changes to their workflow resulting from having at least some basic EHR attributes. ONC will use this information to guide the policymaking process surrounding Stage II meaningful use criteria. The meaningful use rule is part of a coordinated set of regulations to help create a private and secure 21st century electronic health information system. ONCs criteria for meaningful use will be implemented in three stages. Stage 1 will begin in 2011; Stage 2 will begin in 2013, and will add more requirements and new reports; and Stage 3 will begin in 2015 and is expected to add more requirements. The information obtained from the new PWS surveys (perceived barriers, EHR and workflow attitudes, perceived physician and patient benefits, and perceived cost or workflow functionality questions) will provide great value to ONC and NCHS. Together with the EMR/EHR supplement, the information obtained will help ONC monitor the effectiveness of federal programs and grants, and inform key policy decisions to develop criteria for successive stages.

Approximately 7 days after the initial survey is sent to physicians, a postcard will be mailed thanking them for their participation or reminding them that their cooperation is still needed. See **Attachment Q** for a copy of the text that will be used for the mail thank-you/reminder card. This postcard also allows sampled physicians to request additional information or request the survey instrument. For physicians who have not participated by that time, a second mailing will be sent approximately 3 weeks after release of the initial mail survey. This mailing will consist of a modified introductory letter (**Attachment Q**) and a second copy of the questionnaire, which will be identical to the one sent at the start of the survey. A third mailing will again include the survey

instrument and a new introductory letter (**Attachment Q**), and be conducted approximately 5 weeks after the date the first letter and questionnaire were sent. This will be the final wave that includes both a questionnaire and letter. Approximately 7 weeks into the survey, telephone calls will be made to all non-responding physicians in a final attempt to obtain survey data. If the physician is contacted and agrees to participate, the information will be obtained via telephone.

3. Methods to Maximize Response Rates and Deal with Nonresponse

NAMCS uses multiple methods for maximizing physician response. The medical community, including the American Medical Association and the American Osteopathic Association, is informed and consulted about the study. Twenty major medical societies have endorsed NAMCS and have provided letters of support for use in enlisting sampled physicians during the 2011-2013 survey years (**Attachment N**). These letters are typically updated every two years, as our contacts change annually. Survey procedures and forms are designed to minimize the time required of physicians to participate. Physicians selected in the non-CHC NAMCS sample are excluded from possible selection again for the following two years. The Census Bureau assigns only the most experienced FRs to work on NAMCS. A video provides scenarios on getting past difficult "gate keepers" in the physician's office and persuading reluctant physicians. In addition, the FRs are given detailed training in survey procedures with special modules on gaining physician cooperation. FR "nurturing" sessions are conducted periodically, as survey funds permit. In the summer of 2008, field representatives from the 12 regional offices across the country participated in a day-long NAMCS/NHAMCS conference highlighting issues related to (1) administering surveys in the field, including efforts to increase respondent participation; (2) abstracting data; and (3) addressing FR questions and concerns. The nurturing session represented a unique opportunity for FRs to exchange ideas and methods on how to work on a survey that presents unique challenges not faced by other Census FRs.

As mentioned in a previous section, NCHS has designed a mailing insert to help persuade the physician, gatekeeper, or CHC provider to participate. The insert (**Attachment M**) includes motivational statements from the Secretary of Health and Human Services and the Director of CDC/ATSDR. It also has answers to questions that physicians may have on why they should participate, describes how the Privacy Rule permits data collection for NAMCS, and provides a link (www.cdc.gov/NAMCS) to our participant Web site. This Web site makes available further material that physicians can use to verify, under the requirements of the Privacy Rule, that they are indeed allowed to disclose to NCHS/CDC the information requested as part of this survey. This includes the authority under which NCHS is collecting this information and that the information being collected is the minimum necessary.

The FRs provide the sampled physician with materials that show the importance of NAMCS, including the most recent survey report (for a sample of the most recent NAMCS data brief, see http://www.cdc.gov/nchs/data/databriefs/db41.pdf).

Survey procedures were also developed to verify the status of the out-of-scope physicians to ensure they were not just refusal cases that were erroneously labeled as out-of-scope. A 20 percent sample of all out-of-scope cases from each FR is reinterviewed over the telephone to confirm that the physician is not within the scope of the survey. If one case is found to be in error, then all out-of-scope cases from that FR are reinterviewed.

This survey requires a commitment from the physicians and their staffs, along with CHC directors and sampled providers. Any of these groups may refuse to participate for many different reasons. Through years of experience with NAMCS, techniques for converting refusals have been developed that are quite effective, each flexible and responsive to individual concerns. Primarily using supervisory personnel, interviewers have successfully converted approximately 15 percent of initial refusals to successful participants. Conversion is successful by emphasizing the following ideas: professional responsibility to enhance knowledge of the utilization of ambulatory care in the United States, and the fact that no confidential information is collected on any patient resulting in only descriptive statistical reports.

If all else fails to bring the response rates up to the expected levels, then NCHS requests the option to investigate the specific causes of nonresponse, so as to devise additional corrective measures, funding permitting.

A study of nonresponse cases in NAMCS found that break off was most likely to occur at the stage of the telephone screener (43 percent) and that often the refusal is from the office staff rather than the physician. This is consistent with information that shows that a majority of nonresponding physicians do not remember being contacted about NAMCS. Each year in our annual statistical report, we describe weighted characteristics of NAMCS physician respondents and nonrespondents on numerous variables including age, gender, geographic region, metropolitan statistical area (MSA) status, type of doctor, specialty, specialty type, type of practice, and annual visit volume. In 2008, responding versus nonresponding physician distributions were similar for age and sex of the physician, and different for the following characteristics: region, metropolitan status, type of doctor, physician specialty, specialty type, practice type, and annual visit volume. Examining the weighted response rates, higher cooperation was gained among traditional physicians in nonmetropolitan statistical areas (rural), and selected physicians practicing in community health centers. The response rate was the lowest for physicians with a specialty of obstetrics and gynecology. The effect of any differential response is minimized in the visit estimates in most cases as NAMCS uses a nonresponse adjustment factor that takes annual visit volume, specialty, geographic region, MSA, and CHC status into account.

Since January 2007, we have provided physicians and nurses the opportunity to learn more about NAMCS through web-based educational modules presented on the CDC Public Health Training Network. The module presents key NAMCS concepts, interspersed with quiz questions after each concept to reinforce learning. The goal of the web-based material is for physicians and nurses to increase their understanding of NAMCS methodology, and to improve their ability to read critically those articles in

peer-related literature that use national estimates of office-based practice parameters. Providing this NAMCS education module to physicians and nurses will not only give participants a chance to receive valuable continuing education credits, but also expand the level of NAMCS exposure to potential survey participants.

4. Tests of Procedures or Methods to be Undertaken

As mentioned earlier, in the late spring of 2011, we will conduct a pretest in 300 physician practices to evaluate multiple modifications including the new asthma supplement and new CAM items on the NAMCS-1; retrospective health care data collection on the PRF (lookback module); and the computerized NAMCS-1 and associated PRFs. The pretest may indicate flaws in the data collection instrument or methods. For the pretest, slight modifications to the 2011 PRF (**Attachment T**) and NAMCS-1 (**Attachment S**) will be needed. For this pretest we will also be incorporating an entirely new asthma supplement and implementing a new computerized data collection system for physician and visit data collection. If the pretest is successful, we anticipate adding the new items, supplement, and computerized system for 2012-2013. The current plan for the pretest is to have the 300 physicians stratified among the 15 specialty groups in the same proportions as are the physicians in the core 2011 NAMCS. Minor data changes will be submitted via a nonsubstantive change package.

Nonresponse investigations (with 9 or fewer physicians) may be conducted under DHHS task order contracts should such studies be deemed necessary. If nonresponse studies are undertaken, OMB will be notified of the findings.

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

The statistician responsible for the survey sample design is:

Iris Shimizu, Ph.D.
Mathematical Statistician
Statistical Research and Survey Design Staff
Office of Research and Methodology
National Center for Health Statistics
(301) 458-4497
ishimizu@cdc.gov

The data collection agent is the Bureau of the Census and the contact person is:

Joseph Huessman
Chief, Housing Surveys Branch
Demographic Surveys Division
Bureau of the Census
(301) 763-4822
joseph.huessman@census.gov

The data will be analyzed under the direction of:

Paul Beatty, Ph.D.
Chief, Ambulatory and Health Care Statistics Branch
Division of Health Care Statistics
National Center for Health Statistics
(301) 458-4090
pbeatty@cdc.gov

Supporting Statement
List of Attachments

A. Public Health Service Act, Section 306 (a) & (b)

B. 2012 Asthma Supplement Questions

C. 2012 NAMCS-1 CAM Questions

D. NAMCS Electronic Medical Records Supplement 2011

E1. 2011 Physician Workflow Supplementary Mail Survey-EHR System

E2. 2011 Physician Workflow Supplementary Mail Survey-No EHR System

F. National Ambulatory Medical Care Survey 2011 Panel-NAMCS 1

G. National Ambulatory Medical Care Survey 2011 Patient Record Folio

H. Community Health Center Induction Interview 2011

I. Federal Register / Vol.75, No. 133 / Tuesday, July 13, 2010 / Notices

J. Consultants for 2011-2013 NAMCS and EMR/EHR Mail Surveys

K. IRB Continuation of Protocol Approval Letter

L. Pulling and Re-filing Patient Record Forms

M. NAMCS Introductory Letters and Motivational Insert

N. NAMCS Endorsing Organizational Letters

O. National Ambulatory Medical Care Survey Control Card 2011 Panel

P. 2011 NAMCS EMR/EHR Mail Survey Letters

Q. 2011 Physician Workflow Supplementary Survey Letters

R. 2011 Pretest-Asthma Supplement Questions

S. 2011 Pretest-Physician Induction Interview Form

T. 2011 Pretest-NAMCS Patient Record Form

U. Federal Register Public Comments