Supporting Statement B for Request for Clearance:
NATIONAL ELECTRONIC HEALTH RECORDS SURVEY

OMB No. 0920-1015
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1. Respondent Universe and Sampling Methods

The National Electronic Health Records Survey (NEHRS) target universe is non-federally employed physicians (excluding those in the specialties of anesthesiology, radiology and pathology) practicing in the United States and classified as "office-based patient care." The sampling frame used for the survey consists of universe physicians listed in the American Medical Association (AMA) and the American Osteopathic Association (AOA) Masterfiles. To enable state-based estimates from this survey, a sample of 202 physicians is selected from each U.S. state and the District of Columbia (DC) (a national total of 10,302) annually for NEHRS. Within each state, the physicians are selected using systematic random sampling from a list in which physicians are arrayed by specialty groups and metropolitan statistical area (MSA) status.

Table 1. Table of NEHRS physician universe and physician sample size by state, 2019 Universe

Geography	Universe	Sample
United States	**517,122**	**10,302**
Alabama	6,658	202
Alaska	883	202
Arizona	10,301	202
Arkansas	3,709	202
California	66,705	202
Colorado	9,528	202
Connecticut	7,133	202
Delaware	1,315	202
District of Columbia	1,878	202
Florida	35,440	202
Georgia	14,677	202
Hawaii	2,252	202
Idaho	1,794	202
Illinois	20,768	202
Indiana	8,821	202
Iowa	3,428	202
Kansas	3,949	202
Kentucky	6,305	202
Louisiana	7,490	202
Maine	2,298	202
Maryland	12,278	202
Massachusetts	14,663	202
Michigan	16,380	202
Minnesota	9,313	202
Mississippi	3,231	202
Missouri	8,761	202
Montana	1,305	202
Nebraska	2,522	202

Nevada	3,535	202
New Hampshire	2,021	202
New Jersey	17,380	202
New Mexico	2,739	202
New York	38,066	202
North Carolina	15,324	202
North Dakota	843	202
Ohio	18,381	202
Oklahoma	4,697	202
Oregon	7,225	202
Pennsylvania	22,440	202
Rhode Island	2,166	202
South Carolina	6,685	202
South Dakota	1,054	202
Tennessee	10,549	202
Texas	39,165	202
Utah	3,844	202
Vermont	962	202
Virginia	13,329	202
Washington	11,582	202
West Virginia	2,504	202
Wisconsin	8,332	202
Wyoming	514	202

The expected response rates for the 2020-2022 NEHRS data collections are 45%. These estimated response rates are based on the average of the 2015 and 2017 OMB-defined response rates. The 2015 and 2017 NEHRS used the same sequential, mixed-mode administration as the 2020-2022 data collections will use. The 2018 NEHRS response rates were not included because the data and response rates are not finalized; the 2019 NEHRS response rates were not included as these data are in the process of being collected at the initial writing of this package.

The response rates from the past three completed survey data collections are shown in Table 2. Note that there was no data collection in 2016, and that 2015 NEHRS was the first year of the web questionnaire. NEHRS defined completes as respondents who completed the eligibility questions and provided non-blank responses for all of the key questions that supported the main survey objectives. Partial respondents were defined as respondents who answered the eligibility questions but did not provide non-blank responses for all the key questions. The response rates presented in the 2nd column of Table 2 incorporate complete and partials as the respondent as specified in the OMB's *Standards and Guidelines for Statistical Surveys*. The response rate calculation used for NEHRS publications only includes completes as respondents. Partials are included with eligible refusals because they did not contribute to the key questions. The response rates used for NEHRS publications are presented in the 3rd column of Table 2.

Table 2. Response rates from collection period 2014—2017 NEHRS

	OMB Standards & Guidelines Weighted Response Rate	NEHRS publications Weighted Response Rate
2014 NEHRS	71%	63%
2015 NEHRS	52%	49%
2017 NEHRS	37%	34%

2. Procedures for the Collection of Information

The sampling frame will be constructed from the AMA and the AOA Masterfiles. To enable state-based estimates from this survey, a sample of 202 physicians is selected from each U.S. state and DC (a national total of 10,302) annually for NEHRS. Within each state, the physicians are selected using systematic random sampling from a list in which physicians are arrayed by specialty groups and MSA status.

The 2020, 2021 and 2022 NEHRS data collections are expected to use the same sequential, mixed-mode administration using web, mail, and computer-assisted telephone interview (CATI) modes, in that order, as done in the 2017, 2018 and 2019 NEHRS. A contractor will conduct the data collection; however, the contractor for the 2020, 2021 and 2022 surveys has not yet been selected. The data collection will continue to use the Tailored Design Method, also known as Dillman's survey method,[1] with some modifications. Recruitment begins with mail and email invitations to a self-administered web-based survey, and for non-responders, recruitment includes up to three survey mailings with a paper self-administered questionnaire. For non-responders to both the self-administered web-based survey and the paper self-administered questionnaire, a computer-assisted telephone interview (CATI) follow-up will be administered. The email and mail letters can be found in **Attachment G**. The flyer showing the use of NEHRS data is in **Attachment H**. The CATI script can be found in **Attachment I**.

The data are weighted to produce state and national estimates using the inverses of selection probabilities, with nonresponse adjustments within state and specialty group. The data source will undergo calibration adjustment factors 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.

3. Methods to Maximize Response Rates and Deal with No Response

NEHRS uses multiple methods for maximizing physician response. The survey questionnaire is designed to minimize the amount of time for physicians to participate. Along with the 1st mailing of the paper questionnaire, we provide a NCHS flyer or report that uses NEHRS data

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[1] The Tailored Design Method (TDM), also known as the Dillman survey method, is regarded as the standard for mail surveys. TDM includes steps such as sending a personalized letter, the questionnaire with return postage, a follow-up postcard, and multiple packets to non-respondents.

to show the importance of the survey (**Attachment H**). Since the web instrument was first implemented in 2015, there has been an increasing number of physicians who have responded through the self-administered web instrument. This shows the preference for receiving email invitations, and responding to the survey through the web instrument. As such, beginning with the 2019 NEHRS there has been additional emphasis on locating physician email addresses. As an optional task that was funded in 2019 NEHRS, tracing of email addresses is projected to increase the number of physician respondents who are administered the survey through the web, and reduce the number of needed follow-up contacts among these physicians. If this proves to be true in 2019, and funding allows, we will continue this in subsequent data collections. Additionally, extensive web searches and follow-up phone calls will be performed to locate the status of non-responding physicians. Effective techniques for converting refusals have been developed, each flexible and responsive to individual concerns. Conversion is successful by emphasizing the following ideas: professional responsibility to enhance knowledge of the adoption and use of EHRs in the United States, and that data are only reported as descriptive statistics. Optimization of the use of resources as recommended by expert methodologists was another optional task added in 2019 that was meant to address non response.

The 2015 NEHRS had a weighted response rate of 52%; 2017 NEHRS had a weighted response rate of 37%. We expect the 2020-2022 NEHRS response rates to be between the 2015 and 2017 rates, because the procedures and materials are similar to those used in 2015 and 2017. Methods to raise the response rate of future surveys are currently being considered and include two that are being implemented in the 2019 NEHRS: email tracing to increase email addresses for the web questionnaire as described above and optimizing non-response follow-up. Optimizing non-response follow-up includes, but is not limited to, reallocating resources to improve response in the CATI mode (e.g., aligning interviewer schedules with the most effective times for successful call completion based upon experience from previous data collection efforts).

NCHS will investigate the specific causes of nonresponse in order to devise additional corrective measures, as funds permit. This may include further understanding about survey methods in order to inform the reason for non-response (e.g., burden, brand, time, content).

4. Tests and Procedures or Methods to be Undertaken

No tests of procedures are anticipated. The survey questions and procedures have been used in prior surveys. The questionnaire has the same questions as the 2018 and 2019 NEHRS, OMB No. 0920-1015.

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

The individual responsible for the data collection design is:

Iris Shimizu, Ph.D.
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The individuals responsible for collecting the data:

A contractor will be responsible for data collection. However, the contractor for 2020, 2021 and 2022 NEHRS have not yet been selected.

The individuals responsible for analysis of the data are:

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