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

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## List of Abbreviations

ERB – Ethics Review Board

## List of Attachments

- Att D Changes to the NEHRS instrument
- Att G Respondent Emails and Letters
- Att H1 MMWR QuickStat
- Att H2 2021 NEHRS Flyer

#### 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 outpatient or "office-based patient care." The sampling frame used for the target universe will be the American Medical Association (AMA) and the American Osteopathic Association (AOA) Masterfiles. To enable national estimates from this survey, a sample of up to 16,633 physicians will be selected for NEHRS. Physicians are selected using systematic random sampling from a list in which physicians are arrayed by United States Census Region (Northeast, Midwest, South, West), and a 3-category medical specialty (primary care, medical specialty, surgical specialty).

The expected response rates for the 2024-2026 NEHRS data collections are between the 2019 (39%) and 2021 (46%) weighted response rates. We expect these response rates because the procedures and materials are similar to those used in 2019 and 2021. The 2021 NEHRS used the same sequential, mixed-mode administration as the 2024-2026 data collections plan to use.

The response rates from the past three completed survey data collections are shown in Table 1. Note that there was no data collection in 2020, and that the 2021 NEHRS was the first year the survey did not use computer assisted telephone interviews in addition to self-administered web and paper questionnaires. Instead, it only used self-administered web questionnaire and self-administered paper questionnaire modes. NEHRS defined completes as respondents who completed the eligibility questions and provided non-blank responses for all 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 of the key questions. The response rates presented in the 2<sup>nd</sup> column of Table 1 incorporate complete and partials as the respondent as specified in the OMB's *Standards and Guidelines for Statistical Surveys*. The response rate calculation currently 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 3<sup>rd</sup> column of Table 2.

	OMB Standards & Guidelines Weighted Response Rate	NEHRS publications Weighted Response Rate
2018 NEHRS	42.4%	34.6%
2019 NEHRS	51.7%	39.0%
2021 NEHRS	46.6%	45.9%

Table 1.	Response i	rates from	collection	period	2018-2021	NEHRS
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2. Procedures for the Collection of Information

The sampling frame used for the target universe will be the AMA and the AOA Masterfiles. Physicians are selected using systematic random sampling from a list in which physicians are arrayed by United States Census Region (Northeast, Midwest, South, West), and 3-category medical specialty (primary care, medical specialty, surgical specialty).

The 2024, 2025, and 2026 NEHRS data collections are expected to use the same sequential, mixed-mode administration as the 2021 NEHRS using web and mail modes, in that order. A contractor will conduct the data collection. However, the contractor for the 2024, 2025, and 2026 surveys has not yet been selected. The data collection will continue to use the Tailored Design Method, also known as Dillman's survey method,<sup>1</sup> with some modifications. Recruitment begins with mail and email invitations to a self-administered web-based questionnaire, and for non-responders, recruitment includes up to three survey mailings with a paper self-administered questionnaire. The first mailing of the paper self-administered questionnaire includes a QuickStat or a flyer showing the use of NEHRS data. Non-responders for whom we have an email, will receive up to 6 reminder emails. The email messages and mail letters can be found in **Attachment G**. A QuickStat can be found in **Attachment H1**, and a flyer is in **Attachments H2**.

The data are weighted to produce national estimates using the inverses of selection probabilities, with nonresponse adjustments within specialty group. The data source will undergo calibration adjustment factors, which are used to adjust estimated total physicians to known totals within specialty strata. Sampling errors will be computed using the linearized Taylor series method of approximation, as applied in commonly-used statistical software packages.

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 1<sup>st</sup> mailing of the paper questionnaire, we provide a NCHS QuickStat or flyer that uses NEHRS data to show the importance of the survey (Attachments H1 and H2). 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 responding to the survey through the web instrument. Thus, as feasible there will be additional emphasis on locating physician email addresses. As an optional task that was funded in the 2019 and 2021 NEHRS, tracing of email addresses increased the number of physician respondents who are administered a survey invitation to the web via email and reduced the number of needed follow-up contacts among these physicians. If funding allows, we will continue this tracing 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 social determinants

<sup>&</sup>lt;sup>1</sup> 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.

of health, interoperability, the exchange of patient health information with public health agencies, and telemedicine technology in the United States, and that data are only reported as descriptive statistics. Expert opinion from survey methodologists was also used to detail manners in which the optimization of available resources could be used to maximize NEHRS response rates, and have been incorporated where possible since the 2019 NEHRS.

The 2019 NEHRS had a weighted response rate of 39.0%; 2021 NEHRS had a weighted response rate of 45.9%. We expect the 2024-2026 NEHRS response rates to be between the 2019 and 2021 rates, because the procedures and materials are similar to those used in 2019 and 2021.

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. More information about the origin of the questions used can be found in the document of changes (**Attachment D**).

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

The individual responsible for the data collection design is:

Hee Choon Shin Statistician (Health) Collaborating Center for Statistical Research and Survey Design Division of Research and Methodology National Center for Health Statistics/CDC (301) 458-4307 wmi7cdc.gov

The individuals responsible for collecting the data:

A contractor will be responsible for data collection. However, the contractor for 2024, 2025 and 2026 NEHRS has not yet been selected.

The individuals responsible for analysis of the data are:

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