

Supporting Statement A for Request for Clearance:

National Hospital Care Survey

**OMB No. 0920-0212
(Expiration Date (12/31/2024))**

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Table of Contents

A. Justification 4

1. Circumstances Making the Collection of Information Necessary 4

2. Purpose and Use of Information Collection 6

3. Use of Improved Information Technology and Burden Reduction 8

4. Efforts to Identify Duplication and Use of Similar Information 10

5. Impact on Small Businesses or Other Small Entities 10

6. Consequences of Collecting the Information Less Frequently 11

7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5 12

8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency 12

9. Explanation of Any Payments or Gifts to Respondents 14

10. Protection of the Privacy and Confidentiality of Information Provided by Respondents . 15

11. Ethics Review Board (ERB) and Justification for Sensitive Questions 19

12. Estimates of Annualized Burden Hours and Costs 21

13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers 24

14. Annualized Cost to the Government 24

15. Explanation for Program Changes or Adjustments 24

16. Plans for Tabulation and Publications and Project Time Schedule 24

17. Reason(s) Display of OMB Expiration Date is Inappropriate 27

18. Exceptions to Certification for Paperwork Reduction Act Submission 27

List of Attachments:

Attachment A: Authorizing Legislative
Attachment B: 60-Day Federal Register Notice
Attachment C: Annual Hospital Interview
Attachment D: Introductory Letter to Hospitals
Attachment E: NHCS Overview Flyer
Attachment F: NHCS Infographic Flyer (General)
Attachment G: NHCS Infographic Flyer (Children's)
Attachment H: NHCS Infographic Flyer (Rural)
Attachment I: NHCS Infographic Flyer (South)
Attachment J: NHCS Infographic Flyer (East)
Attachment K: NHCS Infographic Flyer (West)
Attachment L: NHCS Infographic Flyer (Southwest)
Attachment M: Currently Approved List of UB-04 Elements
Attachment N: Electronic Health Record (EHR) Variable List
Attachment O: Ethics Review Board (ERB) Approval Notice for the NHCS
Attachment P: Initial Hospital Intake Questionnaire
Attachment Q: Recruitment Survey Presentation
Attachment R: Monthly Transmission of UB-04 Data
Attachment S: Quarterly Transmission of EHR Data
Attachment T: Confidentiality Letter
Attachment U: ERB Memo - Protocol Determination Verification Status for NHCS
Attachment V: SORN Privacy Act System Notice 09-20-0167
Attachment W: SORN Privacy Act System Notice 09-20-0164

**SUPPORTING STATEMENT
THE NATIONAL HOSPITAL CARE SURVEY**

- The goal of the National Hospital Care Survey (NHCS) is to assess the health of the population through the creation of a dataset that contains information on health care utilization as well as the demographic characteristics, medical conditions, and treatment of patients who use hospitals for inpatient and ambulatory medical care in the United States.
- The intended use of the resulting data is to provide government, professional, scientific, academic, and commercial institutions, and private research organizations, as well as private citizens with information that can be used to monitor public health and to investigate research questions about health care utilization and delivery over time.
- Inpatient and ambulatory data will be collected from a sample of 601 hospitals via Uniform Billing (UB)-04 administrative claims or electronic health record (EHR) data. Additionally, hospital-level characteristics for all sampled hospitals are gathered through an Annual Hospital Interview.
- The target subpopulation of the NHCS is inpatient discharges, and patient visits made to Emergency Departments (EDs) and Outpatient Departments (OPDs) of non-Federal, non-institutional hospitals with six or more beds staffed for inpatient use in the 50 states and the District of Columbia.
- NHCS data will be weighted and analyzed using appropriate statistical techniques. Public use files will be made available where possible. Findings will be released in NCHS reports, dashboards, journal articles, and research papers as well as released to researchers for analysis.

The National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), requests a three-year approval for a revision to continue the National Hospital Care Survey (NHCS) (OMB No. 0920-0212, expires 12/31/2024). Although there are no new questions added to the data collection survey, the COVID-19 questions from the Annual Hospital Interview (AHI) have been removed. Despite an increase in sample size, the burden hours have decreased as fewer hospitals now need to complete the one-time initial intake questionnaire (see section 12 for more information about these changes).

On December 22, 2021, the NHCS received a 3-year clearance approval to continue the NHCS data collection. The terms of clearance state that “NCHS will continue to update OMB regularly regarding challenges with and progress toward recruiting hospitals and their ability to efficiently transfer data to NCHS, as well as its progress on developing the sampling frame for free standing ambulatory care facilities.”

To encourage hospitals to participate in survey and increase recruitment NCHS has held regularly scheduled presentations on aspects of the survey to sampled hospitals. To reduce participation burden on hospitals, NCHS has explored alternative data sources, including identifying data collection organizations to obtain data either through already existing data collection agreements or through the development of new third-party relationships. Enough hospitals have been recruited to produce reliable national estimates.

Activities requested for approval:

- Continue recruitment of hospitals in the sample for the NHCS.
- Continue the collection of hospital-level data through an initial intake questionnaire and an Annual Hospital Interview for all sampled hospitals.
- Continue the collection of electronic data on inpatient discharges as well as Emergency Department (ED) and Outpatient Department (OPD) visits through the collection of Electronic Health Record (EHR) data, Uniform Billing (UB)-04 administrative claims.
- Expand data collection from secondary data sources such as CDC’s National Syndromic Surveillance Program (NSSP) and National Health Care Safety Network (NHSN).
- Continue collection of substance-involved ED visit data through the ED component.
- Continue to make relatively minor additions, deletions, and changes to the survey using non-substantive change submissions.

A. Justification

1. Purpose and Use of Information Collection

NHCS has several objectives. The first objective is to produce nationally representative utilization statistics for hospital discharges and ambulatory health care. NHCS uses an independent national probability sample of hospitals that is updated every third year to ensure that the sample continues to be nationally representative. Using statistical modeling

techniques, d, the survey produced nationally representative estimates of discharges by diagnosis and procedures and visits to EDs and OPDs.

A second objective is to close gaps in available information about hospitals at the facility level and to relate these characteristics to discharge level data within the hospital. The NHCS collects data using an Annual Hospital Interview from every sampled hospital (including nonrespondents) each year (**Attachment C**).

A third objective is to link episodes of care within the hospital, such as for patients seen in the ED and subsequently admitted as inpatients. NHCS collects patient PII which allows linkages to other episodes of care in the ED and OPD as well as other data sources, such as the NDI, U.S. Department of Housing and Urban Development (HUD), Veterans Affairs (VA) administrative data, and the Medicare and Medicaid claims databases.

A fourth objective is to produce micro-data public use files of non-identifiable data from inpatient discharges and ED and OPD visits and to disseminate timely data that can be used by health policy researchers, the public and the research community. Using these data files, researchers can study trends and changes in health care practice, conformance to scientific evidence about effectiveness, and changes in patterns of health care seeking behavior. It complements patient-based and population-based information.

Data collected will be used by government, professional, scientific, academic, and commercial institutions, private research organizations, and private citizens. The NHCS is designed to produce yearly national estimates on hospital utilization while adding new utility to the data by enabling NCHS to link cases and outcomes both across departments within a hospital and with external data sets. This rich dataset contains information on the demographic characteristics, medical conditions, and treatment of patients who use hospitals for inpatient and ambulatory medical care. The data NHCS is collecting can be used to investigate a wide range of public health and health services related issues over time rather than focusing on a single specific research question at a single point in time.

Of particular importance is the role NHCS has played in contributing its trend data on hospitalizations related to COVID-19. During the COVID-19 pandemic, NCHS staff have demonstrated the robust analytic capability of the survey through the production of a COVID-19 Hospital Dashboard (<https://www.cdc.gov/nchs/covid19/nhcs.htm>). The data in the dashboard are from up to 50 hospitals submitting preliminary inpatient and ED Uniform Bill (UB)-04 administrative claims from March 18, 2020. Even though the data are not nationally representative, they can provide insight on the impact of COVID-19 on various types of hospitals throughout the country. The NHCS data from these hospitals show results by a combination of indicators related to COVID-19, such as length of inpatient stay, in-hospital mortality, comorbidities, and intubation or ventilator use. NHCS data allow for reporting on patient conditions and treatments within the hospital over time. This information is not available in other hospital reporting systems.

Building off the success of the NHCS COVID-19 dashboard a second dashboard was developed to display information on drug-involved hospital encounters. The NHCS Drug Use dashboard (<https://www.cdc.gov/nchs/dhcs/drug-use/index.htm>) utilizes the same preliminary UB-04 administrative claims data that populates the NHCS COVID-19 dashboard. The NHCS Drug Use dashboard data are not nationally representative, but they provide important information on types of drugs-involved in hospital admissions and emergency department visits. The types of drugs presented in the dashboard are opioids, benzodiazepines, cannabis, stimulants, and all drugs. Additionally, the dashboards provide trend data on overdoses and poisonings related to all opioids, fentanyl, heroin, benzodiazepines, cannabis, stimulants, and all drugs. Similar to the NHCS COVID-19 dashboard the NHCS Drug Use dashboard is presenting information not available in other hospital reporting systems.

Organizations outside of CDC deem NHCS data as valuable. For example, the Patient-Centered Outcomes Research Trust Fund (PCORTF) has provided NCHS with funds for six projects in fiscal years (FY) 2017, 2018, 2019, and 2023 which have helped NCHS expand the analytic capability of NHCS data.

The first project funded by PCORTF added cause-specific mortality to NHCS by linking to the National Death Index (NDI). The goal of this project was to link the NHCS to the NDI and the Centers for Medicare and Medicaid Services Medicare Master Beneficiary Summary File (MBSF). The project produced three data files for the RDC: 2014 NHCS Data Linked to 2014/2015 NDI; 2016 NHCS Data Linked to 2016/2017 NDI; and 2014 NHCS Data Linked to 2014/2015 Medicare MBSF. The linked NDI files provide information on post-acute mortality and cause of death. Linkage of NHCS data with the CMS Medicare Data provides the opportunity to conduct a vast array of studies on health care utilization and expenditures among the elderly U.S. population and persons receiving Medicare disability benefits.

The second PCORTF project funded aimed to enhance the identification of opioid-involved health outcomes (in ED visits) using linked hospital care and mortality data. The project completed two main tasks: (1) It added information from the Drug-Involved Mortality (DIM) file to the linked 2014 and 2016 NHCS/NDI data, and (2) the study developed methods of enhanced opioid-identification in hospital and death certificate data and added results from the enhanced opioid identification algorithm to the linked 2016 NHCS/NDI/DIM file. The DIM file provides information on specific drugs, drug classes, and non-specific references to drugs mentioned in the literal text on the death certificate. The enhanced opioid-identification algorithm utilizes all structured and unstructured data collected in the UB-04 administrative claims and EHR data to improve the identification of opioid-involved and opioid overdose hospital encounters. Both data files are available in the NCHS RDC.

The third PCORTF-funded project aimed to identify co-occurring disorders among opioid users using linked hospital care and mortality data. The project served as a culmination of the second project and aimed to improve data on co-occurring substance use disorders and selected mental health issues (anxiety and depressive disorders). The project involved conducting a study to validate algorithms to identify the use of opioids and the existence of co-occurring

disorders, followed by an abstraction of 100 encounters from 9 hospitals participating in NHCS to validate the performance of the enhanced opioid-identification and co-occurring disorder algorithms. Recruitment for this validation study began in January 2021 and ended in June 2021. The study's results have since been published in a Vital and Health Statistics Series Report titled "Validation of the Enhanced Opioid Identification and Co-occurring Disorders Algorithms."

There were two PCORTF projects that involved data linkages to additional data sources including, Transformed Medicaid Statistics Information System (T-MSIS) claims data from CMS, administrative housing assistance program data from the U.S. Department of Housing and Urban Development (HUD), and Veterans Affairs (VA) administrative data from the U.S. Department of Veterans Affairs (VA). Conducting these data linkages has resulted in the following data files: 2016 NHCS linked to 2015-2017 CMS Medicaid (T-MSIS) Enrollment and Claims Data; 2014 NHCS linked to 2013-2015 HUD Housing Assistance Program Files; 2016 NHCS linked to 2015-2017 HUD Housing Assistance Program Files; 2016 NHCS linked to VA Administrative Data Files through FY 2020.

The current and sixth PCORTF project funded (2023-2025) aims to improve data capacity to study patient outcomes associated with substance use and misuse by developing an algorithm that can identify hospital encounters involving stimulants in both structured and unstructured hospital data; and to enhance access to robust, high-quality data on stimulant-associated health outcomes through the development of an interactive dashboard displaying hospital utilization and care related to substance-involved hospital encounters.

The NHCS data are important because they define an approach that links structure, process, and outcomes of care. Structural information (i.e., information on the hospital and environment in which care is received) provided on the Annual Hospital Interview can be linked with clinical care processes (e.g., surgeries) to understand how structure affects the types of care. Data from the survey can be used to examine the extent to which the process, such as earlier discharge, places a patient at risk for desirable or undesirable outcomes, such as unanticipated (i.e., non-elective) readmission to the hospital. This is only possible because patient PII data allows, in some circumstances, the linking of characteristics and processes of one admission/visit with a later admission/visit and the location of the admission/visit (i.e., inpatient, ED) with later care received through the UB-04 claims or EHR data.

The Institute of Medicine has included equity among the six key properties or domains of quality¹. Equitable treatment of patients requires that each individual receive health care of equal quality, irrespective of personal characteristics other than their clinical condition and preferences for care. The NHCS will facilitate studies of equity in care by providing additional detail by which to identify patient personal characteristics unrelated to their clinical conditions. A better understanding of patient socioeconomic status (SES) will be possible, because the collection of patient address information, including ZIP Code, will facilitate sophisticated

¹ Institute of Medicine (IOM). Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, D.C: National Academy Press; 2001.

geocoding to allow for linking NHCS data to additional data sources that contain information at the ZIP code level on family income and education (which are not collected in NHCS) and race and ethnicity. Linked NHCS data with information on family income can be used to address whether longer lengths of stay occur for some patients from lower SES areas who cannot be discharged to an appropriate lower level of care. This will offer insight into the extent of differences in care that patients receive from areas of different SES levels.

2. Circumstances Making the Collection of Information Necessary

Background

The National Hospital Discharge Survey (NHDS) (OMB No. 0920-0212, Exp. Date 01/31/2019), conducted continuously between 1965 and 2010, was the Nation's principal source of data on inpatient utilization of short-stay, non-institutional, non-Federal hospitals, and was the principal source of nationally representative estimates on the characteristics of inpatients including lengths of stay, diagnoses, surgical and non-surgical procedures, and patterns of use of care in hospitals in various regions of the country. In 2011, NHDS was granted approval by OMB to expand its content and to change its name to the National Hospital Care Survey (NHCS).

Inpatient Component of NHCS

In May 2011 recruitment of sampled hospitals for the NHCS began. Hospitals in the NHCS are asked to provide data on all inpatients from their UB-04 administrative claims, or EHRs. Hospital-level characteristics and data on the impact of COVID-19 on the hospital are collected through an Annual Hospital Interview (**Attachment C**). NHCS will continue to provide the same national health-care statistics on hospitals that NHDS provided.

Additionally, NHCS collects more information at the hospital level (e.g., volume of care provided by the hospital), which allow for analyses on the effect of hospital characteristics on the quality of care provided. NHCS data collected from UB-04 administrative claims and EHRs include all inpatient discharges, not just a sample. The confidential collection of personally identifiable information (PII) allows NCHS to link episodes of care provided to the same patient in the ED and/or OPD and as an inpatient, as well as link patients to external data sources such as the NDI to measure post-discharge mortality; HUD to examine relationships between housing and health; VVA administrative data to delve into a wide range of health-related topics for Veterans, including Veteran status and utilization of VA benefit programs; and Medicare and Medicaid data to leverage comorbidities. The availability of patient identifiers also makes analysis on hospital readmissions possible. This comprehensive collection of data makes future opportunities for surveillance possible, including analyzing trends and incidence of opioid misuse, acute myocardial infarction, heart failure and stroke, as well as trends and point prevalence of health care acquired infections and antimicrobial use.

Ambulatory Component of NHCS

Beginning in 2013, in addition to inpatient hospital data, hospitals participating in NHCS were asked to provide data on the utilization of health care services in their ambulatory settings (e.g., EDs and OPDs). Due to low response rates and high level of missing data, OPD data were not collected in the last approval period. Collection of OPD may resume in future years.

The NHCS offers unique opportunities to study opioid-involved health outcomes, as the ED component of the survey supports identification of substance-involved ED visits. NHCS can link a patient's care history to internal (e.g., across ambulatory and inpatient settings of participating hospitals and time) and external data (e.g., NDI). Repeat encounters for opioid use can be examined and opioid-related mortality rates can be calculated. Also, the collection of clinical notes via EHR provides rich information on the type of drugs taken, the nature of misuse or poisoning, and other risk factors for opioid-involved hospital encounters. The additional information on drug use in the EHR data has been used to enhance the identification of opioid-involved and opioid overdose hospital encounters. These estimates will be used to monitor trends in major substances of abuse (e.g., heroin, cocaine, marijuana) and to assess alcohol use by minors that result in ED visits. The notes can logically be extended to any medical condition, enriching the main data elements collected.

Data on substance-involved ED visits from NHCS can be used by national, state, and local health professionals, policymakers, law enforcement officers, pharmacologists, and health services researchers to understand the consequences of substance use and abuse and to identify emerging trends and changing patterns of substance use.

3. Use of Improved Information Technology and Burden Reduction

Participating hospitals are asked to submit UB-04 administrative claims or EHR data for all inpatient discharges and all ambulatory visits. Beginning in 2019, EHR data are being submitted to the NCHS Healthcare Electronic Health Record (HEHR) System described in section A10 and UB-04 administrative claims files are being submitted to the contractor's secure network. Burden on hospital personnel is reduced, as most of the data are acquired electronically. The HEHR system simplifies data transmission and reduces burden for hospitals participating in NHCS.

Additionally, participation burden is also reduced through the adoption of a standardized data format and with the availability of new vendor interfaces to transfer EHR data for NHCS. Since late 2015 the NHCS has been included in the CMS (EHR) Incentive Program (now called Promoting Interoperability [PI], formerly known as Meaningful Use) under the Public Health Objectives. Hospitals participating in the NHCS can use submission of NHCS data as one of their options to fulfill requirements under those objectives. Multiple CMS and Office of the National Coordinator for Health Information Technology (ONC) rules require hospitals participating in the PI Incentive Program to use the 2015 Edition Certified Electronic Health Record Technology

(CEHRT) in 2019 and beyond. The standard and format required by the 2015 Edition CEHRT for transmission to Public Health Agencies is the HL7 CDA National Health Care Surveys Implementation Guide (IG) Release 1.2 or Release 1; the implementation guide created by NCHS for the National Health Care Surveys. An updated version of the IG (HL7 CDA R2 IG: National Health Care Surveys, R1 STU Release 3 - 3rd HL7 Standard for Trial Use [STU] US Realm), was balloted and approved in July 2019. Additionally, 74 EHR vendor products based on the IG Release 1.2 and/or Release 1 have been developed. EHR vendors are continuing to work with NCHS to test the interfaces built. The adoption of the IG by a majority of the EHR vendors will reduce the burden of EHR data submission.

NCHS is working to leverage widely used modern day standards, such as Health Level 7 (HL7®) Fast Healthcare Interoperability Resources (FHIR®), to improve the timeliness and quality of data received from EHRs for National Health Care Surveys, while also modernizing workflows and reducing the burden on health care data providers. As part of this effort, NCHS is conducting the Health Care Surveys FHIR Pilot as a part of the CDC's Making Electronic Data More Available for Research and Public Health (MedMorph) project as the Health Care Surveys use case. By employing standardized application programming interfaces for patient services, the goal is to demonstrate how burden attributed to reporting clinical data could be reduced through automated reporting and inform the resources necessary to develop sustainable FHIR-based data submission on a broader scale.

In an effort to reduce hospital burden, hospitals have the option to submit their data through Vizient which is a large provider-driven, health care performance improvement organization. With permission from the sampled hospital, NCHS can accept data submitted to Vizient, which collects claims, laboratory results, and prescribed medications from member health care organizations and provides them with patient care improvement measures. To further reduce hospital burden, NCHS is also obtaining hospital data collected from third party entities such as the American College of Emergency Physicians (ACEP) through their Clinical Emergency Department Registry (CEDR) to supplement NCHS. ACEP collects UB-04 administrative claims and EHR data with similar data elements required by the NCHS. ACEP provided ED data from up to 55 sampled hospitals from 2020 - 2023. These third-party hospital data files do not contain patient PII data but would enable research into whether and how that third party data may be used to increase the reliability of national estimates of hospital utilization while reducing sampled hospital burden.

To reduce hospitals burden even further, NCHS is exploring collaborations with CDC's National Healthcare Safety Network (NHSN) and National Syndromic Surveillance Program (NSSP) to transmit electronic hospital encounter data into CDC in a more efficient manner. The partnerships with NHSN and NSSP involve a proposed pilot exploring the feasibility of collecting hospital inpatient and emergency department administrative UB-04 administrative claims and EHR data through NHSN to supplement data collected by the NCHS. These collaborations have the potential to streamline hospital data collected by CDC components, reduce burden on hospitals by eliminating the need for a hospital to submit data multiple times to the CDC, allow all parties to produce better quality and more timely estimates, and build infrastructure for CDC

to have national hospital utilization data for public health emergencies.

There is a need to collect annual hospital statistics, such as total admissions, total visits, and total births, to weight the inpatient and ambulatory data. This is done via the Annual Hospital Interview. Every hospital in the sample, regardless of participation status, is asked to complete an Annual Hospital Interview via a web portal, with any needed follow-up conducted by e-mail and telephone.

4. Efforts to Identify Duplication and Use of Similar Information

Currently, no other data collection mechanisms, either within the Federal Government or in the private sector, collect PII that allows for linkages between inpatient discharges and ED and OPD visits as well as allowing linkage to additional data sources such as the NDI and CMS Medicare MBSF. Patient PII collection allows researchers to better study the outcomes of hospital care.

Although the Healthcare Cost and Utilization Project (HCUP), which is sponsored by the Agency for Healthcare Research and Quality (AHRQ), collects inpatient data similar to the NHCS through its Nationwide Inpatient Sample (NIS), it does not collect data on hospital characteristics and does not collect patient PII data, which allow for data linkage to datasets such as NDI. Additionally, HCUP is not nationally representative in its sampling design and does not collect rich clinical data which is captured in EHRs.

The State Ambulatory Surgery Databases (SASD) system, a part of AHRQ's HCUP, includes ambulatory surgery data from some states; however, these data are not from a national probability sample.

There are three provider-based data sources that collect ongoing data from the ED. They are the National Electronic Injury Surveillance System, All Injury Program (NEISS AIP) (0920-0623, Discontinued 01/26/2006) and the State Emergency Department databases (SEDD). All of these systems are limited to the ED. NEISS AIP is sponsored by the Consumer Product Safety Commission (CPSC) and designed to provide incidence estimates of all types of and causes of nonfatal injuries and poisonings treated in the ED. NHAMCS data (OMB No. 0920-0278, Discontinued 09/30/2023) are used by NEISS AIP to benchmark their statistics. SEDD is a set of databases from data organizations in participating States that capture discharge information on ED visits that do not result in a hospital admission.

The purposes of all these data collection systems and the content and utility of the resulting data are distinctly different from those of the ED component of the NHCS. NEISS AIP is limited to a specific public health problem, while the ED component of the NHCS has the broadest coverage of all surveys to provide national general-purpose health care statistics. Data from SEDD are not nationally representative and do not contain the level of detail about the ED visit that is captured in the ED component of NHCS. Consequently, the data available from these systems are not adequate for the needs described earlier and cannot be used as an alternative for the NHCS.

5. Impact on Small Businesses or Other Small Entities

For the NHCS, only a relatively few sampled hospitals would be considered as small businesses or small entities. Efforts to minimize the burden, particularly on small hospitals, include the following:

- A) Data elements for NHCS come from already electronically available information, including a state file already submitted to the state; data already submitted to Vizient; UB-04 administrative claims data, which are needed for billing purposes and routinely collected and recorded by all hospitals; or EHR data which are used by hospitals to capture patient data.
- B) Non-profit hospitals in the NHCS sample may be eligible for a community benefit tax exemption for participating in the survey. For more information on this community benefit, please see section B3.
- C) Development of vendor interfaces that allow hospitals to extract data required by the HL7 CDA IG specifications and make NHCS data submission easier and standardized.
- D) NCHS is investigating different options to improve the way NHCS collects UB-04 administrative claims and EHR data in the future. These options aim to reduce operational and recruitment burden, thereby streamlining the data collection process, by incorporating data collection from internal data sources such as the CDC's National Syndromic Surveillance Program (NSSP) and National Health Care Safety Network (NHSN).
- E) Statistically, NCHS is also in the initial stages of exploring strategies to reduce the sample size (number of hospitals sampled) without compromising the survey's statistical power.

6. Consequences of Collecting the Information Less Frequently

There are three major reasons to continue to collect data on an annual basis (or quarterly and monthly as needed to facilitate timely submission of data): availability of annual estimates, budgetary considerations, and data quality.

- A) Annual estimates - NCHS plans to continue to make annual estimates of critical utilization statistics. Annual estimates are critical for modeling health care delivery and for studying specific diseases. A continuous annual survey provides data for trend analysis that is often the basis on which to evaluate the effects of change in Federal programs and policies. One of the most striking examples of this effect, which was tracked by NHDS, was the dramatic decline in inpatient procedures for lens extractions at the time the Medicare Prospective Payment System was implemented. In addition, many years of data on hysterectomies were needed to model the effects of this procedure. NHDS data were used to detect the first decline in hospital use for patients with human immunodeficiency virus (HIV), and (of great

public interest) the first increase in the average length of stay for childbirth in two decades.

The rapidly changing environment of hospital ambulatory health care delivery and the current interest in health care reform lend importance to having timely, annual data for decision making; describing the use of hospital ED and OPD services, including ambulatory surgery; monitoring the effects of change; and planning possible changes to payment policies. With the need to track the effects of the health care industry's continual evolution, this information has become even more crucial. Having continuous data collection before, during, and after policy changes and restructuring is essential. Because data from the surveys are often analyzed by combining data across years, the potential consequence of less frequent data collection would be the inability to study issues such as ED crowding, EHR adoption, preventive services, and those low frequency procedures that require combining data across time periods. NHDS and NHAMCS provided annual updates for numerous tables in the Congressionally mandated NCHS report, *Health, United States*. In addition, NHDS and NHAMCS data were used by the Department of Health and Human Services (DHHS) in the development and monitoring of goals for the 2000, 2010, 2020, and 2030 Health Objectives for the nation as well as the National Reports on Quality and Disparities.

- B) Budgetary considerations - Extensive information captured during data collection procedures prior to the NHCS has shown that the cost to the government is less when data are collected annually. Based on this experience, it has been determined that conducting this survey less frequently would require the very expensive process of re-inducting hospitals into the survey and training new contractor staff every two to three years.
- C) Data quality - The highest quality of data can best be maintained when data are collected on an ongoing basis. Ongoing data collection minimizes disruption in the field related to re-recruiting and re-starting data collection with hospitals. Ongoing data collection is also essential to have data on health trends in the population.

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

There is one special circumstance that applies to collection of NHCS data. NHCS will collect the OMB race and ethnicity codes in as much detail as possible. States vary with the extent to which they permit race and ethnicity to be collected and included on the UB-04, state file or EHR.

NHCS hospital data collection is a secondary data collection. Hospitals participating in the National Hospital Care Survey (NHCS) can submit either Electronic Health Records (EHR) or Uniform Billing (UB) – 04 administrative claims data. Race and ethnicity data are not required UB-04 data elements. Additionally, for both sources of data we do not have a direct influence on how the data are collected.

As stated, NHCS is a secondary data collection and the data collected are not initially created for survey purposes. Hospitals will need to implement the new standards in their systems to capture the new categories. Additionally, NHCS is not a mandatory survey and cannot require the hospitals to provide complete race/ethnicity in the UB-04 administrative claims data.

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

A) The 60-day Notice for public comments was published in the *Federal Register*, on May 7, 2024 (Volume 89, Number 89, Pages 38147). A copy of the notice is included as Attachment B. No substantive or non-substantive comments were received from this Notice.

B) The NHCS is intended to provide improved data for use by both governmental and non-governmental policymakers, Federal and state agencies, clinical researchers, health services researchers, commercial institutions, and private citizens. Due to the broad audience and stakeholders for this project, NCHS solicited a wide spectrum of views concerning the focus of the inpatient, ED, and EHR data collection.

More recently, NCHS consulted with the following individuals:

- Janet Kuramoto-Crawford
National Institute of Health, National Institute on Drug Abuse
3 White Flint N, 11601 Landsdown St, North Bethesda, MD 20852
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- Madjid Karimi
Health Science Analyst

Assistant Secretary for Planning and Evaluation
U.S. Department of Health and Human Services
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- Jana Mcaninch
Center for Drug Evaluation and Research
Food and Drug Administration (FDA)
10001 New Hampshire Ave, Silver Spring, MD 20903
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Email: jana.mcaninch@fda.hhs.gov
- Christine Cox
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Outreach Activities:

Outreach activities to promote NHCS have included attendance and exhibiting at conferences, conducting presentations in academic forums, and disseminating data-related information through the survey's listserv. For a list of conferences attended, please see section A16.

NCHS staff have presented at several academic venues to promote use of NHCS data among students and researchers. A presentation at the NIH Library Webinar Series which included, "Adapting Division of Health Care Surveys to Report on Emerging Health Crises in Hospitals and Long-term Care Settings" (March 2022) and "Modernizing Dissemination of the National Health Care Surveys" (November 2023). Another presentation at the National Nurses Research Roundtable provided an overview of the survey and its linkage capabilities (March 2022). A presentation on NCHS' National Health Care Surveys, presented as part of the CDC Deep Dive Series on Healthcare Data Systems, Data Modernization Initiative (March 2022). "Measuring telemedicine & telehealth use through national household and health care provider surveys" at the 2022 American Telemedicine Association (ATA) Annual Conference & Expo (May 2022) and "Measuring Telemedicine & Telehealth Use through National Health Care Provider Surveys" at the HRSA Office for Advancement of Telehealth Research Directors Meeting (April 2023). "Overview of Health and Health Care Data at the National Center for Health Statistics" at the American Academy of Physician Associates/Assistants 2022 AAPA-PAEA Research Seminar Series (June 2022 & 2023). "Overview of the National Health Care Surveys" at the ONC Public Health Data Standards Task Force (October 2022). "Modernization of NCHS' National Health Care Surveys to meet continually evolving data needs for the 21st century," presented at the 2022 Federal Committee on Statistical Methodology Annual Research and Policy Conference

(October 2022). Another presentation promoting the survey's data linkage capabilities, particularly with the National Death Index: "Enhancing Data Resources for Researching Patterns of Mortality in Patient Centered Outcomes Research: Project 1 - Adding Cause-Specific Mortality to NCHS's National Hospital Care Survey by Linking to the National Death Index" at the American Medical Informatics Association Annual Symposium (November 2022). "Data Innovations: National Health Care Surveys, National Center for Health Statistics" at the 2023 AcademyHealth Annual Research Meeting (June 2023). Finally, a presentation at the 2023 Federal Committee on Statistical Methodology Research and Policy Conference (October 2023) "Combining Data Sources to Produce Nationally Representative Estimates of Hospital Encounter Characteristics".

The NHCS-designated list serv reaches the survey's stakeholders and data users. This email distribution list serv includes over 1,400 members and provides updates on NHCS data availability and newly published reports. Since the last clearance, several announcements were distributed, including announcements for: several new demonstration papers (e.g., stroke hospitalizations; opioid-involved hospitalizations and deaths; respiratory illness ED visits); the availability of new data files (e.g., 2021 NHCS data, NHCS files linked to mortality and CMS datasets) in the NCHS Research Data Center; and the release of NHCS's new Hospital COVID-19 Dashboard (<https://www.cdc.gov/nchs/covid19/nhcs.htm>) featuring COVID-19 encounters from 2 selected NHCS hospitals.

9. Explanation of Any Payments or Gifts to Respondents

NCHS provides a one-time \$500 incentive to each sampled hospital to set up the electronic data transmission to participate in the survey. In addition, NCHS provides each of the 601 sampled hospitals \$500 after a full year of EHR, UB-04 administrative claims data, state files, or Vizient files are received.

10. Protection of the Privacy and Confidentiality of Information Provided by Respondents

Data will be kept private to the extent allowed by law.

The NCHS Privacy Act Coordinator and the NCHS Confidentiality Officer have reviewed this package and have determined that the Privacy Act is applicable because this study includes the collection of information in identifiable form. The applicable System of Records Notices are 09-20-0167 Health Resources Utilization Statistics (**Attachment V**) and 09-20-0164 Health and Demographic Surveys Conducted in Probability Samples of the U.S Population (**Attachment W**).

An assurance of confidentiality is provided to all respondents according to section 308 (d) of the Public Health Service Act (42 U.S.C. 242m(d)) which states:

"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...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.”

In addition, legislation covering confidentiality is provided according to the Confidential Information Protection and Statistical Efficiency Act or CIPSEA (44 U.S.C. 3561-3583), 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 this section, 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 subchapter, 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.”

Overview of the Data Collection System

The target universe of the NHCS is inpatient discharges, and patient visits made to EDs and OPDs of non-Federal, non-institutional hospitals with six or more beds staffed for inpatient use in the 50 states and the District of Columbia. An Introductory letter from the NCHS Director (**Attachment D**) along with a copy of the NHCS Overview Flyer (**Attachment E**) and a region and/or topic specific infographic flyer (**Attachments F-L**) are sent and followed by a telephone call from the contractor staff to verify hospital eligibility for the survey and to arrange for an appointment with the chief executive officer and/or whoever is designated as the coordinator for this survey.

For eligible hospitals selected into the survey, hospital-level data will be collected from hospital staff via a secure web portal, with any needed follow up conducted by telephone or mail. Participating hospitals are asked to submit EHR, UB-04 administrative claims, state file data, or Vizient data for all inpatient discharges and all ambulatory visits.

No potentially identifiable data will be released in any form to the public. Any data transmitted by a hospital to the contractor will be transferred through a secure data transfer system. Reports produced by NCHS about the data or using the data will not identify an individual hospital or an individual discharge/visit. Public use files will contain no information that can identify any individual or hospital. Restricted-use files may be accessed through the NCHS Research Data Center to allow linkage to other data sources.

Patient Items of Information to be Collected:

The following hospital-level data will be collected: survey eligibility criteria, service characteristics, expected number of visits, use of telemedicine at the hospital. Discharge-level and visit data collected includes data elements on the UB-04, state files, and from EHR data. These include patient demographics, diagnoses and procedures, source of payment information, charges, and information related to revenue codes. For hospitals submitting EHR data, additional variables include labs, medications, and clinician notes. A complete list of items collected can be found in Attachments M and N.

Information in Identifiable Form:

The NHCS will collect patient PII, also referred to as information in identifiable form. One example of the value of patient PII is that it allows linkage to the NDI, providing better information on outcomes of hospitalization. Collection of patient PII also allows for linkages (e.g., inpatient discharges with ED and OPD visits). In its approval of the NHCS, the NCHS Ethics Review Board agreed that this research could not be conducted practicably without access and use of patient PII. The availability of PII data items is dependent on the data source. Vizient does not include information that can be used to identify the patient. The list of requested PII includes the following 13 data elements for patients, one data item for physicians and four for hospitals:

Patient information:

1. Patient name
2. Birth date
3. Address
4. ZIP Code
5. Dates of admission and discharge
6. Date of visit
7. Procedure dates
8. Social security number (where available)
9. Medical record number (where available)
10. Patient control number
11. Medicare health insurance benefit/claim number
12. NPI (National Provider Identifier) number
13. Payer Name

Annual Hospital Interview (Attachment C):

14. Hospital name
15. Hospital address
16. Hospital telephone number
17. Contact name

Hospitals submit EHR data to the NCHS HEHR system and submit UB-04 claims, state files, and Vizient files to the sub-contractor's secure network. The purpose of the HEHR system is to provide the Division of Health Care Statistics the technical support it needs to implement the public health registry component of the NHCS and to support the receipt of data from eligible providers and hospitals in accordance with the PI Program rules. This includes, but is not limited to, planning, designing, developing, and maintaining the infrastructure necessary to operate the survey's registry portal to allow for registration of providers and hospitals that intend to participate in the survey and submit data. Upload interfaces via CDC's Secure Access Management Services (SAMS) and/or DIRECT secure messaging are included to allow for bulk upload of data through the registry portal. Uploaded data are then integrated, harmonized, and loaded into a data warehouse. An environment for testing and validation is now set up to allow for providers and hospitals to test the clinical data submitted.

SAMS provides a secure data transfer service along with a strong suite of security controls to host applications and exchange data between CDC programs and public health partners while providing a high level of data integrity, confidentiality, reliability, and security. This meets NCHS/CDC policies for data transmission via the Internet. Users accessing systems protected by SAMS are required to adhere to the identity verification and authentication requirements for the Electronic Authentication Assurance Level (EAAL) of the protected system. SAMS provides system monitoring on a 24/7 basis, data redundancy features, and disaster recovery features for select information systems. DIRECT is a national encryption standard for securely exchanging clinical health care messages/data via the internet. DIRECT provides strong security and privacy protection using a unified standard that all systems can leverage.

On receipt of the data within the HEHR system, all data considered PII, both direct and indirect, and non-PII will be loaded/saved to specially designated and configured file servers and database servers that are in accordance with the Confidential Information Protection Statistical Efficiency Act (CIPSEA). HEHR system servers are secured physical components that are only accessible by NCHS-designated staff. All direct PII data containing personal identifiers (e.g., name, address, phone number, SSN, etc.) will be loaded onto separate files in separate secure sub-shares and specifically designated tables that will be encrypted. The strictest access controls will be in place for all PII data. The indirect PII data will also be loaded onto the specially designated secure sub-shares and tables. However, these will have different access controls than the direct PII data. Non-PII data (or public use files) will be downloaded onto the specially designated and configured NCHS/DHCS separate secure CDC network sub-shares. The HEHR system will communicate with Consolidated Statistical Platform (CSP) (another CIPSEA compliant system) primarily for analytic purposes.

A website dedicated to NHCS (<http://www.cdc.gov/nchs/nhcs.htm>) describes the survey, answers frequently asked questions, describes how the Privacy Rule permits data collection for the NHCS, and provides a link to the participant page (<http://www.cdc.gov/nchs/nhcs/participant.htm>).

The collection of information in identifiable form or PII requires strong measures to ensure that private information is not disclosed. Data will be held confidential according to Section 308(d) of the Public Health Services Act (42 U.S.C.242m) and CIPSEA (44 U.S.C. 3561-3583). All NCHS employees as well as contract staff receive appropriate training and sign a “Nondisclosure Agreement.” Staff of collaborating agencies are also required to sign this statement. The transmission and storage of data are protected through procedures such as encryption and carefully restricted access. No PII data are shared with researchers. Only NCHS employees and agents who need the personal information for linking to various databases may use such data. Everyone else who uses NHCS data may do so only after all identifiable information is removed.

The NHCS data will be made available via public use data files to the public. Confidential data are never released to the public. All PII such as hospital name and address, patient date of birth, and any other specific information are removed from the public release files. All data releases are reviewed by the NCHS Disclosure Review Board to avoid data breaches and mitigate disclosure risks, such as release of detailed geographic information that may allow anyone to identify hospitals, practices, or individuals in the general population.

NCHS has one contractor conducting NHCS activities, including recruitment and data collection and processing. The contractor selected for NHCS is required to provide a comprehensive data security plan (DSP) to NCHS to ensure safety and confidentiality of the NHCS data. The plan follows the structure and guidelines established by the National Institute of Standards and Technology (NIST; 800-series)² for meeting the requirements of the Federal Information Security Management Act (FISMA).³ The DSP complies with all relevant laws, regulations, and policies governing the security of data and the protection of confidentiality, including the Privacy Act of 1974 (5 USC 552a), section 308(d) of the Public Health Service Act (42 U.S.C. 242m) and the Confidential Information Protection and Statistical Efficiency Act of 2018 (CIPSEA; 44 U.S.C. 3561-3583)). The DSP considers all known data security and confidentiality protection risks. However, our approaches and specific procedures will evolve as we identify new data security threats and implement improved practices. The DSP will be updated as needed with more detailed, process-oriented data security protocols. Information technology products and systems will comply with the FISMA regulations and supporting NIST guidelines (NIST Special Publication (SP) 800-60).

11. Ethics Review Board (ERB) and Justification for Sensitive Questions

The NHCS data collection plan has been approved by the NCHS Ethics Review Board (ERB) (Protocol #2021-01; **Attachment O**) based on 45 CFR 46. In its recent review, the NCHS Human Subjects Contact determined that the new protocol #2021-01 NHCS is a public health surveillance activity under the 2018 requirements of the Common Rule (45 CFR 46.102(l)(2)). Since NHCS is now considered a surveillance project, HIPAA explicitly permits sharing of PII with a public health authority authorized by law to collect or receive the information for the purpose

² See <http://csrc.nist.gov/sec-cert/ca-compliance.html>.

³ See <http://csrc.nist.gov/policies/FISMA-final.pdf>.

of preventing or controlling disease, injury, or disability without a waiver; therefore, justifications for waiver of informed consent are not necessary. As of March 27, 2024, the current approval for the NHCS data collection plan continues to be valid (**Attachment U**).

For each hospital in the NHCS sample, the recruitment contractor sends an introductory letter (**Attachment D**) an overview flyer (**Attachment E**), and a region and/or topic specific infographic flyer (**Attachments F-L**) to the hospital administrator addressed from the Director of NCHS. The letter describes the purpose of the survey, states that participation is voluntary, and all information is kept confidential, and highlights the benefits of participation. The overview flyer then further describes protections to and confidentiality of participants: the collected information that would allow identification of individual hospitals or patients is not shared with anyone, and public use data files will only be available on the NHCS website once individually identifiable information is removed. The legal authority for NHCS data collection is Section 306 of the Public Health Service Act (42 U.S.C. 242k).

The NHCS collects PII. These PII elements have been cleared in a prior approval of this package (OMB # 0920-0212, Exp. Date 12/31/2024). One example of the value of PII is that it allows linkage to the NDI and other data sources, providing better information on outcomes of hospitalization. Collection of PII also allows for linkages between inpatient discharges and ED and OPD visits. The list of requested items considered to be sensitive includes the following eleven data elements on patients and one data element for physicians:

Patient:

1. Name
2. Birth date
3. Address
4. ZIP Code
5. Dates of admission and discharge (for the inpatient discharges and ED visits)
6. Visit dates (for ED and OPD visits)
7. Procedure dates
8. Social security number (where available)
9. Medical record number (where available)
10. Patient control number
11. Medicare health insurance benefit/claim number

Physician:

12. NPI (National Provider Identifier) number

Patient name and social security number are currently collected as PII included in the NHCS. To accurately link patients to the NCHS NDI, at least two of the following fields are required: valid SSN, valid date of birth (month, day, and year) or complete name (first name, middle initial, and last name). States vary on whether they require the social security number on the UB-04 administrative claims. Although linkages could be made to the NDI without the SSN, researchers planning to use the NDI are encouraged to collect or compile as many of the NDI data items as

possible. For more information on the linked NDI data, see the web link at: <https://www.cdc.gov/nchs/data-linkage/nhcs-ndi.htm>.

Linking NHCS data to the CMS Medicare MBSF data also requires at least two of the following fields: valid SSN, valid date of birth (month, day, and year) or complete name (first name, middle initial, and last name). For more information about the linked NHCS and CMS data refer to the web link: <https://www.cdc.gov/nchs/data-linkage/CMS-Medicare-Restricted.htm>.

Birth date will be converted to age by the contractor during processing. This is done to minimize error that can be introduced by doing this manually in the field at the time of data collection. This is especially important in going across centuries and for newborns in going across years. Age is (of course) very important to analyze because of its relation to health conditions and treatments which vary by age.

Patient address and ZIP Code of residence are required to link data from the U.S. Census Bureau. It is well known that health status and the use of health services vary considerably by social economic status (SES). Those with lower income and less education, for example, are generally in worse health and sometimes have reduced access to medical care compared to others. It is therefore important to be able to use NHCS to track the use of hospital care by SES. Unfortunately, measures of an individual's SES, such as family income or education level, are not routinely recorded in medical records. Geocoding complete patient addresses to the Census tract or block group level and using Census measures of area SES at these levels will yield reasonable proxies for individual-level SES (Krieger et al., 2002).⁴

Dates of admission and discharge are essential to calculate days of care, which are needed to measure total inpatient days in the United States and to measure average length of stay. Trends in both measures are critical to assessing changes in the health care system. For example, they may reflect factors associated with new Federal programs and policies, such as the implementation of payment changes or laws that regulate the early discharge of mothers and newborns. With precise dates in hand, NCHS can calculate days of care per discharge regardless of the number of days in a month, leap years, or other nuances.

Procedure dates are necessary, in conjunction with admission and discharge dates, to determine the timing of procedures within a hospitalization. Procedure dates were previously collected as part of NHDS and helped provide a much clearer picture of a surgical patient's hospital course than would otherwise be available. For example, without procedure dates, a patient who dies from a severe post-operative infection many days after a planned surgery may look identical to a patient who is rushed to the operating room many days into a hospitalization for an emergency procedure and dies in the operating room. Procedure dates provide crucial data for researchers in many areas, including the measurement of complications, medical errors, and risk-adjusted outcomes of hospitalizations.

⁴ www.hsph.harvard.edu/thegeocodingproject/webpage/monograph/publications.htm

The retention of the medical record number will allow the collection of a single patient's data from several sources within a hospital, such as the medical record, laboratory records, hospital billing records, emergency department, ambulatory department, and ambulatory surgery locations. This will provide access to more comprehensive and detailed clinical information, as well as additional outcomes and quality measures.

Patient control number is a required element on the UB-04 (not in an EHR) and is assigned to patients for billing purposes. Along with the medical records number, the patient control number can be used to link to other data sources in the hospital, particularly billing records. Medicare health insurance benefit/claim number is another piece of protected health information included in NHCS. CMS is in the process of collecting data from hospitals on the quality of care that is provided to each patient admitted to any Medicare certified hospital who has one of a particular set of diagnoses. For example, for all cases of pneumonia, Medicare would collect data on whether each patient admitted received antibiotics within 4 hours of presentation.

The National Provider Identifier (NPI) is a unique identifier for healthcare providers. It is a required data element on the UB-04 and is often available through an EHR. This data element allows for linkage of physician specialty information to the individual patient's care.

Information linking provider identifiers to their characteristics (e.g., specialty, provider age) is also available from CMS for research purposes at: <https://nppes.cms.hhs.gov/NPPES/>.

12. Estimates of Annualized Burden Hours and Costs

A. Burden Hours

Data on burden are shown in Table 1. The total sample size for the 2025-2027 survey will consist of approximately 601 hospitals. Hospital interviews will be conducted by contractor staff.

The first part of recruitment includes a one-time Initial Hospital Intake Questionnaire (**Attachment P**) that is administered over the telephone to verify the hospital's eligibility. This intake questionnaire is conducted on all new hospitals and takes 1 hour to complete. Since at least 230 hospitals have already been recruited under the previous clearance, at most 371 hospitals remain for a total of 123 annualized burden hours (371 respondents/3 years) over the course of three years. No changes have been made to this instrument since the last approval was granted.

We anticipate that newly sampled hospitals or non-responding hospitals with new management may require additional information about participating in the survey and a one-hour survey presentation has been designed for them in the form of a Recruitment Survey Presentation. This will represent another 30 annualized hours (90 respondents/3 years) over

the course of the three-year clearance. As needed, the presentation (**Attachment Q**) will be used to complement the telephone recruitment. The presentation takes 1 hour to complete.

Hospitals will be asked to transmit UB-04 administrative claims data, state file, and Vizient files monthly or EHR data on a quarterly basis for all records and claims, both inpatient and ambulatory. It is estimated that this will take one hour per hospital per submission to prepare and transmit the data file. It is estimated that ACEP will provide data for up to 55 sampled non-responding hospitals. Data received from ACEP does not burden the sampled hospital. We estimate about 200 hospitals would submit EHR data, and the remaining hospitals (356) that are not yet ready to send EHR data would transmit their UB-04 claims, state file or Vizient file. This represents 4,272 annualized hours for hospitals submitting UB-04 claims or a state file and 800 annualized hours for hospitals sending EHR data (**Attachments R and S**).

Each participating hospital of the 601 will be asked to complete an Annual Hospital Interview (AHI) (**Attachment C**) that will be conducted via a web portal. This 1-hour interview collects annual statistics needed for weighting both the inpatient and ambulatory data which include hospital characteristics such as total numbers of admissions, total visits, discharges, and live births; therefore, non-respondents will also be asked to provide this information. Additionally, the interview collects information about telemedicine usage in the healthcare setting. The COVID-19 questions have been removed from the AHI. The total burden is 601 hours.

The total annualized burden is 5,826 hours.

Table 1. Estimated Annualized Burden Hours

Respondents	Form Name	Number of Respondents	Number of Responses per Respondent	Avg. Burden per Response (in hours)	Total Burden Hours
Hospital DHIM or DHIT	Initial Hospital Intake Questionnaire (Att P)	123	1	1	123
Hospital CEO/CFO	Recruitment Survey Presentation (Att Q)	30	1	1	30
Hospital DHIM or DHIT (Prepare and transmit UB-04 or State File for Inpatient and Ambulatory)	Monthly Transmission of UB-04 Data (Att R)	356	12	1	4,272
Hospital DHIM or DHIT (Prepare and transmit EHR for Inpatient and	Quarterly Transmission of EHR Data (Att S)	200	4	1	800

Ambulatory)					
Hospital CEO/CFO	Annual Hospital Interview (Att C)	601	1	1	601
TOTAL					5,826

B. Burden Costs

The average response burden cost for the NHCS is estimated to be \$238,278. The hourly wage estimates for the Director of Health Information Management and the Hospital CEO/CFO were based on ZipRecruiter⁵⁶

Table 2. Estimated Annualized Burden Costs

Type of Respondent	Form Name	Total burden hours	Hourly Wage Rate	Total Respondent Costs*
Hospital Director of health information management	Initial Hospital Intake Questionnaire	123	\$37.00	\$4,551
Hospital CEO/CFO	Recruitment Survey Presentation	30	\$73.00	\$2,190
Hospital Director of health information management	Prepare and transmit UB-04, State File, or Vizient file for Inpatient and Ambulatory	4,272	\$37.00	\$158,064
Hospital Director of health information management	Prepare and transmit EHR for Inpatient and Ambulatory	800	\$37.00	\$29,600
Hospital CEO/CFO	Annual Hospital Interview	601	\$73.00	\$43,873
Total		5,826		\$238,278

*Hospitals will be compensated for their participation as described in Section 9 and this table does not include those costs.

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

None. No additional respondent capital and maintenance costs are incurred by NHCS reporting because all hospital purchases of equipment or services are made for reasons other than to provide information or keep records for the government and are part of their usual or customary business practices.

⁵ <https://www.ziprecruiter.com/Salaries/Health-Information-Manager-Salary--in-Maryland>

⁶ <https://www.ziprecruiter.com/Salaries/Hospital-Chief-Executive-Officer-Salary#:~:text=As%20of%20Jan%2021%2C%202024,be%20approximately%20%2472.74%20an%20hour.>

14. Annualized Cost to the Government

The estimated total average annual cost of the NHCS to the government will be \$7.7 million. NCHS has begun using the infrastructure at CDC to collect, process and store data collected from the NHCS.

Average Annual Costs for the NHCS Annualized Over Three Years

NHCS 2025-2027	
Data collection contract	\$6,400,000
NHCS Project Staff salaries	\$1,300,000
Total	\$7,700,000

15. Explanation for Program Changes or Adjustments

The currently approved burden is 7,184 hours, and the proposed burden for the NHCS is 5,826 hours per data collection year. Because additional sample hospitals have been recruited for NHCS since the last approval request, fewer hospitals still need the initial two steps of recruitment. The result is a reduction of the annualized number of hospitals receiving the Intake Questionnaire (13 hours) and Recruitment Survey Presentation (106 hours). Additionally, with the inclusion of data submitted by ACEP the number of hours decreased for submission of UB-04 (624 hours). The removal of the COVID-19 questions also reduced the length of the Annual Hospital Interview (615 hours). This results in a net decrease of 1,358 burden hours.

16. Plans for Tabulation and Publications and Project Time Schedule

NHCS data will be published in the same or similar publications as the NHDS and NHAMCS data. Data from the NHDS and NHAMCS have been published annually as NCHS *Vital and Health Statistics Series 1* reports, *National Health Statistics Reports*, *NCHS Data Briefs*, web tables and dashboards, articles in professional journals, and other special reports. Special reports on utilization trends, specific diagnoses, selected patient and hospital characteristics, source of payment, prescribing trends, and methodology are also published in various NCHS reports or journal articles. Data from the NHCS will be presented separately for inpatient discharges, visits to EDs and OPDs and also combined in reports.

Data Files:

NHCS datasets are available to researchers through the NCHS Research Data Center (RDC). To date, the NHCS 2013-2016 and 2019-2021 unweighted data files with restricted access information are available through the RDC. Preliminary 2020, 2021, 2022, and 2023 NHCS data used in the dashboard reporting on COVID-19 data and drug use-associated hospital encounters from selected hospitals are also available in the RDC. Additionally, there is a supplemental file for the 2016 data available in the RDC that includes information on encounters identified as

opioid-involved and opioid overdose. The file also includes information on 13 specific types of opioids identified in the data. NCHS has been able to expand the analytic utility of NHCS data by linking it with vital and administrative records. As such, the following linked files are also available through the RDC:

Linked files for 2014 include:

- 2014 NHCS data linked to 2014-2015 National Death Index (NDI) data;
- 2014 NHCS Data linked to the 2014-2015 NDI and to the 2014-2015 Drug-Involved Mortality (DIM) Data; and
- 2014 NHCS data linked to 2014-2015 CMS Medicare Master Beneficiary Summary File (MBSF).
- 2014 NHCS data linked to 2013-2015 U.S. Department of Housing and Urban Development (HUD) housing assistance data.

Linked files for 2016 include:

- 2016 NHCS data linked to 2016-2017 NDI data;
- 2016 NHCS data linked to 2016-2017 CMS Medicare MBSF, Claims/Encounters, and Assessment data; and
- 2016 NHCS Data with Enhanced Opioid-Identification linked to the 2016-2017 National Death Index (NDI) and to the 2016-2017 Drug-Involved Mortality (DIM) Data.
- 2016 NHCS Data with Enhanced Identification of Co-occurring Disorders among Opioid-involved Hospital Encounters
- 2016 NHCS data linked to 2015-2017 CMS Medicaid Transformed Medicaid Statistical Information System (T-MSIS) claims data
- 2016 NHCS data linked to VA administrative data through September 20, 2020
- 2016 NHCS data linked to 2015-2017 HUD housing assistance data

Linked files for 2019-2020 include:

- 2019 and 2020 NHCS Data Enhanced Identification of Opioid-Involved Encounters
- 2019 and 2020 NHCS Data with Enhanced Identification of Co-occurring Disorders among Opioid-involved Hospital Encounters

NCHS provides downloadable annual public-use data files through the FTP file server. The public use files contain information collected on the total number of inpatient discharges and ED/ OPD visits for the sampled hospitals y. To facilitate trend analysis, multi-year public use files provide multiple years of inpatient data in a standard format with standard definitions across survey years. The first public use files (inpatient and ED visits) for NHCS (2020) were made available in 2024.

In the meanwhile, CD-ROMs for 1970-78 and 1979-2007 in ASCII format are currently available to the public, and 2008-2010 data are available for downloading from the NHDS website. Data on visits to ED for 1992-2021 and to OPDs for 1992-2011 are also currently available for downloading from the NHAMCS website.

Publications and Presentations:

NHCS staff continue to publish publications using NHCS data. Since the last clearance, staff have published papers on pneumonia deaths and hospitalization (<https://www.cdc.gov/nchs/data/nhsr/NHSR167.pdf>), opioid-involved encounters with co-occurring disorders (<https://www.cdc.gov/nchs/data/nhsr/nhsr173.pdf>), opioid-involved deaths (<https://www.cdc.gov/nchs/data/nhsr/nhsr187.pdf>), rare diseases (<https://doi.org/10.1016/j.jval.2022.04.1734>), and maternal morbidity (<https://www.cdc.gov/nchs/data/nhsr/nhsr166.pdf>). These papers illustrate how NHCS can track patients through settings in the sampled hospital and how these data can be linked to the NDI to measure post-discharge mortality outcomes. Additionally, several papers compare numbers between NHAMCS and NHCS illustrating their data similarities.

NCHS staff have demonstrated the capabilities of NHCS data through posters and presentations at various conferences and forums. This includes presentations on producing national estimates and redesigning the annual hospital interview at the 2023 Federal Committee on Statistical Methodology (FCSM) Research and Policy Conference; the impact of COVID-19 among patients with gout at the 2023 International Conference on Health Policy and Statistics; COVID-19 impact on mental health, substance use disorders and co-occurring disorders at the 2023 Society for Epidemiologic Research; alcohol use among ED patients during COVID-19 pandemic and emerging public health trends at the 2023 AcademyHealth Annual Research Meeting; NHCS data dissemination at the 2023 NIH Library Webinar Series; congestive heart failure hospitalizations at the 2021 International Conference on Establishment Statistics in June; development of the enhanced opioid-identification algorithm at the 2022 NIDA Annual Steering Committee Meeting; implementation of natural language processing and medical codes at the 2022 Academy Health Annual Research Meeting and AI for Health Equity 2022 Symposium; linking mortality data at the 2022 American Medical Informatics Association Annual Symposium and implementation of the NHCS COVID-19 dashboard at the 2022 Joint Statistical Meeting.

A complete list of reports and presentations using NHCS data are available on the NHCS Data Uses webpage: https://www.cdc.gov/nchs/nhcs/data_uses.htm.

In the future, staff will continue to present NHCS data at meetings and conferences of professional organizations, such as the AcademyHealth, Joint Statistical Meetings, National Association of Health Data Organizations, National Rural Health Association, American College of Emergency Physicians, Society for Academic Emergency Medicine, National Nurses Research Roundtable, American Telemedicine Association (ATA), the HRSA Office for Advancement of Telehealth Research Directors Meeting, American Academy of Physician Associates/Assistants, ONC Public Health Data Standards Task Force, Federal Committee on Statistical Methodology, and American Medical Informatics Association, These presentations deal with specific aspects of the survey or special analyses of survey data.

Conferences attended either to promote or conduct outreach for the NHCS since the last clearance include: the American Academy of Physician Associates/Assistants 2022 AAPA-PAEA

Research Seminar Series, 2022 American Telemedicine Association (ATA) Annual Conference & Expo, AcademyHealth Annual Research Meeting, National Nurses Research Roundtable, NIH Library Webinar Series,, Federal Committee on Statistical Methodology Research and Policy Conference, and the American Medical Informatics Association Annual Symposium.

Dashboards:

Additionally, NHCS data has been leveraged to develop data visualization tools, including dashboards, that display tabulated data. These interactive dashboards provide insight on health conditions and diseases within the health care setting, such as the impact of COVID-19 within the hospital setting and hospital encounters associated with drug use. Since the last clearance, the following dashboards have been published using NHCS data:

[COVID-19 Data from Selected Hospitals Dashboard containing data from March 2020 to current](#)

[Drug Use-associated Hospital Encounters Data from Selected Hospitals Dashboard from January 2020 thru current.](#)

Timelines:

This clearance request covers three years, 2025-2027, of data collection. The data collection and analysis processes will be ongoing. Based on prior experience as well as activities currently underway, the following is a projected data collection schedule for 2025 and beyond.

Hospital recruitment	Ongoing
Continue transmission of monthly UB-04 data, state file, or Vizient file.....	immediately after OMB approval
Transmission	
2025 EHR data:	
• 1 st Quarter.....	3 months after OMB approval
• 2 nd Quarter.....	6 months after OMB approval
• 3 rd Quarter.....	9 months after OMB approval
• 4 th Quarter.....	12 months after OMB approval
End of electronic data collection.....	12 months after OMB approval
First tabulations from the 2025 electronic data.....	20 months after OMB approval
Public use file (if sufficient data collected to make national estimates).....	20 months after OMB approval

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

The OMB expiration date will be displayed.

18. Exceptions to Certification for Paperwork Reduction Act Submission

The certifications are included in this submission.