

**National Emergency Medical Services Information System (NEMSIS) – State Submission  
to National EMS Database  
OMB CONTROL NO. 2127-0717**

**A. JUSTIFICATION**

**1. Explain the circumstances that make the collection of information necessary.**

The U.S. Department of Transportation, National Highway Traffic Safety Administration’s (USDOT/NHTSA) Office of Emergency Medical Services (OEMS) pursuant to its authority under 23 U.S.C. 401, et seq., supports national programs and products designed to provide ongoing development and enhancement of emergency medical services (EMS) systems at the State and local level. Highway Safety systems across the country depend on effective and timely post-crash emergency medical, and trauma care. The nation’s EMS systems are designed to provide effective emergency medical care for those injured in motor vehicle crashes and other medical emergencies. OEMS convenes leaders and experts to establish best practices with the goal of unifying the EMS community to improve patient care through effective EMS systems.

*Background reasons for the Information Collection:*

The Emergency Medical Services Agenda for the Future (NHTSA, 1996) articulated the critical need for EMS data. In October 2001, the General Accounting Office published a Report entitled: “Emergency Medical Services – Reported Needs are Wide-ranging, With Growing Focus on Lack of Data (GAO-02-28). This report identified the need for consistent information to: (1) improve EMS performance at the local level, (2) set and monitor national level policy, and (3) improve the ability to assess EMS outcomes.

NHTSA, in cooperation with the Health Resources and Services Administration (HRSA), funded a Cooperative Agreement with the National Association of State EMS Directors (NASEMSD) to develop a National EMS Information System (NEMSIS). It was the intent of NASEMSD that this much more comprehensive and sophisticated approach to standardizing EMS Patient Care Reporting across the country, through NEMSIS, would much better serve local, state level and national level EMS information needs. This new effort would be a huge step forward from the original 1994 Uniform Prehospital EMS Data Standard (Version 1) that only had 81 data elements and no mechanism for collecting the information nationally. As a result of that Cooperative Agreement, NASEMSD developed and finalized a NHTSA Uniform Prehospital, (Version 2), a comprehensive Data Dictionary, and a physical database schema mapped to the NEMSIS dataset, with XML linkage. This was an important first step in standardizing EMS patient care documentation nationwide.

To begin implementation of NEMSIS across the country, NHTSA, in 2005, funded the NEMSIS Technical Assistance Center (TAC), through a Cooperative Agreement with the University of Utah, School of Medicine. In 2010, NHTSA awarded a second five-year Cooperative Agreement to the University of Utah. In 2015, NHTSA awarded a two-year “transition contract” to the University of Utah to maintain the NEMSIS program.

*DOT Strategic Goal supported by this information collection:*

The National EMS Information System (NEMSIS) serves NHTSA's safety goals by improving care through the standardization, aggregation, and utilization of point-of-care data at the local, State and national levels. Local and state-level EMS data, when linked with state crash data and corresponding hospital data, will aid NHTSA and FHWA in meeting requirements to identify a standardized approach to measuring serious injury resulting from motor vehicle crashes. The national level EMS data will also provide emergency care information that can augment information available through FARS, and other NHTSA databases. NHTSA also has the responsibility to maintain National Education Standards for the various levels of EMS providers, including Emergency Medical Technicians and Paramedics. The national EMS database is important to identify changes in clinical protocols, medications to be administered, and other factors that impact these Education Standards over time.

*Information to be collected:*

Through the TAC NHTSA, supports the development of a National EMS Information System to provide a first-ever standardized EMS patient care reporting mechanism, that would provide essential information leading to improved EMS patient care at the local, state and national levels. The information collected at each level supports EMS research that continues to inform EMS practice. The information being collected at the national level is a subset of the data already being collected for use by the local EMS operational programs. The national level contains no personally identifiable information (PII) and is descriptive of the EMS services and systems across the country. It is the vision of OEMS that EMS systems nationwide will collect and make meaningful use of all relevant data to ensure the best possible patient outcomes.

**2. Explain how, by whom, how frequently, and for what purpose the information will be used. Indicate actual use of the information received from the current collection.**

NEMSIS data is collected by EMS practitioners while caring for ill or injured patients in the out-of-hospital setting. Data for each EMS response are recorded into an electronic patient care reporting system either at the scene of an emergency, or at the health care facility receiving the patient. This service level data is validated against a series of rules established by the software vendor, EMS agency and the NEMSIS TAC to ensure data quality and reliability. Once the data has been validated at the service level it is exported to the State repository where it undergoes a second series of validation prior to being stored for use by the State for surveillance, research and quality improvement. The National EMS Database is comprised of select (non-PII) data exported from the States, housed at the NEMSIS TAC and made available for public dissemination. Public access is either by request through NHTSA and/or the NEMSIS TAC or through the NEMSIS Public Access Cube made available through the NEMSIS dashboard.

The data available through NEMSIS is utilized by a broad range of stakeholders including the EMS community, State EMS agencies, healthcare researchers (EMS, public health, trauma-related, hospital and others), public stakeholders and the Federal government.

- Local emergency services agencies utilize data from the service and state data repositories daily to monitor performance, conduct patient billing, maintain medical oversight and measure system performance.
- Researches (e.g., EMS, public health, medical) use NEMSIS data when appropriate to conduct studies related to the delivery of emergency services.

- Public Health personnel may monitor data from the local and state data repositories on a real-time basis for the purposes of syndromic surveillance.
- Hospitals and Specialty Centers utilize data collected from EMS practitioners daily when receiving patients at their facilities.
- NHTSA utilizes data from the NEMSIS national EMS dataset to supplement the FARS Fatality Analysis Reporting System (FARS), National Automotive Sampling System (NASS), and other highway safety databases. The CDC maintains a “data hub” with the most recent Public Access Data Cube for researchers to use when pertinent to their study.

The frequency of which data is utilized varies depending on need. At the local and state levels data could be monitored minute-to-minute where as a state agency may track operational metrics on an hourly, daily or weekly basis. The timely availability of national NEMSIS data is dependent upon the State submitting data. Currently 43 States submit data to NEMSIS in almost real time. On average, it takes about 13 minutes from the time a paramedic hits complete on the record, to the time it arrives at the State and national data base. The delay is that some services only submit data to their State incrementally (e.g. every 30 days). Given the diversity of data export practices throughout the country it is almost impossible to specifically how many times the NEMISS system will be utilized.

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.**

The NEMSIS data system is an electronic system, based upon a common XML structure for data sharing that every state and every software vendor has adopted. States purchase or develop software that accepts data from local EMS providers using the common XML structure via web services. Thus, data are sent to states from local EMS agencies via a “machine to machine” export on a schedule preprogrammed into the web services product (frequency of submission differs based on state regulations – some agencies automatically send data every few days, others submit every minute).

A portion of the submitted electronic data, from every data submission sent to the state, is automatically copied and exported to the National EMS repository at the NEMSIS TAC. These exports of data are also done via web services (“machine to machine”) on a schedule via web services. For example, Alabama schedules web services to submit data to the NEMSIS TAC every four hours. Nebraska currently programmed their web services to submit data to the NEMSIS TAC every minute. The NEMSIS TAC tests EMS software products for compliance to the common XML and to a common web services platform. Thus, every product that is NEMSIS-approved, receives and submits data using parameters on a computer screen, but varies from product to product.

**4. Describe efforts to identify duplication.**

NEMSIS represents the only successful national effort to standardize Emergency Medical Services patient care data. This system was requested by the National Association of State EMS

Officials. The agency is not aware of any other sources of this information. This collection will not duplicate similar data or other information accessible to the agency.

**5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.**

This collection of information involves electronic submissions from the fifty States and six territories and/or their respective software vendors. It does not involve small businesses or other small entities.

**6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.**

The Emergency Medical Services system in this country is quite dynamic. If the NHTSA Office of EMS is going to be effective in supporting ongoing improvements in EMS, this national EMS information is critical. Also, if the information is not collected, and the National EMS Database is not maintained, it may jeopardize the whole NEMSIS program, at all levels. This will have a negative impact on the states and could negatively impact NHTSA and Federal Highway Administration (FHWA) by reducing their ability to accurately measure serious injuries resulting from motor vehicle crashes. Also, NHTSA, other Federal agencies, researchers, and the public will not be able to access this national data to inform important safety initiatives and other identified needs.

Approval to commence the information collection is desired by the end of the 60-day period that OMB has to review and act upon each submission. Timely review and approval will maintain the currently planned project schedule to receive the available state-level EMS data to populate the national EMS database.

**7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines:**

- **Requiring respondents to report information to the agency more often than quarterly;**
- **requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
- **requiring respondents to submit more than an original and two copies of any document;**
- **requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;**
- **in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- **requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
- **that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- **requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to**

**protect the information's confidentiality to the extent permitted by law.**

**If one or more of the following applies, please explain in complete detail.**

The information collection is consistent with the guidelines set forth in 5 CFR 1320.6 except that that information is collected more often than quarterly. NEMSIS data is collected by EMS practitioners, recorded into an electronic patient care reporting system that automatically exports data from the State data repository to the National EMS dataset on a near real time basis. NEMSIS data is used for measuring patient outcomes, monitoring system performance and illness/injury surveillance daily, collecting data on a quarterly basis would not provide timely information.

**8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments.**

A Federal Register notice published on 02/01/2019 (84 FR 1269), Docket Number: NHTSA-2019-0001. One response was received from the International Association of Fire Chiefs (IAFC), supporting NEMSIS, describing the system as an “extremely valuable tool to gather and analyze EMS-related information from fire and EMS agencies across the United States.”

**9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.**

No payment or gifts will be offered to state reporting entities involved in this process.

**10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.**

The NEMSIS Technical Assistance Center negotiates Data Use Agreements with each state, in accordance with Health Insurance Portability and Accounting Act (HIPAA) guidelines, to assure protection of the data the state submits to the National EMS Database. There is no PII involved in any of the data submitted nationally. As described, this program will utilize a secure web-based, data collection process. As a part of adopted program policies and procedures, data reported by each state will only be released as part of a publicly accessible national reporting system that does not specify states. In addition, NHTSA has received official designation from DHHS, as a “Public Health Authority” pursuant to HIPAA. This authorizes NHTSA to collect this information from the states and Territories, through the current Contractor.

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.**

The questions in this information collection do not relate to information that is commonly considered private or of a sensitive nature.

**12. Provide an estimate in hours of the burden of the collection of information**

Respondents include one representative from each State, populated Territory and the District of Columbia. The Individual Burden for each of the 56 respondents is 18 hours per year. It is estimated that each respondent will spend an additional 1.5 hours per month ensuring a subset of data from the existing State Dataset is transmitted to the National Dataset.

Total burden hours are estimated based upon ongoing electronic submissions from each respondent, with machine to machine transmittal. NHTSA estimates that this information collection will involve 56 respondents spending approximately 18 hours providing information for NEMSIS. Therefore, the total annual burden estimate is 1,008 hours.

NHTSA estimated the Total annual burden cost using is estimated based on the total average compensation costs for State, Territorial and local government workers of averaged at \$50.55 per hour as reported by the Bureau of Labor Statistics in December 2018. Therefore, the total cost associated with the 1,008 burden hours is \$50,954.

**Table 1: Estimated Burden Hours**

	<b>Number of Respondents</b>	<b>Frequency of Responses</b>	<b>Number of Questions</b>	<b>Estimated Individual Burden</b>	<b>Total Estimated Burden Hours</b>	<b>Annualize Cost associated with burden<sup>1</sup></b>
	56	Annually	N/A	18 hours	1008.00	\$909.90
<b>Totals</b>			N/A	18 hours	1008.00 hours	\$50,954

**13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).**

This represents ongoing electronic submissions from each State, with machine to machine transmittal. There are no additional anticipated costs to respondents or record keepers, beyond what they have already set up to meet their own State needs for this information.

**14. Provide estimates of annualized cost to the Federal government.**

The costs of this data collection to the Federal government are included in the contract for operation of the NEMSIS Technical Assistance Center at an annual cost of \$2,000,000. This contract also covers vendor compliance testing, maintenance of National EMS Reporting System, and many other tasks. Currently, there are no other costs to the government related to this information collection.

<sup>1</sup> Estimated based on the total compensation costs for State, Territorial, and local government workers averaged \$50.55/hour, as reported by Bureau of Labor Statistics in December 2018, [https://www.bls.gov/news.release/archives/ecec\\_03192019.pdf](https://www.bls.gov/news.release/archives/ecec_03192019.pdf), last accessed July 2, 2019.

**15. Explain the reasons for any program changes or adjustments.**

This is a reinstatement without change in the total estimated burden hours (1,008 hours). However, the total annual cost to respondents is expected to increase from \$44,302 to \$50,954, an increase of \$6,652. This increase is due to using updated compensation costs information from the Bureau of Labor Statistics.

**16. For collections whose results will be published, outline the plans for tabulation and publication.**

Aggregate EMS data for the country will be available in the National EMS Database and through the on-line National EMS Reporting System. National data does not reflect the State or locality of the EMS incidents origin, and there is no personally identifiable information (PII) included in the National EMS Database. In addition, Annual Public Release Research Datasets consisting of all data collected within the previous calendar year are made available to researchers.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.**

NHTSA is not seeking such approval.

**18. Explain each exception to the certification statement.**

There are no exceptions.