



EMS UPDATE

FALL 2012

Emergency Medical Services

By the Numbers: *National EMS Assessment* Provides Unique Benchmarks

It's been nearly a year since the initial release of the *National EMS Assessment*, the first attempt to comprehensively capture and describe national information about EMS, EMS preparedness and 911 systems. Some 200 different areas of interest were investigated, ranging from statistics about emergency vehicles to EMS system characteristics to sudden cardiac arrest to EMS workforce safety.

Funded by NHTSA, the effort was sponsored by the Federal Interagency Committee for EMS (FICEMS) which charged the project team with creating a statistical description of EMS activities and capabilities in the U.S. using only existing sources of data. Four data sources were identified for use in the *National EMS Assessment*:

- NHTSA's National EMS Database maintained by the National EMS Information System Technical Assistance Center (NEM-SIS TAC) provided extensive information describing EMS service and patient care through the 2010 EMS data submitted by the 30 participating states.
- The National Association of State EMS Officials (NASEMSO) provided the most complete and current EMS data source representing all 50 states and four of the six U.S.

Continued on page 2

News from NHTSA

Dear Colleague:

Each fall, the National Highway Traffic Safety Administration's Office of EMS provides this EMS Update about a number of projects developed and implemented in collaboration with our Federal partners, EMS and 911 stakeholder organizations and the National EMS Advisory Council, and with the support of many talented emergency care professionals across the nation. We are especially pleased that several of our Federal colleagues have also contributed program updates.

In addition, we are happy to announce that we will soon distribute our new e-mail newsletter, NHTSA's EMS Update: *Your Connection to the Office of EMS*. In coordination with our redesigned website at www.ems.gov, this email version of our regular newsletter will allow us to provide brief updates in a timely fashion, and will also serve to further connect the Office of EMS to the input, thoughts and feedback of the EMS and 911 communities. To ensure you have the latest information from the Office of EMS, please sign up at ems.gov to receive email regarding news, events and announcements.

We appreciate your thoughts and feedback and encourage you to contact our staff with questions or suggestions. I would also be pleased to hear from you.

Thanks so much for all you do to improve EMS every day.

Drew Dawson, Director,
NHTSA Office of EMS

Contents

Future of Education	3
National EMS Culture of Safety Update	3
NEMSIS Q & A	4
NEMSAC News	6

News from the 911 Program Office	7
AACN Use for 911 and EMS	8
National Collection of EMS Worker Injury Data	9
Federal Update	10

territories through an extensive membership assessment known as the NASEMSO 2011 EMS Industry Snapshot. Although the EMS Industry Snapshot was not part of the National EMS Assessment Project, NASEMSO released the data for use and analysis.

- The Emergency Medical Services for Children (EMSC) program of the Health Resources and Services Administration provided data on performance measures for pediatric emergency care.
- The 2007 EMSC Indian Health Services Tribal EMS Pediatric Assessment provided data from 75 of the 88 Tribal EMS Services on pediatric EMS capacity in tribal lands.

EMS by the Numbers:

A sample of 8 statistics from the *National EMS Assessment*:

- 36,698,670 EMS events (responses) occurred in the U.S. in 2009
- There were 826,111 credentialed EMS professionals (24% paramedic)
- 66% of the workforce was male
- 81,295 EMS vehicles
- 21,283 credentialed agencies
- 11% of states were able to track their number of EMS dispatchers
- 6% of states knew the average cost and reimbursement for a 911-based EMS ground transport
- 1 State EMS Office tracked EMS on-the-job injury data

Over the past year, researchers, state EMS directors, EMS managers and EMS practitioners have had the opportunity to review the assessment, to compare to their own experience and to use it in benchmarking their state EMS agency or individual service to national statistics. Cathy Gotschall, NHTSA's Office of EMS liaison for the project, says that while the benchmarks provided by the assessment are a critical first step, "finding the mechanisms to create a sustainable, ongoing assessment process that allows the evaluation of trends" is an important area of exploration for the office. Currently the Office of EMS is also looking at ways of providing slices of information from the 550-page report that focus on the 12 topic areas.

(Note: The project lead investigator was Greg Mears, MD, who at the time headed the University of North Carolina's EMS Performance Improvement Center, which was awarded the contract by NHTSA, following a competitive application process.) ■

The 12 Areas Covered by the National EMS Assessment:

- 1) EMS System Demographics
 - Agencies or Services
 - Professionals
 - Vehicles
 - Tribal EMS
- 2) EMS System Governance
 - Regulatory Perspective
 - Regulatory Responsibility
 - State EMS Offices
- 3) Human Resources
 - Professional Licensure
 - EMS Professional Demographics
 - Workforce Health and Safety
- 4) Medical Direction
 - State EMS Medical Direction
 - Local EMS Medical Directors
- 5) Education Systems
 - Recognized EMS Levels
 - Continuing Education
 - Initial Education
- 6) EMS Information Systems
 - Protection of EMS Information
 - Electronic Healthcare Records
 - Local EMS Data Systems
 - State EMS Data Systems
 - National EMS Database
 - Performance Improvement
 - Research
 - Federal Disaster Programs
 - EMS Disaster Preparedness Components
 - EMS Disaster Preparedness Capability
 - EMS Specialty Service Capability
- 7) Communications
 - Communications Capability
 - Interoperability
 - Communication and Data
- 8) Public Access and Public Education
 - 911 Access and Coverage
 - Wireless 911
 - Emergency Medical Dispatch
- 9) Clinical Care
 - EMS Care Capability
 - EMS Events
 - Patient Types (Cardiac Arrest, Trauma)
 - Barriers to Patient Care
 - EMS Patients
- 10) Prevention and Expanded EMS Roles
 - EMS Workforce Safety
 - EMS and Injury Prevention
 - Expanded EMS Roles
 - Expanded EMS Practice Settings
- 11) Emergency Specialty Care Facilities
 - Regionalization
 - Critical Access Hospitals
 - Emergency Departments
 - Specialty Centers
- 12) EMS System Finance
 - State EMS Funding
 - Local EMS Funding

Useful Link: www.ems.gov/assessment.htm

For Education Agenda, Back to the Future?

NHTSA is taking a fresh look at the *EMS Education Agenda for the Future*. The Education Agenda is designed to improve the consistency of education and competency of entry-level EMS personnel. Published in 2000, the *Education Agenda* laid out a strategy for improving entry-level EMS education in the nation. It includes:

- National EMS Core Content — A comprehensive list of knowledge and skills defining the domain of prehospital EMS, as developed by emergency physicians
- National EMS Scope of Practice Model — Defines EMS personnel levels and their entry level knowledge and skills, as developed by system regulators
- National EMS Education Standards — The entry-level learning objectives for each level of personnel, as developed by educators
- National EMS Education Program Accreditation — Ensures the ongoing quality and consistency of EMS instruction, as done by a single nationally recognized accreditation agency
- National EMS Certification — Provides a consistent evaluation of recognized EMS personnel entry-level competencies, as done by a single nationally recognized certification agency

NHTSA's first official action was to ask the National EMS Advisory Council (NEMSAC) to discuss the *EMS Education Agenda for the Future: A Systems Approach*. NEMSAC is comprised of nationally renowned EMS representatives and consumers and is a valuable forum for the development and consideration of information from a knowledgeable and independent perspective. It has provided advice and recommendations concerning EMS to NHTSA since 2007. (See an article on NEMSAC and its work on page 6.)

NEMSAC took advantage of its March 2012 meeting to host a roundtable discussion with the EMS community on their experiences with implementation — focusing on lessons learned and solutions to challenges they faced. According to Dave Bryson, a NHTSA EMS specialist, one of the topics that arose was whether the EMS community would want NHTSA to revise the Education Agenda. Another issue that inspired much discussion was whether accreditation and certification should or could be done by one entity, as supported in the Education Agenda, or whether those functions could be open to competition.

While NEMSAC is considering all of the information gathered during the roundtable and asking a series of questions about the future of the Education Agenda, NHTSA remains fully committed to implementing the current Education Agenda.

Although no specific date has been set for the delivery of the NEMSAC recommendations to NHTSA, their recommendations are expected in 2013. “At this point in time, NEMSAC is considering all the comments and what was learned at the roundtable, compiling the information and considering recommendations for NHTSA,” Bryson says. ■

National EMS Culture of Safety Strategy Takes Shape

The National EMS Culture of Safety Strategy recently completed a second round of public input and will soon be presented to the National EMS Advisory Council (NEMSAC) for review. The project, which stems from a top priority recommendation made by the NEMSAC, is being produced under a cooperative agree-



Creating a Culture of Safety in EMS focuses on the safety of the provider and the people served or in contact with the provider.

ment between NHTSA and the American College of Emergency Physicians (ACEP), with support from the Health Resources and Services Administration's (HRSA) EMS for Children (EMSC) Program.

EMS practitioners are exposed to unpredictable hours and stressful working conditions, so it is no surprise that EMS is identified as a high-risk industry. According to national statistics,

Continued on page 4

EMS practitioners are more than two and a half times more likely to be killed on the job than the average worker, and their transportation-related injury rate is five times higher than the average worker. The risk extends beyond EMS personnel to their patients and the community.

The National EMS Culture of Safety Strategy project seeks to answer questions of how to create a culture in the EMS community which focuses on the safety of the provider and the people served or in contact with the provider. In an organization with a strong safety culture, members beliefs, practices and behaviors that relate to safety and will result in less risky behavior, fewer mistakes, reduced injuries and fewer adverse outcomes. Safety-enhancing habits can include making sure that everyone's seat belts are buckled or checking twice to ensure no medication errors are made. But just as important, a true culture of safety is one in which the entire organization, including top levels of leadership, make safety a priority. In such an environment, individuals are empowered and expected to speak up about safety concerns without fear of reprisal, regardless of their rank or seniority.

The project began in September 2010 and the final strategy document is scheduled for release in September 2013. It is structured as a three-year effort to allow for the direct involvement of the EMS community through participation by national EMS organizations and as members of a project Steering Committee. In addition, 21 other EMS organizations as well as Federal partners, EMS media and the public are invited to participate.

National stakeholder meetings seeking input from the Steering Committee and the general public were held in June 2011 and June 2012 in the Washington, D.C., area. Working drafts of the document were released for public comment. Currently the Steering Committee is preparing a fourth draft for review by the NEMSAC. It will then go to NHTSA for a final review before being officially released in fall 2013.

The project was commissioned with a strategic focus on changing EMS culture. Accordingly, it is not a hands-on safety manual. Still, the strategy is designed to establish an agenda to address the safety of the individual practitioner, the patient and the community EMS encounters in the course of its work.

For more information, visit www.emscultureofsafety.org or contact David Bryson at david.bryson@dot.gov. ■

The National EMS Information System, commonly known as NEMSIS, provides the framework for collecting, storing and sharing standardized EMS patient care data from states nationwide. It's a critical step toward establishing an ongoing source of useful data for developing and evaluating EMS systems. But there's more to NEMSIS than meets the eye. Read on to learn more about the benefits this robust system holds for EMS.

What's the purpose of NEMSIS?

Since its infancy, EMS has faced a scarcity of prehospital patient care data to support effective decision-making. Local EMS systems have had access to varying amounts of data, but rarely in a common format that would allow leaders to make valid comparisons to other systems. NEMSIS was designed to provide a uniform national EMS dataset, with standard terms, definitions and values, along with a national EMS database containing aggregated data from all states for certain data elements.

How does NEMSIS work?

In a nutshell, EMS providers in all states create patient care reports electronically using NEMSIS-compliant software. This creates a standardized, transportable data record, regardless of the agency's software vendor. As a result, both the quality of the data and the speed with which it can be transmitted are improved.

Next, agencies transmit a portion of their data into a state database. Because of the standardized format, states can analyze the data and draw reliable conclusions from it, and can share findings with local EMS agencies and other states. Participating states then transmit a smaller subset of their data to the National EMS Database, where it is available for EMS stakeholders, researchers and public use.

Who makes sure everything works as designed?

The NEMSIS Technical Assistance Center (TAC) helps states develop their State EMS Information Systems and submit their data to the National EMS Database. The TAC also helps software vendors become compliant with NEMSIS standards. In addition, the TAC is responsible for working with EMS stakeholders to develop the dataset and collection standards, and it creates reports using the national dataset and provides reporting tools for state and local systems.

What is NEMSIS 3.0?

It's not unusual for databases to be upgraded every five to seven years. Currently, most states submit data to the National EMS Database using NEMSIS version 2.2.1, which was implemented beginning in 2005. Since then, the medical community has learned a great deal about treating conditions such as stroke, ST-segment elevation myocardial infarction (STEMI), trauma and out-of-hospital cardiac arrest. NEMSIS version 3 brings a host of additional data elements related to these and other conditions, and improves on existing elements. It also introduces new built-in validity checks (for example, automatically flagging errors such as a "pregnant" male patient). A total of 574 possible elements are included in version 3, with 166 identified as National Elements. Not all these elements are collected on every call. A number of states are scheduled to begin submitting data to the National EMS Database using NEMSIS version 3 beginning in 2013.

Version 3 is also an important step toward harmonizing EMS data with patients' electronic health records at the hospital, reflecting the importance of EMS in the care of the patient. This is being achieved by aligning NEMSIS with Health Level Seven International (HL7), a standards development organization that provides a framework and standards for electronic health information (such as emergency department data). Meeting HL7 standards is an important step to incorporating NEMSIS into the electronic patient care record, creating a seamless record of all patient care.

Version 3 of NEMSIS will further provide EMS stakeholders at the local, state and national levels with the information necessary to accurately assess EMS needs and performance today and plan strategically for tomorrow.

What is the connection between NEMSIS and EMS billing?

NEMSIS was originally developed in a way that would meet Centers for Medicare and Medicaid Services (CMS) requirements for patient condition codes. These codes are one of the primary ways that payers determine the level at which an EMS agency will be reimbursed for transporting a patient. For example, exactly how an injury happened or whether a patient has multiple injuries may influence if EMS will be reimbursed for basic life support or advanced life support.

The standardized data that NEMSIS provides can also support faster and more efficient billing. CMS and other payers require

(or, in some cases, may prefer) receiving claims electronically. NEMSIS allows an EMS agency to submit, support and defend claims using standardized, uniform data, and give carriers the information they need to process payments quickly.

How much data is available in the National EMS Database, and how is it accessed?

The 2010 NEMSIS Public Release Research Dataset includes almost 10 million EMS events submitted by 31 states and territories during 2010. The Public Dataset does not contain information that identifies patients, EMS agencies, receiving hospitals or reporting states.

Data, national reports and data tools can be accessed via: www.nemsis.org/reportingTools/requestNEMSISData.html

What can the data be used for?

One of the most valuable benefits of NEMSIS is the standardization of data at the individual patient level (i.e., within the patient care report itself). For example, one thing that is standardized in NEMSIS is the concept of elapsed time. Because of this standardization, a clinician looking at a patient's records can see a number for, say, response time, or "PSAP call-to-definitive care transfer" time, and know exactly what that number means.

Of course, the data generated through NEMSIS can be also used at the local, regional, state or national level, with the confidence that standardization brings. This is enormously beneficial to researchers, as well as to state and local EMS officials seeking to identify performance improvements or to set priorities for education.

Having data collected in compliance with a national standard also holds benefits for EMS agencies in communicating with local officials. Looking at uniform data elements allows these agencies to benchmark their own data against their neighbors, their state and the entire nation. This can allow agencies to support requests for the resources they need. ■

Useful Links

www.ems.gov/NEMSIS.htm

www.nemsis.org

www.hl7.org

NEMSAC Formalized by Congress

Until recently, the National EMS Advisory Council (NEMSAC) was a “discretionary” advisory council established by the Secretary of Transportation. Under a provision of the transportation and highway funding reauthorization bill, known as MAP-21, Congress established NEMSAC, by law, as a statutory advisory council. The statute directs the Secretary of Transportation to establish the council in coordination with the Secretaries of Health and Human Services and Homeland Security.

The creation of a statutory NEMSAC by Congress helps to ensure the NEMSAC’s continuity. The new law requires the council to advise and consult with the Secretary of Transportation and the Federal Interagency Committee on EMS (FICEMS) thus solidifying these relationships.

“The statutory designation will serve to strengthen the role of formal public input to our efforts at NHTSA,” says Noah Smith, EMS specialist at the Department of Transportation, who serves as NHTSA’s staff for the council. “The EMS community should be proud of the National EMS Advisory Council and



NEMSAC has made specific recommendations to improve EMS, focusing on enhanced data collection and usage, safety of providers and patients, as well as how different reimbursement models may allow for system improvements.

their significant contribution to the ongoing and future efforts of our office.”

In June, the Secretary of Transportation appointed 25 members to a new two-year term on the council. For this most recent round of appointments, the Secretary received more than 85 applications for the sectors represented on the committee.

Applicants included members applying for another term and those wanting to join for the first time. Selected members represent different sectors of EMS, such as volunteer, fire, hospital-based, air medical, research, 911 communications, emergency management and others.

Of the 25 recent appointees, 13 are returning to serve another two-year term and 12 are first-time representatives. “New members bring new ideas and experiences to the council and a new dynamic,” says Smith, “and the returning members bring institutional knowledge and awareness about how the NEMSAC works, how it best functions and lessons learned.” Information on the appointees, the sectors they represent and brief biographies are available at www.ems.gov/nemsac.htm.

The NEMSAC held its first meeting with the new appointees in late August and NHTSA and its Federal partners had an opportunity to share with members their approaches to supporting EMS throughout the nation. NEMSAC members each had a chance to note their top priorities for the council; common themes heard from the members will help to set the agenda for the council for the coming years.

Looking back over the last two years of work by the NEMSAC, the council has made a number of exemplary contributions, Smith notes. He mentions three examples: First is the review of data, how data inform the quality of the care provided by EMS and the evidence of the clinical care provided. They’ve done a very good job, he says, of providing NHTSA with recommendations regarding the use of evidence-based guidelines and the use of NEMSIS data in research and performance measurements.

The second area, Smith says, is safety of providers and patients. NEMSAC continues to advise the Culture of Safety Strategy project, which is being completed through a cooperative agreement with the American College of Emergency Physicians and HRSA’s EMS for children. The Culture of Safety Project emerged from a recommendation from NEMSAC.

The third area is EMS finance and reimbursement policy, with NEMSAC examining how different reimbursement models may allow for improvements in system design and outcomes. “We are excited about all of the work NEMSAC has completed over the past two years and are encouraged by their focus on having the right data to foster changes in system design, clinical protocols, education, safety and reimbursement,” Smith notes. “We believe that strong data should serve as the foundation for the progress that EMS systems will make over the next several years.” ■

Options for 911 Legislation Released

National 911 Program Prepares Release of Guidelines for State NG911 Legislative Language

The 911 system has provided emergency response capabilities for more than 40 years, but the traditional system cannot fully address the new communication capabilities made possible by wireless phones, Voice over Internet Protocol (VoIP), telephony and broadband. The 911 community and its colleagues in EMS, fire and law enforcement agree that the 911 system must be upgraded from the current analog, circuit-switched technology to a digital, Internet protocol-based infrastructure to meet the future needs of the public for 911 response.

Many existing laws, regulations and tariffs specifically reference traditional 911 technologies, which may inhibit the implementation of Next Generation 911 (NG911). Current 911 laws vary dramatically from state to state and deficiencies in 911 governance, inadequate funding models and non-inclusion of new technologies must be addressed before NG911 can be implemented.

Each state faces unique challenges in implementing NG911. However, in an effort to coordinate and support the transition, the National 911 Program has worked with local, regional, state and federal stakeholders, private industry representatives and advocacy associations to develop “Guidelines for State NG911 Legislative Language.”

While the guidelines are not a one-size-fits-all approach to state 911 legislation, it represents ideal yet generic legislative language that can be customized to address the unique needs and challenges of each state. The guidelines highlight an inventory of NG911 transition issues and model legislative language a state can adopt to address these matters.

The “Guidelines for State NG911 Legislative Language” will be available this fall at www.911.gov. Additionally, the National Conference of State Legislatures (www.ncsl.org) has created an online, searchable database containing 911 legislation introduced in 2012. NCSL has also compiled a list of 911 legislation enacted during 2011. Both are available at the NCSL website to help stakeholders chart the progress of all new 911 legislation across the states. ■

Useful Links:

www.911.gov

www.ncsl.org/issues-research/telecom/ncsl-911-database.aspx

Statewide 911 Assessment Guideline Pilot Project: Delaware

Building on the success of the State EMS Assessment program coordinated by NHTSA’s Office of EMS, the National 911 Program has conducted the first statewide 911 System Assessment in a pilot effort with Delaware.

The goal of a statewide 911 assessment is to focus on the operational capabilities of a statewide 911 system, based on a set of objective benchmarks.

“The 911 Assessment Program can provide state 911 systems with fresh peer input regarding their operational, rather than technical capabilities,” says Laurie Flaherty, manager of the National 911 Program.

The goal of an assessment team is to provide information that will help a state:

- Improve 911 services
- Educate decision-makers
- Provide information to facilitate changes in legislation, obtain funding and secure necessary staff and training

For more than two years, the staff of the National 911 Resource Center—under an agreement with NHTSA and with broad input from the 911 community—has developed a set of 74 guidelines and an assessment handbook, which form the basis for the state 911 system assessment process. In April 2012, a pilot of the assessment process was conducted with the approval of the Delaware State E911 Board.

The process included more than 12 hours of briefings from the state 911 stakeholder representatives and a PSAP visit — both providing the opportunity for the assessment team and 911 stakeholders to speak directly with each other. The assessment team then sequestered and deliberated completing a consensus assessment and recommendations report, which was presented to representatives of Delaware’s statewide 911 system.

Speaking of the assessment process and resulting report, Terry Whitham, the Delaware E911 administrator noted that:

- The assessment report is a valuable tool to help the state improve its 911 system
- The results confirmed the Delaware State E911 Board’s previous knowledge, and the comments and ratings were not a surprise

Continued on page 8

- The report provided the state with the information it needed to begin implementing changes for which it had already identified the need
- It was valuable for peers from other states to provide Delaware with their expert opinions
- The Delaware State E911 Board did not feel the assessment was a report card, but rather a tool, and the guidelines were not forcing unfunded mandates

Since the completion of the Delaware pilot program, a number of states have expressed interest in participating on an assessment team and inviting a team to assess their states 911 systems. Tools, such as the 911 Assessment Handbook, will be available at the national 911 Resource Center (www.911resourcecenter.org).

Becky Berger, Montana's 911 Program manager, who served on the pilot assessment team, says that prior to this effort, she intended to use the assessment guidelines to perform a self-assessment in her state. However, after participating in the process, Berger says she discovered the significant added value of peers interacting with the state 911 system's representatives as part of an in-person exchange.

"I would like to see our state require an assessment be performed every five years," says Whitham. "This would provide ample time to work on areas for enhancing our operations and stay on the cutting edge in providing the best 911 services to the people we serve." ■

NHTSA Explores Automatic Crash Notification Use For EMS and 911

This year, NHTSA announced a new project to assess the awareness and educational needs of EMS and 911 medical directors for



AACN data can be used to potentially reduce mortality and morbidity rates by optimizing the use of EMS resources for improved triage of seriously injured crash victims.

the adoption and use of advanced automatic crash notification (AACN) data for dispatch and triage protocols.

AACN data can be used to potentially reduce mortality and morbidity rates by optimizing the use of EMS resources for improved triage of seriously injured crash victims. The appropriate use of AACN data in 911 center and EMS protocols requires an understanding of the potential use of available data and the connection between crash kinematics and the resulting injury severity.

Currently, public safety experts including organizations such as the National Academies of Emergency Dispatch, Association of Public-Safety Communication Officials and the National Emergency Number Association, have or are developing protocols and policies for the use of AACN data obtained directly from the vehicle, as well as through calls from third parties, such as the telematics manufacturer call centers.

This project will assess the current knowledge level of AACN across 911 and EMS medical directors, EMS providers and 911 communication centers and will result in the creation of a comprehensive strategy to provide EMS and 911 medical directors the information needed to incorporate AACN data into response protocols.

Advanced automatic crash notification systems collect a vehicular emergency data set, which is an XML-based standard for reporting collision data and medical data as related to the collision. AACN data has the potential to decrease death and disability rates by:

- Predicting the likelihood of serious injury to the vehicle occupants
- Decreasing response times by prehospital care providers
- Providing additional information for assessment of field triage destination and transport decisions
- Decreasing time to definitive trauma care

The project includes an assessment of the current status of AACN and its potential utility to emergency responders, the current use of AACN data for EMS response, and the role of the medical director in developing EMS and 911 protocols and incorporating the use of real-time data into those protocols. The project also includes an examination of existing educational programs that address the educational needs related to the connection between injuries and crash kinematics and injuries and the use of AACN data in dispatching appropriate resources in performing optimal patient triage.

Information gathering and presentations about the project will take place at the NASEMSO 2012 and NAEMSP 2013 conferences. ■

National Collection of EMS Worker Injury Data

An important issue identified in the EMS Workforce Agenda for the Future is the need for a provider-safety initiative designed to produce data describing on-the-job injury risks of EMTs or paramedics. To address this issue NHTSA partnered with the National Institute for Occupational Safety and Health (NIOSH) to collect data on nonfatal, emergency department treated injuries to EMS workers. This data collection effort uses NIOSH's occupational supplement to the National Electronic Injury Surveillance System (NEISS-Work). The Consumer Product Safety Commission (CPSC) administers the core NEISS and facilitates collection of NEISS-Work.

NEISS-Work captures all emergency department treated occupational injuries from a national sample of 67 hospitals. Data are abstracted from the emergency department medical records. There are no constraints on the type of injuries captured, resulting in data from a variety of injuries including needlesticks, back injuries, and falls. NHTSA is providing funding to NIOSH to administer a detailed telephone interview survey to EMTs, paramedics and firefighter EMTs who are captured in the NEISS-work database. This survey collects information not found in the medical record about the EMS worker, the injury, the treatment received, and the circumstances of the injury.

NIOSH will analyze the collected telephone interview data to describe the most common injuries among EMS workers as well as the circumstances surrounding those injuries. To date, NIOSH has collected data for almost two years. When four years of data are available, sufficient information will exist for the analysis to be statistically valid. The completed information will be disseminated to the EMS community. Currently, results of the NEISS-Work EMS worker data abstracted from medical records can be found at www.cdc.gov/niosh/topics/ems/. ■

Two New Public Health Fellows on Board

The Office of EMS gained two new Association of Schools of Public Health (ASPH) fellows. NHTSA has an agency-wide ongoing relationship with the ASPH — which administers public health fellowships in government — and is fortunate to have to add new public health fellows annually. Fellows are recent graduates of the masters in public health, or related programs, who want to gain federal government experience. The fellowships run between one to three years, and bring such specialties as epidemiology, biostatistics and health-care policy to the agency.

Recently an Office of EMS public health fellow organized a well-attended webinar for county and state public health officials across the country on the topic of using NEMSIS for disease surveillance. It was an important introduction for this audience on what NEMSIS is, what it means to collect standardized data from

your EMS patients throughout the country and how to use that data to track the spread of disease in their state or region. ■

Electric Vehicle Crash Guidelines

The NHTSA is committed to ensuring the highest standards of safety on our nation's roadways. To better protect consumers and the public safety community from the potential risk of fire and other hazards related to vehicles that have been involved in a motor vehicle crash, NHTSA has developed "Interim Guidance for Electric and Hybrid-Electric Vehicles Equipped with High Voltage (HV) Batteries."

Developed with the assistance and expert input of the National Fire Protection Association, the Department of Energy and others, the interim guidance for electric and hybrid-electric vehicles identifies appropriate post-crash safety measures for vehicle owners and the general public, emergency responders and for towing and recovery operators and vehicle storage



NHTSA-developed guidelines identify post-crash safety measures for vehicles equipped with high-voltage batteries.

facilities. The guidelines are published at www.evsafetytraining.org/Resources/~/media/Files/PDFs/NHTSA%20Interim_Guidance_ELECTRIC%20and%20HYBRID%20VEHICLES.pdf. ■

Data-Driven Decision Making

Completed this summer, the Evidenced-Based Guidelines (EBGs) Pilot Project demonstrates the importance of using data to inform decision making around developing and testing protocols. NHTSA funded this project through a competitive procurement awarded to the Children's National Medical Center in Washington, D.C. Researchers there developed two evidence-based protocols for EMS systems, one for pre-hospital pain management

Continued on page 12

Federal Roundup

Federal Partners Contribute to NHTSA's Work

There is a significant and collaborative Federal interagency effort to improve emergency medical services. The Federal Interagency Committee on EMS (FICEMS) shows how government agencies with an interest in EMS can come together to share their expertise and resources.

FICEMS was established in 2005 by Congress to ensure coordination among federal agencies involved with state, local, tribal and regional EMS and 911 systems. The FICEMS membership is made up of representatives from the Department of Transportation, Department of Health and Human Services, Health Resources and Services Administration, Centers for Disease Control and Prevention, Centers for Medicare and Medicaid Services, Indian Health Services, Department of Homeland Security, U.S. Fire Administration, Department of Defense, Federal Communications Commission and an appointed state EMS director, currently from the Maryland Institute for Emergency Medical Services Systems.

Administrative support is provided by NHTSA in cooperation with the Departments of Health and Human Services and Homeland Security. FICEMS identifies ways to streamline the process through which federal agencies support EMS and a method for Federal EMS interagency coordination across the U.S. government.

FICEMS has accomplished important work on pandemic flu preparation, evidence-based guidelines and EMS research gap analysis. It continues vital activities on national EMS assessment, EMS preparedness and pilot testing of model evidence-based guidelines.

For more information on FICEMS, its working group and its ongoing projects, please contact Drew Dawson at the NHTSA Office of EMS. ■

EMS for Children Promotes Special Medical Attention

EMS for Children (EMSC) was authorized in 1984 to ensure that all acutely ill and injured children, regardless of where they live, get high quality and timely pediatric emergency care. The program seeks to ensure that pediatric considerations are integrated into the overall EMS system. EMSC operates under the Health Resources and Services Administration, Maternal and Child Health Bureau within the Department of Health and Human Services.

EMSC provides funding to 49 states, 5 territories and D.C. through its State Partnership program to create the operational capacity for pediatric emergency care. The program has developed baseline performance measures on pediatric medical direction, pediatric equipment for ambulances, hospital recognition systems and interfacility transfer. Grantees are also encouraged to integrate EMSC priorities into legislation.

The program also funds two resource centers: The National EMSC Data Analysis Resource Center assists grantees with developing state level capacity to collect and analyze EMS data; the EMSC National Resource Center provides technical assistance, resources and implementation and dissemination assistance to all grantees.

EMSC also funds the Pediatric Emergency Care Applied Research Network, which provides the leadership and infrastructure needed to promote multi-center studies, support research collaboration among EMSC investigators and encourage informational exchanges between EMSC investigators and providers. The program consists of six centers that represent 18 emergency departments nationally, which handle more than a million pediatric emergency department visits annually.

The program also funds Targeted Issue grants which seek to improve pediatric emergency care by conducting pilot studies to improve the science and evidence base, providing national models for quality improvement or systems development or developing national resources to improve care delivery. For more information on these grants visit [www. http://childrensnational.org/EMSC/GrantPrograms/Targeted_Issues.aspx](http://childrensnational.org/EMSC/GrantPrograms/Targeted_Issues.aspx). ■

EMS for Children Announces New Program to Promote Regionalized Care

EMS for Children announced a new program this summer titled "State Partnership Regionalization of Care" (SPROC). This initiative is designed to develop regionalized systems that encompass the sharing of resources and improve access to pediatric health-care services for children and families in tribal, territorial, insular and rural areas. The SPROC program intends to develop Models of Inclusive Care that can be replicated in other regions where access to specialized pediatric medical treatment is limited. In the first round, the Health Resources and Services Administration released \$1.2 million to support grants from six state agencies and institutions. The proposal recipients and their initiatives are detailed at www.childrensnational.org/files/PDF/EMSC/GrantPrograms/2012-SPROC-Grant-Recipients.pdf. ■

National Pediatric Readiness Project

The EMSC Program is working with several national organizations to coordinate the National Pediatric Readiness Project. This is a multi-phase quality improvement initiative to ensure that all U.S. emergency departments have the essential guidelines and resources in place to provide effective emergency care to children. The first phase of this project will be a national assessment of emergency departments' readiness to care for children.

The primary purpose of this project is three-fold: to establish a composite baseline of the nation's capacity to provide care to children in the emergency department, to create a foundation for emergency departments to engage in an ongoing quality improvement process that includes implementing the national Guidelines for the Care of Children in the Emergency Department and to establish a benchmark that measures an emergency department's improvement over time.

For more information, visit www.pediatricreadiness.org ■

The Importance of EMS to Fusion Centers

The Office of Health Affairs (OHA), located within the Department of Homeland Security (DHS) is the gateway to EMS for DHS activities. DHS is also charged with protecting our citizens, infrastructure and way of life by preventing, deterring and protecting against all hazards and by responding to threats and hazards to the nation. DHS, through OHA, focuses on collaborating effectively with the EMS community within the Federal government and with partners within state, local, tribal and territorial governments, the private sector and international arenas for information sharing.

OHA, in partnership with the DHS Office of Intelligence and Analysis, is continuing to educate the EMS community about how fusion centers operate to further enhance information sharing between fusion centers and the EMS community. Fusion centers are owned and operated by state and local entities with support from Federal partners and staffed primarily by state and local partners. Fusion centers serve as focal points for the receipt, analysis, gathering and sharing of threat-related information among all levels of government. All first responders and first receivers on the frontline can play a major role in gathering and sharing such information.

These efforts are designed to further educate the EMS community on fusion centers and related programs and how to engage with these partners. DHS in coordination with its interagency partners is working with fusion center and EMS stakeholders to enhance EMS engagement with fusion centers.

There are many resources already developed that provide guidance for first responders, including the fire service, public health and emergency management to work with fusion centers and create an effective information-sharing environment. DHS is developing a one-page document for the EMS community to highlight the importance of engaging and sharing information with fusion centers. This resource is a product of a three-day work group with representatives from fusion centers and the EMS community. DHS expects the resources to be available next year. For more information, please contact HealthAffairs@dhs.gov. ■

Office of the Assistant Secretary for Preparedness and Response

The Department of Health and Human Services (HHS) has formed a new Trauma, Emergency Medicine, and EMS (TEEMS) Working Group to coordinate activities through HHS and better support the emergency-care system.

Gregg Margolis, director of the Division of Health Systems and Health Care Policy, says the creation of TEEMS, chaired by Nicole Lurie, M.D., HHS assistant secretary for Preparedness and Response (ASPR), is an agency-wide working group charged with coordinating HHS activities regarding emergency care. The goal of the group is to develop a strategic focus for the agency's emergency care-related activities. TEEMS will foster a more responsive government and develop opportunities for HHS components to better serve the EMS, emergency medicine and trauma communities.

In other news, ASPR supported the Association of State and Territorial Health Officials to develop coping and mitigation strategies for states, hospitals and EMS agencies facing shortages of critical emergency medications. This is a current challenge facing many in the EMS community and throughout the medical profession.

ASPR also recently stepped up to help after learning some hospitals and emergency departments were refusing responders access to health information about transport patients for quality improvement purposes. After an investigation, HHS provided EMS organizations a letter noting that hospitals can share patient information for quality improvement purposes. This effort comes at a time when the EMS community has realized the importance of tracking and analyzing data to improve performance and safety. ■

HHS Announces 81 Health Care Innovation Awards, Including EMS Agencies

In June, Health and Human Services (HHS) Secretary Kathleen Sebelius announced the recipients of 81 new Health Care Innovation Awards made possible by the Affordable Care Act. The awards

Continued on page 12

and the other for the utilization of helicopter EMS systems. The investigators then developed training materials for field providers for pain management protocol and it was pilot tested in Maryland.

EBGs are the product of a scientifically rigorous process in which multidisciplinary expert panels systematically review existing information and develop guidelines that can be used to develop EMS protocols. EBGs may result in recommendations that show “the way we’ve always done things” may not be the best way. After reviewing the collected evidence, it may be revealed that there is a more effective and efficient way to manage pain or decide when it is appropriate to call for a helicopter. The patient and the EMS community are best served by using the best evidence available in implementing best practices.

FICEMS and NEMSAC endorsed the National Evidence-Based Guideline Model Process, reflecting the broad-based interagency support for EBG development and implementation throughout the EMS community. An article describing the EBG Model Process was published in the February 2012 issue of the *Journal Academic Emergency Medicine*; manuscripts describing the development of specific guidelines are being developed. This project demonstrates to states and localities how existing data is the backbone of decision making — without it, evidence-based guidelines can’t be developed. As NEMSIS is fully implemented, its data can be incorporated into the EBG process to improve the quality of EMS throughout the country. When available, the published articles on EBG will also be published at www.ems.gov. ■

will support innovative projects nationwide designed to deliver high-quality medical care, enhance the health-care workforce and save money. Combined with the awards previously announced, HHS has awarded 107 projects that, according to awardees, intend to save the health-care system an estimated \$1.9 billion over the next three years.

“Thanks to the health-care law, we are giving people in local communities the resources they need to make our health-care system stronger,” says Sebelius.

Three of the projects involve emergency medical services. One of the awards was made to the Regional Emergency Medical Services Authority (REMSA) in Nevada. Along with the Renown Medical Group, the University of Nevada, the Reno School of Community Health Sciences, the Washoe County Health District and Nevada’s Office of Emergency Medical Services, REMSA will be establishing a new non-emergency phone number for Community Health Early Intervention Teams that will help people get fast and appropriate care, reduce unnecessary hospitalizations and lower costs.

The Center for Medicare and Medicaid Innovation within CMS will administer the awards through cooperative agreements over three years. For more information on the awards, go to www.innovations.cms.gov/initiatives/innovation-awards/project-profiles.html. ■

NHTSA OFFICE OF EMS

Drew Dawson, Director
202-366-9966
drew.dawson@dot.gov

David Bryson, EMT
202-366-4302
dave.bryson@dot.gov

Laurie Flaherty, RN, MS
202-366-2705
laurie.flaherty@dot.gov

Cathy Gotshall, ScD
202-493-0143
cathy.gotshall@dot.gov

Susan McHenry, MS
202-366-6540
susan.mchenry@dot.gov

Cynthia McNair
202-366-5440
cynthia.mcnaire@dot.gov

Gamunu Wijetunge, NREMT-P
202-493-2793
gamunu.wijetunge@dot.gov

Noah Smith, MPH, EMT
202-366-5030
noah.smith@dot.gov

Hector Williams
202-366-0446
hector.williams@dot.gov

Ellen Schenk, MPH
202-366-1512
ellen.schenk.ctr@dot.gov

Angela Fowlkes, MPH
202-366-2673
angela.fowlkes.ctr@dot.gov

Mirinda Gormley, MPH
202-366-5598
mirinda.gormley.ctr@dot.gov

ADDRESS

National Highway Traffic Safety Administration
Office of Emergency Medical Services
1200 New Jersey Avenue SE., NTI-140, W44-325
Washington, DC 20590
Phone: 202-366-5440 Fax: 202-366-7149
E-mail: nhtsa.ems@dot.gov Web: www.ems.gov

To order EMS publications, click on “Order Materials” on the homepage of EMS.gov.



U.S. Department of Transportation
National Highway Traffic Safety Administration