



EMS UPDATE

Inaugural Issue
March 2006

Emergency Medical Services

WELCOME

Welcome to the inaugural issue of EMS Update. NHTSA's EMS program presents this newsletter to keep you up-to-date on our most current programs, projects, and products. The *EMS Update* replaces our Liaison Report with a new, more readable format. We plan to produce full reports of our activities twice a year, and provide you with an in-depth look at specific programs and projects in shorter issues several times a year. As we launch this new publication, we welcome your feedback, and hope you will find *EMS Update* to be a valuable resource. Enjoy!

THE OFFICE OF EMERGENCY MEDICAL SERVICES

The National Highway Traffic Safety Administration is pleased to announce the creation of the Office of Emergency Medical Services (EMS). Recognizing the consistent and long-standing contribution of the EMS program and its increasing responsibilities created by Congressional actions, NHTSA elevated the stature of the EMS Division to match its expanding role, effective February 6.

NHTSA and its predecessor agency have taken the lead in Federal support of national Emergency Medical Services systems development since 1966. NHTSA has always held that an EMS system, ready every day for every emergency, is the best preparation for response to all medical emergencies as well as catastrophic events. Numerous programs and products, including *The EMS Agenda for the Future*, the Next

Generation 9-1-1 Initiative, the *National EMS Education Agenda for the Future: A Systems Approach*, the National Research Agenda, and the National EMS Information System (NEMSIS) demonstrate NHTSA's ongoing commitment to EMS. With a proven track record, an expanding role, and elevated status the Office of EMS will provide guidance and assistance to EMS systems nationwide.

The Office of EMS will continue its mission to reduce death and disability by providing leadership and coordination of comprehensive, evidence-based emergency medical services and 9-1-1 systems. This national EMS office, in close coordination with its Federal partners, will serve its constituents with a coordinated, consensus-based process to reinforce the vital role of the EMS community in shaping and realizing its own future.

With a vision of universal and quality emergency medical care leading to optimal patient outcomes, the Office of EMS will function specifically to improve all aspects of EMS systems, at the local, State, and national level. With its Federal and national partners, and management of the statutorily created Federal Interagency Committee on EMS (FICEMS), this national EMS office will continue to provide the EMS community with a mechanism for ongoing Federal coordination of EMS programs.

EDUCATION

EMS EDUCATION AGENDA FOR THE FUTURE: A SYSTEM'S APPROACH

Emergency medical services as a profession is barely a generation old. As is true of most new professions, there was no "master plan" to guide its evolution systematically, nor did it closely follow the models of other allied health professions. During the last 40 years, effective components of quality EMS education have emerged. Unfortunately, these individual parts have developed separately; currently there is no model for an EMS education system in which the components are clearly defined, their interrelationships described, and the decision-making process for modification and improvement established.

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Although many outstanding EMS providers have been educated during the last 40 years, the absence of a structured system has resulted in considerable State-by-State variability in EMS education and licensure, and the lack of clear-cut future direction. The absence of a formal EMS education system has also led to inconsistencies among the various curricula, inadequate bridging from one provider level to another, and difficulty for an EMS professional to transfer from one State to another.

EMS and the world we live in today are very different from 40 years ago. Major technological and medical advances have resulted in drastic changes in emergency care. We live in a world that is increasingly more global and more mobile -- with the need to respond to different kinds of emergencies. The need for an organized system of EMS education and licensure seems clear. The *EMS Education Agenda for the Future: A Systems Approach* gives EMS the opportunity to honor the foresight of our predecessors and build upon the foundation they created by designing a structure for the EMS education system that extends their vision far into this millennium.

The *Education Agenda* includes five interdependent system components:

1. ***The National EMS Core Content***
A comprehensive list of the entire domain of skills and knowledge needed for out-of-hospital emergency care.
2. ***The National EMS Scope of Practice Model***
Divides the National EMS Core Content into levels of practice and defines the skills and knowledge that each provider level must possess. This serves as a model for levels of State EMS licensing.
3. ***The National EMS Education Standards***
Replaces the current National Standard Curricula and specifies minimum learning objectives for each provider level.
4. ***National EMS Education Program Accreditation***
Applied to all nationally recognized EMS provider levels and is accepted nationally. Accreditation verifies the quality of educational programs to protect students and the public, and it enhances evaluation of instructional quality.
5. ***National EMS Certification***
Available for all nationally recognized provider levels and is accepted nationally. Certification involves a standardized examination process and contributes to

the protection of the public by ensuring the entry-level competence of EMS providers. In order to be eligible for National EMS Certification, a student must have graduated from an accredited program.

The EMS Education Agenda for the Future is a vision for the future, providing an organized, ongoing process for accommodating medical and technological advances that have an impact on the scope and content of EMS education. It will provide a model for the process of educating the emergency care providers of the future. To date, the National EMS Core Content and the Scope of Practice Model are complete and attention is now focused on completing the National EMS Education Standards. The process for the completion of all five of the agenda's components is expected to take some time, and will continue to seek active participation and input from the EMS community as it moves forward. For more information, contact Dave Bryson.

NATIONAL EMS INFORMATION SYSTEM (NEMSIS)

“EMS saves lives.” “We make a difference.” Have you ever wished you could prove that? Every day, EMS providers are held accountable for response times, quality of service, emergency care provided, and for the cost or value of EMS to the patient and community. How is that measured? Ever wonder how your service measures up with other EMS providers?

Some day, EMS may be able to answer these questions and many more, thanks to the National EMS Information System (NEMSIS). Because of the uniform EMS data collected throughout the Nation, researchers will be able to determine the many clinical and operational contributions made by EMS and be able to provide good information about the number and types of EMS calls. NEMSIS data will have many uses at the local, State, and national levels, including information to help guide education curricula, quality improvement, evaluating patient and EMS system outcomes, facilitating research efforts, addressing resources for disaster and domestic preparedness, and providing valuable information on many other issues or areas of need related to emergency care. Most important, NEMSIS will provide valuable information for local EMS services and medical direction to help improve patient care.

To date, 48 State and 4 Territorial EMS offices have signed on to a Memorandum of Understanding, agreeing to

promote and support the implementation of NEMSIS in their jurisdictions. NHTSA's National Center for Statistics and Analysis (NCSA) has agreed to house NEMSIS data at the national level. The EMS program at NHTSA has contracted with the University of Utah, with the assistance of the University of North Carolina, to serve as the NEMSIS Technical Assistance Center. Plans are for five States to fully implement NEMSIS in the coming year, with more States to follow.

For the first time, there will be a nationwide standard EMS data set, and data elements will be uniform at the local, State, and national levels. EMS will have the ability to strategically plan its future, with decisions based on objective evidence. NEMSIS data will give EMS the chance to guide and improve itself, and demonstrate its progress to the public, policy makers, and financial decision makers. For more information on NEMSIS, visit the NEMSIS Web site at www.nemsis.org. For additional information, contact Susan McHenry.

9-1-1

NEXT GENERATION 9-1-1

America's current 9-1-1 system is decades old, and was not built to handle the text, data, photos, and video that are increasingly common in personal communications. The current system is analog, not digital, and is landline-based, not Internet-based. This antiquated network cannot transmit the information available from new technologies.

The data, photos, and video provided by personal communication devices have the potential to improve emergency response, triage, and definitive care. That's assuming Public Safety Answering Points (PSAPs) are equipped to receive data, photos, and video, and that EMS providers know how to use this additional information to improve patient care. It's not hard to imagine a 9-1-1 call of the future, compared to the present.

Working closely with the 9-1-1 stakeholders and industry, NHTSA's EMS unit is managing a research initiative that will produce a high-level system architecture and deployment plan for the next generation of the 9-1-1 system; establishing the foundation for emergency communications in a wireless mobile society and enabling enhanced 9-1-1 access with many communication devices. The goal of the initiative is to establish the infrastructure for transmission of voice, data, and photographs from different types of communication devices to the PSAPs and onto emergency responder networks. 9-1-1..... it's not just for telephones anymore! For more information on the Next Generation 9-1-1 Initiative, visit the Intelligent Transportation Systems Web site at <http://www.its.dot.gov/ng911/index.htm>, or contact Laurie Flaherty.

ENHANCE 9-1-1 ACT OF 2004

Most commercial telephone networks have the technology to transmit 9-1-1 calls that include automatic phone number and location identification. However, our Nation's 9-1-1 call centers, still operating with a 30-year-old infrastructure, are

FUTURE ITS WITH TODAY'S 9-1-1	FUTURE ITS WITH NEXT GENERATION 9-1-1
<p>1 Dead, 10 Injured in I-75 Pileup <i>Road Closed for 2 Hours</i></p> <p>“... lucky that they didn't crash directly into that jackknifed truck and that their crash notification system worked. With all the focus on the pesticide tanker, no one would have noticed a car off in the ravine. If we only had confirmation of the little girl's injuries sooner, the Medivac team might have had a chance to get her to County Trauma Hospital in time.”</p> <p>Highway Patrol spokesman Lt. Ryan also noted that “quick thinking by Pest-R-Us driver Dore Smith minimized the I 75 shutdown.” Upon impact by the mini-van, Smith pushed the truck's HAZMAT Mayday button, notifying the National Truck Security Center (NTSC). On-board sensors confirmed no tanker breach. Critical response information about the truck was relayed from NTSC to County Fire/Rescue.</p> <p>The County 9-1-1 Center was overloaded with calls from travelers on I-75, leading to initial confusion of the locations of the multiple crashes. Following a 50-minute delay waiting for the correct towing equipment to arrive, the response team quickly reopened the two south-bound lanes of I-75.</p>	<p>5 Hurt in I-75 Truck Crash <i>Kudos for County's New Alert System</i></p> <p>... 9-1-1 Director Jim Cadell stated that “We received notification of the tanker accident, location, and status within seconds from the National Truck Security Center. Since there was a high risk of another impact that could rupture the tank, we activated our new Citizen Alert System.</p> <p>“Everyone within the risk footprint' with an Internet-connected device was immediately warned to prepare to evacuate or avoid the area,” Cadell said. “We are not in the business of traffic management, but we believe this early warning helped avoid a major backup on I 75.”</p> <p>Traffic incident data is now routinely sent from the 9-1-1 Call Center to the DOT and county towing companies. Highway message signs and the 5-1-1 system also had the Citizen Alert message displayed.</p> <p>Six-year old Brooke Kenny is in stable condition at County Trauma Hospital.</p> <p>“Just a year ago cases like this were not survivable,” said trauma surgeon Dr. Ric Lerman. “We now dispatch our Medivac helicopter based on the data we receive from ACN and other certified alert devices.”</p>

far from ready to take advantage of these new capabilities. The ENHANCE 9-1-1 Act seeks to provide the funding for 9-1-1 call centers to upgrade their equipment and operations to receive location-capable wireless 9-1-1 calls.

On December 23, 2004, President Bush signed the “Ensuring Needed Help Arrives Near Callers Employing 9-1-1 Act of 2004” (ENHANCE 9-1-1 Act of 2004). The act establishes a national 9-1-1 Implementation Coordination Office (ICO) whose functions include:

1. Actions to improve Federal coordination and communication on 9-1-1 activities;
2. Developing, collecting, and disseminating information concerning practices, procedures, and technology used in the implementation of 9-1-1 services;
3. Administering a grant program designed to provide funding to 9-1-1 call centers, to upgrade their equipment and operations to receive 9-1-1 calls with automatic phone number and location identification.

The National 9-1-1 Office will be housed in the Office of Emergency Medical Services at NHTSA. NHTSA, along with the National Telecommunications and Information Administration (Department of Commerce), are partners in this effort. Although the grant program has not yet been funded, the national 9-1-1 office gives the Nation the chance to develop and implement a plan to advance the Nation’s 9-1-1 system. For more information, contact Laurie Flaherty.

EMS WORKFORCE FOR THE 21ST CENTURY

Do you ever wonder if anyone really cares about EMS providers? Does anyone really understand what you love about EMS, or what makes the job so challenging? Does anyone really know what your needs and concerns are, as an EMS provider? National EMS leadership has voiced strong concern with the status of the EMS workforce, including the perception of increasing turnover, challenges with recruitment, and concern with worker wellness and safety.

To promote a sufficient, stable, and well-trained EMS workforce for the future NHTSA EMS and the Health Resources and Services Administration (part of the Department of Health and Human Services) are funding a project that will include a systematic assessment of the Nation’s EMS workforce. The goals of this project are to develop a consensus national EMS workforce policy agenda,

and to develop priority action steps for assuring a robust EMS workforce.

The Center for the Health Professions at the University of California San Francisco (UCSF) is assisting NHTSA by conducting a literature search and reviewing reports, publications, unpublished materials, and Web site information relevant to the EMS workforce. They will also explore existing data sources and conduct interviews with national EMS experts to address multiple EMS workforce issues such as:

- size and demographic profile of the EMS workforce;
- training and educational pathways;
- vacancy and turnover rates;
- salary range by training, work setting, and geographic area;
- worker health and safety;
- factors related to job satisfaction by major workforce setting; and
- barriers to training and career development.

Recommendations based on gathered evidence will be shared with national EMS stakeholders, and an EMS Workforce Policy Agenda will be drafted along with a plan to implement the policy recommendations.

We need your input on this project. An “EMS Discussion Blog” site has been established by UCSF at www.emsworkforce.com. We would like input from a broad range of people involved in EMS. Please feel free to post your comments to any and all questions on this site. For more information on the EMS Workforce project, contact Gamunu Wijetunge.

RESEARCH

NATIONAL EMS RESEARCH AGENDA

Despite more than 30 years of dedicated service by thousands of emergency medical service professionals, academic researchers, and public policy makers, the Nation’s EMS system is treating victims of illness and injury with little or no evidence that the care they provide is optimal. A national investment of time and effort in EMS research is necessary to overcome obstacles that currently prevent the accumulation of essential evidence of the effectiveness of EMS practice. New biomedical and technical advances must be evaluated using scientific methodology. Research is the

key to maintaining focus on improving the overall health of the community in a competitive and cost-conscious health care market. Most importantly, research is essential to ensure that the best possible patient care is provided in the prehospital setting. EMS professionals deserve the benefit of research to assist them in providing the best possible care in the challenging circumstances they encounter.

The *National EMS Research Agenda* describes the history and current status of EMS research. Impediments to the growth of scientific investigation in the field are identified; and strategies are suggested for improving the quality and quantity of EMS research with the goal of providing a scientific foundation upon which to base current and future prehospital care. Its companion document, the *National EMS Research Strategic Plan*, takes a broad look at the research needs within EMS, and establishes a plan for investigating those items, with priority items identified by a consensus process by a multidisciplinary group of EMS experts. The plan provides guidance to clinicians, researchers, and EMS system managers as they plan research efforts to answer important questions. For more information on the National EMS Research Agenda and the National EMS Research Strategic Plan, contact Susan McHenry.

THE EMS SYSTEM

GUIDE TO INTERFACILITY PATIENT TRANSFER

The transfer of patients from one medical facility to another has become an ongoing issue for EMS. Patient transfers between facilities or between facilities and a specialty care resource have increased as a result of regionalization, specialization, and facility designation by payers. The emergence of specialty centers (e.g., cardiac centers, stroke centers) often determines the ultimate destination of patients rather than proximity of facility. Transfer may be necessary if payers provide reimbursement only for specific facilities within their own plans.

Interfacility transfer (IFT) is provided by a variety of levels and types of personnel and agencies. Key issues include the IFT infrastructure, including the qualifications of those delivering the care. Meeting patient needs and maintaining continuity of care are only two of the many issues related to IFT. The national EMS community determined that consensus guidelines for interfacility patient transfer would be very useful to promote consistent high-quality patient

care while allowing variation to meet specific local needs. This document is currently near completion and will be posted on the NHTSA EMS Web site in 2006. For more information please contact Laurie Flaherty.

STATEWIDE EMS TECHNICAL ASSESSMENTS

Does EMS in your State have a system for identifying its strengths, weaknesses, and opportunities for improvement? Does it have a method for long range planning or strategies for generating support? The answer is yes. Technical assistance like that described above is available to all State and territorial EMS programs through NHTSA's Statewide EMS Technical Assessment Program.

This process has been used since 1988, when NHTSA developed a Technical Assistance Team (TAT) approach to support the evaluation of existing and proposed emergency medical services programs. In the TAT approach, a team of outside experts conducts a comprehensive assessment of the Statewide EMS program using an organized, objective approach and well-defined procedures that:

- provide an overview of the program's current status in comparison to pre-established standards;
- note the program's strengths and weaknesses;
- provide recommendations for improvement.

The program is a tool for States to use in evaluating their statewide EMS programs.

Although States must provide the funding for these State EMS Technical Assessments, almost all States and Territories have used the NHTSA State EMS Assessment process to identify system development needs and strategies. NHTSA is currently accepting reassessment requests from States that have previously conducted an assessment and are interested in measuring their subsequent progress. The reassessment standards are based on an evaluation of the EMS technical assessment process and by incorporating concepts from the *EMS Agenda for the Future*. To request a reassessment, make a joint request to your State Highway Safety Office and your NHTSA Regional Office. For specific information about the process, please contact Susan McHenry.

"FIRST THERE, FIRST CARE" PROGRAM

Have you ever had friends or family members ask you what to do if they witness a car crash or a motorcycle crash? Many people want to help but have reservations about knowing exactly **how** to help. Ordinary people who are trained to use

simple actions can save lives. The challenge is to overcome the fear of “not doing it right” and the attitude of “not wanting to get involved.” The *First There, First Care* program is designed to give simple but life-saving information to the public, build awareness, and empower people to take action. The goal of *First There, First Care* is to give motorists information, training, and confidence to provide life-saving bystander care at the scene of a crash, increasing the chance of survival for crash victims.

What can you do to get started? If you are an EMS provider and would like to teach *First There, First Care*, you need the *First There, First Care* Instructor Preparation Package (item # 3P0116). This kit contains all the materials necessary to complete a one-hour self-paced lesson which prepares medical professionals for teaching *First There, First Care* to lay motorists. The package includes the *First There, First Care* for the Injured Awareness Kit, the *First There, First Care* Train-the-Trainer CD-ROM, the *First There, First Care* training video, and the *First There, First Care* Instructor Guide.

Once you’ve completed *First There, First Care* instructor preparation, and need materials to conduct to conduct *First There, First Care* training, you need the *First There, First Care* Student Materials (English-language kit - item # 3P0124, Spanish-language kit - item # 3P0125). This kit contains all the necessary pamphlets and brochures for up to 30 students participating in a *First There, First Care* training. All materials are **FREE** and can be obtained by visiting the NHTSA Web site at www.nhtsa.dot.gov and clicking on “Traffic Safety Materials & Publications” on the “Quick Links” drop-down menu, or faxing an order to 301-386-2194. For more information on the *First There, First Care* program, contact Laurie Flaherty.

TECHNOLOGY AND EMS PROJECTS

Technology is producing more gadgets and making more information available every day. Some of it could be very useful in EMS; some are just gadgets. How can you tell the difference? More important, how can you tell if new technology makes a difference? Many new technologies have great potential for their application to emergency medicine and the improvement of emergency care. But there is no coordinated method for determining the clinical utility or the effectiveness of new technologies before they are deployed in EMS – at least not today.

But the National Association of EMS Physicians (NAEMSP), through an agreement with NHTSA EMS, is looking to increase national medical and emergency care community involvement in the planning and implementation of technology in EMS. Through a multi-disciplinary oversight committee, the NAEMSP is managing a project designed to develop a template and a process for assessing the medical utility of various forms of technology and their potential for improving patient care. This two-year project will provide a focal point and sounding board for future national technological issues and for helping to assure medical community involvement before technology is deployed in EMS. For more information on the Technology and EMS project, contact Laurie Flaherty.

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To order EMS materials and publications, visit the NHTSA Web site at <http://www.nhtsa.dot.gov>, and click on “Traffic Safety Materials & Publications” in the Quick Links section.

